

## **Effects of mediation of trust on effect of quality service e-commerce, service capabilities, communication, integrity, and use mobile technology for e-commerce shopping intentions**

Antok Supriyanto<sup>1)</sup>, Umar Nimran<sup>2)</sup>, Kertahadi<sup>3)</sup>, Imam Suyadi<sup>4)</sup>

<sup>1)</sup> STMIK Surabaya, Student Doctoral Program in Administrative Science

<sup>2) 3) 4)</sup> Faculty of Administration, University of Brawijaya

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**ABSTRACT:** Internet technology has brought together a network of computers around the world, allowing the establishment of communication and interaction with each other throughout the world. By connecting with the internet company's computer network, companies can establish business relationships with customers or business partners more broadly and efficiently. With computer systems interconnected via a telecommunications network, business transactions can be performed automatically and in a short time. As a result, the information required for business transactions available when required. By doing business electronically, companies can reduce the cost to be incurred for the purpose of sending information. Process transactions take place quickly can increase the productivity of the company. In the last five years the internet is an ideal infrastructure to conduct business electronically or e-Commerce, e-commerce so that the term became synonymous with running a business on the internet. This study was a comprehensive test of the mediating effects of consumer confidence on the influence of service quality of e-Commerce, e-commerce capabilities, communication, integrity, use of mobile technology for e-Commerce Shopping intentions. The results showed the existence of evidence that there is a mediating effect on consumer confidence influence service quality of e-Commerce, e-Commerce capabilities, communication, integrity, use of mobile technology to the intention Using e-Commerce. With the mediation of high trust, high quality e-Commerce, e-commerce capabilities, communication, integrity, and the use of mobile technology, will lead to higher e-Commerce Shopping Intention.

**KEYWORDS:** mediation GeSCA, e-Commerce service quality, capability, confidence, e-Commerce Shopping Intention

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### **I. INTRODUCTION**

The use of information technology brings together a worldwide computer network, allowing the establishment of communication and interaction with each other throughout the world, better known as the Internet network or internet abbreviated. By connecting with the internet company's computer network, companies can establish business relationships with customers or business partners more broadly and efficiently. With computer systems interconnected via a telecommunications network, business transactions can be performed automatically and in a short time. As a result, the information required for business transactions available when required. By doing business electronically, companies can reduce the cost to be incurred for the purpose of sending information. Process transactions take place quickly can increase the productivity of the company. In the last five years the internet is an ideal infrastructure to conduct business electronically or e-Commerce, e-commerce so that the term became synonymous with running a business on the internet.

Within the past five years, advances in information technology and communication is very remarkable, one of which is the emergence of communication devices (handsets) that are mobile and can be used to access the internet without having to open the computer, such as Android and Blackberry smartphones. This further development of such uncontrolled since the advent of the mobile device production in China that the price is more affordable by the community. By using this smartphone is obtained ease except to call and send text messages, can be used to take a picture (photo), then the photo is uploaded via mobile phone. With this ease of pushing more and more users of social networking and opportunities conduct business transactions via the Internet more and more going on anyway.

In enterprise services, such as banking's unique characteristics usually involves service to pelanggannya. According to Kotler (2002) quality of service as a form of a program to provide the best service to employee satisfaction in the work, which is expected to realize a better marketing results. Quality of service in the online purchasing is a form of e-quality as described by Kim et al., (2005) which includes responsiveness, reliability, website design and security or quality of service. Referring to the quality of service, the Indonesian

government through the Ministry of Communications and Information Technology, in order to provide a sense of security and legal certainty to the people who transact business via the Internet, along with the House of Representatives (DPR) has enacted Law No. 11 of 2008 dated 21 April 2008 on Information and Electronic Transactions, or better known as Information Act Electronic Transaction (UU ITE). Through the EIT Law Government intends to provide protection and legal certainty to the citizens in order to feel safe doing business transactions and transactions are protected, so that the economy can grow and thrive.

E-Commerce Transaction risk potential is high enough, but the e-commerce transaction is still in progress and is likely to increase, as dailysocial.net to release that during 2012 the value of e-commerce transactions amounted to 2.5 trillion dollars. That is why, through this research will be carried out will be proven facts that really happened.

From the above, it is considered to conduct a comprehensive study to test the mediating effect on consumer confidence in the quality of the influence of e-Commerce, e-commerce capabilities, communication, integrity, use of mobile technology to the intention Shopping Using e-Commerce.

## **II. THEORETICAL REVIEW**

The development of information and communication technology leads to changes in the culture. In the era of the so-called "information age", the electronic media into one of the alternatives for communication and business. e-Commerce is an expansion of commerce using electronic media. Development of technology and business tuntuan cause businesses should use electronic media.

Good marketing of goods and services today has grown with the use of technology. One form of application is the use of internet technologies that connect people all over the world. Through the Internet, people can share knowledge and information through electronic mail (e-mail), digital publications, online shopping, looking for news, and so on (Sevdik and Akman, 2002).

Internet as an information technology that is currently being used in various fields and have experienced remarkable progress, in use experiencing the stage of evolution. As noted by Kristula (2001) preceded the internet when the US Department of Defense in 1969 to do research on how to connect computers in various places in order to be able to communicate with each other for defense purposes militer. Startfrom 1994, the Internet has developed rapidly. Thousands of computers began to connect to the NSF backbone. In this year also the history of the Internet began to enter the world of e-Commerce.

e-Commerce is the activity of selling and buying goods or services over the internet facilities (Ferraro, 1998). E-Commerce dapat done by anyone with his business partner, without being limited by space and time. In actual ecommerce activity implies the existence of a relationship between the seller and the buyer, transactions between businesses, and internal processes that support transactions with companies (library Javalgi and Ramsey, 2001). E-commerce has changed the way companies do business (Lee, 2001; Darch and Lucas, 2002).

The definition of e-commerce is the "e-Commerce is a dynamic set of technologies, applications, and business processes that link the enterprise, consumers, and communities through electronic transactions and the electronic exchange of goods, services, and information". That is, the e-Commerce is a dynamic set of technologies, applications and business processes that connect corporate, customer and specific communities through electronic transactions and trade in goods, services and information that is done electronically (Baum in Rahardjo, 1999).

E-Commerce has characteristic consisting of the transactions between the two sides; the exchange of goods, services, or information; and the Internet as the main medium in the transaction process. (Indrajit, 2001: 2). Meanwhile Yuan Gao in the Encyclopedia of Information Science and Technology (2005), stating the e-commerce is the use of computer networks to conduct business communications and commercial transactions.

Effective marketing depends on the development and management of customer trust that customers specifically buy a service before experienced. Trust management is determined by the way in which resource-resource service providers, personal, technology and systems, which are used in order to trust pekangan on the resources involved and the company itself.

Customer trust e-commerce as well as the confidence of customers in traditional markets, as the foundation of the business. A business transaction between two or more parties would happen if each of mutual trust. Confidence (trust) is not simply be recognized by other parties / business partners, but must be built from scratch and can be proven. Trust has to be considered as a catalyst in berbaga itransaksi between sellers and buyers that customer satisfaction can be realized as expected (Yousafzai et al., 2003).

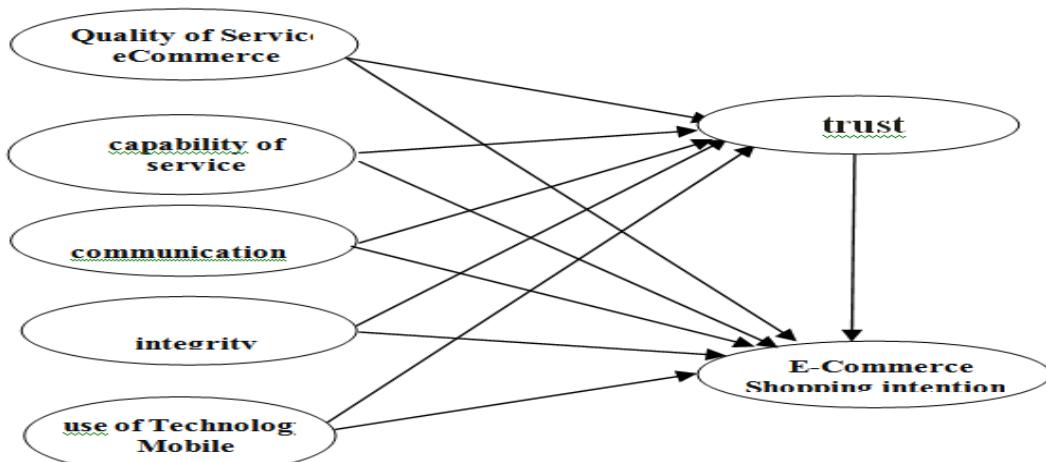
In marketing theory, there is a theory that is well-known customer intentions. Customer intention is the intention of the customer to re-use something based on experiences and their expectations in the past. In the context of e-Commerce, Intensipelanggan measured by the number of customers in the transaction (Kim et al., 2005). Customer intention is determined by the confidence in the partner, media, or others involved in an activity.

Intention of customers in e-commerce will grow well if the seller is able to maintain the trust that has been given by the customer. When customers feel that the seller has good keeping with the trust given, then the customer will be happy to continue to increase loyalty. Even in certain situations, the customer will ask or tell her to participate in these activities.

In accordance with the theory of reasoned action (TRA) by Fishbein and Ajzen (1975) in the Song and Zahedi (2003), concluded that the trust will form a person's attitude, so that will affect a person's intentions and behavior. Based on this theory, the belief that one of the media e-commerce will affect the intensity of repurchase by using the media.

### **III. MATERIALS AND METHODS OF RESEARCH**

The scope of this research is the field of Management Information Systems and Customer Behavior, particularly e-commerce application for smartphone users. The scope of the study is the effect of e-Commerce service quality, Capability Services, Communication, Integrity, Using Mobile Technology to the belief, intention, as well as the use of e-commerce shopping. The subjects of this study were Internet users in Indonesia, which has made purchases of goods / services through the medium of e-commerce or internet. Goods / services purchased must come from the vendor / seller in Indonesia, with no restrictions on the type of goods / services purchased. In accordance with the characteristics of a particular sample is needed, namely e-Commerce users in Indonesia, which has been doing transactions through e-Commerce in the past five months, the technique of non-probability sampling is selected judgmental technique (purposive). This technique was chosen to ensure that only the samples that have certain elements that have been set by the researchers to be taken as a sample (Black and Champion, 2001: 264). The analytical method used is to use inferential statistics. The goal is to draw general conclusions on the data and analyze the relationship between one variable with another variable. According to Sekaran (2003), these statistics relating to the analysis of data from a sample of respondents, inference-inference, and generalization population. Inferential analysis used in this study to test the hypothesis. Inferential analysis using analysis of Structural Equation Modeling (SEM) or Structural Equation Models with Structured Generalized approach Component Analysis (GSCA) using the Sobel test. According to Hwang and Takane (2004), GSCA is part of SEM-based components that have a global least squares optimization criteria, which can be consistently minimize the sum of residual squares to obtain estimates of the model parameters. Moreover, GSCA also equipped with goodness-of-fit measure the overall model. According Wold (in Ghazali, 2010), GSCA is a powerful analytical method, because it is not based on many assumptions, such variables should not multivariate normal distribution (the scale indicator categories, ordinal, interval until the ratio can be used on the same model), the number data should not be large (minimum recommended range of 30 to 100 cases). GSCA can simultaneously analyze simultaneously constructs formed with indicator reflexive and formative indicators, and it is not possible to run in CBSEM.



**Figure 1: Conceptual Framework**

## IV. RESULTS

### 4.1. GeSCA Structural models

In this study used GeSCA analysis. The results of hypothesis testing are presented in the following table:

Table 1. Structural Model Results GSCA

No.	Direct Impact	Loading coefficient	Pvalue	Conclusion
1	Quality of E-Commerce Services → Trust	0.435	0.001	significant
2	capability Services → Trust	0.306	0.013	significant
3	communication → Trust	0.302	0.003	significant
4	integrity → Trust	0.370	0.005	significant
5	Use of Mobile Technology → Trust	0.408	0.001	significant
6	Quality of Service E-Commerce → E-Commerce Shopping intentions	0.384	0.001	significant
7	capability Services → E-Commerce Shopping intentions	0.126	0.390	Non-Significant
8	communication → E-Commerce Shopping intentions	0.107	0.368	Non-Significant
9	integrity → E-Commerce Shopping intentions	0.146	0.258	Non-Significant
10	Use of Mobile Technology → E-Commerce Shopping intentions	0.450	0.000	Significant
11	Trust → E-Commerce Shopping intentions	0.464	0.000	Significant

Source: Primary Data processed, 2014

After testing with GSCA analysis, presented images hypothetical model of research in Figure 2.

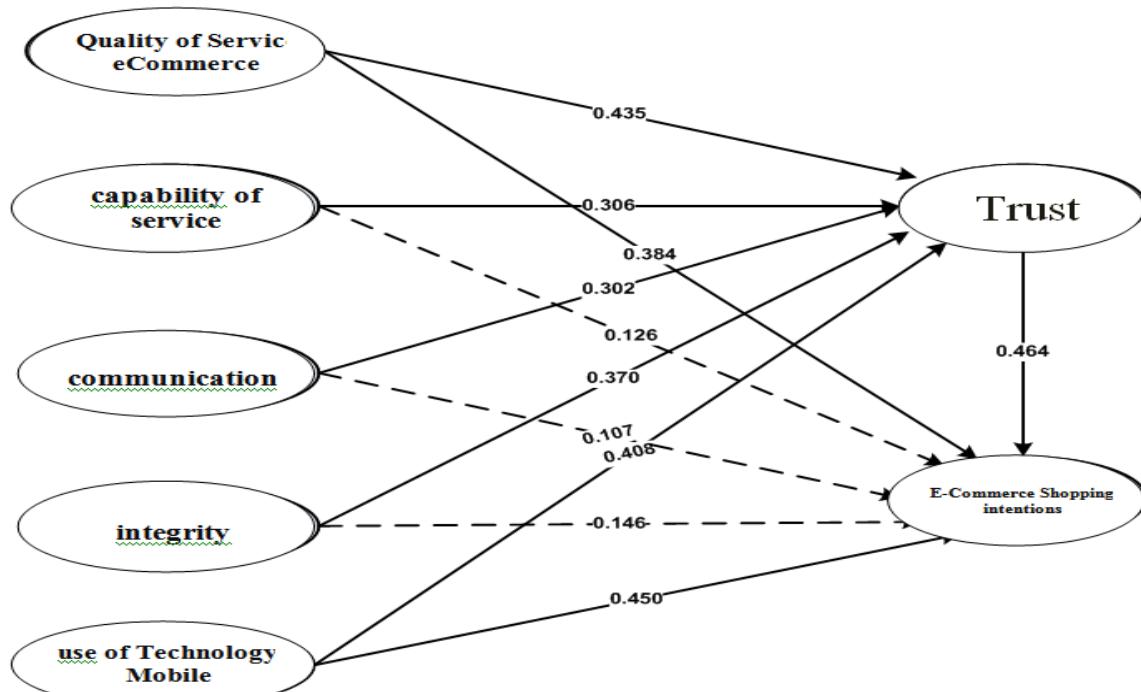


Figure 2. Results of Research Hypothesis Model

Based on the table and pictures above, may explain some direct influence as follows:

1. Testing the direct influence of the E-Commerce Service Quality of the Faith, standardize coefficient values obtained for 0435, with a p-value of 0.001. Since the p-value <0.05, then there is a significant direct effect between the Quality of Service E-Commerce to trust. With a marked positive coefficient indicates a positive relationship. That is, the higher the value of Quality of Service E-Commerce, will result in the higher confidence.
2. Testing the direct influence of Capability Services to the Trust, obtained standardize coefficient of 0.306, with a p-value of 0.013. Since the p-value <0.05, then there is a significant direct effect between the capability of the Trust Services. With a marked positive coefficient indicates a positive relationship. That is, the higher the value Capability Services, will result in the higher confidence.
3. Testing the direct influence of Communications of the Trust, standardize coefficient values obtained for 0302, with a p-value of 0.003. Since the p-value <0.05, then there is a significant direct influence between communication to the Trust. With a marked positive coefficient indicates a positive relationship. That is, the higher the value of Communication, will result in the higher confidence.
4. Testing the direct influence of the Integrity of the Faith, standardize coefficient values obtained for 0370, with a p-value of 0.005. Since the p-value <0.05, then there is a significant direct influence between the Integrity of the Trust. With a marked positive coefficient indicates a positive relationship. That is, the higher the values of integrity, will result in the higher confidence.
5. Testing the direct influence of Use Mobile Technology to trust, standardize coefficient values obtained for 0408, with a p-value of 0.001. Since the p-value <0.05, then there is a significant direct effect between the use of Mobile Technology to trust. With a marked positive coefficient indicates a positive relationship. That is, the higher the value Using Mobile Technology, will result in the higher confidence.
6. Testing the direct influence of Quality of Service E-Commerce for E-Commerce Shopping Intention, standardize coefficient values obtained for 0384, with a p-value of 0.001. Since the p-value <0.05, then there is a significant direct effect between the Quality of Service E-Commerce for E-Commerce Shopping Intention. With a marked positive coefficient indicates a positive relationship. That is, the higher the value of Quality of Service E-Commerce, will lead to higher the E-Commerce Shopping Intention.
7. Testing the direct influence of Capability Services for E-Commerce Shopping Intention, standardize coefficient values obtained for 0126, with a p-value of 0.390. Since the p-value > 0.05, then there is no significant direct effect between Capability Services for E-Commerce Shopping Intention. That is, even regardless of the value Capability Services, will not result in a change in intention Shop E-Commerce.
8. Testing the direct influence of communication on E-Commerce Shopping Intention, standardize coefficient values obtained for 0107, with a p-value of 0368. Since the p-value > 0.05, then there is no significant direct influence between the Communication on E-Commerce Shopping Intention. That is, regardless of the value of Communication, will not result in a change in intention Shop E-Commerce.
9. Testing the direct influence of the Integrity of the intention Shop E-Commerce, standardize coefficient values obtained for 0146, with a p-value of 0258. Since the p-value > 0.05, then there is no significant direct influence between the Integrity of the E-Commerce Shopping Intention. That is, berpapaun values of integrity, tidak will result in changes to the E-Commerce Shopping Intention.
10. Assessment of the effect directly between the use of Mobile Technology for E-Commerce Shopping Intention, standardize values obtained coefficient of 0.450, with a p-value of 0.000. Since the p-value <0.05, then there is a significant direct effect between the use of Mobile Technology for E-Commerce Shopping Intention. With a marked positive coefficient indicates a positive relationship. That is, the higher the value Using Mobile Technology, will lead the higher the E-Commerce Shopping Intention.
11. Testing the direct influence of Trust in E-Commerce Shopping Intention, standardize coefficient values obtained for 0464, with a p-value of 0.000. Since the p-value <0.05, then there is a significant direct influence between the Trust in E-Commerce Shopping Intention. With a marked positive coefficient indicates a positive relationship. That is, the higher the value of trust, will lead to higher the E-Commerce Shopping Intention.

#### **4.2. Mediation Effect in GeSCA**

##### **4.2.1. Mediation Effect of Trust in E-Commerce Service Quality on E-Commerce Shopping Intention.**

Here are presented the results of testing mediation Analysis Service Quality of E-Commerce for E-Commerce Shopping Intention.

Table 2: Mediation Effect of Trust in E-Commerce Service Quality on E-Commerce Shopping Intention to Use Sobel Test

Relationship	Coefficient	pvalue
Quality of E-Commerce Services → Trust	0.435	0.001
Trust → E-Commerce Shopping intentions	0.464	0.000
Quality of Service E-Commerce → Trust → E-Commerce Shopping intentions	0.202	0.007

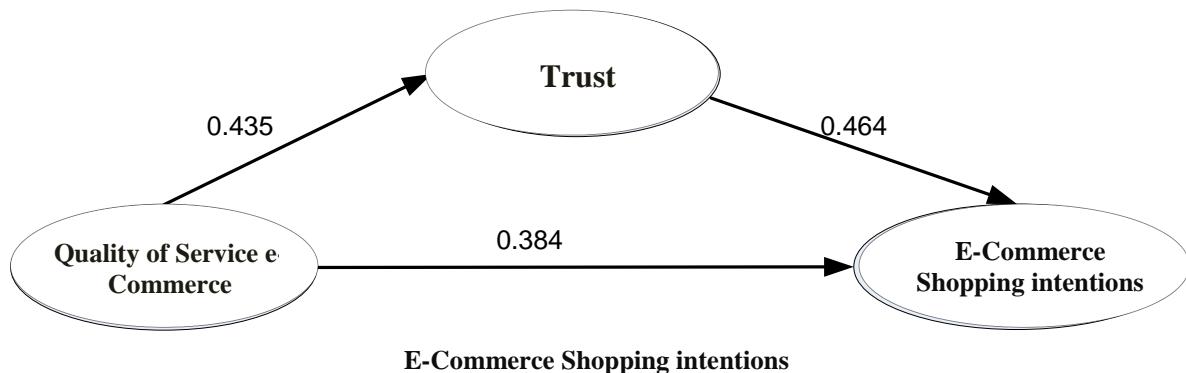


Figure 3. Effect of Trust in Mediation Service Quality of E-Commerce for E-Commerce Shopping Intention

Testing the effect of mediation on the influence of Quality Trust Services E-Commerce for E-Commerce Shopping intention to approach Sobel Test, indirect path coefficient of 0.202, p-value of 0.007. Since the p-value less than 0.05, indicating a significant difference between the E-Commerce Service Quality on E-Commerce Shopping Intention with Confidence mediation. Given the coefficient is positive, indicating the better Quality of Service E-Commerce, with the belief that the better mediation, will result in higher intention Shop E-Commerce. Thus, it can be concluded that the Trust is a variable that mediates the effect of E-Commerce Service Quality on E-Commerce Shopping Intention.

#### 4.2.2. Trust in Mediation Services Capabilities Influence on Shopping Intention E-Commerce

Here are presented the results of testing mediation Analysis Capability Services for E-Commerce Shopping Intention.

Table 3 Effect of Trust in Mediation Services Capabilities for E-Commerce Shopping Intention to Use Sobel Test

Relationship	coefficient	Pvalue
Services Trust → Trust	0.306	0.013
Trust → E-Commerce Shopping intentions	0.464	0.000
Capability Services → Trust → E-Commerce Shopping intentions	0.142	0.031

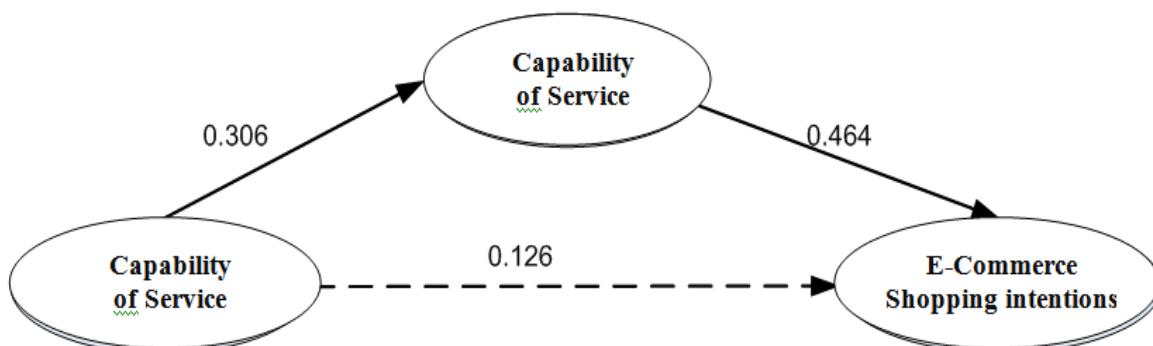


Figure 4. Effect of Trust in Mediation Services Capabilities for E-Commerce Shopping Intention

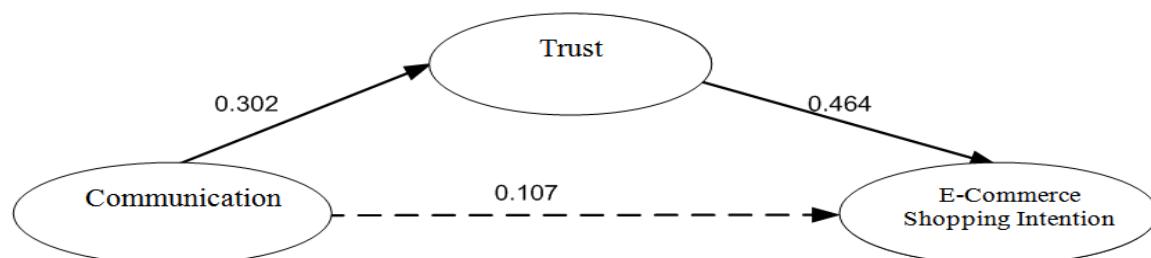
Testing the effect of mediation on the influence of Trust Services Capabilities for E-Commerce Shopping intention to approach Sobel Test, indirect path coefficients obtained for 0142, the p-value of 0.031. Since the p-value less than 0.05, indicating a significant difference between the capabilities of the Service Intention E-Commerce Shopping with Confidence mediation. Given the coefficient is positive, indicating the better Capability Services, with the belief that the better mediation, will result in higher intention Shop E-Commerce. Thus, it can be concluded that the Trust is a variable that mediates the effect of the Service Capability E-Commerce Shopping Intention.

#### **4.2.3. Trust in Mediation Effect of Communication on E-Commerce Shopping Intention**

Here are presented the results of testing mediation Communication Analysis for E-Commerce Shopping Intention.

Table 4: Trust in Mediation Effect of Communication on E-Commerce Shopping Intention to Use Sobel Test

relationship	Coefficient	Pvalue
Communication→Trust	0.302	0.004
Trust→E-Commerce Shopping Intention	0.464	0.000
Communication→Trust→E-Commerce Shopping Intention	0.139	0.016



**Figure 5.** Effect of Trust in Mediation Communication on E-Commerce Shopping Intention

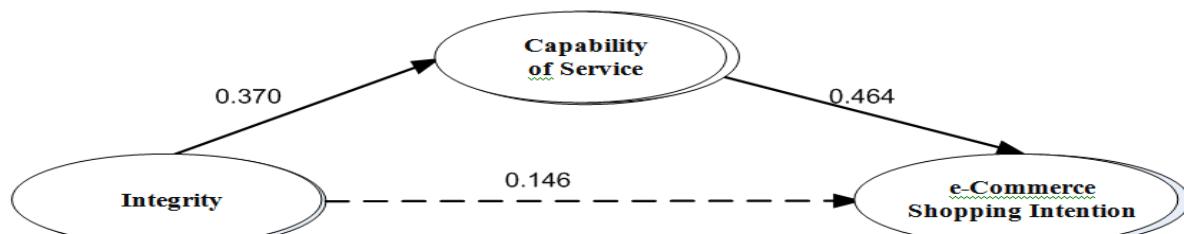
Testing the mediating effect of the belief in the influence of Communications E-Commerce Shopping intention to approach Sobel Test, indirect path coefficients obtained for 0139, the p-value of 0.016. Since the p-value less than 0.05, indicating a significant difference between the Communication on E-Commerce Shopping Intention with Confidence mediation. Given the coefficient is positive, indicating the better communication, with the belief that the better mediation, will result in higher intention Shop E-Commerce. Thus, it can be concluded that the Trust is a variable that mediates the effect of communication on E-Commerce Shopping Intention.

#### **4.2.4. Mediation Effect of Trust on the Integrity of the intention Shop E-Commerce**

Here are presented the results of testing mediation Integrity Analysis for E-Commerce Shopping Intention.

Table 5: Effect of Trust in Mediation Integrity of the intention Shop E-Commerce Using Sobel Test

relationship	Coefficient	Pvalue
Integrity → Trust	0.370	0.005
Trust → Intention E-Commerce Shopping	0.464	0.000
Integrity → Trust → Intensi Belanja E-Commerce	0.172	0.018



**Figure 6.** Mediation Effect of Trust on Integrity of the intention Shop E-Commerce

Testing the mediating effect of the belief in the influence Integrity Intention E-Commerce Shopping Sobel Test approach, an indirect path coefficients obtained for 0172, the p-value of 0.018. Since the p-value less than 0.05, indicating a significant difference between the Integrity of the intention Shop E-Commerce with Confidence mediation. Given the coefficient is positive, indicating the better Integrity, the belief that the better mediation, will result in higher intention Shop E-Commerce. Thus, it can be concluded that the Trust is a variable that mediates the effect on the integrity of the E-Commerce Shopping Intention.

#### 4.2.5. Mediation Trust on Influence of Mobile Technology for E-Commerce Shopping Intention

Here are presented the results of testing mediation Analysis Using Mobile Technology for E-Commerce Shopping Intention.

Table 7: Mediation Trust on Influence of Mobile Technology for E-Commerce Shopping Intention to Use Sobel Test

Hubungan	Koefisien	Pvalue
Use of Mobile Technology→Trust	0.408	0.001
Trust→Intention E-Commerce Shopping	0.464	0.000
Use of Mobile Technology→Trust→Intention E-Commerce Shopping	0.189	0.009

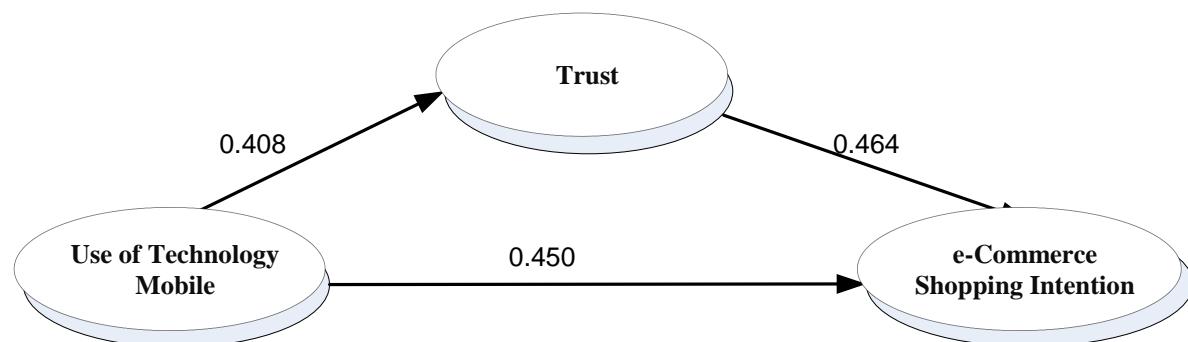


Figure 7. Mediation Trust on Influence of Mobile Technology for E-Commerce Shopping Intention

Testing the effect of mediation on the influence of Trust Use of Mobile Technology for E-Commerce Shopping intention to approach Sobel Test, indirect path coefficients obtained for 0189, the p-value of 0.009. Since the p-value less than 0.05, indicating a significant difference between the use of Mobile Technology for E-Commerce Shopping Intention with Confidence mediation. Given the coefficient is positive, indicating the better use of Mobile Technology, with the belief that the better mediation, will result in higher intention Shop E-Commerce. Thus, it can be concluded that the Trust is a variable that mediates the effect of use of Mobile Technology for E-Commerce Shopping Intention.

## V. CONCLUSION

Based on the above results, it can be concluded some of the following:

1. There is a belief in the influence of the mediating role of E-Commerce Service Quality on E-Commerce Shopping Intention
2. There is a belief in the influence of the mediating role of the Service Capability Intention E-Commerce Shopping Cart
3. There is a belief in the influence of the mediating role of the intention Communications E-Commerce Shopping Cart
4. There is a belief in the influence of the mediating role of the Integrity Intention E-Commerce Shopping Cart
5. There is a belief in the influence of the mediating role Using Mobile Technology for E-Commerce Shopping Intention

## REFERENCES

- [1]. Ferraro, A. 1998. Electronic Commerce: The issues masyarakat challenges to creating trust and positive image in consumer sales on the World Wide Web. *First Monday*, [Internet] 3 (6).
- [2]. Indrajit, R. E., 2001. *E-Commerce: Kiat dan Strategi Bisnis di Dunia Maya*. Penerbit PT Elex Media Komputindo, Jakarta.
- [3]. Kim, Y. H. dan Kim, D. J., 2005. *A Study of Online Transaction Self-Efficacy, Consumer Trust, and Uncertainty Reduction in Electronic Commerce Transaction*, Proceedings of the 38th Hawaii International Conference on System Sciences.
- [4]. Kim. Changsu, Weihong Zhao, &Kyung Hoon Yang. 2008. "An Empirical study on then integrater framework of e-CRM in online shopping: evaluating the relationships among perceived value, satisfaction and trust based on customers perspectives.; *Journal of Electronic Commerce in Organizations* 6(3) 1-19.
- [5]. Kotler, P. 2002. *Marketing Management, Millenium Edition*. Pearson Cusiton Publishing, Boston.
- [6]. Kristula, D., 2001. *The History of The Internet*. <http://www.davesite.com/webstation/net-history.shtml>. Accessed 19 Agustus 2013.
- [7]. Lee, C. S., 2001. An Analytical Framework for Evaluating *E-Commerce* Business Models and Strategies, *Internet Research: Electronic Networking Applications and Policy*, 11 (4): 349-359.
- [8]. Sevdik, A. B. dan Akman, V., 2002. *Internet in the Lives of Turkish Women,First Monday: Peer-Reviewed Journal on The Internet*, 7 (3), <http://firstmonday.org/hbin/cgiwrap/bin/ojs/index.php/fm/article/view/1803>
- [9]. Sekaran, U., 2003. *Research Methods for Business, a Skill-Building Approach*.Second Edition. John Wiley & Sons, Inc. Canada.Yousafzai, S. Y., Asia Internet Use, Population data data and Facebook Statistics, <http://www.internetworldstats.com/stats3.htm> diakses tgl 8 Januari 2013
- [10]. Yousafzai, S. Y., Pallister, J. G., dan Foxall, G. R., 2003. *A Proposed Model of ETrust for Electronic Banking*, *Technovation*, 23: 847-860.