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Auditing in the E-commerce Era

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Abstract: *In recent years, the Internet and the World Wide Web network, is changed the industrial era to the era of technology. Considering that one of the auditing roles to create more value for the company by reducing the cost of financing or increase in the stock price of the company. Given the importance of the audit, according to the audit risks seem necessary. One of these risks are, especially the advancement of information technology and e-commerce. Information technology, various information resources available to users that it needs to be based on traditional financial and therefore, will reduce the adequacy of the traditional audit. One of the important requirements of e-commerce accounting, auditing mine design is correct process, as more evidence will be available only electronically. Independent auditors should assess the accuracy and adequacy of the evidence. Hence, it would also acquire the skills to recognize the validity, accuracy and completeness of accounting records, and they also need the technical skills required for e-commerce auditing. This reduces the audit firm's revenue. The auditor must either accept the reduced income as a basic fact, or provides a service to the community to make fundamental reforms.*

Keywords: *e-commerce, auditing, information technology, audit risks*

1. INTRODUCTION

One of the requirements of a healthy society for financial and economic activities is a safe and secure environment. Auditors with knowledge and experience are capable of creating such an environment.

The public accountants have provided audits for more than 100 years, a traditional attestation service. The auditing can create a huge economic value for companies. The cost of raising capital is reduced by auditing company's financial statement. It is for debt, companies would be able to offer their shares at high price, could pay low interest rates for equity. Technologies related to e-commerce affect in the buying selling process, customer servicing, and even how to invest in the companies. As a result of information technology, how to prepare, use and audit financial statements will been change. These change to create new risks for audit. The following can be noted:

The annual financial statements have lost their relative importance in the eyes of investors and obsolescence of historical information.

E-commerce as a result of advances in information technology, including all business activities those are conducted using computer applications. These activities may include direct electronic sale, customer relationship management, supply chain management and use of the Internet as a tool for performing business transactions.

One of the important requirements of audit in e-commerce proper design audit procedures, as more evidence becomes available only electronically. Independent auditors should assess the accuracy of the evidence. As a result, they need to have the skills necessary to audit the e-commerce environment.

In this paper, researchers have attempted to study the impact of electronic commerce on the audit. And to answer the question whether auditors have been able to adapt this technology?

Do as much as the audit were important in traditional commerce is also important in e-commerce.

2. PREVIOUS STUDY

2.1 (Hongming Chen, Ke Zheng, 2013): "A Study of E-Commerce System Audit"

The changes of the environment of auditing bring about the changes of audit content and forms.With the development of e-commerce, the audit of electronic commerce system is particularly important, and the audit target, content also has its characteristics. Previous literatures on the audit of electronic commerce system focus on data-based audit, mainly on the authenticity, legitimacy and validity of economic business, and those literatures are lack of the research of the audit of electronic commerce system itself. This paper based on information system audit carry outs and comprehensive analysis of the electronic commerce system and its economic business, which will perfect our audit work under the electronic commerce environment. Referring to the relative research, on the basis of the goal of the electronic commerce system audit, this paper synthetically analyses the characteristics and content of E-Commerce System audit.

2.2 (Moorthy and Other, 2011): "The Impact of Information Technology on Internal Auditing"

This paper evaluates the role of information technology and how it affects internal audit process in the organization. The study also stresses on the global trend of adopting IT system in producing a more controlled environment in delivering the auditing process. It also constitutes on how IT affects internal control and provides guidelines and best practices in evaluating techniques available to effectively perform auditing tasks internally. It also addresses how technology, Information system (IS) and electronic data processing (EDP) have changed the way organizations conduct its business, promoting operational efficiency and aid decision-making. It also spotlights many aspects of IT risks and controls and highlights whether the right people are overseeing IT risks to the degree they should. It demonstrates the impact of technology convergence on the internal control mechanism of an enterprise. It emphasizes that the auditor also has a responsibility to assure that the governance level of management understand risks accepted by management and the liabilities potentially transferred to board members.

2.3 (Gorwani, 2005): "E-Commerce-Implications for Auditor"

E-Commerce systems have become essential to run the transactions, handle business contacts and manage information necessary to initiate and sustain the business activities. In many enterprises, they have become an integral part of the business and are fundamental to their growth, prosperity and, above all, survival. The widespread use and continuing development of E-Commerce systems has enabled the organizations to improve the efficiency of their operations tremendously. The purpose of this study is to introduce enormous amount of risk that needs to be addressed by the management and assessed by the auditor while planning and conducting their audit. The study found E-Commerce does not give rise to new audit objectives nor does it change the same. However, it essentially forces the auditors to review their audit processes and procedures in the light of changes brought by E-Commerce in the ways of doing business and resultant risks. It requires auditors to upgrade their professional skills with the adequate knowledge of E-Commerce systems to apprehend their impact on client's business and audit process in its right spirit. The shift to the seamlessly connected organizations has already placed greater value on the auditors who are skilled at identifying and handling complex technological issues and adapting with the ever-changing business environment.

3. ELECTRONIC COMMERCE

3.1 Brief history of e-commerce

Electronic Gommerce (EC) applications were first developed in the early 1970s with innovations such as electronic fund transfer (EFT). However, the extent of the applications was limited to large corporations financial institutions, and a few daring small businesses. Then came electronic data interchange, known as EDI, which expanded from financial transactions to other types of transactions processing, thus enlarging the pool of participating companies from financial institutions to manufacturers, retailers, services, and many other types of businesses. More new EC applications followed, ranging from stock trading to travel reservation systems. As the Internet became more commercialized and users flocked to participate in the World Wide Web (WWW) in the early 1990s, the term electronic commerce was coined and EC applications rapidly expanded. One reason for the rapid expansions of e-commerce was the development of new networks, protocols, software, and specifications. The other reason was the increase in competition and other business pressures (Turban & Others, 2002, P.14).

3.2 Types of E-Commerce Models:

There are nine major e-commerce models. While we focus the majority on Business to Business (B2B) e-commerce and Business to Consumer (B2C) e-commerce (both in the e-commerce private sector), let's start by exploring each e-commerce models: (Haag & Cummings, 2010, P.129-148)

Business to Business (B2B): occurs when a business sells products and services to customers who are primarily other businesses. So, for example, when Gates Rubber Company sells belts, hoses, and other rubber and synthetic products to General Motors or any other manufacturer that needs those parts, this is B2B e-commerce. B2B e-commerce is where all the money is right now in the e-commerce world (Haag & Cummings, 2010).

Consumer to consumer (C2C): occurs when an individual sells products and services to another individual. C2C ecommerce usually takes place through an intermediary organisation, such as eBay. eBay is a hybrid of both a B2C e-commerce site and a C2C ecommerce site. It is a B2C e-commerce site because it sells a service to you, that of giving you that ability to interact in the auctioning of items. And it is really an intermediary supporting your engagement in a C2C e-commerce business model. That is, you use eBay to sell products and services to other consumers, and you use eBay to buy products and services from other consumers (Haag & Cummings, 2010).

Business to consumer (B2C): occurs when a business sells products and services to customers who are primarily individuals. You are no doubt familiar with this model of e-commerce. B2C e-commerce is very much a cut-throat environment, no matter what the product and service (Haag & Cummings, 2010).

Consumer to Business (C2B): occurs when an individual sells products and services to business. The C2B e-commerce model is a true inversion of the B2C e-commerce business model. In the B2C e-commerce business model, demand is driven by the consumer and supply is driven by the business. In C2B it is inverted; the consumer drives supply and the business drives demand (Haag & Cummings, 2010).

Business to Government (B2G): occurs when a business sells products and services to a government entity. Electronic Government: is the use of digital technologies to transform government operations in order to improve efficiency, effectiveness, and service delivery (Haag & Cummings, 2010).

Government to Business (G2B): occurs when a government entity sells products and services to businesses. There are several good examples within this e-commerce business model. The first is the Small Business Administration. In addition to providing small business loans, the SBA offers services in many areas. (Haag & Cummings, 2010).

Consumer to Government (C2G): occurs when an individual sells products and services to a government entity. This is very similar to the C2B e-commerce business model, except that the buying partner is a government entity, not a business (Haag & Cummings, 2010).

Government to Consumer (G2C): refers to the electronic commerce activities performed between a government and its citizens or customers including paying taxes, registering vehicles, providing information and services, and so in. This particular model of e-commerce does not often fit well within the supply-and-demand notion. Again, supply is the first partner and demand is the second partner (Haag & Cummings, 2010).

Government to Government (G2G): refers to the electronic commerce activities performed within a nation's government. (it might also refer to the electronic commerce activities performed between two or more nation's governments including providing foreign aid) (Haag & Cummings, 2010).

4. AUDIT

The term audit is derived from the Latin term 'audire,' which means to hear. In early days an auditor used to listen to the accounts read over by an accountant in order to check them Auditing is as old as accounting. It was in use in all ancient countries such as Mesopotamia, Greece, Egypt. Rome, U.K. and India. The Vedas contain reference to accounts and auditing. Arthasashthra by Kautilya detailed rules for accounting and auditing of public finances. The original objective of auditing was to detect and prevent errors and frauds Auditing evolved and grew rapidly after the industrial revolution in the 18century with the growth of the joint stock companies the ownership and management became separate. The shareholders who were the owners needed a report from an independent expert on the accounts of the company managed by the board of directors who were the employees. The objective of audit shifted and audit was expected to ascertain whether the accounts were true and fair rather than detection of errors and frauds.

Feature of audit

a) Audit is a systematic and scientific examination of the books of accounts of a business;
b) Audit is undertaken by an independent person or body of persons who are duly qualified for the job.
c) Audit is a verification of the results shown by the profit and loss account and the state of affairs as shown by the balance sheet.
d) Audit is a critical review of the system of accounting and internal control.
e) Audit is done with the help of vouchers, documents, information and explanations received from the authorities
f) The auditor has to satisfy himself with the authenticity of the financial statements and report that they exhibit a true and fair view of the state of affairs of the concern.
g) g The auditor has to inspect, compare, check, review, scrutinize the vouchers supporting the transactions and examine correspondence, minute books of share holders, directors, Memorandum of Association and Articles of association etc., in order to establish correctness of the books of accounts.

5. OBJECTIVES OF AUDITING

There are two main objectives of auditing.

Primary objective–the primary duty (objective) of the auditor is to report to the owners whether the balance sheet gives a true and fair view of the Company's state of affairs and the profit and loss A/c gives a correct figure of profit of loss for the financial year.

b. **Secondary objective**–it is also called the incidental objective as it is incidental to the satisfaction of the main objective. The incidental objectives of auditing are:

i. Detection and prevention of Frauds, and
ii. Detection and prevention of Errors.

6. APPLICATION IT IN FINANCIAL SCIENCES

With the increasing use of information technology in science, financial sciences are forced to accept it.

IT applications in financial science can be noted in several cases:

1. Reporting on activities

The main tasks of auditing, comment on the quality of financial statements. This can be achieved through according to GAAP and auditing standards used to conduct a proper and thorough audit. Because of the time consuming and costly, traditional financial statements can be prepared, audited and published in just a few times a year. With the development of information technology, many events are recorded electronically without paper documentation and the whole process of buying, selling, manufacturing, etc. without any paper documentation and records only a few seconds. With considering the fact that the traditional audit does on paper documents, changing in the audit process is essential to comply with the accounting electronics.

2. Electronic data interchange

The purpose of electronic data interchange facilities for doing business without paper documentation and the firm's Savings Tips. But with the discovery of other uses for this technology, efficient supply chain and product offerings, reduce risks related to liquidity and use of information by investors also emerged. According to the financiers to access company databases,

Interest to the date of the annual financial statements and auditor's comments about them reduced and in return, investors seeking to ensure the authenticity of the information contained in the company database, the importance of considering the needs of users, it is necessary to change the current audit process.

3. Artificial intelligence

The theory and development of computer systems able to perform task that normally require human intelligence, such as visual perception, speech recognition, decision making, and translation between languages. The use of artificial intelligence systems requires processor speeds three to four times as high. These systems are used in accounting and auditing that sample processing program provided by the audit firm the risk of the client based on the complexity of the audit client computer processors, classifies.

4. Comprehensive Business Reporting Language:

The language of the provision, reporting and use of information about the company completely changed.
America's Securities and Exchange Commission of the language is to allow reporting of information. This language is not compatible with the traditional alternating current techniques. However, auditors can use this language to reduce audit costs. So America Auditing Standards Board Statement of Auditing Standard No. 94, has set an IT affects 5 component of the company's internal control

5. The 5 components including:

Control environment.
Assessment of risk
Control activities
Information
Communications and spectacles

Opportunities and threats of e-commerce for auditors

International Federation of Accountants (IFAC) is stated in 2002 that the term electronic commerce (E-commerce) should be replaced with the term e-business (E-business). The provision of e-commerce and distribution of goods and services on the Internet using digital technology, the electronic business includes all activities carried out by the company on the Internet. The rapid development of e-commerce has strongly affected on traditional methods of trade; the professional accountant should be aware of the effects of these developments on their business operations and skills necessary for using information technology to be able to issue new mine such as issues relating to tax Internet, electronic fraud and auditing electronic transactions. Including the effects of e-commerce are: Changes in organizational structure, form partnerships and commercial contracts, construction partners and models of products and services, rules and regulations on corporations, the role and responsibilities of employees, management and staff, features, business, Accounting Systems, the company 'and the evidence cited in support transactions. These changes have a significant impact on the accounting and auditing profession and the opportunities and risks are covered are put on accountants and auditors.

7. OPPORTUNITIES OF E-COMMERCE

One of the effects and benefits of e-commerce help to globalization.
The EC does not require a specific time and place when and where everyone can use it to meet their information needs.
Some of the benefits of e-commerce as follow:

Profitability and reduce costs: through electronic processes like stock exchange, currency exchange and etc.

New opportunities and create value: through flexibility, focus and innovation on the Internet.

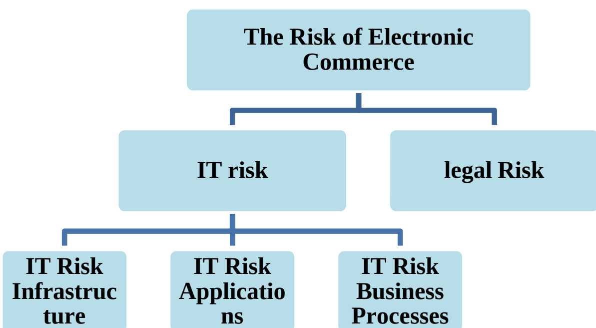
Speed: by increasing the speed of publication information help manager’s decision-making and other users.

With the rapid growth of electronic commerce, the next few years we can see that all transactions are done electronically in developed countries. This makes the auditors to discuss the impact of the implementation of e-commerce customers, how to act and how financial statements audit mine further study and review. One of the features of e-commerce is electronic data exchange. To create a controlled environment to conduct electronic transactions, the need for cooperation between financial audits, operational audits and IT audit. Knowledge of information technology in the future market for financial statement auditors contains a unique advantage. Many audit institution, and would allow the service to perform the validation (such as software design and implementation of e-commerce, combined with Accounting Systems and website hosting customers).

8. THREATS OF E-COMMERCE FOR AUDITORS

E-commerce has its own risks. In a recent study conducted in 1600 by the IT security expert and has been observed in 50 countries of the world. There are companies that have electronic communication 3 times more than other companies are at risk of data loss, theft and unauthorized access to their information. International Federation of Accountants in 2002 risks relating to electronic transactions classified into two main groups:

1. Information technology Risks of electronic business
   i. IT Risk infrastructure
   ii. IT Risk applications
   iii. IT Risk business processes
   1- Legal risks



Risks related to e-commerce

9. INFORMATION TECHNOLOGY RISKS OF ELECTRONIC BUSINESS

According to the statement of the International Federation of Accountants (IFAC) IT risks are classified as follows:

1. IT infrastructure risks relating to the suitability of the technology used for processing information. Examples of these risks are as follows:

   - Incorrect assessments of physical security from theft, unauthorized access or improper disclosure of information does not prevent,
   - High vulnerability to heat, fire and other physical hazards,
   - Inadequate or incorrect design process them, and
   - Backup processes are not enough.

2. Risks related to IT applications such as:

   - Bugs and errors in the use of IT - Uneven or unregistered changes in the program.
   - Inadequate and inappropriate design commands - Processing and output controls in the use of IT
   - Processes to ensure adequate security software.

3. Risks related to IT business processes such as:

   - Transparency of data
   - The combination of inadequate systems.
   - Determine the distance between the control processes in the sub-processes

10. LEGAL RISKS

One of the responsibilities of management, it is to ensure the enforcement of laws and regulations of the company. Due to the different rules in different countries and the impossibility of integrating the use of electronic commerce will be the company makes a lot of risks and costs. In some countries, there is no statute in relation to e-commerce. In some countries there is no law in relation to e-commerce. It is also possible that some of the calculation of taxes and insurance are not appropriate. Auditors should take risks that might lead to a false statement in the financial statements is to identify and assess.

11. IMPACT OF E-COMMERCE ON AUDITING STANDARDS:

There is no doubt that e-commerce affects the business environment; and therefore the auditing standards due to the strong link between business processes and accounting, where believed that e-commerce effects on accounting standards, and audit lead to change in the used accounting systems which creating a set of related problems to information security and data which requires the necessity of issuing standard complement to the audit standard of computers systems and the internal control standard including the vital role should the auditor play in assessing internal control systems in such companies, in addition to the audit procedures differ from other companies due to the different way in which operation of the system. There are many issues which relate to the nature of accounting and auditing for e-commerce companies, including: the need to re-examine the characteristics of errors in different types of accounts in e-commerce companies, and determine the most accounts susceptible to errors in these companies. In addition, the other issue may lead to increase audit businesses under the e-commerce, where it was common in the past practice the audit that auditors do the implementation of the audit process by following the final audit method, which was usually start their main work after the end of fiscal year companies, but under the conditions of e-commerce it has become necessary to resort the continuous audit, where the auditor audits the accounting work done first by first on year-round, although this approach has its negative effects on the cost of audit, but the auditor can be completed by the audit, and write its report in the shortest time possible after the end of the fiscal year, which reducing the period length of audit report delay. The e-commerce also changes the environment of the company, and many of the other characteristics, which requires looking reply in the analytical procedures indicators review that can rely on at auditing e-commerce companies (Alamiri & Almataz , 2007).

12. THE OBJECTIVES OF E-COMMERCE AUDIT

The objectives of E-commerce audit include two aspects: one is the audits' economic transaction and an operational matter, the other is the electronic commerce system. Of the two, the targets are not the same, both different and complement each other. The first one is to utilize information technology, to audit the audits' financial statements, relevant information and business activities, and to express an opinion on the financial statements of legality, fairness, consistency, which play a role in supervision and verification and service. The second one is to audit the audits' information system, including electronic commerce system, in protecting assets security, data integrity and system effectiveness and efficiency, and then to express an opinion. In essence, the economic business audit mainly uses the computer technology to auxiliary analysis, is closer to the traditional manual audit.

13. CONCLUSION

With the growth of information technology in business that has a direct impacts in finance information of the companies that impact to reduce the intrinsic value of the financial statements. Therefore, this issue has caused a reduction in income from sources Audit Institution Accreditation Services. The auditors must either accept the reduced income as a basic fact, or provide a service to the community to make fundamental reforms.

That considers 2 important points

1. Internal control on information technology.
2. Introduction of e-commerce in order to use the audit report.

Otherwise, the auditing profession loses its intrinsic value in the financial community and social.

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