



The influence of e-commerce business developments and technology-based accounting information systems on the need for e-commerce audit services

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ABSTRACT

This study examines the effect of e-commerce business development and the development of technology-based accounting information systems on the need for e-commerce audit services. Respondents in this study were auditors who worked at Public Accounting Firms in Jakarta. The number of auditors who became the sample of this study were 135 auditors from 13 public accounting firms. The sample determination method used in this study was purposive sampling, while the data processing method used by the researcher was multiple regression analysis. The results of this study indicate that the development of e-commerce business and the development of technology-based accounting information systems simultaneously and significantly influence the need for e-commerce audit services.

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1. INTRODUCTION

As a result of globalization and free trade, competition has become very tight and knows no boundaries. Everyone has the same opportunity to progress. The flood of foreign products such as products from China which are cheaper than local products forces business people to innovate in expanding their business. If these business people do not immediately anticipate this, it is not impossible that the business they have started will be destroyed.

The business sector is the sector that feels the most impact from globalization and free trade. Competitive advantage, competitiveness, and customer service are topics that are widely discussed by business people. This is one of the things that ensures the survival of their business. Internet-based information systems are widely used today because the internet is an open platform, thereby eliminating the company's dependence on certain vendors, such as when using a closed system (property system).

Internet users in Indonesia in 2000 there were only 2 million users or only 1% of the population which amounted to 206,264,595 residents. A sharp increase then occurred successively in 2007 until now, where there has been an increase of around 2% per year. The market for companies developing online or e-commerce businesses in Indonesia is very potential. This is evidenced by the continuous increase in internet users from year to year. In 2007 there were 8.9% of internet users, then respectively

in 2008, 2009 and 2010 of 10.5%, 12.5% and 12.3% indicating more and more people are aware of how important information is. While the easiest and fastest delivery of information is via the internet.

The Internet is the most favorite media because it is the most economical media to use as a basis for information systems. In achieving competitiveness and competitive advantage, a company expands or expands its business by using the internet as its medium to become an online business. The initial step taken by the company is to create a website that displays the company profile and the products offered by the company. Marketing can be directly carried out by the company on the website and customers can also easily buy the products offered without having to meet face to face with the seller or spend energy to get these products, customers only need to click and the desired product will reach its destination. .

Business activities or more simply making exchanges, including buying and selling of products and services that require transportation or transfer both physically and digitally from one location to another through electronic transmission media is what is referred to as "E-Commerce". Electronic Commerce (Electronic Commerce) is the use of computer networks to carry out sales and purchases of goods, services or information electronically with suppliers, consumers or competitors or between consumers. In Indonesia, E-Commerce business transactions are a relatively new phenomenon. Meanwhile, in developed countries such as the United States, Europe, Japan and China, e-commerce or electronic commerce has become a common practice. The use of the internet as a product marketing medium is not new there. Sites like Amazon.

Business activities in Indonesia have not fully adopted e-commerce for their business activities. Even though it is promising, the culture and habits of the Indonesian people which tend to be conventional have made e-commerce not yet fully adopted. Electronic commerce (E-Commerce) involves the use of internet technology, network systems, processing and transmission of electronic data. This includes various types of activities including electronic buying and selling of goods and services, online digital data transmission, electronic fund transfers, buying and selling of shares, bills of lading, commercial auctions, design and build cooperation, online procurement, public procurement. , direct consumer marketing, and after-sales service. E-commerce also involves products (example: consumer products, medical devices) and services (example: information services, financial and legal services), traditional activities (eg health, education), and new activities (eg virtual malls). Even banking companies such as Bank Mandiri, BCA, Bank Niaga, Lippo Bank, Bank Mega and Bank Danamon offer banking services via the internet called e-banking.

As internet technology continues to increase and the application of the World Wide Web (WWW) has a significant influence on the development of Electronic Commerce (E-commerce). The need for e-commerce audit services is inevitable. The required audit services are not the same as audit services that are usually provided by public accounting firms. E-commerce audit services are audit services provided by auditors for companies that carry out e-commerce business activities. Overseas it has become very common for a certified auditor to provide e-commerce audit services. Meanwhile, in Indonesia, e-commerce audit services are not as well known or utilized as in developed countries.

In developed countries such as the United States, United Kingdom and Japan, it has become common for a public office to provide e-commerce audit services, to provide evidence that a web-based business is indeed trustworthy, a number of third-party organizations (Public Accounting Firms) are trusted" offers a security seal (Seal of Assurance) that the company can display on its primary Web site, in order to legally display the seal, the company must demonstrate that it adheres to certain business practices, capabilities and controls. Examples of 6 sealing organizations are: Better Business Bureau (BBB), TRUSTe, Veri-Sign, Inc., International Computer Security Association (ICSA), AICPA/CICA Webtrust, and AICPA/CICA Sys Trust.

The object to be examined in this study is an understanding of the development of e-commerce business and the development of technology-based accounting systems for the need for e-commerce audit services in Jakarta as the center of economic activity in Indonesia. The development of e-commerce business and the development of technology-based accounting information systems were chosen for several reasons. The object to be examined in this study is an understanding of the

development of e-commerce business and the development of technology-based accounting systems for the need for e-commerce audit services in Jakarta as a center of activity. economy in Indonesia. The development of the e-commerce business and the development of technology-based accounting information systems were chosen for several reasons, the development of the e-commerce business is growing rapidly in Indonesia,

2. RESEARCH METHOD

The research object is the process that underlies the selection, processing, and interpretation of all data and information related to the object in the study. This study aims to analyze the causal relationship used to explain the effect of the independent variables, namely the development of information systems and the auditor's attitude towards the dependent variable, namely e-commerce audit services. The population of this study are external auditors who work for Public Accounting Firms (KAP) in the Jakarta area. The sample in this study is an external auditor who works for a public accounting firm in the Jakarta area. The method used by researchers in selecting research samples is purposive sampling.

In finding sources of information that are necessary and relevant to this research, the authors use several primary data collection techniques, which are data obtained directly from actors in fields directly related to the issues discussed in this paper. Secondary Data, Represents research data conducted by other parties that are used to assist research in collecting data that is relevant to the problem to be discussed. The author obtained data regarding this study divided into three types. The selection of these three types of techniques is based on the descriptive research method used and the form of research which is a survey. data analysis method, Descriptive statistics in research are basically a process of transforming research data into tabular form so that it is easy to understand and interpret. Tabulation provides a summary, arrangement or arrangement of data in the form of numerical tables and graphs. The measures used in the description include: frequency, central tendency (mean, median, mode), dispersion (standard deviation and variance) and the correlation coefficient between research variables.

3. RESULTS AND DISCUSSIONS

Research result

1. Place and time of research

This research was conducted on public accountants (auditors) who work in Public Accounting Firms (KAP) in the Jakarta area, both small, medium and big four KAPs. Auditors participating in this study include partners, managers, supervisors, senior auditors, and junior auditors who carry out work in the field of auditing. Data collection was carried out by distributing research questionnaires directly such as by visiting respondents, via e-mail, and indirectly through intermediaries to respondents who work for KAPs in the Jakarta area and are registered in the 2013 Directory of Public Accounting Firms issued by the Indonesian Institute of Certified Public Accountants. (IAPI).

Distribution and return of questionnaires was carried out from 23 September 2013 to 1 November 2013. Researchers took a sample of 13 KAPs from all KAPs in the Jakarta area. There were 135 questionnaires distributed and the number of questionnaires returned was 102 questionnaires, or 75.55%. Questionnaires that did not return were 33 or 24.45%, this was probably due to the timing of distributing the questionnaires that were not quite right and the KAP did not want to accept the questionnaires given by the researchers on the grounds that there was no approval from management regarding the research. Questionnaires that could be processed amounted to 96 pieces or 71.1%, while questionnaires that could not be processed because they did not meet the criteria as samples and were not filled in completely by the respondents were 6 pieces or 4.44%.

Table 1. Research sample data

No.	Information	Amount	Percentage
1.	The number of questionnaires distributed	135	100%
2.	Number of questionnaires that were not returned	33	24.45%
3.	The number of questionnaires that can not be processed	6	4.44%
4.	The number of questionnaires that can be processed	96	71.11%

Table 2. Research sample distribution data

No.	Name of Public Accounting Firm	Questionnaire sent	Questionnaire returned
1	Anwar and Partners	5	5
2	Aryanto, Amir Jusuf, Mawar & Saptoto (Center)	15	14
3	Gani Mulyadi & Handayani	10	0
4	Hertanto, Sidik, and Indra	10	10
5	Jansen & Ramdan	10	0
6	Osman Bing Satrio & Eny	15	15
7	Purwantono, Suherman, & Surja	5	5
8	Rama Wendra (Central)	10	10
9	Siddhartha & Wijaya	10	0
10	Syarief Basir & Partners	10	10
11	Tanubrata Sutanto Fahmi & Partners	15	15
12	Tanudiredja, Wibisana & Partners	5	3
13	Tjiendradjaja & Handoko Tomo	15	15
	Total	135	102

2. Characteristics of Respondent Profiles

Respondents in this study were auditors who worked at KAPs in Jakarta in accordance with the 2013 Directory of Public Accounting Firms issued by the Indonesian Institute of Certified Public Accountants (IAPI), whether they had an Ak Register Number or not, and had carried out work in the field of auditing and had experience work for at least one year. The following is a description of the identity of the research respondent consisting of the respondent's gender, last position, last education, age, and work experience.

3. Research Instrument Test Results

a. Descriptive Statistical Test Results

The variables used in this study which include e-commerce business development, technology-based accounting information systems, and the need for e-commerce audit services will be tested statistically descriptively as shown in table 3.

Table 3. Descriptive Statistical Test results

	N	Minimum	Maximum	Means	std. Deviation
TPBE	96	48	94	70.98	10058
TSIA	96	94	157	130.81	14,571
TJAE	96	56	98	79.80	9,731
Valid N (listwise)	96				

Table 3 explains that for the variable e-commerce business development, the minimum answer for respondents is 48 and the maximum is 94, with an average total answer of 70.98 and a standard

deviation of 10.058. Technology-based accounting information system variable, the minimum answer for respondents is 94 and the maximum is 157, with an average total answer of 130.81 and a standard deviation of 14.571. For e-commerce audit services, the minimum answer for respondents is 56 and the maximum is 98, with an average total answer of 79.80 and a standard deviation of 9.731.

b. Validity Test Results

Validity test is used to measure whether a questionnaire is valid or not. This test was carried out using Pearson Correlation, a guideline for a model is said to be valid if the significance level is below 0.05, then the question items can be said to be valid. The following table shows the results of the validity test of the three variables used in this study, namely e-commerce business development (PBE), technology-based accounting information systems (SIA), and the need for e-commerce audit services (JAE), with a sample of 135 respondents.

Table 4. Results of the Validity Test for E-commerce Business Development

Number Question Items	Pearsons Correlation	Sig (2-Tailed)	Information
1 (PBE1)	0.747**	0.000	Valid
2 (PBE2)	0.508**	0.000	Valid
3 (PBE3)	0.394**	0.000	Valid
4 (PBE4)	0.847**	0.000	Valid
5 (PBE5)	0.740**	0.000	Valid
6 (PBE6)	0.611**	0.000	Valid
7 (PBE7)	0.713**	0.000	Valid
8 (PBE8)	0.743**	0.000	Valid
9 (PBE9)	0.700**	0.000	Valid
10 (PBE10)	0.548**	0.000	Valid
11 (PBE11)	0.788**	0.000	Valid
12 (PBE12)	0.806**	0.000	Valid
13 (PBE13)	0.482**	0.000	Valid
14 (PBE14)	0.692**	0.000	Valid
15 (PBE15)	0.397**	0.000	Valid
16 (PBE16)	0.513**	0.000	Valid
17 (PBE17)	0.705**	0.000	Valid
18 (PBE18)	0.679**	0.000	Valid
19 (PBE19)	0.269**	0.008	Valid
20 (PBE20)	0.472**	0.000	Valid
21 (PBE21)	0.523**	0.000	Valid

Table 5. Results of testing the validity of technology-based accounting information systems

Number Question Items	Pearsons Correlation	Sig (2-Tailed)	Information
22 (SIA22)	0.731**	0.000	Valid
23 (SIA23)	0.629**	0.000	Valid
24 (SIA24)	0.268**	0.008	Valid
25 (SIA25)	0.459**	0.000	Valid
26 (SIA26)	0.265**	0.009	Valid
27 (SIA27)	0.456**	0.000	Valid
28 (SIA28)	0.513**	0.000	Valid
29 (SIA29)	0.312**	0.002	Valid
30 (SIA30)	0.460**	0.000	Valid
31 (SIA31)	0.479**	0.000	Valid

32 (SIA32)	0.654**	0.000	Valid
33 (SIA33)	0.694**	0.000	Valid
34 (SIA34)	0.622**	0.000	Valid
35 (SIA35)	0.763**	0.000	Valid
36 (SIA36)	0.669**	0.000	Valid
37 (SIA37)	0.697**	0.000	Valid
38 (SIA38)	0.757**	0.000	Valid
39 (SIA39)	0.514**	0.000	Valid
40 (SIA40)	0.700**	0.000	Valid
41 (SIA41)	0.678**	0.000	Valid
42 (SIA42)	0.741**	0.000	Valid
43 (SIA43)	0.755**	0.000	Valid
44 (SIA44)	0.721**	0.000	Valid
45 (SIA45)	0.767**	0.000	Valid
46 (SIA46)	0.641**	0.000	Valid
47 (SIA47)	0.561**	0.000	Valid
48 (SIA48)	0.660**	0.000	Valid
49 (SIA49)	0.751**	0.000	Valid
50 (SIA50)	0.572**	0.000	Valid
51 (SIA51)	0.684**	0.000	Valid
52 (SIA52)	0.721**	0.000	Valid
53 (SIA53)	0.644**	0.000	Valid
54 (SIA54)	0.630**	0.000	Valid
55 (SIA55)	0.717**	0.000	Valid
56 (SIA56)	0.380**	0.000	Valid
57 (SIA57)	0.662**	0.000	Valid
58 (SIA58)	0.470**	0.000	Valid

Table 6. Test results for e-commerce audit services

Question Item Number	Pearson Correlation	Sig (2-Tailed)	Information
59 (TJE59)	0.736**	0.000	Valid
60 (TJE60)	0.637**	0.000	Valid
61 (TJE61)	0.636**	0.000	Valid
62 (TJE62)	0.704**	0.000	Valid
63 (TJE63)	0.775**	0.000	Valid
64 (TJE64)	0.381**	0.000	Valid
65 (TJE65)	0.490**	0.000	Valid
66 (TJE66)	0.665**	0.000	Valid
67 (TJE67)	0.640**	0.000	Valid
68 (TJE68)	0.731**	0.000	Valid
69 (TJE69)	0.686**	0.000	Valid
70 (TJE70)	0.703**	0.000	Valid
71 (TJE71)	0.483**	0.000	Valid
72 (TJE72)	0.567**	0.000	Valid
73 (TJE73)	0.567**	0.000	Valid
74 (TJE74)	0.444**	0.000	Valid
75 (TJE75)	0.654**	0.000	Valid
76 (TJE76)	0.707**	0.000	Valid
77 (TJE77)	0.293**	0.004	Valid

78 (TJE78)	0.770**	0.000	Valid
79 (TJE79)	0.725**	0.000	Valid
80 (TJE80)	0.563**	0.000	Valid
81 (TJE81)	0.787**	0.000	Valid

Discussion

1. The influence of e-commerce business development on the need for e-commerce audit services

The results of the hypothesis test show that the variable e-commerce business development does not significantly influence the need for e-commerce audit services. because the significance level of the e-commerce business development variable is greater than 0.05. The e-commerce business development variable has a significance level of 0.185.

The presence of e-commerce at this time is not only a "trend" or a momentary phenomenon, but has become a necessity. Whether you realize it or not, e-commerce has changed all aspects of life. The current e-commerce services are not maximized because there are still many obstacles, both from the availability of infrastructure, technological developments, security factors, to a lack of education. To handle e-commerce, e-commerce business people need the help of accounting economists, namely auditors. The required auditor is with a special specialization in the field of e-commerce audit or forensic audit. The services provided are related to the guarantee of the level of security and conformity of the ongoing transaction with the applicable provisions.

The results of this study do not support the research conducted by Saring Suhendro (2007) which states that e-commerce business development influences the need for e-commerce audit services. As well as the results of research conducted by Jagdis Pathak et al. (2010), Ning Zhao, David C. yen, and I-Chiu Chang (2004), Bambang Widarno (2010).

2. The influence of the development of technology-based accounting information systems on the need for e-commerce audit services.

Analysis of hypothesis testing variable development of technology-based accounting information systems has a significant effect on the need for e-commerce audit services. because the significance level of the e-commerce business development variable is less than 0.05. The development variable of technology-based accounting information systems has a significance level of 0.000.

Accounting developments involving computer-based AIS in producing financial reports will influence auditing practices. Changes in the accounting process will affect the audit process because auditing is a field of practice that uses financial reports (accounting products) as its object. IT advancements also influence the development of the audit process. Advances in auditing software facilitated a computer-based approach to auditing.

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3. The influence of e-commerce business development and the development of technology-based accounting information systems on the need for e-commerce audit services.

The results of the H3 hypothesis test show that the development of e-commerce business and the development of technology-based accounting information systems simultaneously (simultaneously) have a significant effect on the need for e-commerce audit services. This shows that the influence of e-commerce business development and the development of technology-based

accounting information systems has a large contribution to the magnitude of the need for e-commerce audit services. The development of e-commerce business provides a profitable alternative for business people, they need reliable information.

Due to the complexity of computer-based processing, a special auditor such as a Computer Information System Auditor (CISA) is an urgent need. CISA must have special abilities, such as an understanding of hardware, software, databases, data communication technology, as well as computer-oriented controls and auditing techniques. The results of this study are consistent with research conducted by Mulyadi (2007) and Jagdis Pathak et al. (2010), which states that the development of e-commerce businesses and the development of technology-based accounting information systems simultaneously affect the need for e-commerce audit services, also supports the research of Ning Zhao, David C. Yen, and I-Chiu Chang

4. CONCLUSION

This study aims to determine the effect of the development of e-commerce business and the development of technology-based accounting information systems on the need for e-commerce audit services. Based on the data that has been collected and the results of tests that have been carried out on the problem using the multiple regression regression model, it can be concluded as, The development of e-commerce business on the need for e-commerce audit services does not significantly affect the need for e-commerce audit services . because the significance level of the e-commerce business development variable is greater than 0.05. The e-commerce business development variable has a significance level of 0.185, The development of technology-based accounting information systems on the need for e-commerce audit services has a significant effect on the need for e-commerce audit services. because the significance level of the e-commerce business development variable is less than 0.05. The development variable of technology-based accounting information systems has a significance level of 0.000. The development of e-commerce business and the development of technology-based accounting information systems simultaneously affect the need for e-commerce audit services.

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