

## **Analyze The Effectiveness of the E-Auditing System at the BPK-RI Representative of Southeast Sulawesi Province**

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**Abstract:** *This study aims to analyze the effectiveness of the e-audit system at the BPK-RI Representative of Southeast Sulawesi Province. The sample in this study was obtained from 7 auditors who worked at the BPK-RI Representative of Southeast Sulawesi Province. The effectiveness of the e-audit system is measured by the answer to the questionnaire using the Guttman scale measurement. Research results show that the e-audit system implemented by BPK-RI Representatives of Southeast Sulawesi Province has been very effective. The results of the value obtained from the effectiveness formula is 88.23%.*

**Keywords:** *effectivity, e-audit system*

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### **I. Introduction**

#### **1.1 Background**

The E-auditing system has been introduced since 2010 and received great support from the government at a meeting between the President and Head of State Institutions in Bogor on January 21, 2010. While the BPK-RI representative of Southeast Sulawesi signed a memorandum of understanding on March 28, 2013. BPK launched an e-auditing system by utilizing the role of information and communication technology (ICT) which will change the paradigm and work process of inspection. The implementation of the e-auditing system is expected to improve the efficiency and effectiveness of the examination. E-auditing is also expected to minimize fraud in order to increase financial accountability in state institutions. With more thorough inspection planning, the implementation of the examination will be faster and more accurate.

E-auditing is a system that forms a synergy between the BPK's internal information system (e-BPK) and the information system belongs to the audit entity (e-auditee) through an online data communication between e-BPK and the e-auditee and establishes a management data center and responsibility state finance at the BPK. This state financial data center contains all financial information from all work units within the government. The financial information in question includes government financial reports, financial transactions, and other supporting data that will be useful for conducting checks. This data center will be used by the examiner to assist in carrying out inspection tasks. The examiner can use this e-auditing system through a portal that can be accessed wherever he is on duty as long as there is an internet network.

The advantages of using the e-auditing system include the implementation of faster data collection, faster financial statement checking because it is done with computer assistance, it can be used to develop a broader and deeper examination scope. While the weakness in the use of e-auditing systems is the existence of higher data security risk because the system uses internet network. This is due to the possibility of data access beyond the interests of the examiner and the existence of computer crime and the dangers of viruses that can damage the database of the Auditee, a weakness related to computer data, namely a change in the management of expensive and flexible software.

The e-auditing system implemented by BPK must be supported by the availability of adequate internet networks and human resources who have knowledge in the computer field. The time that the auditor uses for the entity being examined for the data collection and downloading process will be reduced. That's because, in part or even all the data can be accessed from the BPK office. With the formation of synergies between the BPK and all audit institutions in the implementation of the e-auditing system, the effectiveness of BPK examinations can be carried out. That way, optimizing the management and responsibility of state finances that are transparent and accountable can also be realized. The end, the hope of a systemic reduction in corruption, collusion and nepotism (KKN) can be achieved, the realization of optimizing state revenues, and effective state expenditure, will be closer to reality. State finance will also be utilized as much as possible for the people's prosperity.

Based on the description above, the researchers were interested in conducting research on the effectiveness of the e-auditing system by the BPK-RI, especially at the BPK-RI representative of the Southeast

Sulawesi province. The researchers wanted to know whether the e-auditing system had been carried out effectively at the BPK-RI Representative of Southeast Sulawesi. Therefore, researchers use a qualitative and quantitative approach in conducting this research in order to describe the real situation in accordance with the conditions in the field.

### 1.1. Research Purpose

Purpose of this research is to analyze the effectiveness of the e-auditing system at the BPK-RI Representative of Southeast Sulawesi Province.

## 2. Literature Review

### 2.1. Auditing

According to Mulyadi (2014), the definition of auditing is a systematic process for obtaining and evaluating evidence objectively about statements about economic activities and events, with the aim of determining the level of conformity between the statements and the criteria that have been set, and the delivery of results for the user concerned. Whereas according to Arens & Loebbecke (2013), auditing is a process that is taken by someone who is competent and independent in order to gather and evaluate evidence regarding information from an Entity to consider and report the level of conformity of information with the criteria that have been set.

### 2.2. Technology Acceptance Model (TAM)

The Technology Acceptance Model is a model that was first introduced by Fred Davis in 1986. This model of technology acceptance is a development of the Theory of Reasoned Action. Theory of Reasoned Action is a technology acceptance assessment model that identifies the level of individual acceptance of a technology.

### 2.3. The Impact of Information Technology on Auditing Process

According to Willian *et al* in David Suharto (2015), information technology is a general term for any technology that helps humans to make, change, store, communicate or disseminate information. Information technology brings both computing and high-speed communication for data, voice and video.

Technological development occurs starting from the development of information technology infrastructure such as hardware, software, storage (storage technology), and communication technology (Laudon, 2006). The existence of technological development has made the pattern of storage and distribution of information easier and simpler. Therefore, this development affects various aspects of the world of business, education, health, to government.

### 2.4. E-auditing

E-auditing has a role focused on the task of financial auditing of the auditee or state financial management institutions based on an electronic inspection mechanism with connection to and from auditee institutions. All data needed will be available in full electronically with the basic concept of link and match.

### 2.5. Effectiveness of E-Auditing System

The assessment effectiveness of the implementation of a new system, must be able to resolve various obstacles faced, both from internal and external sides.

This is adjusted to the opinion expressed by Mahsun (2013) which explains that effectiveness is a measure that states how far the target has been achieved. Where the greater the percentage target achieved the higher the effectiveness. Effectiveness also shows success in terms of whether or not the goals have been set.

Effectiveness Formula:

$$= \frac{\text{Actual Output}}{\text{Goal Output}} \times 100$$

Source: Mahsun (2013)

### 2.6. Type of Research

The type of research used in this study is descriptive research. Descriptive research is research that can describe the real situation in accordance with the conditions in the field.

### 2.7. Research Location and Objective

In conducting research to obtain the data obtained to support this research, the authors choose the place of research at the BPK-RI Representative of Southeast Sulawesi Province which is located at JL. São Sao No.10, Bende, Kadia, Kendari City, Southeast Sulawesi and objects in this research is the Effectiveness of the E-Auditing System.

**2.8. Method of Collecting Data**

Methods of collecting data and information in this study using the semi-structured interview method. The aim is to find problems openly, where informants are asked for their opinions and ideas. Before conducting an interview, researchers need to prepare an interview guide so it doesn't get out of the problem of this study. And also using a questionnaire that is a method of data collection conducted by giving a set of written questions to the respondent to answer.

**Table 3.1** Interpretation of effectiveness scores

Percentage	Criteria
81 – 100%	Very Strong/ Very Effective
61 – 80%	Strong/Effective
41 – 60%	Enough/ Effective Enough
21 – 40%	Weak/ Uneffective
0 – 20%	Very Weak/ Very Uneffective

Source: Riduwan (2013)

In table 3.1 above it is mentioned the achievement of interpretation effectiveness scores percentage. The criteria for interpreting the effectiveness score is used as a reference for the effectiveness of the e-auditing system and to determine the extent of the effectiveness of the e-auditing system at the BPK-RI Representative of Southeast Sulawesi Province.

**2.9. Method of Data Analysis**

This research is using qualitative analysis by collecting data in accordance with the needs of the research, classifying it into several units or sections, synthesizing to produce new things and arranging them into a pattern, as well as conducting studies with the aim of getting conclusions that can be conveyed to others.

**II. Result**

**2.10. Research Result**

**a. Effectiveness of E-Auditing System**

The effectiveness of a good system depends on the level of user belief in the technology system. With the user's belief in the e-auditing system, especially auditors who are given the task of auditing a government financial report it will facilitate their work in both a business e-auditing system and the public sector and increase oversight of irregularities if fraud occurs.

There are several main constructs of TAM that are used to measure the effectiveness of e-auditing systems, such as those used in the Natalie Tangkie study, namely User Perception of the Use of Systems (*Perceived Usefulness*), User Perception of the Ease of Use (*Perceived Ease of Use*), Attitude Users of the Use of the System (*Attitude Toward Using*), and User Acceptance of the System (*Acceptance of System*).

*Perceived Usefulness* is defined as the degree to which a person believes both positively and negatively that using technology through certain systems that can improve their performance. Based on this explanation, a trust in the information system itself depends on each personnel, especially the auditor's trust in the use of the e-auditing system. When an auditor believes that the information system that is applied, namely the e-auditing system can provide convenience and improve the performance of the work carried out then he will more often operate it. The concept derived from the TAM model also shows the system benefits to the wearer which are closely related to effectiveness, efficiency, job performance and overall benefits.

*Perceived Ease of Use* is interpreted as a level of belief that the use of a particular system is easy. The use of technology in the audit process is inseparable from the user's perception of the ease of use of the system and the usefulness or benefits of the system itself. With the embedded perception of the ease of use of the system, it can make widespread use of the system. The user's perception of the ease of this system is none other than the auditor.

*Attitude Toward Using* is defined as a level of assessment of attitudes in the use of a system in the form of acceptance or rejection as a result if someone uses a technology in their work. Based on this explanation, Attitude Toward Using can be measured by how the user's attitude towards the system, whether the user feels happy with the use of the system or recognizes the need for the system to improve its work. With the attitude of the auditor who believes that the need for an e-audit system can improve its work, making the use of the e-auditing system work well so that it will produce effective e-auditing checks. The e-auditing system itself benefits BPK as auditors and auditees.

*Acceptance of system* is defined as the level of behavior of the use of information systems and actual use of information systems. To find out if the information technology used is really received by the user, it can be known from how often users use it, access it, and the satisfaction of its users. In this case, how the auditor's behavior in accepting the e-auditing system often uses and accesses it and the auditor's satisfaction with the e-auditing system.

As a state institution based on inspection work, the BPK RI has been able to see opportunities for efficiency and effectiveness of audit work by utilizing the development of information technology (e-auditing), so that auditing activities carried out routinely by BPK RI can be carried out effectively and efficiently.

The effectiveness of a good system depends on the level of user belief in the technology system. With the belief of users on the e-auditing system, especially auditors who are given the task of auditing a government financial report will facilitate their work both on a business e-auditing system and the public sector and improve supervision of irregularities if fraud occurs. The concept of implementing the e-auditing that will be implemented by the BPK is a number of key prerequisites so that the implementation of the e-auditing runs well.

The key to the success of e-auditing lies in Human Resources (HR) on all fronts. This is because the technology mechanism is included in the operational instruments and rules that apply in management instruments. Tools, hardware, software are easy things to buy, but what is difficult is how people can run it all professionally and pay attention to the confidentiality of data to the auditee. Human Resources that must be fulfilled in e-auditing consist of two things, namely from the auditor's expertise and in terms of the auditee.

Auditors' expertise for Conventional Audit differs from e-auditing audits, the difference lies in auditing expertise not only in testing the pad transaction a financial report presented by the object being examined but electronically and the confidentiality of the auditee data must be maintained and the password must be extra secure. The auditing team from the beginning received data from the auditee must confirm electronically that the data sent by the auditee was correct according to the digital signature and digital certificate contained in the e-BPK database data entered from the auditee.

A competency or expertise from an examiner especially in the use of E-audits can be achieved through knowledge and work experience in the audit field. A BPK auditor must have high competence to convince clients and other parties that the auditing services they carry out are reliable, accountable and of quality in terms of quality and professionalism. Competence is defined as knowledge, skills or abilities that are mastered by someone and have become a part of him, so that he can perform cognitive, affective, and psychomotor behavior well. Auditor competencies are getting better, it will make the results of e-auditing examination more effective.

Auditor competency has been required in the State Financial Inspection Standards (SPKN) which is a benchmark for examiners in carrying out checks on the management and accountability of state finances.

Audit quality is the auditor's ability to detect errors in financial statements and report it to users of financial statements. Thus it can be said that in order to detect errors and to produce quality audit reports that are high quality, it is necessary to have adequate competence from an auditor.

The use of information technology in supporting information systems has an influence on almost all aspects of business management. The success of a company's information system depends on how the system is run, the ease of the system for the users, and the use of the technology used.

## **2.11. Discussion**

Effectiveness in this study is intended to show how far the achievement of predetermined goals. In an organization, effectiveness is very important to achieve the goals of an organization. By looking at the effectiveness, we can find out whether the e-auditing system implemented by BPK-RI Representative of Southeast Sulawesi Province has achieved its goals overall.

The results of the research carried out by distributing questionnaires to the auditors, it can be seen that the use of the e-auditing system in BPK-RI Representative of Southeast Sulawesi has been carried out effectively.

The results of the questionnaire that have been given by the researcher to the auditors, getting YES answers as many as 15 and NO answers as many as 2, so the researchers get the results of the study that is equal to 88.23% based on the following calculations:

$$\begin{aligned} &= \frac{\text{Actual Output}}{\text{Goal Output}} \times 100\% \\ &= \frac{15}{17} \times 100\% = 88,23\% \end{aligned}$$

Based on the table of interpretation of effectiveness scores, it means that the effectiveness of the e-auditing system at the BPK-RI Representative of Southeast Sulawesi Province has been very effective. The level of effectiveness of the e-auditing system can be explained in five indicators, namely:

### **1) Program success**

Program effectiveness can be carried out with operational capabilities in carrying out work programs that are in accordance with previously set goals. The success of the program can be viewed from the process and mechanism of an activity carried out in the field. With the implementation of the e-auditing system at the BPK-RI Representative of Southeast Sulawesi Province the examination will be more effective, the scope of the examination will be broader, the examination fee will be more efficient, and the process and completion of the examination will be easier and faster.

## **2) The success of the target**

Effectiveness is viewed from the point of view of achieving goals by focusing attention on aspects of output, meaning that effectiveness can be measured by how far the level of output in the policies and procedures of the system applied to achieve the stated objectives. With the implementation of the e-auditing system output produced by the BPK-RI Representative of Southeast Sulawesi Province, which is in the form of an accountability report and Inspection Report (LHP), it can be completed in a timely manner and can be easily accessed by the parties concerned.

## **3) Satisfaction to the program**

Satisfaction is a criterion of effectiveness that refers to the success of the program in meeting user needs. Satisfaction is felt by users on the quality of the product or service produced. The higher the quality of products and services provided, the higher the satisfaction felt by users, it can generate benefits for the institution. The e-auditing system is very helpful for auditors in auditing because it is easy to use and operate. E-auditing also provides many benefits, such as faster data management, more comprehensive and efficient audit evidence documentation and reduced paper use.

## **4) Input and output level**

The effectiveness of input and output levels can be seen from the comparison between inputs (input) with output (output). If the output is greater than the input it can be said as efficient and vice versa if the input is greater than the output it can be said as inefficient. With the e-auditing system at the BPK-RI Representative of the Southeast Sulawesi Province simplifying the implementation of inspections and encouraging transparency and accountability of the audited entity data, the BPK will also be able to carry out the task of checking management and financial accountability more efficiently due to savings in inspection time. Time savings occur because the documents used in the inspection process are obtained easily and quickly by the BPK due to an e-auditing system that records data in real time and exchanges data quickly through internet networks.

## **5) Achieving overall goals**

Achieving whole goals is seen from the extent to which the e-auditing system helps BPK-RI Representative of Southeast Sulawesi Province carry out their duties to achieve the objectives. In this case, it can be seen from the success of the program, the success of the target, satisfaction with the program, input and output. So that the BPK-RI Representative of Southeast Sulawesi Province can carry out the tasks of inspection, management, and accountability more effectively and efficiently.

## **III. Conclusion**

### **2.12. Conclusion**

Based on the results and discussion in this study, it can be concluded that the e-auditing system at the BPK-RI Representative of Southeast Sulawesi Province generally has been carried out effectively. This is seen from the result of the acquisition of values that have been studied with an assessment of 88.23%. This study is inseparable from the 4 main constructs of TAM, namely the user's perception of the ease of use of the system, the use or benefits of the system, and the user's attitude towards system usage and user acceptance of the e-auditing system itself. Where, the use of the e-auditing system can assist auditors in carrying out their duties and can save time in the inspection process so that the inspection process carried out getting more effectively and efficiently.

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