

# IMPACT ANALYSIS OF GENERALIZED AUDIT SOFTWARE (GAS) UTILIZATION TO AUDITOR PERFORMANCES

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## ABSTRACT

This study aimed to understand whether the use of Generalized Audit Software (GAS) in the audit process had an impact on the auditors performance and to acquire conclusions in the evaluation form towards GAS audit process to provide a positive impact on the performance of auditors. The models used to evaluate the impact of GAS were Quantity of Work, Quality of Work, Job Knowledge, Creativeness, Cooperation, Dependability, Initiative, and Personal Qualities. The method used in this research was a qualitative method of analytical descriptive and evaluative, by analyzing the impact of the GAS implementation to the components of the user's performance. The results indicate that the use of GAS has a positive impact on user's performance components.

**Keywords:** impact analysis, audit software, auditor performance

## INTRODUCTION

In the era of a global economy that is very competitive and rapidly changing, companies are required to use information technology to support business processes. All business lines are required to change, real change in the data due to the use of information technology, which is manual data into data in the form of digital data. The change affects all business processes in companies related to information technology changes very rapidly. Those organizations in this regard should be developed the information technology owned and adjust business processes according to the demands of the business processes of the organizational unit concerned. It was stated by Baray, Hamid & Badli (2006) that companies that do not follow technological developments and adjust business processes with technological developments will be missed by companies in similar industries that follow the development of the existing technology.

The development of the information technology industry to change business processes in general, change process performed by the auditor in performing

his job. Previous examined data or documents are currently still paper-based, because documents and data already digital, so the process of data analysis or the document requires a device that can help. In this case, it requires the concept of Computer Assisted Audit Techniques (CAATs). According to Mahzan and Lymer (2014), CAATs used by external or internal auditors can be grouped as electronic audit working papers, fraud detection, Generalized Audit Software (GAS) and continuous monitoring.

According to Hall (2012), GAS is a software that helps auditors to access electronically data files or data that is encoded (digital) and can perform various analyses of the content of such data. GAS can help the auditor to perform data extraction, query data, summarize the data and analyze the data. The function of GAS is growing along with the development of information technology is changing a lot of business processes that was previously paper-based documents into data-based or digital data. GAS is divided into two types, namely commercially available software and internally developed software.

Audit process conducted by auditors using GAS

is expected to be more rapid, precise and accurate. Auditor in this case as the user of GAS should feel the tangible benefits by using generalized audit software, according to the functions of the GAS is petrified auditor to perform data extraction, query data, summarize the data and analyze the data.

Auditor as the GAS user is expected to improve its performance after using GAS in the audit process. The performance of auditors is as the user from the GAS. It is interesting to see how the effects of the use of GAS on auditor performance in terms of the workers in the company's auditor.

GAS is the devices that become a support for the auditor to perform detailed tests or substantive test on data that will be tested. Due to the increasing number of auditors used GAS then raises the question of whether there is the impact of the use of the GAS on the performance of the auditor, and if the use of GAS has an impact on the performance of auditors then, the factors of any of the performance auditor impacted on the use of GAS.

This study has several purposes, among others: knowing whether the use of GAS on the audit process has an impact on the performance of auditors and to determine the factors that impacted by the using of GAS. The benefits of this research, among others: First, the benefits for the researchers are to obtain a complete picture of the impact of the use of GAS by the auditor on the performance of auditors. Second, benefit of the reader, namely as a means, that is informative as well as into the development of the other party to conduct further research.

Another meaning of CAATs technology according to Ismail and Abidin (2009) are used to help the completion of the audit process. The technology used to help the completion of the audit process can be used both by internal and external auditors. The technology helped auditor starting from the collection, extraction of data to the process analysis data. According to Mahzan and Lymer (2014), Classification form of CAATs used by external or internal auditors can be grouped as electronic audit working papers, fraud detection, GAS and continuous monitoring.

From the concept of CAATs, it can be concluded that CAATs is a technique or tool that helps auditors, whether internal auditors or external auditors to conduct the audit so that the audit process can be completed as expected. CAATs help the auditor of the data collection process until the data analysis.

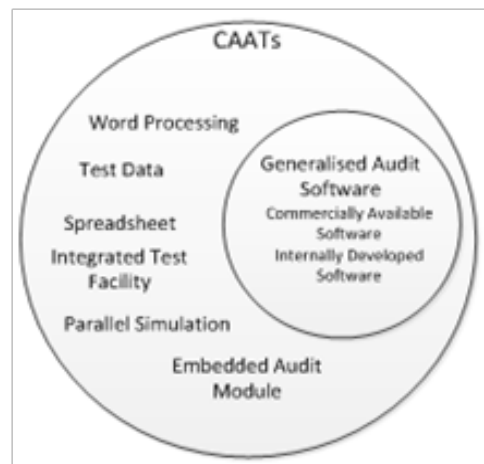
A part of the CAATs is GAS (Ahmi & Kent, 2013). GAS is one form of CAATs that is widely used by auditors as a tool for auditing. GAS used by the auditor to conduct an audit of the data; the data are real-time data or data that should be extracted beforehand from a wide range of applications. GAS is a software or extraction software and data analysis designed specifically to conduct periodic audits and perform a statistical analysis of the data.

GAS is divided into two types, namely commercially available software and internally developed software. GAS is more widely used by

the audit is the GAS which is available commercially (commercially available software) such as IDEA and Audit Command Language (ACL), while for the type of software that is built internally by the company (internally developed software) used more by the internal auditor by the company on a larger scale.

According to Hall (2012), GAS usage increases with the developing application of information systems in companies primarily in public companies. This resulted in audit trail is no longer paper-based but in electronic or file form. With the increase in the electronic form of audit trail, it requires internal auditors to audit the proper use of techniques to maintain its internal controls.

While most audits now take advantage of electronic working papers, audit process itself is often done without automation offered by GAS. Auditors still prefer using traditional audit procedures in forming an audit opinion based on a sample of accounting transactions instead of testing all available data. Therefore, a key question is why audit process by using a sample is still carried out when GAS can help the audit process by performing tests on the entire data. To distinguish between CAATs with GAS which is summarized from the above concepts can be described in the following Figure.



(Source: IT Auditing (Hall, 2012))

The meaning of performance according to Kurniawan, Lubis, and Adam (2012) is a success rate of employees on what their responsibility in achieving a company's goals. Factors that affect performance include motivation, ability, education, knowledge, experience, skills, training, interests, attitudes, personality, physical condition and various other kinds of human needs whether biological, social and egoistic.

Murti and Srimulyani (2013) stated that performance is a result of what employees do, how much the employee contribution to the company and the employee's ability to complete the entire task and responsibility. Factors that influence the performance of employees are the ability and motivation. Ability

consists of IQ and knowledge, while motivation is formed when employees face work situations that moves these employees in order to achieve their goals.

The concept of performance appraisal by Sujadi & Setiyanti (2012) can also be divided into some interrelated dimensions, among others; (1) Quantity of Work, namely the amount of work completed in a given period. (2) Quality of Work, quality of work in accordance with the specified standard. (3) Job Knowledge, knowledge about the work and what are the things which it is responsible. (4) Creativeness, namely creativity to create solutions to the problems that arise in the work. (5) Cooperation, which is the ability to cooperate with others. (6) Dependability, the awareness of a completion of the work to be done. (7) Initiative, the awareness and willingness to expand the responsibilities of the job. (8) Personal Qualities, namely the quality of a worker which includes personality, leadership, attitude and integrity in everyday life.

There are ten standards established and approved by the Indonesian Ikatan Akuntan Publik Indonesia (2010). It consists of general standards, field work standards and reporting standards and their interpretation.

General standards consist of three standards, namely: (1) The audit process should be carried out by someone who has the expertise and technical training as an auditor. (2) An auditor must maintain and promote something related to Independence and Engagements. (3) In the implementation of the audit and the preparation of its report, the auditor shall use the skills of a professional knowledge carefully and thoroughly.

Standards of fieldwork consist of three standards, among others: (1) Works to audit must be planned well and if assistants should be properly supervised. (2) An understanding of internal control should be obtained to plan the audit and determine the nature, timing, and extent of testing to be done during the audit. (3) Sufficient competent audit evidence to be obtained through inspection, observation, inquiry, and confirmation as the basis for an opinion regarding the audited financial statements.

Reporting standards consist of four standards. First, the auditor's report must state whether the financial statements are prepared in accordance with accounting principles accepted in Indonesia. Second, the auditor's report should indicate if there are inconsistencies in the application of accounting principles in the preparation of financial statements of the current period as compared with the application of the accounting principles in the previous period. Third, informative disclosures in the financial statements should be considered sufficient unless otherwise stated in the auditor's report. Fourth, the auditor's report must include a statement of opinion on the financial statements as a whole, or an assertion that such a statement cannot be given.

## METHODS

Based on the scope of the research that will be studied, this type of research is a field research that was assessed with evaluative studies. This study used a qualitative approach. The qualitative research to address problems related to the presence or absence of the impact of the use of GAS on the performance of auditors. The research location in Jakarta, Then the source of data in this study is primary data. Primary data is the field data obtained from interviews, questionnaires and observations directly to the data source. Respondent of this research is internal auditor and external auditor who used the GAS to conduct the audit. Techniques of data collection are done by using the interview is to conduct open and in-depth interviews to auditors users GAS that experience before using GAS and after using GAS. The questionnaire used to the GAS as the initial data before analyzing the impact of the use of GAS on the performance of auditors, and lastly, by using direct observation by observing the use of GAS by the auditor.

## RESULTS AND DISCUSSIONS

It should be emphasized that the primary function of the GAS is to assist auditors in performing the audit process and the completion of the audit. GAS can help the auditor to the data extraction process, organizing data, and data analysis. If GAS can contribute to the performance of the auditor, the auditor will have better performance than if not using GAS. This study focused on the analysis of the components of the performance auditor affected from the use of GAS.

The comparison is made related to the assessment criteria of performance in terms of the auditor at the time of not using GAS and when using GAS, the eight criteria for the performance assessment that is Quantity of Work (the amount of work completed in one certain period), quality of work (quality of work in accordance with the prescribed standards), job knowledge (knowledge about the work and the things what they are responsible), creativeness (creativity to create solutions to the problems that arise in the work), Cooperation (ability to cooperate with others), Dependability (awareness of a completion of the work to be done), Initiative (awareness and willingness to expand the responsibilities of the job), personal qualities (quality of a worker which includes personality, leadership, attitude in everyday life and integrity).

Based on the data and information obtained from the results of observations, questionnaires and interviews to the component quantity of work (the amount of work completed within a certain period), 30 respondents stated that there is an increase in the quantity of work when using GAS. Overall, all respondents stated that the auditor jobs earn more output quantity compared to not using GAS as an audit tool.



More quantity, in this case, means the audit process by using GAS will take over time, making the auditors in the audit team will complete more audit work. All respondents said that they could work with more focus because the GAS analyzed data is already digitalized and the audit procedures performed are clear and facilitated in GAS. Then, by using GAS, all respondents stated that the work can be done more quickly and efficiently, thus, respondents can manage their time better to complete the next job.

Additionally, for the component of Quality Of Work (quality of work in accordance with the prescribed standards), all respondents stated that by using the GAS they achieve a positive impact because of the output GAS is sufficient to be used as audit evidence in accordance with the standard of audit work general standards, standards of field work and reporting standards. Then from the standard time of completion of work all respondents expressed by using GAS process of audit work to be faster so that the standard completion time can be achieved.

Next, for the component of Job Knowledge (knowledge about work and matters that are the responsibility), all respondents admit to have positive impacts by using GAS. They stated that the existing audit procedures are very clear and judgment (assessment) is very minimal. The respondents state that if they follow the existing audit procedures when not using GAS, the auditor will do much judgment (assessment) on the results of the audit and the adequacy of audit data. Also, to implement GAS, all respondents state that they obtain knowledge concerning information system, data and how to use GAS.

Related to the component of Creativeness (creativity to create solutions to the problems that arise in the work), one of the benefits of GAS is to provide a variety of features for data validation, statistical data, and data analysis and reporting on the results of an audit or examination of data. All respondents stated that they become more creative in completing the job or solve a problem related to the audit process. According to the respondents, GAS provides complete assistance in completing each step of the audit work. So if the respondents were not enough to use one method for doing a job then using GAS auditor can work with other methods in order to compare the results for materials analysis auditor.

Then, for the component of Cooperation (the ability to cooperate with others), 28 respondents stated that by using the GAS, they can cooperate in the audit team more solidly and divide the work easier, because the audit work is stored in a digital file in accordance with the type of GAS. Then, if there are problems, it is much easier to conduct discussions for the database is analyzed from the same base or form of output from the GAS. Two respondents stated that by using the GAS, they become more individualistic as they focus more on each other's work making communication, and cooperation becomes scarcer.

For the component of Dependability (awareness

of a completion of the work to be done), all respondents expressed that by using GAS, they have been able to complete works with the minimal help of auditees or other units. It happens because GAS presents detailed features that can be used by auditors in completing audits. When compared with/without GAS, the auditor or respondents has a dependence on audit or other units to complete the audit process.

In addition, for the component of Initiatives (awareness and willingness to expand the responsibilities of the job), the majority of 27 respondents expressed that using GAS provides a positive impact for the respondents to the audit process conducted primarily in terms of initiatives. There are two opinions that can be gleaned from respondents. First, they can provide more analysis than the standards set for GAS provides a full range of features to assist the auditor. Second, by using GAS respondents can analyze from side or a different point in analyzing the data for GAS provides a full range of features. Three respondents stated that they become less initiative by using GAS since they can easily complete the audit work according to standards that have been determined using the GAS.

For the component of Personal Qualities (quality of a worker which includes personality, leadership, attitude in everyday life and integrity), respondents who use GAS stated that they become more aware of the discipline of time completion of work. In addition, using GAS makes them to acquire new knowledge and add value for the respondents as experienced auditors or master device GAS. Then, by using GAS, their integrity as auditors can be maintained because digital data is the subject of an audit or examination of data using GAS, thus, it can be said that the audit process is free of manipulation.

Based on the discussion about the performance of auditors, it can be concluded that, in general, the use of GAS positively impacts both external auditor and internal auditor. For the component of Quantity Of Work (the amount of work completed within a certain period), a positive impact on respondents or in this case the auditors who use GAS produce more quantity of work in one period and are able to monitor the work using GAS faster.

Next, for the component of Quality Of Work (quality of work in accordance with the prescribed standards), respondents achieve a positive impact because the output of GAS alone is sufficient to be used as audit evidence in accordance with the standard of audit works such as general standards, field work standards, and reporting standards. Then, from the standard time of completion of work, all respondents expressed that by using GAS the process of audit work becomes faster.

In addition, for the component of Job Knowledge (knowledge about the work and the things that are the responsibility), all respondents experienced a positive impact by using GAS. They stated that the existing audit procedures are very clear and judgment (assessment) is very minimal. Also, to be able to

use GAS, all respondents stated that they acquire knowledge regarding information systems, data, and how to use GAS.

Next, for the component of Creativeness (creativity to create solutions to the problems that arise in the work), the use of GAS provides positive impact for all the respondents because GAS can finish the audit work without monotonous methods. Respondents can view the audited data from a different point of view by using the features of GAS.

Next, for the component of Cooperation (ability to cooperate with others), most of the respondents who use GAS acquire a positive impact since they can work with the audit team solidly. Few respondents feel they become more individualistic as they focused only using GAS. However, when analyzed, it is more to the issue of teamwork in the audit team because most of them feel that they are more able to work together after using GAS.

For the component of Dependability (awareness of a completion of the work to be done), all respondents felt the use of GAS have a positive impact on them as they become more able to resolve employment with the minimal help of auditees or other units, since GAS provides complete features that can be used by auditors in completing audits.

For the component of Initiative (awareness and willingness to expand the responsibilities of the job), most respondents feel the positive impact of using GAS because it can provide more analysis than the prescribed standards and can analyze from the sides or angles differ in analyzing the data. While a small portion of respondents claimed that they do not have more initiative when using GAS since they can easily complete the audit work according to standards that have been determined using the GAS. If analyzed deeper, the problem is on the initiative level of the respondents themselves.

The last component is Personal Qualities (quality of a worker which includes personality, leadership, attitude in everyday life and integrity). All respondents stated that GAS provides a positive impact to the respondents. For instance, the respondents can be disciplined in time completion of work, add value for the respondents as auditors who are capable in using GAS, and maintain integrity by using GAS.

## CONCLUSIONS

Based on the evaluation of the impact of the use of GAS on the performance of auditors, it can be concluded that, in general, the use of GAS has a positive impact on the performance of auditors. Based on the information, the use of GAS have a positive impact on the component Quantity of Work (the amount of work completed within a certain period), Quality of Work (quality of work in accordance with the prescribed standards), Job Knowledge (knowledge about the work and matters that are the responsibility), Creativeness (creativity to create solutions to the

problems that arise in the work), Dependability (awareness of a completion of the work to be done), Personal Qualities (quality of a worker which includes personality, leadership, attitude and integrity in daily life).

Relating to the component of Cooperation (the ability to cooperate with others) and Initiative (awareness and willingness to expand the responsibilities of the job), respondents from both components are mostly expressed a positive impact related to the use of GAS. However, few respondents state that they do not have a positive impact related to the use of GAS. For the component of Cooperation (ability to cooperate with others), respondents stated that they are not getting a positive impact related to the use of GAS because they become more individualistic as they focused only using GAS. Then, for the component of Initiative (awareness and willingness to expand the responsibilities of the job), respondents have not experienced a positive impact related to the use of GAS since they can easily complete the audit works according to the standards that have been determined using the Generalized audit software (GAS).

Based on the conclusions that are related to the impact of the use of GAS on the performance of auditors, there are several things that are important. First, the use of GAS on a public accounting firm and internal audit unit in the company or government agency should still pay attention to the elements of cooperation in the audit team, or in this case, the leadership of the audit team is important, to make the coordination and cooperation become solid. Second, the use of GAS on a public accounting firm and internal audit unit in the company or government agency taking into account the initiatives that are owned by auditors. This initiative can be improved with targeted training to the use of GAS, so that the auditor can master GAS before assigned to conduct an audit.

## REFERENCES

- Ahmi, A., & Kent, S. (2013). The utilisation of GAS by external auditors. *Managerial Auditing Journal*, 28(2), 88-113.
- Baray, S., Hameed, S., & Badii, A. (2006). Analysing the effectiveness of implementing enterprise resource planning systems in the printing industry. In *European and Mediterranean Conference on Information Systems (EMCIS) 2006* (pp. 1-20). Costa Blanca, Alicante, Spain.
- Hall, J. R. (2012). *IT Auditing*. USA: South Western Cengage Learning.
- Ikatan Akuntan Publik Indonesia (IAPI). (2011). *Standar Profesional Akuntan Publik*. Jakarta: Salemba Empat.
- Ismail, N. A. & Abidin, A. Z. (2009). Perception towards the importance and knowledge of information technology among auditors in Malaysia. *Journal of Accounting and Taxation*, 1(4), 61-69.

- Kurniawan D., Lubis A.R., & Adam, M. (2012). Pengaruh budaya kerja dan motivasi kerja terhadap kinerja karyawan International Federation Red Cross (IFRC) Banda Aceh. *Jurnal Manajemen Pascasarjana Universitas Syiah Kuala*, 1(1), 132-146.
- Mahzan, N. & Lymer, A. (2014). Examining the adoption of computer-assisted audit tools and techniques: Cases of generalized audit software use by internal auditors. *Managerial Auditing Journal*, 29(4), 327-349.
- Murti H., & Srimulyani, V. A. (2013). Pengaruh motivasi terhadap kinerja pegawai dengan variable pemediasi kepuasan kerja pada PDAM Kota Madiun. *Jurnal Riset Manajemen dan Akuntansi*, 1(1), 10-17.
- Olansami, O. O. (2013). Computer audit techniques and fraud detection. *Research Journal of finance and accounting*, 4(5), 68-79.
- Sujadi, & Setiyanti S. W. (2012). Perancangan penilaian kinerja pegawai berdasarkan kompetensi Spencer. *Jurnal STIE Semarang*, 4(1).