



## ANALYSIS OF FACTORS THAT INFLUENCE THE NEED FOR E-COMMERCE AUDIT SERVICES

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### ABSTRACT

*This study aims to determine how the influence of E-Commerce-business Development, Accounting Information Technology Systems and Auditor Skills on the Need for E-Commerce Audit Services at Public Accounting Firms in South Jakarta, both partially and simultaneously. This study uses a population of all external auditors working at the Public Accounting Firm in South Jakarta. Sampling uses simple random sampling technique, so that the samples used in this study were 59 external auditors from 6 public accounting firms in South Jakarta. The data used are primary data in the form of questionnaires which are distributed directly to respondents. Data analysis methods used in this study are multiple linear regression analysis, descriptive statistical tests and the classic assumption test. The partial test results show that the development of e-commerce-business does not positively influence the need for e-commerce audit services while the accounting information technology system and auditor expertise positively influence the need for e-commerce audit services. Meanwhile, simultaneous test results showed that the-business development of e-commerce, accounting and information technology systems auditor expertise together - the same effect on the need for audit services e-commerce.*

**Keywords:** Business Development E-Commerce; Accounting Information Technology System; Expertise Auditor; Audit Services E-Commerce

### 1. INTRODUCTION

In the increasingly global business world, many are currently utilizing internet electronic media. This media can provide equal opportunities or opportunities for small, medium and large-businesses to be able to compete in the-business world. In the era of globalization and free trade,

competition is very tight and the information system knows no boundaries, so that it can be said that world-class companies can compete with other companies in the world, and must have a wide market share, good relations with consumers in globalization era.

Indonesia as a developing country is not unusual to face a tough

challenge this in entering the era of globalization and free trade, one - the only thing that should be done is to always try to be the leader at least, do not miss. One sector that is very important and feels the impact and changes in entering this era of globalization in the-business sector. In this new era in the increasingly global business world, businesses utilizing internet electronic media are certainly the main sectors and through this sector are expected to provide the same opportunities or opportunities for small, medium and large-businesses. to be able to compete.

Competitive advantage, competitiveness and customer service are topics that are widely discussed by business people. It became one of the things that ensure the sustainability of life of their business Internet-based information systems is widely used today. Thing according to Rahardjo (2002) due to the internet is a platform that is open (open platform) thus eliminating the company's dependence on certain vendors such as when using a closed system (property system).

The rapid development of information technology has made internet users in the Asian region grow rapidly by 1,319 per cent during 2000-2015. According to Internet Worlds Stats data, Asian internet users have reached 1.62 billion people with a penetration of 40.2 per cent of the total population of 4 billion people. A total of 674 million Asian internet users come from China. Indonesia itself occupies ranking 4th as the largest internet in Asia.

## 2. LITERATURE REVIEW

### *Grand Theory*

The topic of this research is consumer behaviour in the purchasing decision process. Purchasing begins with the introduction of needs, then followed by information search, evaluation, purchase, then post-purchase evaluation. This study analyses the decision-making process from the stage of information seeking to purchase made in the context of e-commerce. Based on the scope of this, the theory that became the foundation of the study is decision theory purchasing consumer.

The consumer decision model is also known as Engel-Blackwell-Miniard. Model first time developed in 1968 by Engel, Kollat and Blackwell are constantly being revised. The model is formed of six points making process to the decision: the emergence of needs followed by a search of information both in internal and external evaluation of alternative purchases, consumption and post-purchase evaluation. The decision of this purchase is influenced by three main factors, the first stimuli were obtained from the efforts of marketing. Second, external environmental variables consisting of culture, social class, the influence of others, family and situation. Third, the individual variables that consist of resource consumers, motivation, knowledge, attitude, personality, values and style of living.

### **Development of the *E-commerce-business***

The history of the development of e-commerce in the world starts from the emergence of the internet which then continues to grow so that the emergence of e-commerce. The internet began in 1969 with a group of American researchers dealing with four computers at UCLA, the Stanford Research Institute, the University of Utah, and the University of California at Santa Barbara. They create a network to communicate with one another. This network is known as ARPAnet (Advanced Research Project Agency) which is part of the Department of US security. Three years later, more than fifty universities have been linked together at the network and other computer networks began to appear around the country and world. Along with the development of ARPAnet, which was also followed by network collaboration between educators, and NASA's experiments on computer networks, this network began to be connected with one another, this was the beginning of the term "Internet". The development of information technology has succeeded in creating a new information infrastructure. The Internet has some appeal and advantages for the consumers as well as organizations, for example in terms of comfort, speed of data access 24 hours a day, efficiency, alternative spaces and limitless choices, personalization, information resources and technologies that potential, and others. In the-business context, the internet has a

transformational impact that creates a new paradigm in the-business world in the form of Digital Marketing.

At the beginning of the implementation of electronic commerce which began in the early 1970s with the existence of innovations such as Electronic Fund Transfers (EFT). At that time the application of this system was still very limited to large-scale companies, government financial institutions and some daring middle-low companies, then developed until it emerged which was called the Electronic Data Interchange (EDI). From processing financial transactions to other transactions that create companies-companies others to participate, ranging from institutions-financial institutions up to the manufacturing, retail, services and others. Then keep going developing other applications that have the range from stock trading to the travel reservation system. At that time the system was known as a telecommunications application.

The terms of trade electronic means the utilization of commercial transactions, such as orders purchase or invoices are electronic, evolving through activities that have the term "commerce web" that make purchases and sales of goods and services through the World Wide Web through a server that is considered secure (HTTPS). Ideas began to be known to the general public in 1994, many journalists believe that e-commerce will be a sector of the economy that will grow rapidly.

Beginning in the 1990s the commercialization of the Internet began to grow rapidly to reach millions of customers, then appeared in terms of new electronic commerce or better known as e-commerce. The e-commerce research centre at Texas University analyzed 2000 companies online on the internet, the fastest-growing sector was e-commerce, up to 72% from \$ 99.8 billion to \$ 171.5 billion. In 2006 income on the internet had reached trillions of dollars, truly an amazing number.

One of the reasons for the rapid development of online-business is the development of network protocols and software and of course the most fundamental is increased competition and various business pressures.

The development of e-commerce in Indonesia itself has existed since 1996, with the founding of Dyvia.com IntraBumi or D-Net ([www.dnet.net.id](http://www.dnet.net.id)) as a pioneer of online transactions. The vehicle for transactions in the form of an online mall called D-Mall (accessed via D-Net) has accommodated around 33 online stores. Products sold range from food, accessories, clothing, office products to furniture. In addition, also stands <http://www.ecommerce-Indonesia.com/>, an internet-based online sales place that has complete facilities such as the front of the store (storefront) and shopping cart (shopping cart). In addition, there is also Commerce Net Indonesia which is located at <http://isp.commerce.net.id/>. As Commerce Service Provider (CSP), the

first in Indonesia, Indonesia Net Commerce Provider offers the ease of buying and selling on the internet.

### **Accounting Information Technology Systems**

The system is a collection of resources or elements-networks and procedures that are interrelated in an integrated way, integrated into a particular hierarchical relationship and aims to process data into useful information. While information is data that has been processed into a form that has meaning for the recipient and can be in the form of facts, a useful value.

According to Stair & Reynolds (2010), Information Systems are:

"A set of elements or components that are interrelated with one another, which can collect, process, store and also disseminate data and information, and be able to provide feedback to meet the goals of an organization". According to Laudon (2012) the definition of Information Systems namely: "Interrelated components that work together to collect, process, store and display information to support decision making, coordination, organization, analysis and visualization in an organization".

This system utilizes computer hardware and software, manual procedures, management models and databases. All of them refer to computer-based information systems that are designed to support the organization's operations, management and decision making functions.

An accounting information system is an information system that

handles everything related to accounting. Because in accounting consists of several processes related to financial information. The process starts from the collection of data (input), data processing (process) to the output (output) in the form of financial information which will provide many benefits for the wearer.

In addition, according to Puspitawati and Anggadini dan Puspitawati (2011) in his book Accounting Information Systems: “The accounting information system is a computer-based system that is designed to transform the data accounting into information, which includes cycle transaction processing, information technology user, and the carrier system of information”.

Kieso, et al (2011) argues that Accounting Information Systems (AIS) is: “The system of data collection and processing of transactions and the dissemination of financial information to the parties-the parties are concerned. So, from this definition, it can be concluded that SIA is an information system that covers all company activities in providing information for its users in order to achieve organizational goals”.

Basically, the use of Information Systems (IS) will not be separated from information technology, meaning that the success or the success of the implementation of an information system will always be supported by their information technology. The word technology can be used to refer to a set of techniques. In this context, it is a state of human knowledge when is

about how to integrate the source-the source, to produce a product desired, solve problems, fulfil needs, or satisfy a desire, which includes technical methods, skills, processes, techniques, devices and raw materials

H1: The development of e-commerce business has a positive effect on the need for e-commerce audit services

H2: The system of accounting information technology positively affects audit services needs of e-commerce.

H3: The auditor's expertise has a positive effect on the need for e-commerce audit services.

H4: The development of e-commerce business, information technology systems and auditor expertise has a positive effect on the need for e-commerce audit services.

### 3. RESEARCH METHOD

The population used in this study were all external auditors working at 80 public accounting firms (KAP) located in South Jakarta. The method used by researchers in the selection of research samples is to use *probability sampling techniques*. This study used a sample of 59 external auditors with the criteria of auditors working at 6 Public Accounting Offices (KAP) in South Jakarta who had carried out work in the field of *auditing*.

**The development of Business E-Commerce (X1)**

The development of information technology is part of *e-business*, where the scope of *e-business* is broader, not just commerce but also includes collaborating business partners, customer service, job vacancies and others. In addition to network technology *www*, *e-business* also requires a database technology or data base (*databases*), e-mail or electronic mail (*e-mail*) and form non-computer technology as well as delivery systems, and means of payment for *e-business* (Fadli, 2011). This variable is measured using an interval scale (*Likert*) 5 points from strongly disagree (1), disagree (2), neutral (3), agree (4) to strongly agree (5).

### **Accounting Information Technology Systems (X2)**

Information Systems Accounting (SIA) is a system of data collection and processing of transactions information dissemination finance to parties-parties are concerned. So, from this definition it can be concluded that SIA is an information system that covers all company activities in providing information for its users in order to achieve organizational goals, (Kieso et al, 2011). Technology, especially computers and information systems, plays an important role in the work process. In many jobs, individual work behaviours and performance are closely related to systems based on technology, (Amijaya, 2010). This variable is measured using a 5 points interval scale (*Likert*) from

strongly disagree (1), disagree (2), neutral (3), agree (4) to very agree (5).

### **Auditor Skills (X3)**

Auditor Skills are Skills needed to excel in this new environment will include *knowledge* of operating systems, computer programming, network technology and security techniques such as *firewalls* and authentication techniques. This expertise is also important for providing *E-Commerce Audit services*". (Hall, 2011). This variable is measured using a 5 points interval scale (*Likert*) from strongly disagree (1), disagree (2), neutral (3), in the same direction (4) to very agree (5).

### **The Need for E-Commerce Audit Services (Y)**

E-Commerce Audit Services are audits conducted to provide assurance to the parties concerned with the level of security namely that all data sent via the internet can only be accessed by people who are entitled to transact online at an e-commerce company and that e-commerce transaction system is running well, (Achdiat, 2010). This variable is measured using an interval scale (*Likert*) 5 points from strongly disagree (1), disagree (2), neutral (3), agree (4) to strongly agree (5).

#### 4. RESEARCH RESULTS AND DISCUSSION

The research is conducted on the auditor external works in the Office of Public Accountant (KAP), which is in South Jakarta good KAP class of small, medium, or large. Auditors who participated in the research of this include the supervisor, senior auditor, and the auditor junior who carry out work in the field of *auditing*.

The data collection is carried out through research questionnaires are direct that by approaching the respondent, who worked at the firm in South Jakarta and listed in the IAPI *Directory* in 2016 were issued by the Indonesian Institute of Certified Public Accountants (Certified).

##### Discussion Results

##### **Effect of Development of *e-commerce-business* on the need for *e-commerce* audit services.**

Hypothesis test results showed that the variables technology accounting information system influence is positive on the need for *e-commerce* audit services. Because the level of significance of the accounting information technology system variables is smaller than 0.05. The accounting information technology system variable has a significance level of 0,000.

The results support the research that is done Oktavia (2015) which states that the role of information technology

in the influential post audit it if audit services to the needs of *e-commerce*. The development of accounting information technology systems has created new opportunities for accountants. This opportunity can be used by accountants who have adequate knowledge about SIAs and computer-based audits. Along with the growing need for audit, requires auditors to use a technique that is more sophisticated in making a decision, keep records and perform a myriad of functions management audit more. Moreover, support the results of research conducted by Sophia (2014) and Karlina (2015).

##### **Effect of the accounting information technology system on the need for *e-commerce* audit services.**

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#### **Effect of auditor expertise on the need for e-commerce audit services.**

Hypothesis test results indicate that the auditor expertise variable positively influences the need for e-commerce audit services. because the level of significance which is owned variables auditor expertise is less than 0.05. The auditor expertise variable has a significant level of 0.001.

The results of this study support research conducted by Amalia (2012) which state that auditor expertise has a positive effect on the need for e-commerce audit services. Direct and indirect e-commerce has an effect on the auditor for the company e-commerce requires a new audit service that is e-commerce audit services. It shows that the auditors are expected to have basic knowledge and understanding of e-commerce because of the auditors that men get the audit assignment e-commerce on the job will be very closely linked directly in information technology are rare or even not exist at all in the audit

assignment statements finance and also not impossible dimas a forthcoming audit of e-commerce is a thing that is common to all auditors. As well as supporting research that is conducted by Sophia (2014) and Karlina (2015).

#### **The development of e-commerce-business, accounting information technology systems and auditor expertise positively influences the need for e-commerce audit services**

Hypothesis test results indicate that the variables of e-commerce-business development, accounting information technology systems and auditor expertise together positively influence the need for e-commerce services. This shows that the business development of e-commerce, technology system information accounting and auditor capability has contributed to the large to the magnitude of the need for services of audit of e-commerce.

The results of this study are consistent with studies that do Sophia (2014) which states that the business development of e-commerce and the development of systems based accounting information technology has a positive effect on the need for audit services e-commerce and research Amalia (2012) which states that membership The auditor has a positive effect on the need for e-commerce audit services. As well as supported it the results of the study were conducted by Irmawati (2011), Kustiawan (2013), Karlina (2015) and Oktavia (2015).



## 5. CONCLUSIONS

Based on the results of testing and discussion on business development e-commerce, systems technology accounting information, expertise auditor and needs audit services of e-commerce in the public accounting firm in South Jakarta, it can be concluded that: The development of business e-commerce does not affect it positively to the needs of the service e-commerce audit. This is because still, the high cost that must be incurred for capital business e-commerce and the use of audit services e-commerce it alone.

The accounting information technology system has a positive effect on the need for e-commerce audit services. This shows that the faster and more sophisticated the accounting information technology system that is developing, the higher the need for e-commerce audit services is desirable to minimize the risks that occur due to the use of technology systems.

The auditor's expertise positively influences the need for e-commerce audit services. This shows the growing level of expertise owned by the auditor, the greater the chances of auditors in raising the level of needs of the audit services of e-commerce it themselves.

The development of e-commerce-business, accounting information technology systems and auditor expertise together have a positive influence on the need for e-commerce audit services. This shows that the development of e-commerce-

business, accounting information technology systems and expertise auditor has a great share of the great need for services of audit e-commerce.

### Research Limitations

As in previous studies, in the process of completing this research, the author has several limitations, including: The author only focuses on conducting research at the Public Accounting Firm in the South Jakarta area. This study only uses external auditors as the main respondents. This research only uses questionnaires as a means to get the main data. This study, only using 3 dependent variables, namely the development of e-commerce-business, accounting information technology systems and auditor expertise.

### Suggestions

Based on the results of research on the development of e-commerce-business, accounting information technology systems, auditor expertise and e-commerce audit service needs at the Public Accounting Firm in South Jakarta, the authors try to provide some suggestions for further researchers, including: Further research is expected to expanding the research area, so that research results are more able to be concluded broadly and broadly.

Future studies are recommended to use a joint respondent between internal auditors and external auditors so that the results of research conducted can be combined in providing empirical support to the proposed theory. Future studies are recommended to use the

interview media in addition to the questionnaire media in getting the main data from the respondents so that the data obtained is more real, more targeted and better describes the real situation. Further research is

recommended to add the dependent variables that are more influential on the need for e-commerce audit services.

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