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EXPLORING THE USE OF COMPUTER ASSISTED AUDIT TECHNIQUES AND ITS IMPACT TO THE TRANSPARENCY AND ACCOUNTABILITY OF FINANCIAL STATEMENTS

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ABSTRACT

The objective of this research is to explore the perception of internal auditor in public companies on the use of Generalized Audit Software (GAS) to improve the transparency and accountability of financial report. The qualitative approach was used by conducting face-to-face semi structured interview with the internal auditors from Indonesian listed companies. This research used Agency Theory and Technology Acceptance Model (TAM) as underpinning theories, therefore this research provides academic contribution not only in auditing area but also in information technology. The results indicated not all participants agreed that GAS is helping them in producing a transparent and accountable financial report. Also, this research found that company's internal condition and individual characteristics of internal auditor are the inhibiting factors in using GAS.

Keywords: *Internal auditor, Generalized Audit Software, Technology Acceptance Model, Good Corporate Governance, IDX*

1. INTRODUCTION

1.1 Research Background

Transparency is an important element of good corporate governance system. The current global economic crisis has emphasized the important of transparency and effective risk management in many sectors including bank and public company. Therefore, the risk profile and the risk management in achieving corporate governance should be done in response to the crisis. Furthermore, the openness of company to the stakeholders, especially shareholders, is the important aspect for a company to be transparent.

In order to maintain the transparency to the stakeholders, the corporate governance code of practice recommends the need for audit committee and good internal audit system. This is because the effective relation between audit committee and internal audit is important to have good function for a good corporate governance process. Internal audit and audit committee serve as mechanism that ensures the quality of financial reporting that will enhance company transparency.

Therefore, each company is required to form audit committee to implement and support the monitoring function of the board especially in area related to internal monitoring, risk management, and audit activities. Specifically, Rezaee [1] described the relation between audit committee and internal auditor. The audit committee is responsible for hiring, supervising, providing compensation, and dismissing the head of internal audit department. Then, internal auditor should report the findings of their audit accountably, so the audit committee receives the information about policy, process, practice, and internal audit finding.

To compete in the global competition, public companies must implement the rules of the Sarbanes Oxley Act (SOX). SOX regulates the issues related to external auditor independence,

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corporate governance, internal control assessment, and presentation of financial reports that reasonable and correct. Some sections of SOX, for example section 302[1], 404[2], 409[3], and 802[4], require companies to utilize information technology (IT) to access and process the data as the company could better comply to answer the above sections. For example, section 409 on real-time issuer disclosure requires companies to quickly report the events that considered can give effect especially negative effect on company performance.

IT function is important on SOX application as the real form of public companies' compliance on implementation of corporate governance as well as internal audit function in company. Therefore, this research focuses on the use of Computerized Assisted Audit Techniques (CAATs) in the internal audit of public companies. This research assumes that the implementation of CAATs by internal auditor will provide a positive influence on transparency and accountability of finance report of public companies.

Braun and Davis [2] defined CAATs as "any use of technology to assist in the completion of an audit" (p.726). Based on that definition, there are various types of CAATs, ranging from word processing or electronic spreadsheets to expert system [3, 4]. Moreover, the previous research has documented that CAATs used by external and internal auditor can be grouped into electronic audit working paper, fraud detection, generalized audit software (GAS), and continuous monitoring [5]. GAS is one type of CAATs that helps auditor to do data extraction, data query, data summary, data analysis [3, 6, 7]. Widuri, et al. [8] divide GAS into two types which are commercially available software and internally developed software. Figure 1 illustrates the differences of CAATs and GAS based on previous research.

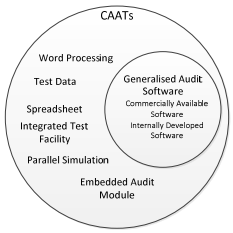

Figure 1. Description of CAATs adapted from Widuri [9]

[1] Corporate Responsibility for Financial Report
[2] Management Assessment of Internal Controls
[3] Real-time Issuer Disclosures
[4] Criminal Penalties of Altering Documents

This research's focus is to find the level use of GAS by internal auditor of public company, specifically in banking industry to increase the transparency and accountability of financial report. The selection of GAS as one of CAATs types is because mostly internal and external auditor used GAS as audit software [3, 6, 7]. GAS helps auditor to extract data, do queries, conduct testing, and analyze data [7]. The use of GAS is increasing following the increasing application of information system in companies, especially public companies. This condition resulted in the audit trail is no longer in paper form but in electronic form [10]. With the increase in an electronic form of audit trail requires internal auditors to use appropriate audit techniques to the company's internal controls.

The research related to utilization of CAATs is very limited, especially in internal audit. However, the limitation can give the illustration on the utilization of CAATs. For example, Debreceny, et al. [3] illustrated the use of audit software by internal auditor of banking sector in Singapore is limited only for special investigation. Moreover, Kim, et al. [11] stated that internal auditor only uses GAS if GAS could help their jobs. Currently, there is no research about the use of GAS in internal audit that relates to the quality of financial report especially from the perspectives of transparency and accountability. This condition provides motivation to obtain in-depth information regarding the internal auditor perception toward the use of GAS to maintain the transparency and accountability of the financial report.

Research about the use of CAATs and GAS is very limited. Therefore, to find the reference regarding factors related to the use of CAATs or GAS, this research reviews the literature of information system. Previous research about the use of IT is extensive and there are some theories that have been developed and implemented to measure the level of acceptance and use of IT, for example, Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT). TAM and UTAUT are used to test the level of acceptance of new technology by individual. These theories are used in research related to IT in other fields other than audit field [12-14]. The main theory that will be used in this research is TAM. The theory will be explained further in the next section. Also, this research will

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use agency theory to explain why transparency and openness are important in good governance.

The rest of this paper is structured as follows. The following section will discuss previous studies related to the acceptance and the use of CAATs and GAS, and the underpinning theories, followed by the research method used. The discussion of key findings with reference to prior literature, the conclusion, limitation, and suggestion for future research are discussed further.

1.1 Research Objectives

This research objective is to explore the perception of internal auditor toward the use of GAS to maintain the transparency and accountability of financial report. In order to achieve this objective this research aims to determine the acceptance level of GAS as well as to determine the factors that influence the use of GAS by internal auditors.

Based on description above, this research has several questions which as follows: (1) How GAS is accepted and used by the internal auditor? (2) To what extent do internal auditors believe that the use of GAS improves the transparency and accountability of financial report? And (3) What factors could be inhibiting factors to the use of GAS by the internal auditor?

1.2 Research Contribution

Contributions and significances of this research are two folds, which are: (1) This research combines two theories which are Agency Theory and Technology Acceptance Model (TAM) theory. Agency theory is a theory that used by many researchers for analyzing good corporate governance. Meanwhile, TAM is a theory that commonly used in IT field to analyze the acceptance level of technology. By this combination is expected the research result provides not only contribution for IT field but also corporate governance and audit. This research will prove that IT theory and corporate governance theory can explain the governance condition of a public company. (2) This research also contributes academically by providing comprehensive illustration of the utilization of GAS by internal auditor of public company in Indonesia in creating transparency and accountability, especially in banking industry.

2. LITERATURE REVIEWS AND THEORETICAL FRAMEWORK

2.1 The Acceptance and the Use of CAATs and GAS

IT has been used in audit since the 1980s to increase effectiveness and efficiency [15]. Past research shows that auditor should utilize technology for audit process [16-18] because it can increase effectiveness and efficiency in making decision for audit [19]. Moreover, the use of technology by auditor can increase the quality of audit procedure [20] and the quality of audit result [21].

Previous research about adoption of CAATs or GAS in internal audit is still limited. The existing research using UTAUT or TAM as the main theory, and the explanation of UTAUT and TAM will be explained in the next section.

In the context of external audit, the previous research was conducted by Bedard, et al. [22], Curtis and Payne [23], Dowling [21] and Ahmi and Kent [6]. Meanwhile, in the context of internal audit, Kim, et al. [11] examine the acceptance of IT in internal auditor. This research uses TAM as a reference. The result of this research shows that internal auditor sufficiently masters the basic features of GAS. Moreover, this research also shows that the usefulness of basic features of GAS is considered more important, and the ease of use has significant influence that makes internal auditor wants to use advanced features. Razi and Madani [24] used UTAUT as a referenced theory and surveyed to internal audit to find the utilization of audit software by companies in Saudi Arabia. The survey result stated that the readiness of company and expected benefit are determinant factors to predict the company intention to utilize audit software. UTAUT theory is also used in the latest research by Mahzan and Lymer [5]. Mahzan and Lymer [5] investigated factors that drive the company to take advantage of GAS in the internal audit environment. This research result shows that two constructs of UTAUT, performance expectancy, and facilitating condition are very important as for GAS utilization runs successfully. Other UTAUT constructs, for example, social influence and effort expectancy, have no significant effect in this research context.

The research about the acceptance and utilization of CAATs or GAS in internal audit

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context is very limited. Therefore, for this research interest, literature in information system area is also being reviewed to identify the determinant factor of acceptance level and utilization of GAS by internal auditor.

This research discusses to what extent the use of GAS in internal audit can increase transparency and accountability of public company financial report. There are two theories to analyze this matter. The first theory is the theory that can explain why transparency and accountability are important aspects of corporate governance. The use of IT related theory is important since this research examine the acceptance level of GAS by internal auditors. Therefore, the Technology Acceptance Model (TAM) will be used to explore the acceptance level of technology by the individual.

2.2 Agency Theory

Agency theory is based on principle of owner separation from people or people with authority or capacity to run the company [25] and the creation of law relation between owner and management [26]. When the company becomes global, the stakeholders in one company may come from all over the world, which means creating a diverse company ownership. This reality has increased the distance between the principal and agent. Although the agent must act reasonably and has good intention in managing the company, searching the agent chain in this condition might be difficult, and minimizing the agent risk is almost impossible [27].

The improvement of accountability and transparency in the management of company is essential to reduce agency cost. The accountability and transparency will increase the better information flow from the company to the shareholder, which then will reduce information asymmetry. As it is said by Farrar and Hannigan [28], "disclosure has long been recognized as the dominant philosophy of most modern system. It is "a *sine qua non* (essential aspect) of corporate accountability" (p. 11).

From the perspective of the agency theory, the existence of information asymmetry leads to the management that acts as an agent has wider knowledge on company activities and financial situation than the investor. Without a structured system of openness in a certain financial report, it will be very difficult for shareholder to get precise and reliable information about their company. Information asymmetry can cause moral hazard and adverse selection problems. Because of that, by ensuring the frequent and the relevance of openness and transparency of company, shareholders are in better position to monitor company management. Then, the accounting function is the important aspect of corporate governance system functions.

Accounting has been recognized as a necessary mechanism process for monitoring the relation of shareholders and manager. From the historical perspective, accounting and audit are developed as monitoring mechanism and both are always demanded by investor to be owned by company with the purpose of decision-making. Watts and Zimmerman [29] also revealed the importance of financial report as a tool to reduce information asymmetry. They also discuss Jensen and Meckling's [30] agency theory approach, where they showed that accounting plays a contract role because accounting is used as a mechanism in contract nexus that intended to company's control system. One of the reasons in the literature for the rules of accountability and transparency is the accounting information can be considered as public goods. It is because the shareholders pay implicitly for this goods, but does not have an ability to demand the share of this payment from the new shareholder [29, 31]. It means that potential investors and stakeholders get free information paid by the existing shareholders. This, in turn, will result in low of obtained information, which is also indicated as a form of market failure [32].

Bushman and Smith [33] explained the role of financial accounting information in corporate governance. They found the use of external financial accounting data reported in the control mechanisms will promote efficiency in corporate governance. However, we need to emphasize that this matter related to the quality of information, such as in accounting terms it must be relevant and reliable. Therefore, for the sake of clarity, a clear distinction should be drawn between corporate disclosure and financial accounting information. Financial accounting information is one aspect of corporate disclosure, which is defined as "the product of corporate accounting and external reporting systems that measure and publicly disclose audited, quantitative data concerning the financial position and performance of publicly held firms [33].

The role of IT is important in improving the openness that leads to the transparency of

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financial statements. It is expected the application of IT in the audit process can improve the effectiveness of control mechanisms that assist investors in disciplining the management. As mentioned earlier that the use of technology by auditor can increase the quality of audit procedure that has been done [20] and the quality of audit result [21].

2.3 Technology Acceptance Model (TAM)

Theories about the level of user acceptance of the technology explained that the level of acceptance of technology users to system information (SI) or new technology determined by the user intention to use it [12]. One of the theories to examine the acceptance level of individual acceptance of new technology is Technology Acceptance Model (TAM).

TAM was first introduced by Davis [12] and developed based on principles of the Theory of Reasoned Action [34]. The purpose of TAM is to provide a valid measuring tool to predict and explain the use of technology. TAM focuses on the influence of external variable (such as training) and the intention to use as specified by perceived usefulness and perceived ease of use. Figure 2 gives an overview of TAM.

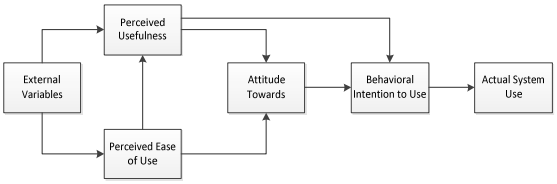

Figure 2.Technology Acceptance Model (TAM) adopted from Legris et al. (2003, p.193)

As illustrated in Legris, et al. [35], perceived usefulness and perceived ease of use are two important factors to explain the use of a new system. The following is an explanation of these two factors.

Perceived usefulness, Davis [12] defines this factor as "the degree to which a person believes that using a particular system would enhance his or her job performance" (p.320). This factor is theorized to be able to give direct effect to behavioral intention to use. Previous studies also showed that perceived usefulness provides direct influence on usage behavior [12, 36-39]. Figure 2 shows that this factor is influenced by perceived ease of use, but not all of previous research result agrees with this opinion. For example, research done by Davis [12], Davis, et al. [40], and Mathieson [41] show that there is positive influence between perceived ease of use and perceived usefulness. However, Subramanian [42] and Hu, et al. [13] found that the relation of those two factors is not significant.

Perceived ease of use, Davis [12] defined this factor as "the degree to which a person believes that using a particular system would be free of effort" (p. 320). Previous research presented that this factor is direct determination of usage behavior [12, 36-39].

Since the theory is being introduced, TAM has been tested empirically by the previous researcher, for example, Adams, et al. [36], Subramanian [42] and Lederer, et al. [38], and has successfully, with approximately 40%, in predicting technology use [13]. TAM has been applied to predict individual behavioral intention to use many kinds of technology and software.

3. RESEARCH METHOD

The research approach used is qualitative with the interview as a data collection method. The result of data collection was analyzed to find a conclusion on the extent of the GAS by public companies to increase the transparency and accountability of financial reports. Therefore, the research object is listed companies in Indonesia Stock Exchange that have been implementing GAS as an audit tool.

The rationales of using the qualitative research approach are three folds. (1) This research investigated the impact of the use of GAS to transparency and accountability of financial report. How effective the implementation will be easier to obtain if it is seen from user perspective rather than the researcher. It is because the user is the party who directly involved in its use and experiences the direct impact of the application. (2) The qualitative research is unstructured. So, in the data collection process, there is possibility that there are concepts and real practices found from company to GAS implementation to increase transparency and accountability of financial report. (3) Limited previous research that discusses the use of GAS in the internal audit context and in developing countries.

3.1 Respondents and Data Collection

To understand the impact of GAS implementation on transparency and accountability

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of company financial report, the research participants for the interview sessions were obtained from an internal auditor of a public company or listed on the Indonesia Stock Exchange (IDX), and that uses GAS. For the interest of this research, the participants were selected by using the snowballing approach from different sectors of public companies.

The procedure of data collection has two stages. First, reviewing the previous research from scientific journals, conference proceeding, book, and other relevant material to the research. Moreover, standard of audit, regulation, report published by government and related documentation will also be reviewed to get the information of current situation on the use of GAS in the context of internal audit.

The second stage was interviewing internal auditor. The internal auditor is a party who uses GAS. They are users who directly involved in the implementation of GAS and also experience the impact. The interview was in-depth and one-to-one interview and used open-ended questions to obtain the participants' views and opinions related to the impact of the use of GAS on the accountable and transparent financial statements as well as its inhibiting factors. The participants have sufficient flexibility in answering. The questions that do not exist in the interview guidelines might be developed by the interviewers to participants if interesting things were found in the interviewing process.

The interview was conducted for 50-60 minutes and was voice recorded. The interviews' questions were compiled based on previous research and other documentation sources, for example, refers to the theory used such as Agency Theory and Technology Acceptance Model. The transcript of the interview was sent back to the participant to validate and ensure that researchers were interpreting the participant's statement accurately.

3.2 Data Analysis Procedure

Data from the interview was analyzed by Nvivo 11 software. This research used data analysis method recommended by Saldaña [43]. According to Saldaña [43], data from the interview can be separated into data unit that consists of words, sentence, or paragraph contained certain meaning. The process of identifying data is called coding, and the result of coding process is code. After the interview data has been coded, it will produce code list. The next step is categorizing code list into certain groups (e.g. by topic or by the same code) so that the group of code becomes meaningful. Boeije [44] explained that the result of categorization process is the theme. The theme is a conclusion produced by category and code.

4. RESULTS AND DISCUSSION

To answer the research question, five companies from different areas of industry agreed to participate in this research, such as banking, trade, service and investment, wholesale, mining and finance industries. The purpose of the selection of participants from different industries is to ensure the different perspectives would be emerged and provide more diverse perspectives. The reason for choosing these companies as research object is the researcher assumes that the use of information technology (IT) in the company is significant, so it is predicted that IT also used in the internal audit process.

The internal auditor from these companies had been interviewed to obtain in-depth information about the use of GAS in the process of transparent and accountable financial reporting as well as those inhibiting factors. The five participants from the companies are represented by Participant A, B, C, D, and Participant E.

Table 1 provides demographic information for each participant. Furthermore, it illustrates that the participants are the high-ranked official in their workplace. These companies are also using audit software in conducting their internal auditor process and have entrusted the Big 4 to conduct an external audit.

Table 1 Demography Participant

Code	Participant Position	Experiences	Industry sector / sub sector
A	Internal Audit Advisor	25 years	Banking
B	Internal Audit Manager	More than 10 years	Trade, Service and Investment
C	Chief of Finance Officer	31 tahun	Wholesale
D	Senior Internal Auditor	8 years	Mining
E	Senior Internal Auditor	10 years	Finance

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The following is the discussion section that is presented by the order of research questions that have been determined in previous sections.
and used by the internal auditor?

4.1 The Acceptance Level of GAS by Internal Auditor

This discussion is presented to answer the first research question, which is: How GAS is accepted. As what was explained in section II, Technology Acceptance Model (TAM) can be used to determine the acceptance level of technology or innovation by the user [12]. According to Davis [12], TAM theorizes that the intention to use technology is influenced by perceived usefulness and perceived ease of use by the user.

Based on the interview results, it shows that the use of GAS helps the internal audit process. This finding is based on below discussions.

4.1.1 Perceived usefulness

Davis [12] defined this factor as "the degree to which a person believes that using a particular system would enhance his or her job performance" (p.320). Based on its definition, technology will be used by the user if this technology can improve the user's performance. The interview result from the participants shows that they get the benefit from the use of GAS.

The five participants agreed that the use of GAS provides benefit in the internal audit process. The participants perceive the usefulness of GAS as it makes the internal audit process easier and controllable. Participants are also agreed that the use of GAS increasing the quality of audit work, job completion becomes faster, and the quantity of audit work becomes a lot more that can be resolved. Therefore, the use of GAS is improving the productivity of internal audit work.

Based on interviews, it is found that GAS provides an increase in productivity in the internal audit process. The increase in productivity is perceived through the ease of control process, internal audit process, and acceleration in the internal audit process, as described by Participant A below:

> *"By using the GAS, allows me to control the work of internal audit staff, so if there is an audit procedure or insufficient data or data that do not fit, it will be quickly monitored and also the repair data can be requested or completed faster."*

Participant D added that the internal audit process could be faster by using GAS. It is seen in the perspective of the time spent by an internal auditor to do the business travel. When the internal auditor wants to conduct audit activity in the company's branch, they can study and analyze the data of the branch in the head office. This is possible because today all the data is available electronically and can be downloaded from the head office and analyzed by using GAS. Based on the analysis, the auditor does not need to spend a long time in the branch office. Also, the auditor's work in the branch office becomes more focused. This is because the auditor already has the audit plan based on the results of the analysis that has been done at the head office. Participant D provides a statement that describes his perspective:

> *"The benefit of GAS use is it can reduce our costs to visit the branch office, because we knew the risks that exist in the branch. Therefore, it reduces costs and also reduces the time of visit to the branch."*

Regarding benefits mentioned above, Participant A stated specifically that the use of GAS provides benefit in helping data query process, audit administrative management, and audit documentation. Moreover, Participant B stated that by using GAS, manual data in a paper form is no longer needed.

4.1.2 Perceived ease of use

Davis (1989) defined this factor as "the degree to which a person believes that using a particular system would be free of effort" (p. 320). Based on the definition, TAM predicts that the user will have the intention to use technology if the technology is easy to use. Technology is considered as easy to use if it is easy to learn, it allows users to repair if there is an error in the use or instruction can be easily understood [12].

The study found that not all participants perceive that GAS is easy to use. In the beginning the use of GAS, felt to be not easy to some participants. It takes a comprehensive and adequate training to be able to understand the features provided by GAS. Also, Participant B added that internal auditor who has the knowledge and interest in information technology is known quicker to master the use of GAS. Furthermore, Participant C illustrated that the use of GAS is not difficult

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because the interface and instruction that is user-friendly, making it easier for auditors to use it. However, this perception is not in line with the Participant D stated that GAS is not user-friendly, so it takes time for the auditor to be familiar with the interface and its instructions.

4.1.3 Attitude towards using and intention to use

According to Davis [12], the attitude toward using in TAM is conceptualized as the attitude towards the use of technology in the form of acceptance and rejection as the result when people use it in their work. The attitude of a person consists of the element of cognitive/perspective, affective, and components related to the behavioral component.

Referring to Davis [12], the intention to use is the behavioral tendency to continue to use technology. The level of computer technology use on a person can be predicted from the attitude and attention to the technology, for example, the desire to add support peripherals, motivation to continue to use, as well as the desire to motivate other users. The intensity of a person to use the technology is different, many factors that drive a person to use technology or GAS in facilitating its work.

The result indicates that all participants showed a positive attitude towards the application of GAS. Participant A explained that the use of GAS in the internal audit process is an innovation and excellent breakthrough for the team. This is because it facilitates the participants to provide feedback on the results of audits carried out by its staff, to facilitate in analyzing the data, and to process real-time monitoring. Participant B argued that at the beginning of the application of GAS there was resistance from the internal auditors. However, with the full support of management, such resistance can gradually be eliminated. The support provided by the management is to provide training related to the use of GAS, especially training for advanced GAS features, so it increases the sense of confidence of internal auditor in using GAS.

Related to the interest to GAS use or complement the GAS that already exists in the company, only Participant A stated that they will complement the existing GAS with other features. Also, participant A will also use GAS in the internal audit process at its subsidiary companies. Meanwhile, other participants felt that the current use of GAS is sufficient.

4.2 The Use of GAS in the Preparation of Transparent and Accountable Financial Statements

The following discussion is presented to answer the second research questions: To what extent do internal auditors believe that the use of GAS improves the transparency and accountability of financial report? The current study aims to determine the use of GAS in the process of preparing the company's financial statements. IT has a very important role in improving the openness that leads to transparency and accountability of the financial statements. It is expected that with the application of IT in the audit process can improve the effectiveness of control mechanisms that assist investors in disciplining management. Previous researchers have proven that the use of technology by the auditor can improve the quality of the audit procedures performed [20] and the quality of the audit results [21].

In the interview process, the researchers asked participants to explain whether the use of GAS produces a transparent and accountable financial statement. The financial reporting process is considered to be transparent if the financial information disclosed thoroughly and nothing is hidden. As well as the financial information publicly disseminated to the parties concerned [1]. The financial statement is considered accountable if GAS can help to observe the board of directors act on behalf of the interests of the company and its shareholders related to financial reporting, helping the independence of internal auditors and the availability of financial information that is relevant, accurate and timely.

The results of the interview showed that not all participants agreed that the GAS assists them in generating transparent and accountable financial statements. Participant A explained that transparency is already a culture within the company as it has been implanted by the founding father of the company. Therefore, the awareness of business unit leaders to do the internal audit is very high. Participant B illustrated audit tools can help the transparency indirectly. For example, the software of management audit allows the internal auditors to compile and storage the audit working papers so that the audit process is well documented. Furthermore, Participant B stated that for an audit software with the main function to extract and analyze data cannot guarantee the transparency of financial statements. This is not in line with that proposed by the Participant C. Participant C

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explained that the audit software that is used to extract and analyze data, therefore it ensures the transparency and accountability of financial statement. Because each data obtained by the auditor cannot be edited so that human intervention on the data source was minimal. In addition, Participant E said that the transparency of financial statement might occur during preparation of financial statement in conformity with applicable accounting standards.

By looking at the results of the interview above, there are differences in perception between all participants on the use of GAS and the transparency and accountability of financial statements, thus it can be concluded that the factor of transparency and accountability in the financial statements may not necessarily encourage internal auditors to use GAS, given the absence of an agreement among all participants. This becomes interesting findings and encourages further research on these two factors.

4.3 Inhibiting Factors of the Use of GAS by Auditor

The factors that are predicted encouraging internal auditors to use GAS have been discussed in previous sections. It is also important to discuss the factors that inhibit the use of GAS. This section will discuss the results of data analysis to the third research question, which is: What factors could be inhibiting the use of GAS perceived by internal auditors?

Based on the interview, all participants experience a very minimal barrier and almost perceived no barriers. As stated by the Participant B, who states:

> *"So far [the use of GAS] has no obstacles at all. Because we are supporting its use, for example by providing a budget for investment in IT, training to internal auditors and motivate them for using GAS".*

On the other hand, other participants stated that the obstacle is only occurred at the beginning of the use of GAS. But this can be resolved, as proposed by Participant C, who stated:

> *"As time passes, we organize a sharing session to internal auditors to discuss how to use a feature and on how to troubleshoot if there is a difficulty. Also, we provide a manual book of GAS".*

However, other participants identified circumstances that discourage auditor to use GAS. Participants A identified the possibility of error during the use of GAS. If an error occurs, internal auditor found it difficult to get a solution from the staff that has skills and more experiences with GAS. This is caused by a very limited staff who expertise and experienced in using GAS. Troubleshooting process done by expert staff takes time so that it impedes the activity of internal audit.

Participant E stated that in his company, there is no or lack of encouragement and strong support from management to use GAS in the internal audit activity. Therefore, commitment from internal audit team to use GAS is lacking. This condition is different with audit firms, especially Big 4 firms, where the use of GAS or other computer tools in the auditing process is necessary. In the context of the internal audit of this company, the use of GAS is not a management priority. The use of GAS is optional and entirely depends on the internal audit department itself.

Participants did not identify any external inhibiting factors for the use of GAS. This condition is understandable, given this study focuses on internal audit context. It is different if the study was done in the context of an external audit. External audit activities must refer to, for example regulations issued by the government, and the need of audit client. These two factors were found as significant factors to GAS use [8].

5. CONCLUSIONS AND FUTURE RESEARCH

The use of GAS by internal auditor is limited. Therefore, this research provides more detailed information about the use of GAS in the different sectors of public companies. This research was conducted by interviewing five internal auditors from the public companies. The following is the conclusion of this research: (1) Factors of perceived ease of use, perceived of usefulness affect the attitude towards using. Participants show a positive attitude towards GAS, therefore it affects their interest in using GAS on internal audit activities. (2) There are differences in perception among the participants regarding the ability of GAS to produce the transparent and accountable financial report. Therefore, the factor of transparency and accountability are not necessarily encouraging internal auditors to use GAS. (3) There are inhibitor

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factors identified for GAS user. These factors are internal factor of company and internal auditor such as management support and commitment the internal auditor to use GAS. This research did not find any external inhibitor factors.

This research provides opportunities for future research, which are, (1) Future research in expected to measure the actual use of GAS by the internal auditor. (2) Conducting further testing on the influence of transparency and accountability factors on the financial report to the intention of using GAS in quantitatively or qualitatively. (3) Future research could examine quantitatively to what extent inhibiting factors affect the intention of the internal auditor to use GAS. Thus, it can be identified the most influenced inhibitor factors to the intention of internal auditor use of GAS.

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