

## Factors affecting the use of generalized audit software in audit process in Indonesia

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### ABSTRACT

The financial world has grown significantly in the last five years, where insurance companies, finance companies, lending and borrowing between page users will increasingly grow along with technological developments. This should be an important concern for auditors because of the increasing number of transactions in digital and cyberspace, the audit methods or procedures must keep abreast of the times. This study hypothesizes the function of technology can help the performance of the auditor. Data collection is done by distributing questionnaires to auditors who work at the Public Accounting Firm (KAP). The analysis technique used is multiple linear regression. The results of the study will be presented after the data collection process is complete.

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## 1. Introduction

Today's businesses have moved from traditional to modern, from the meeting between the seller and the buyer physically has turned into a meeting in cyberspace and this change is growing rapidly so that if business people do not change the way they do business, it will be difficult to survive in the business. To meet the challenges of rapid advances in clients' use of information technology, auditing standards recommend that auditors adopt computer-assisted auditing (CAAT) tools and techniques. However, recent research (Bierstaker, 2014) shows that CAAT acceptance is quite low and varies between companies. Examining the auditor's acceptance of CAAT is important because researchers and practitioners argue that using CAAT will increase the efficiency and effectiveness of the audit. Data were obtained from 82 auditors from large, national, regional and local companies. The results show that performance expectations and facilitation conditions such as organizational and technical infrastructure support influence the likelihood that auditors will use CAAT. These results suggest that to increase the use of CAAT, audit firm management may wish to develop a training program to increase the level of ease with which auditors can use CAAT. In addition, the management of the Public Accounting Firm may wish to increase their organizational and computer technical support for CAAT to encourage its use. This is indeed a challenge in itself for a Public Accountant Firm to have a technology infrastructure and a capable information system so that it can help or optimize the ability of auditors to provide the best service to clients. Finding tools for the process of selecting, analyzing, and structuring the most relevant information is not an easy task for auditors. In an office where the information system is not yet available, auditors and management will never get real time information to make effective decisions. Business intelligence systems help make efficient decisions and increase the productivity of economic entities. Investments made by the Public Accounting Firm will produce true, relevant and actual information, which can be saw by auditors and improved by management.

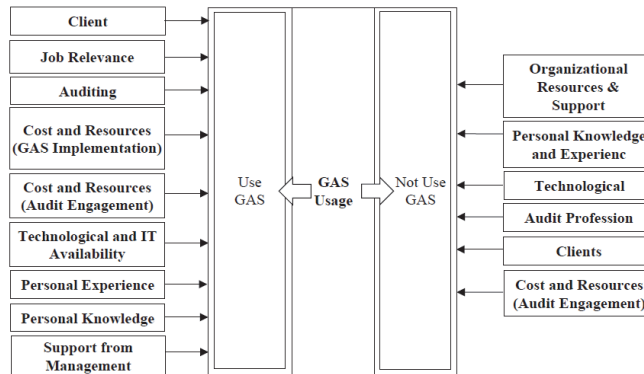
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This study will show whether a technological approach can have an influence on auditor performance so that it is more efficient and effective. The aim of this research is to demonstrate that the performance expectancy, effort expectancy and social influence has a significant influence on the usage of the General Auditing Software (GAS).

**2. Previous Study**

Ahmi and Kent (2012) stated that Generalized audit software (GAS) is a tool used by auditors to automate various audit tasks. (Singleton & Ph, 2006) stated the benefits of using Generalized Audit Software (GAS) are firstly to develop a number of computerized anti-fraud audit procedures that are regularly executed against an organization's database, secondly to test internal controls embedded in them, third to be more efficient to meet all the responsibilities and duties assigned to the auditor. There are nine main factors affecting the use of GAS among external auditors using non-GAS as shown in Fig 1.



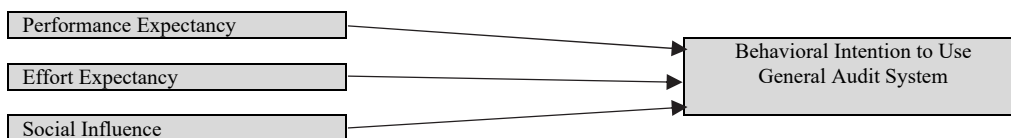
**Fig. 1.** The structure of the factors influencing on the use of GAS among external authors

This study uses the UTAUT model to analyze the factors that influence the use of GAS in the audit process in Indonesia. The UTAUT model is the newest model discovered by Venkatesh et al. (2003) and this model is considered the most appropriate model. UTAUT shows that four core constructs are direct determinants of technology acceptance (intentional behavior) and use (behavior): Performance Expectations, Business Expectations, Social Influence, and Facilitation of Conditions. According to research (Kim, Kotb, & Eldaly, 2016; Algharibi & Arvanitis, 2011) the impact of GAS features on actual use of GAS is similar in the Egyptian external audit profession. When they use the basic features of GAS which have low conceptual complexity, they use them more often and spend more time on them. They consider that the features are more useful and easier to use than GAS features with high conceptual complexity (Dwirandra, 2015; Rosli, 2012). Kim et al. (2016) found GAS is useful when influenced by colleagues, supervisors, or organizations whereas internal auditors consider that GAS is easy to use when influenced by support, training, or management support and useful when influenced by cognitive factors associated with the result of GAS. In contrast, the impact of GAS features on actual use of GAS is similar in the Egyptian external audit profession. When they use the basic features of GAS that have low conceptual complexity, they use them more often and spend more time on them. They consider that the features are more useful and easier to use than GAS features with high conceptual complexity. As the conceptual complexity of GAS features increased, perceived ease of use had a stronger effect on the use of GAS by Egyptian external auditors. Wicaksono and Lusianah (2016) found that the use of GAS has a positive impact on auditor performance. Based on information, the use of GAS has a positive impact on the components of Work Quantity (amount of work completed in a certain period), Quality of Work (quality of work according to specified standards), Job Knowledge (knowledge of work and matters of responsibility), Creativity (creativity to create solutions to problems that arise in work), Dependency (Awareness of completion of work to be done), Personal Qualities (qualities of workers which include personality, leadership, attitude and integrity in everyday life). Constructed from those previous studies, the hypotheses of this research are:

H<sub>1</sub>: Performance expectancy has a significant influence on the usage of the General Auditing Software

H<sub>2</sub>: Effort expectancy has a significant influence on the usage of the General Auditing Software

H<sub>3</sub>: Social influence has a significant influence on the usage of the General Auditing Software



**Fig. 2.** The research method

The population used in this study are auditors who work at the Public Accounting Firm in Indonesia as respondents to determine the factors that influence the interest in using audit techniques around computers. The study uses nonprobability sampling as a method of determining the sample, with certain criteria or considerations as a sampling technique, namely purposive sampling technique. These criteria are auditors who have worked for at least one year or more and have audited financial statements with the aim that the sample taken understands and is familiar with auditing around computers.

The definitions of the variables analyzed in this study are:

1. Performance expectations (X1), is a level of confidence in an individual in using and using the system so that performance can increase (Venkatesh et al. 2003). In this study, performance expectations were measured by 5 questions.
2. Business expectations (X2), is associated with the efficiency and effectiveness as well as the ease with which users can do a job (Pratama, 2008). According to Venkatesh and Davis, (2000) a very easy use of information technology will reflect a person's feelings about the system itself and lead to the use and use of the system. In this study, business expectations were measured by 6 questions.
3. Social influence (X3), is an environment where other people can believe an individual that the use and utilization of a system can be influenced or the environment seems to convince that a system must be used (Venkatesh et al. 2003). In this study, social influence was measured by 5 questions.
4. Interest in using audit techniques around computers (Y), is a level of desire or intention of users in using and utilizing auditing around computers (Venkatesh et al. 2003). Interest in using audit techniques around the computer to be studied is measured by 5 questions. The questionnaire used was adopted and modified as necessary according to the needs of researchers from the research of Handayani (2005) and Venkatesh et al. (2003) as measured by a four-point scale, namely a 4-Likert scale.

The research design of this thesis is a quantitative study with primary data using a questionnaire to gain complete knowledge about the participants' thoughts on UTAUT in GAS. Participant demographics including titles, experience and positions in accounting firms will produce a suitable sample for this study. The population in this study were all auditors who worked at the accounting firm in Jakarta, Indonesia. This study used a purposive sampling method with more than one year of work experience in the assurance team.

**Table 1**  
Operational Variables

Variable	Dimension	Notation	Scale	Instrument
<b>Independent</b>				
Performance expectancy	The usage	PE1	Likert	questionnaire
	The easiness of interaction	PE2	Likert	questionnaire
	Easiness perception	PE3	Likert	questionnaire
	The easiness of interaction	PE4	Likert	questionnaire
	Easy to use	PE5	Likert	questionnaire
Effort Expectancy	Motivation	EY1	Likert	questionnaire
	Easiness perception	EY2	Likert	questionnaire
	Easiness perception	EY3	Likert	questionnaire
	Performance	EY4	Likert	questionnaire
	Accuracy	EY5	Likert	questionnaire
	Easiness perception	EY6	Likert	questionnaire
Social Influence	People Factors	SI1	Likert	questionnaire
	People Factors	SI2	Likert	questionnaire
	Friends Factors	SI3	Likert	questionnaire
	People Factors	SI4	Likert	questionnaire
	Friends Factors	SI5	Likert	questionnaire
<b>Dependent</b>				
Behavioral Intention to use General Audit System	To use more often	GA1	Likert	questionnaire
	Easy to use	GA2	Likert	questionnaire
	Planning to use	GA3	Likert	questionnaire
	To use more often	GA4	Likert	questionnaire
	To use more often	GA5	Likert	questionnaire

### 3. Result & Discussion

This research is using a purposive sampling that based on the criteria with total samples of 74 participants with the detail of samples calculation as of follows:

**Table 2**

## Research Samples

Total questionnaire participants	82
Not suitable with the criteria	7
<b>Total Samples</b>	<b>74</b>

The samples required experience in assurance more than a year and profession as an auditor therefore there are 7 samples that are categorized as “not suitable with the criteria” based on the requirements.

*3.1 Validity Test*

This research is using SPSS to run the validity test and using Bivariate Pearson correlation for each one the other question in the questionnaire. Table below demonstrates the validity for each one question:

**Table 3**

## Validity Test

Item	R-test	R-table	Description
PE1	0,727	0,235	Valid
PE2	0,544	0,235	Valid
PE3	0,629	0,235	Valid
PE4	0,819	0,235	Valid
PE5	0,799	0,235	Valid
EY1	0,744	0,235	Valid
EY2	0,770	0,235	Valid
EY3	0,797	0,235	Valid
EY4	0,817	0,235	Valid
EY5	0,757	0,235	Valid
EY6	0,792	0,235	Valid
SI1	0,656	0,235	Valid
SI2	0,866	0,235	Valid
SI3	0,845	0,235	Valid
SI4	0,82	0,235	Valid
SI5	0,784	0,235	Valid
GA1	0,862	0,235	Valid
GA2	0,752	0,235	Valid
GA3	0,789	0,235	Valid
GA4	0,883	0,235	Valid
GA5	0,916	0,235	Valid

Based on the table above, showed that with the t-table in the number of approximately 74 samples with 5% tolerance as 0,235, all the indicators are valid that can be used for further statistical tests.

*3.2 Reliability Test*

Reliability testing uses the Alpha Cronbach formula because this research instrument is in the form of a questionnaire. If  $\alpha > 0.90$ , reliability is perfect. If alpha is between 0.70 - 0.90, the reliability is high. If alpha is 0.50-0.70, the reliability is moderate. If  $\alpha < 0.50$  then reliability is low. If alpha is low, there may be one or more unreliable items.

**Table 4**

## Reliability Test

Variable	Cronbach's Alpha	N of Items	Description
Performance Expectancy (X1)	0,741	5	High
Effort Expectancy (X2)	0,869	6	High
Social Influence (X3)	0,851	5	High
General Audit Software (Y)	0,894	5	High

Table 4 above is showing to the research that the samples are reliable (with all Cronbach's alpha as high category) and can be used for further statistical tests.

*3.3 Statistical test*

In order to test the hypothesis, a statistical test is a must in quantitative research. Therefore, the statistic test of this research is given in Table 5 as follows,

**Table 5**

The results of R-Square, Adjusted R-Square

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.909 <sup>a</sup>	0.827	0.819	1.24940

a. Predictors: (Constant), X3, X1, X2

**Table 5**

The results of ANOVA test (Continued)

Model	Sum of Square	df	Mean Square	F	Sig.
Regression	520.851	3	173.617	111.221	.000 <sup>b</sup>
Residual	109.271	70	1.561		
Total	630.122	73			

a. Dependent Variable: Y

b. Predictors: (Constant), X3, X1, X2

**Table 5**

The results of regression analysis (Continued)

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	-.186	1.228		-.152	.880
	X1	.126	.109	.090	1.153	.253
	X2	.240	.093	.260	2.577	.012
	X3	.606	.095	.608	6.347	.000

a. Dependent Variable: Y

The above tables convey that the independent variables have almost explained the dependent variables with adjusted R-square 81,9% and with the sig. of < 5% the model has fitted to the data set and the independent variables significantly influence the dependent variable simultaneously.

The result of the t-test from the table above is showing that the X1 which is performance expectancy did not influence (sig > 5%) the use of general audit software. The researcher acknowledges the usage of general audit software requires experience and the auditor has to have a strong logic to run the software analysis, nevertheless, this can be taught and learned along the work of the assurance. The X2 (effort expectancy) and X3 (social influence), both of them influence the using of general audit software significantly (sig < 5%). In the work of assurance nowadays, value added auditors are more respected than others, the usage of general audit software can bring such a value added to the clients, because of the functions, details and the sophistication of the audit software can speed up the work with the best quality

## 5. Conclusion

This research has shown that the performance expectancy did not influence the use of General Audit Software significantly and both effort expectancy and social influence have influenced the use of General Audit Software. This research can benefit the auditors to always use General Audit Software to improve and accelerate the daily audit work by using audit software and this new way of work can be influenced among the peers or enforced from the accounting firm itself to their auditors.

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