Analysis Acceptance of E-Audit Application on the Financial Audit Board of the Republic of Indonesia in North Sumatera Regional Office

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Abstract
This research aims to determine the effect of perceived ease of use, usefulness perceptions and user attitudes towards the acceptance of E-Audit applications at the BPK RI of North Sumatra. The data source of this research is primary data taken directly at the office of the BPK RI of North Sumatra. Data collection techniques in this research were questionnaires distributed to research respondents. The sample in the research was 90 auditors who worked in the office of the BPK RI of North Sumatra. The sampling technique uses the census method. Data analysis techniques using multiple regression analysis. The results of the research indicate that the perception of ease of use has an effect on and is significant to the acceptance of E-Audit applications. Benefit perceptions have an effect and are significant to the acceptance of E-Audit applications. The attitude of the User influences and is significant towards the acceptance of the E-Audit application. Simultaneously the perception of ease of use, perceived usefulness and user attitudes significantly influence the acceptance of E-Audit applications. The magnitude of the influence (R Square) of the perception of ease in use, perceived usefulness and user attitudes towards the acceptance of E-Audit applications is 64.1\%.

Keywords: ease of use, usefulness, attitude, acceptance, E-Audit

Introduction
The e-audit system has been introduced since 2010 and has received support from the government at a meeting between the President and the Head of the State Institute in Bogor on January 21, 2010. E-audit is the implementation of an electronic-based audit that forms a synergy between BPK's internal information systems (e-BPK) with the information system belonging to the auditing entity (e-Auditee) through an online data communication system that systematically forms a data center on management and responsibility of state finances at BPK (Sukarso et al, 2015).

BPK RI representative from North Sumatra itself signed a memorandum of understanding on July 12, 2012. In the application of this new information technology-based system, it would certainly take BPK RI some time to carry out trials and applications in stages until the time of full implementation starting in 2015. The application process starting with piloting, which is a pilot implementation of the e-audit system in several districts and cities in stages. This is done starting from a small scale (cash) until finally extends throughout the financial statements. With this piloting system, the implementation of the e-audit system by the BPK can be developed as well as evaluated when facing obstacles so that the e-audit system will be ready to be fully implemented (BPK, 2012).

Piloting by piloting is continuously being developed from 2011 to 2014, piloting is certainly expected to support real audits in the three types of audits namely Examination of Financial Statements, Examinations with Specific Purposes, and Performance Examinations, as well as to improve efficiency and effectiveness financial audit because the scope of the audit can be expanded and the audit can focus on a number of risk areas. However, until now developments regarding the e-audit system itself have not been too publicized. What's more, there are several obstacles to the full implementation process. Therefore, BPK RI has tried to develop a system based on information technology called e-audit (electronic audit) as an effort to overcome audit barriers.
From previous studies, found several models that were built to analyze the factors of the receipt of a use of computer technology or information systems in e-audit systems or another systems. Various literature and references such as Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), and Technology Acceptance Model (TAM) are models for acceptance and application of technology in the implementation of e-audit. As the results of research Tangke (2004) examines the Analysis of Acceptance of the Application of Computer Assisted Audit Techniques (TABK) using the Technology Acceptance Model (TAM) at the Indonesian Supreme Audit Agency (BPK). From this research it can be concluded that of all constructs used have a significant effect on other constructs except user perceptions about the use of TABK (PU) have not been proven to have a significant effect on user attitudes about using TABK (ATT).

The results of the research by Rauf et al. (2015) examined the effect of perceived user convenience and perceived benefits on the effectiveness of the e-audit system (case study at the Republic of Indonesia’s Supreme Audit Board of the Republic of Indonesia). The research shows that the perception of user convenience has significant effect on the effectiveness of the E-Audit system. The perception of the benefits and significant effect on the effectiveness of the E-Audit system. Simultaneously the perception of user convenience and perceived benefits significantly influence the effectiveness of the E-Audit system. Septiningtyas (2010) in his research showed that the effectiveness of the use of system technology has an effect on internal auditor performance variables, while the effectiveness of the use and trust in accounting information system technology together has an influence on the performance of internal auditors.

Research Karimah (2018) examines the implementation of the electronic audit system based on aspects of user perceptions and user convenience in the Provincial Government of West Sulawesi showing that the perception of usability and perceived user convenience make a positive contribution to auditors.

This research is based on the Technology Acceptance Model (TAM) developed by Davis et al (1989). The main purpose of TAM is to provide an explanation of the general acceptance of computers and provide an explanation of the behavior / attitudes of users in a population. TAM developed by Davis et al (1989) Information Technology Acceptance determined by 6 constructs namely External Variables, User Perceived Ease of Use, Perceived Usefulness, User Perception of Use of TABK Behavioral Intention and Actual Usage.

This study refers to the research of Rauf et al. (2015) concerning “the effect of perceptions of user convenience and perceived benefits on the effectiveness of the e-audit system (case study at the Republic of Indonesia’s Supreme Audit Board of the Republic of Gorontalo)”. The researcher analyzes the implementation of the e-audit system using three main constructs of TAM, namely User Perception of Ease of Use, User Perception of System Use (Perceived Usefulness) and User Attitude of System Use (Attitude Toward Using).

The TAM construct used in research in which the Acceptance of System is formed from Behavioral Intention and Actual Usage. The difference between this research and previous research is as follows:

The time and place in the previous study were the Republic of Indonesia’s Supreme Audit Board of the Republic of Gorontalo in 2015 while the time and place in this study were the Republic of Indonesia’s Supreme Audit Board (BPK) in North Sumatra in 2019. In previous studies only used two main constructs of TAM, namely perception of user convenience and perceived benefits only. Therefore the researcher adds one main construct of TAM, that is the attitude of the user, so that the total of the independent variables is 3 variables.

Based on the description above, researchers are interested in conducting research on acceptance of the adoption of the e-audit system by BPK RI, especially representatives of North Sumatra. The researcher also wants to know how the development of the implementation of the e-audit system has been fully implemented in 2015. So the researchers decided to conduct research with the title "Analysis of Acceptance of Application of Audit Applications at the Republic of Indonesia Supreme Audit Agency (BPK RI) Representative North Sumatra".

Identification of Problems:
1. There are developments that occur in the field of auditing in connection with the use of information technology, one of which is the existence of an audit application.
2. There are several obstacles in implementing e-audit, one of which is regarding the acceptance of audit applications by auditors at BPK.

Limitation of Problems In this study, the limitation of the problem is only on the effect of perceived ease of use, perceived usefulness and user attitude towards system acceptance at the Office of the Republic of Indonesia Supreme Audit Agency of North Sumatra.

Problem Formulation:
1. Does the perceived ease of use affect the acceptance of the application?
2. Does the perception of usefulness affect the acceptance of the application?
3. Does the user's attitude affect the acceptance of the application?
4. Does the perceived ease of use, perceived usefulness and user attitude influence the acceptance of the application?

Theoretical Framework
E-Audit
According to Nindyastuti & Kiswara (2014) Electronic Audit or E-Audit is a computer-assisted audit that uses electronic records to complete all or part of an audit. Government e-Audits are carried out by preparing customized software to form a database that stores various financial performance information on government entities.

The e-audit system implemented by the BPK RI Representative of North Sumatra has four main components, including:
1. Information and Correspondence Presentation Components
   a. The e-audit portal, which is a website-based application that functions as the main media for BPK's internal parties and the Entity is examined in accessing various information related to audits. In this e-audit portal there is no communication process between the Entities, because the Entity can only recognize and communicate with e-BPK and with the data of the Entity concerned. This is because the e-audit portal for Entities is Mutual Exclusion Data Exchange with BPK. While the security mechanism for information on the e-audit portal is through approval, authorization, authentication, and information separation.
   b. Command server, used as a bridge for examiners to use the BPK data center through the e-audit portal. Command server is a special room equipped with several workstations or computers associated with e-audit systems. In the command center there is an end user computing function, which is a system for developing automated facilities and making self-reporting based on Computer Assisted Audit Techniques (TABK). Some TABK-based software that has been prepared as an aid to the examiner in analyzing data are ACL, Arbutus, and MS. Excel.

2. Data Center
Is the center for collecting and processing raw or processed data from structured or unstructured entities. Data Center consists of three sub-components, including:
   a. BPK Data Service, used for electronic data processing in the data center in accordance with the process flow that has been defined by the system. This component functions as a bridge between the application and the database so that between the application and the database is not directly related. This component also functions to run the inspection process automation feature at BPK.
   b. Wharehouse Data, consisting of databases and functions of reporting data structure design and presentation of analytical data as supporting data in decision making. In its formation, the Wharehouse data in the e-audit system was built by grouping data according to the Entity (Ministry / Institution and Bank Indonesia / BUMN / BUMD / BLU / BLUD, and Local Government).
   c. Data Quality Management, consisting of several features that can standardize data from several sources. The feature aims to identify duplication with various levels of similarity, provide suggestions or selection of data that is considered the most accurate, and provide a temporary storage place for data.
that is inconsistent before standardization. This feature helps BPK to get data that is clean and ready to use.

3. Master of Consolidator Agents and Consolidator Agents
This component is a pair of applications that function as ETL (extract, transform, load) from data sources in the Entity database to the BPK data center. This component was developed to consolidate electronic data from the Entity to the BPK Data Center through a mutually agreed communication channel. This feature can provide an early warning system in the form of automatic notifications when the ETL process after sending data and identification does not match the results of the consolidation of Entity data in the e-audit system.

**Document Management**
Document Management is a system that processes non-electronic inspection documents such as hard-copy Financial Statement documents into electronic documents as well as managing electronic documents carrying out inspection activities, including Electronic Inspection Work Papers. Document Management covers the activities of storing, numbering, indexing, publishing, tracing, searching, and archiving electronic documents.

**Acceptance of the System (Acceptance of System)**
System acceptance is defined as whether the system is in accordance with what is stated in the functional specification of the system (validation). The researchers found several indicators to explain IT acceptance. The two most acceptable indicators are user satisfaction and system usage. Based on several studies as cited by Al-Gahtani (2001) (Davis et al. 1989; Thompson 1991; Adams et al. 1992; Straub et al. 1995; Szajna 1996; Igbaria et al. 1997) stated that system usage is the main indicator in technology acceptance. This study adjusts the construct of IT acceptance in TAM to User Acceptance of TABK

**Perceived Ease of Use**
According to Davis et al (1989) perceived ease of use is interpreted as a level of someone's belief that the use of a particular system is easy. The use of the system (actual system usage) is strongly influenced by the desire to use (behavioral intentions toward usage). Davis et al (1989) in his study measured perceived ease of use using indicators regarding:

a. The system is very easy to learn.
b. The system can easily do what the user wants.
c. User skills are increased by using the system.
d. The system is very easy to operate.

**Perceived Usefulness**
According to Davis et al (1989) Perceived Usefulness or perceived usefulness is defined as a level or condition in which a person believes both positively and negatively that using technology through a particular system can improve its performance. Davis (1989) measures perceived usefulness through indicators such as working faster, work performance, increasing productivity, effectiveness, making work easier, and useful.

**Attitude Toward Using**
Davis et al (1989) define Attitude Toward The System, which is used in TAM as a level of assessment of the impact experienced by someone when using a particular system in their work. Lutz (1981) in (Lucyanda, 2010) defines attitude as an action that represents a hidden feeling of liking or dislike that leads to an object, person, problem or behavior.

Based on the background of the problem and literature review that has been described, the researcher makes a framework of thinking proposed in this study as follows:
Methods

This research was conducted at the office of the Republic of Indonesia Financial Audit Board (BPK RI) Representative Office of North Sumatra on Imam Bonjol street No.22 Medan. The location of the research is based on the fact that there are still many cities that have not been able to apply financial reporting online. The time of the research will take place in May 2019 until completion.

The population in this study were all auditors who served at the North Sumatra Representative Office of the Republic of Indonesia totaling 90 people. The sampling technique in this study is the census method where all populations are sampled.

As with previous studies, the data used in this study are primary data. Primary data obtained directly from respondents. Primary data were collected through a questionnaire in the form of questionnaires and understanding of the subjects studied as the main basis for interpreting the data. In other words, researchers need to collect data by answering research questions. In this study data were collected through field research. Field research is used to collect data from respondents. Data collection in the field is done by distributing questionnaires directly to auditors who work in BPK RI representative offices in North Sumatra (direct survey).

Data analysis is the process of simplifying data into a form that is easy to read and interpret. Data processing procedures in this study began by sorting the data into the variables used in this study. From the results of internationalizing the variables to be tested, the values of these variables are included in the SPSS 20 program. Multiple analysis is an analysis used to analyze the linear relationship between two or more independent variables (X1, X2) with the dependent variable (Y).

Results and Discussion

A question is said to be valid if the calculated R value (Corrected Item Total Correlation column)> 0.3 (R Valid). From the results of the validity test it is known from all the questions on the dependent variable that is the acceptance of the e-audit application and the independent variable that is Perception of Ease of use, Perception of Usefulness and User’s Attitude all the calculated R values (Corrected Item Total Correlation column)> 0.3 (valid R). So it can be concluded that all questions on all variables are valid.

| Table 1 Determination Coefficient Test Table (R2) |
|-----------------------------------------------|
| R Square | Adjusted R Square |
| .654     | .641             |

Based on the table above obtained Adjusted R Square value of 64.1%, which means that the dependent variable, namely the acceptance of e-audit applications, can be explained by the independent variable,
namely perceived ease of use, perceived usefulness and user attitude of 64.1% and the remaining 35.9% explained by other variables outside this research model.

Table 2 Partial Significance Test (T- Test)

| Model        | Unstandardized Coefficients | t     | Sig. |
|--------------|----------------------------|-------|------|
|              | B    | Std. Error |       |      |
| Ease         | .331 | .079       | 4.183 | .000 |
| Benefits     | .269 | .067       | 4.032 | .000 |
| User Attitude| .372 | .115       | 3.233 | .002 |

Based on the results above, note:

1. It is known that t arithmetic is 4.183> t table 1.989, while the regression coefficient value of the perceived ease of use variable is 0.331, which is positive with a significance level of 0.00 less than 0.05. This means that the perceived ease of use variable significantly influences the acceptance of e-audit applications.

2. It is known that t arithmetic is 4.032> t table 1.989, while the regression coefficient value of the perceived usefulness variable is 0.269, which is positive with a significance level of 0.00 which is smaller than 0.05. This means that the variable perceived usefulness has a significant positive effect on the acceptance of e-audit applications.

3. Known It is known that t arithmetic is 3.233> t table 1.989, while the regression coefficient value of the user attitude variable is 0.372, which is positive with a significance level of 0.002 which is smaller than 0.05. This means that the user attitude variable has a significant positive effect on the acceptance of e-audit applications.

Table 3 Simultaneous Significance Test (Test F)

| Model       | F     | Sig. |
|-------------|-------|------|
| Regression  | 52.193| .000 |
| Residual    |       |      |
| Total       |       |      |

Based on the table above, it is known that the calculated F is 52.193 with an F table value of 2.71, this shows the calculated F value of 52.193> F table 2.71, while the Sig. is 0.000, it is concluded that the perceived ease of use, perceived usefulness and user attitude influence jointly on the acceptance of e-audit applications.

Conclusions

This study aims to determine whether perceptions of ease of use, perceived usefulness and user attitudes influence partially or simultaneously on the acceptance of e-audit applications.

Based on the results of this study concluded that:

1. Perceived ease of use has a significant positive effect on the acceptance of e-audit applications.
2. Perception of Utilization has a significant positive effect on the acceptance of e-audit applications.
3. User Attitudes significantly positive effect on the acceptance of e-audit applications.
4. perception of ease of use, perceived usefulness and user attitude simultaneously influence the acceptance of e-audit applications.
References
Al-Gahtani, Said S. (2001). The Applicability of TAM Outside North America: An Empirical Test in the United Kingdom.
Arens, A., and Loebbecke K (2000). Auditing An Integrated Approach. Eight Edition. New Jersey: Prantice Hall Inc.
Badan Pemeriksa Keuangan Republik Indonesia (BPK RI). 2011. Menuju E-audit yang Paripurna.http://www.bpk.go.id/assets/files/magazine/edisi-07-voli-juli 2011_hal_6_23_.pdf (diakses 21 Februari 2019).
Badan Pemeriksa Keuangan Republik Indonesia (BPK RI). 2007. Peraturan Badan Pemeriksa Keuangan Republik Indonesia (BPK RI) tentang Standar Pemeriksaan Keuangan Negara (SPKN).
David, P. (2013). Analisis Penerimaan Penerapan E-Audit dengan Menggunakan Technology Acceptance Model (TAM): Studi pada Badan Pemeriksa Keuangan Republik Indonesia. Tesis.Universitas Gajah Mada. Yogyakarta.
Davis, F. D., Bagozzi, R. P., & Warshaw P. R (1989). User acceptence of computer technology: a comparison of two theoretical models. Management science 35(8), 982-1003.
Ghozali, Imam. 2011. Aplikasi Analisis Multivariate dengan Program SPSS. Badan Penerbit Universitas Diponegoro. Semarang.
IAPI. (2011). Standar Audit (“SA”) 500Standar Profesional Akuntan Publik. Jakarta: Salemba Empat.
Karimah, N. (2018). Implementasi Electronic Audit Berdasarkan Aspek Persepsi Kegunaan dan Kemudahan Pengguna di Pemerintah Provinsi Sulawesi Barat. Skripsi. UIN Alauddin Makasar.
Lucyanda, J. (2010). Pengujuan Technology Acceptance Model (TAM) dan Theory Planned Behavior (TPB). JRAK , 2, 1-14.
Mulyadi. (2014). Auditing. Edisi Keenam. Salemba Empat. Jakarta
Nasution, F. N. (2004). Penggunaan Teknologi Informasi Berdasarkan Aspek Perilaku (Behavioral Aspect). USU Digital Library , 1-10.
Nindyastuti, D., & Kiswara, E. (2014). Faktor-Faktor Efektivitas Sistem E-audit (Studi Empirik Pada E-Audit Perjalanan Dinas BPK RI Perwakilan Provinsi Jawa Tengah. Diponegoro Jurnal of Accounting 3 (3), 1-10.
Rauf, Fitri., Niswatin dan La Ode Rasuli. (2015). Pengaruh Persepsi Kemudahan Pengguna dan Persepsi Manfaat Terhadap Efektivitas Sistem E-Audit (Studi pada Badan Pemeriksa Keuangan Republik Indonesia Perwakilan Provinsi Gorontalo). Artikel Universitas Gorontalo, 2-17.
Septiningtyas, D. (2010). Pengaruh Efektivitas Penggunaan dan Kepercayaan Atas Teknologi Sistem Informasi Akuntansi Terhadap Kinerja Auditor Internal. Artikel Universitas Gunadarma , 166
Sukarso, Paramita, Ali Rokhman, dan Slamet Rosyadi. (2015). Faktor yang Berpengaruh terhadap Kesiapan BPK RI Sulawesi Tenggara dalam E-Audit. Jurnal MIMBAR , 31, 2 ISSN 0215-8175.
Suksrino Agoes. (2017). Auditing: Petunjuk Praktis Pemeriksaan oleh Akuntan Publik. Salemba Empat. Jakarta.
Tangke, N. (2004). analisa penerimaan penerapan teknik audit berbantuan komputer(TABK) dengan menggunakan technology acceptance model (TAM) pada badan pemeriksa keuangan (BPK) RI. JURNAL AKUNTANSI & KEUANGAN , 10-28.
Undang-Undang Nomor 15 Tahun 2004. Tentang Pemeriksaan Pengelolaan dan Tanggung Jawab Keuangan Negara.