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Analysis on Behavioral Intention of Financial Auditors in Adopting Big Data Analytics

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ABSTRACT

The rapid development of technology brings significant changes to all business activities, where auditors need to collaborate with IT. A financial auditor's ability to adopt the system is caused by several factors that encourage greater audit competence, where in-depth analysis is needed to identify all these factors, so this research aims to analyse financial auditors in adopting Big Data Analytics in financial report audits with the UTAUT Model. This research uses explanatory quantitative method by collecting 70 auditors from audit public firm in Jakarta area which was processed with SmartPls ver3. The results found all variables have a positive effect on behavioral intention. However, the relationship is not moderated by gender and Audit firm size. Therefore, large and small Audit firms' size have already adopted big data analytics, where the advances of companies require auditors to be able to practice. Auditors have adopted big data analytics without gender constraints which in the future may adopt more advanced technologies such as artificial intelligence and others to support improved audit quality, thereby providing motivations that change the behavior of auditors.

Keywords: *Big Data Analytics; Financial Auditors; UTAUT Model; Audit Quality*

INTRODUCTION

Business transformation in the era of the Industry 4.0 revolution has grown rapidly marked by significant data growth that has led to the big data phenomenon that introducing several of modern technologies to improve corporate performance (Tavares et al., 2022). Supported by Canaday (2020) changes in corporate infrastructure showed 69% success in achieving strategy, where there were 67% top management concerns with the development of the system. Therefore, it affects all departments in the business, especially those with non-IT backgrounds like accounting, finance, and others to collaborate with advanced systems to improve their working progress in real-time (Khin & Ho, 2019).

Accounting has undergone a variety of changes ranging from manual to automatic systems, which accelerates the presentation of financial statements in real-time (Kroon et al., 2021). Along with the process of recording transactions until the financial information influences the auditor in conducting system-based audit investigations and execution (Rosati et al., 2019). According to Chae et al. (2020) auditors need to collaborate with technology in carrying out the audit process to improve the quality of audit reports. Kurniawan & Mulyawan (2023) show that financial auditors have collaborated with IT auditors in conducting audit activities to improve the cybersecurity of

companies that have integrated with technology adoption. Omitogun et al. (2019) found the growing data could be a major challenge for auditors to collect data and give judgment-based evidence as it caused companies to adopt technologies in storing, analyzing, and presenting visualization data accurately and faster.

Bhimani & Willcocks (2014) stated there are 35 – 50% of data growth occurs every year in companies, whereas Alles (2015) mentioned data development is 6x bigger than other technological developments. Furthermore, it is demonstrated by volume growth of 40% at a data processing speed of 2.5 quintillion bytes per day, resulting in data variations that must be tested before processing, modeling, and visualization (Rezae & Wang, 2019). The right use of analytics on big data helps provide hidden information, increase added value, and broaden insights related to customer growth trends, cost allocation, and another improvement the performance (Munoko et al., 2020).

However, Dagiliene & Kloviene (2019) found financial auditors working in public accountant firms have not fully used big data analytics in their audits and found that auditors have not been able to adapt to implementing big data analytics because they are not accustomed and untrained to implement the system. It requires an understanding of the factors that influence the use of big data analytics in auditing (Vasarhelyi et al., 2015). Furthermore, Kokina & Davenport (2017) explain that the audit's inability to operate technology poses a risk to the interpretation of judgments and provides inaccurate analytical results. Therefore, Public Accountant Firms needs to focus on the development of audit performance with technology that can improve audit quality, by adjusting to audit regulatory rules to understand transaction ID, application of information systems to clients, and operational automation (Sirois et al., 2016).

According to Cabrera et al. (2019); Al-Hiyari et al. (2019); and Mohammed et al. (2015) adopted the UTAUT Model and found that performance expectancy, effort expectance, social influence, and facilitating conditions positively influenced the behavioral intention to use Big Data Analytics. Furthermore, Aghimi et al. (2021) also found that all variables have a positive and significant influence on the behavioral intention of auditors in using big data analytics, which supported by Raguseo (2018) users decided to adopt big data analytics considering the company's working environment and facilities that encourage the development of their competences. However, several studies also indicate audit gap expectations caused by audit judgments that are not in line with and relevant to public and corporate expectations (Astolfi, 2021; Deepal & Jayamaha, 2022), Where the organization needs to develop auditing capabilities that will be an opportunity in the future, so that it will affect auditing behavior in adapting to technology during auditing activities (Kurniawan & Mulyawan, 2023).

Therefore, the study aims to analyze individual factors in financial auditors in applying big data analytics to improve the execution and audit outcomes that affect users of financial statements to make decisions efficiently. Furthermore, technological developments that continue to advance, require research to analyze how auditors decide to adopt big data analytics with the UTAUT Model, which provides information to minimize the auditor gap with the development of technology by identifying the factors that determine auditor behavior to be open to changes.

Several previous studies adopted the UTAUT Model as a framework to help identify, analyze, and evaluate financial auditors in adopting technologies to support auditing performance effectively, where the hypothesis development of this research:

The Influence of Performance Expectancy on Behavioral Intention

In measuring how the auditor wants to adopt technology, it is important to consider the benefits resulting from improved performance in the workplace (Venkatesh et al., 2003). Rezaee & Wang (2019) found that big data analytics can help auditors during the audit process by helping to complete audit tasks faster and can improve the quality of audit results by discovering hidden insight, bigger potential anomaly in technology, and investigate manipulation in e-document.

Several previous research by Sahid et al. (2021); Mohamed et al. (2019); Aghimi et al. (2021), found that performance expectancy positively and significantly affects the behavioral intention of the auditor. Performance expectancy has the greatest influence on behavioral intention because it improves performance flexibly and effectively by expanding insight to find hidden evidence that supports audit assessments (Mohamed et al., 2019). Cabrera et al. (2019) found that there is a positive influence between performance expectance and behavior intention when there is a potential opportunity to improve performance. It is supported by Rosati et al. (2019); Munoko and al. (2020); and Kurniawan & Mulyawan (2023) through the implementation of artificial intelligence to improve data analytics quickly and accurately with the collaboration of financial auditors and IT audits to improve cybersecurity in both clients and auditors. However, Autor (2015) and Astolfi (2021) revealed a gap that arose in individual abilities with technological advances, where auditors tend to still have audit gap expectations.

The introduction of audit gap expectations theory led to a decline in public confidence in auditors, which was initiated

in 1974 by Ligio and updated by Porter in 1993 explaining the audit expectation-performance gap theory caused by some vulnerabilities such as skill gap, regulation gap, and knowledge gap that affect differences in public expectations with audit results (Deepal & Jayamaha, 2022). It's relevant to the variable performance expectancy which explains that auditor performance can undergo rapid improvement, which changes auditor behavior to be open to change as a future opportunity (Aghimi et al., 2021). Therefore, the hypothesis of this study is:

H_1: Performance expectancy has a significant positive impact on behavioral intention.

The Influence of Effort Expectancy on Behavioral Intention

The intention of a person to use a system is influenced by the complexity of the system, when the auditor finds it easy to operate big data analytics, then the auditor tends to intend to adopt and use the big data analysis, otherwise when the big data analytics is difficult to operationalize then the auditor tends not to use those big data analytics (Rezaee & Wang, 2019). Auditors need time to undertake training and adjustments in the performance of audits, thus potentially posing the risk of misinterpretation of audit information resulting in errors in decision-making by stakeholders (Dagiliene & Kloviene, 2019).

According to Wang et al. 2022; Sahid et al. 2021; Queiroz et al. (2019) showed that effort expectancy has a positive and significant influence on behavioral intention, where conducting audit procedures in remote became much easier and more flexible. Data searching with the help of the Internet facilitates the collection of e-documents and analysis without excessive costs (Rosati et al., 2019). However, Mohamed et al. (2019) in his research stated that although effort anticipation has a positively influential effect on behavioral intention, effort expectancy is not a significant factor that affects behavioral intentions. Then, it is confirmed by Calderon & Gao (2021) that increasingly varied use of the system in auditing, in addition to improving auditor performance also promotes reluctance because auditors need to adjust to new features. Kurniawan & Mulyawan (2023) stated broadly technology has different implementation patterns even though it has the same goal of improving the accuracy, speed, and accuracy of information (Microsoft Azure, Cloud, etc).

However, Widuri et al. (2016) and Munoko et al. (2020) explain that advances in technology help auditors identify anomalies in massive data growth build comprehensive judgments as a basis for presenting opinions and improve audit report quality. Therefore, the hypothesis in this study is:

H_2: Effort expectancy has a significant positive impact on behavioral intention.

The Effect of Social Influence on Behavioral Intention

Social influence refers to the extent to which other people's opinions can influence one's use of technology (Venkatesh et al., 2003). Supportive support by leaders for financial auditors to use big data analytics can affect whether they adopt big data analysis (Janvrin et al., 2017). Some of the previous studies by Cabrera et al. 2019; Handoko & Chu (2021); Shahbaz et al. (2021) revealed that social influence has a significant positive influence on auditor behavioral intentions in adopting technology. When individuals know and become familiar with a technology, they tend to invite others to use it, so the rate of use of a technology can increase (Nensi et al., 2015). Janvrin et al. (2009) found that encouragement from superiors influenced the intention to commit a behavior.

However, Queiroz et al. (2019) and Mohamed et al. (2019) found that there was no influence of social influence on the behavioral intention of auditors to adopt and use big data analytics. This is due to the lack of the company's working environment that encourages employees to adapt, thus affecting the mentality that affects the increased skill gap (Autor, 2015; Kumaraswamy et al., 2018). In addition, it has an impact on the inability to respond to the needs of the community, where with criminals that have been integrated into technology, it causes auditors to be unable to disclose all information to stakeholders broadly (Astolfi, 2021). The working environment affects how auditors adapt to adopting data analytics when their team decides to use the tools to help them in audit activities (Kokina & Davenport, 2017). Therefore, the hypothesis in this study is:

H_3: Social influence has a significant positive impact on behavioral intention.

The Influence of Facilitating Conditions on Behavioral Intention

Facilitating conditions refers to the extent to which auditors will use auditing technology depending on the training and availability of software provided by the company (Hiyari et al., 2019). With adequate facilities, auditors practice technology to assist audit procedures on clients and increase the accuracy of information to ensure all transaction records and information (Munoko et al., 2020).

Several previous research results by Queiroz et al. (2019); Shahbaz et al. (2021); Mohamed et al. (2019) showed that facilitating conditions had a positive influence on behavioral intentions in operating technology on

audit activities. The public accounting firm role is required for auditors to learn and be able to adopt technology (Handoko & Chu, 2021). However, a study from Kolbjørnsrud et al. (2017) revealed that 44% of middle-top managers see change as a threat, thereby limiting the capacity of under-facilitated employees to support their employees. Employee competence to adopt new technology is influenced by the awareness of leaders to increase capacity and resource competence by providing adequate facilities, which in addition to being tools that facilitate the completion of work in an integrated also motivate employees behavioral to be open to dynamic change (Gupta et al., 2020). Therefore, the hypothesis in this study is:

H_4: Facilitating conditions have significant positive impact on behavioral intention.

Influence of Performance Expectancy on Behavioral Intention Moderated by Gender

Venkatesh et al. (2003) suggest that gender can be used as a moderator of performance expectancy to behavioral intentions with results that can vary between genders, where the strongest influence is felt by men gender. This study aimed to analyze whether gender affects auditor performance in practicing technology because with gender differences shows how the auditor communicates the findings with the support of adequate data visualization to make it easier for the user to understand the information without the risk of misunderstanding in interpreting the results of the audit. Therefore, the hypothesis to be tested in this study is:

H_{5a}: Gender can moderate the influence of performance expectancy on behavioral intention.

Influence of Effort Expectancy on Behavioral Intention Moderated by Gender

Chauhan et al. (2018) found that effort expectancy affects behavioral intention with gender being more dominant for women than men, meaning the ease of use of the system is a major consideration for women to adopt it. This study aimed to analyze whether gender affects auditor performance in the practice of technology, where majority gender in auditor's team is male (Widuri et al., 2016). Therefore, the hypothesis in this study is:

H_{5b}: Gender can moderate the influence of effort expectancy on behavioral intention.

Influence of Social Influence on Behavioral Intention Moderated by Gender

The influence of social influence on behavioral intention is gender-dependent, the effect is strongest for women (Venkatesh et al., 2003). However, Chauhan et al. (2017) suggest that the influence is significant for men to make his team to use advance technology that be able to finish their job effectively. The result is supported by a study by Rosati et al. (2019); Munoko et al. (2020); Calderon & Gao (2021) that the rapid rate of crime that adapts to technology is driving companies and practitioners to thrive so as not to block investigations that affect the decline in public confidence in the world of industry and regulation, as by Deepal & Jayamaha (2022) as a result of the outbreak of fraud cases by World com, Enron, and Xerox in 1990 – 2000s. So, the hypothesis in this study is:

H_{5c}: Gender can moderate the influence of social influence on behavioral intention.

Influence of Performance Expectancy on Behavioral Intention Moderated by Audit Firm Size

The emergence of demands to maintain reputation and produce good audit quality can strengthen the intention of auditors working at audit public firm to adopt big data analytics to facilitate auditors to improve their performance (Dagilienė, & Klovienė, 2019; Oyewo et al., 2021). According to Widuri et al. (2016) audit firm size has an impact to improve audit performance because it has developed an in-house system to help analyze and evaluate audit data in real-time. In the dynamic of competition, the industry is driving competition to adopt technology so as not to be disrupted by the developments of an era, where auditors of large public firms have clients who have already used the technology, thereby affecting the operational changes within the company to integrate the technology in the audit (Kokina & Davenport, 2017).

However, measurements need to be further traced to identify audit developments in the practice of technology supported by audit firm size (Kurniawan & Mulyawan, 2023). Therefore, the hypothesis in this study is:

H_{6a}: Audit firm size moderates the influence of performance expectancy on behavioral intention.

Influence of Effort Expectancy on Behavioral Intention Moderated by Audit Firm Size

According to Oyewo et al. (2021) found that large Public Accounting Firm such as Big 4 and non-big 4 that have large resources can invest in advanced technologies so that they can adopt advanced technology in the audit process and can provide facilities for the facility for auditors to use technologies such as big data analytics, so the size of the Public Accounting Firm has a positive impact on the ease in the use of big data analytics. However, Kurniawan & Mulyawan (2023) found that audit firms in the Greater Jakarta Area was engaged in the

development of a data analytics system to improve greater chances of the performance of auditors in investigating increasingly large transaction data.

The use of technology facilitates the auditor in fulfilling their responsibilities without losing their audit knowledge even though it has been integrated into the technology (Alles, 2015). In addition to providing facilities from the audit firms provides bigger chance for auditors to gain greater opportunities by collaborating with the IT sector to get wider findings that appropriate to support audit opinion and judgment for financial users. Therefore, the hypothesis in this study is:

H_{6b}: Audit firm size moderates the influence of effort expectancy on behavioral intention.

The Affect of Social Influence on Behavioral Intention Moderated by Audit Firm Size

Support from leaders and colleagues can influence auditors working in big audit firm to use big data analytics to improve auditor's performance in producing audit reports (Oyewo et al., 2021). Previous study of Kokina & Davenport (2017); Munoko et al. (2020); Calderon & Gao (2021) also represent the result that the high need for auditors to adopt modern systems caused by companies as clients have been using technology to drive auditors to adapt to change, so in order to meet the expectations of stakeholders, auditors need to update their capabilities in order to prevent the risk of audit activities in collecting data and interpret the result. Therefore, the hypothesis in this study is:

H_{6c}: Audit firm size moderate the influence of social influence on behavioral intention.

Influence of Facilitating Conditions on Behavioral Intention Moderated by Audit Firm Size

Oyewo et al. (2021) suggests that audit firm size can affect the use of technology because larger firms tend to have available resources for training and support in its use. However, Kurniawan & Mulyawan (2023) found in their study in Greater Jakarta Area that various sized audit firms began to develop the use of advance data analytics to facilitate auditors' investigation based on big data and find important points that identify potential anomalies and some hidden information to improve auditor's judgment that will make investor and creditor gain wider knowledge in their decision to put trust on the company's performance. The findings in previous research describing the firm's audit position also influenced the conditions for adopting technology because Jakarta is a large and dense city of industry activity. Therefore, the hypothesis in this study is:

H6d: Audit firm size moderate the influence of facilitating conditions on behavioral intention.

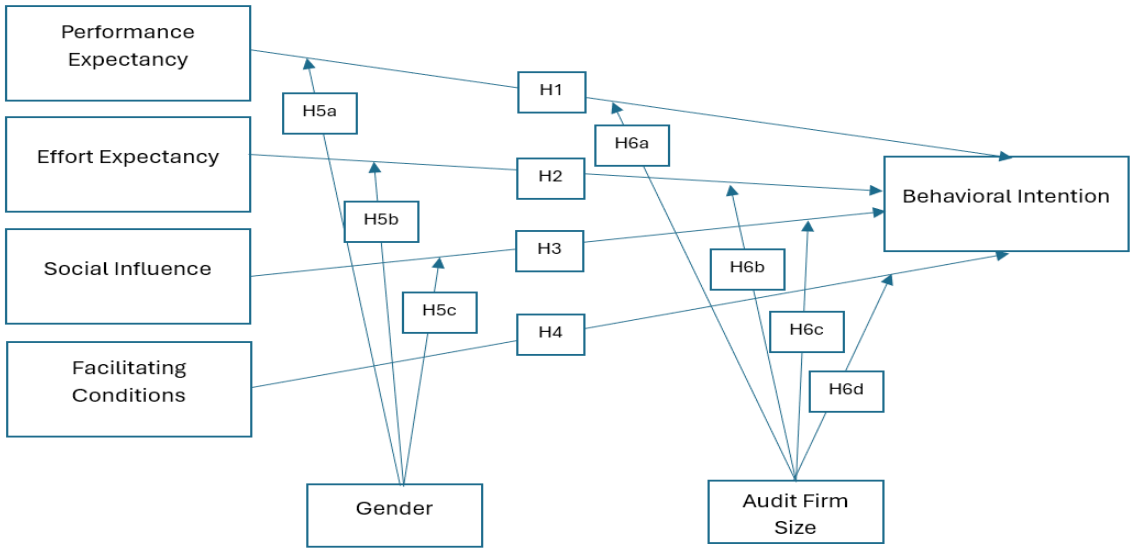

Figure 1. Research Framework

METHODS

Research Methodology

This research uses explanatory quantitative methods with data collection techniques that obtained 70 samples with financial auditor criteria in the region of Jakarta and has used big data analytics. In determining the number of samples, this study uses a formula from Roscoe's theory, where Sugiyono (2010) stated that in a study that performed analysis with multivariate (colleration or double regression), the sample membership was at least 10 times the number of variables.

Furthermore, the Kurniawan & Mulyawan study (2023) uses Roscoe's theory to gather data on auditors working in the Greater Jakarta area, but what makes a distinction is that the Kurniawan and Mulyawan (2023) leads to auditors with a minimum assistant manager position, where in the study is not targeted to a specific position. The data collection was targeted at auditors in Audit Public Firms in Jakarta Area, where according to the Directory data by Ikatan Akuntan Publik Indonesia (IAPI) in 2020 there were 287 audit public firms. However, with the high turnover that occurred, it was difficult to find the amount of audit data, so sampling was carried out with non-probability sampling with the number of respondents in this study is 70 respondents, where the study consists of 7 variables, where there are 4 independent, 1 dependent, and 2 moderating variables by distributing the questionnaire through a form filled in according to the criteria of the respondent. To improve the quality of the research, researchers have developed research strategy.

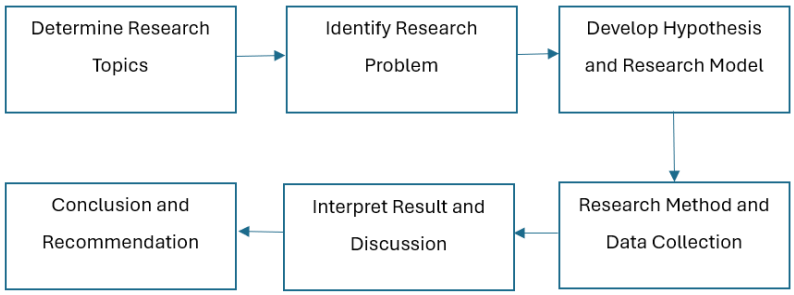

Figure 2. Procedures of Research Strategy

The researchers developed a questionnaire by compiling several indicators that are tailored to the research variables that can be seen in the table as follows:

Table 1. Variable Operations

Variable	Indicators	Reference
Performance Expectancy (X1)	• Big data analytics improves my performance in conducting audits. • Big data analytics conduct audits efficiently. • Big data analytics makes me effective in completing audits. • Big data analytics in my job increases audit results. • Big data analytics gives me an advantage in presenting an audit report.	(Al-Hiyari et al., 2019; Shahbaz et al., 2021; Mohamed et al., 2019)
Effort Expectancy (X2)	• I understand how to use big data analytics in audit. • Big data analytics is not complicated to use. • I feel the use of big data analytics is easy to operate in finding hidden information. • It doesn't take a long time for me to understand in using big data analytics. • I don't need many efforts using big data analytics.	(Al-Hiyari et al., 2019; Queiroz et al., 2019)
Social Influence (X3)	• My supervisor encouraged me to use big data analytics. • My colleagues encouraged me to use big data analytics. • Audit firm where I work supports the use of big data analytics.	(Chauhan et al. 2017; Mohamed et al., 2019; Oyewo et al., 2021)
Facilitating Conditions (X4)	• The audit firm where I work has facilitated me to adopt big data analytics. • I have enough knowledge to use big data analytics. • There are colleagues who can help me when facing difficulties in using Big Data Analytics. • There is training provided by the audit firm so that it makes it easier for me to use the big data analytics.	(Al-Hiyari et al., 2019; Mohamed et al., 2019; Oyewo et al., 2021)

Behavioral Intention (Y)	• I intend to use big data analytics in auditing. • I will conduct audit procedures by using big data analytics. • I will use big data analytics more frequently.	(Al-Hiyari et al., 2019; Queiroz et al., 2019; Shahbaz et al., 2021)

Data Analysis Method

According to Hair et al. (2019) PLS is a multivariate statistical technique to test predictive relationships between variables by seeing if there is an influence between all variables by using SmartPLS ver 3 to support data processing and interpret the result. According to Ghozali et al. (2015) the PLS measurement model consists of an outer model and a structural model (Inner model). Through the evaluation of the measurement model there are convergence validity tests, discriminatory validity testing and reliability tests. In the evaluation of the structural model, the researchers conducted determination coefficients (R2), effect size (f2), predictive relevance (Q2), path coefficients, and T-Statistics, as well as hypothetical testing in the research model (Hair et al., 2019).

RESULT AND DISCUSSION

Descriptive Statistics Results

Descriptive statistics on this study show a description of each moderation variable in this study.

Table 2. Gender

Gender	Total	Percentage (%)
Male	25	36%
Female	45	64%
TOTAL	**70**	**100%**

Source: Research (2024)

Table 2 shows that of the 70 respondents, 64% are women, and 36% are males. So, it can be concluded that the respondents in this study are predominantly female.

Table 3. Audit Firm Category

Audit Firm Category	Total	Percentage (%)
Big 4	15	21%
Big 10	13	19%
Non-Big 4 and Big 10	42	60%
TOTAL	**70**	**100%**

Source: Research (2024)

Based on the results in table 3 showed 42 people (60%) working in non-big 4 and big 10, 15 people (21%) in big 4 and 13 people (19%) in big 10. Therefore, it can be concluded that the respondents of this study are dominated by respondents who work in audit public firm with categorized on non big 4 and big 10.

Convergent Validity Results

Table 4. Outer Loading Result

Indicator	Outer Loading
PE 1	0.713
PE 2	0.895
PE 3	0.739
PE 4	0.741
PE 5	0.739
EE 1	0.789
EE 2	0.737
EE 3	0.707
EE 4	0.735
EE 5	0.828

Indicator	Outer Loading
SI 1	0.792
SI 2	0.812
SI 3	0.811
FC 1	0.910
FC 2	0.710
FC 3	0.787
FC 4	0.795
BI 1	0.784
BI 2	0.831
BI 3	0.794

Source: Research (2024)

Based on the outer loading test results in table 4 shows that each indicator has a loading value of more than 0,70. Subsequent data testing uses data that has passed the outer loading test.

Table 5. Average Variance Extracted (AVE)

Variable	Average Variance Extracted (AVE)	Information of Validity
Performance Expectancy (PE)	0.645	Valid
Effort Expectancy (EE)	0.578	Valid
Social Influence (SI)	0.646	Valid
Facilitating Conditions (FC)	0.590	Valid
Behavioral Intention (BI)	0.649	Valid

Source: Research (2024)

Table 5 shows that each variable has an AVE value of more than 0.50. According to the result, it can be concluded that this study already has a well-converged validity seen from its AVE and outer loading values. Then, the following is a discriminatory validity test to improve the accuracy of data.

Discriminant Validity Results

Table 6. Cross Loading

	PE	EE	SI	FC	BI
PE 1	0.713	0.538	0.391	0.587	0.539
PE 2	0.895	0.797	0.689	0.775	0.686
PE 3	0.739	0.681	0.660	0.610	0.620
PE 4	0.741	0.608	0.486	0.548	0.504
PE 5	0.739	0.672	0.494	0.661	0.641
EE 1	0.728	0.789	0.678	0.713	0.708
EE 2	0.641	0.737	0.674	0.614	0.687
EE 3	0.500	0.707	0.412	0.419	0.497
EE 4	0.624	0.735	0.471	0.585	0.368
EE 5	0.761	0.828	0.681	0.683	0.651
SI 1	0.486	0.580	0.792	0.483	0.626
SI 2	0.721	0.803	0.812	0.579	0.580
SI 3	0.529	0.522	0.811	0.553	0.513
FC 1	0.773	0.691	0.608	0.910	0.731
FC 2	0.630	0.671	0.560	0.710	0.625
FC 3	0.689	0.611	0.424	0.787	0.650
FC 4	0.581	0.617	0.548	0.795	0.619
BI 1	0.602	0.513	0.482	0.580	0.784
BI 2	0.724	0.784	0.770	0.758	0.831
BI 3	0.541	0.582	0.408	0.605	0.794

Source: Research (2024)

Table 6 shows that the cross-loading value of each indicator on its own variable is higher than the cross-loading value with other variables. According to the result, it can be concluded that this study already has a good discriminatory validity. Therefore, to increase the reliability of the data, the following is a reliability test on the entire research data.

Reliability Testing Result

Table 7. Composite Reliability and Cronbach's Alpha

Variable	Composite Reliability	Cronbach's Alpha	Information
Performance Expectancy (PE)	0.877	0.825	Reliable
Effort Expectancy (EE)	0.872	0.821	Reliable
Social Influence (SI)	0.847	0.730	Reliable
Facilitating Conditions (FC)	0.879	0.813	Reliable
Behavioral Intention (BI)	0.845	0.730	Reliable

Source: Research (2024)

Based on the results of the processing in table 7 shows that each variable has a Composite Reliability value of more than 0.70 and Cronbach's Alpha value of over 0.60, therefore, it can be concluded that this study has qualified for the reliability test and can be used to identify the result of hypothesis.

Hypothesis Testing Result

Table 8. Hypothesis Testing Result

Hypothesis	Relations of Variable	Original Sampel (O)	T-Statistics (|O/STDEV|)	P-Value	Information
H_1	PE→BI	0.108	0.356	0.722	Rejected
H_2	EE→BI	0.206	0.760	0.448	Rejected
H_3	SI→BI	0.181	1.377	0.169	Rejected
H_4	FC→BI	0.442	1.849	0.065	Accepted

Source: Research (2024)

Based on the results of data processing and testing the hypothesis in table 8 shows the relationship between variables as follows:

- *Hypothesis 1*: Performance Expectancy have a positive but insignificant influence on Behavioral Intention. Based on the above processing results show t-statistics value (0.356) is below the minimum value, although the line coefficient value (0.108) is above the minimum. Therefore, H1 is rejected.
- *Hypothesis 2*: Effort Expectancy has a positive but insignificant influence on Behavioral Intention. Based on the above processing results, t-statistics (0.760) is below the minimum, even though the line coefficient (0.206) is above the minimum. Therefore, H2 is rejected.
- *Hypothesis 3*: Social Influence has a positive but insignificant influence on Behavioral Intention. Based on the above processing results, the t-statistics value (1.377) is below the minimum, even though the line coefficient value (0.181) is above the minimum value. So, H3 is rejected.
- *Hypothesis 4*: Facilitating Conditions have a positive influence on Behavioral Intention. Based on the results of the above processing, the values of the line coefficients and t-statistics are above the minimum values, namely 0.442 and 1.849. Therefore, H4 is accepted.

This study also tested the moderation hypothesis related to Gender and Audit Firm Size. In analyzing the moderators' hypotheses, the researchers used p-value with a degree of significance of 5%. So, from that, a moderation hypothetic is accepted if the p-value is < 0.05, and vice versa, where the moderating hypothesis is rejected if p-value > 0.05.

Table 9. Hypotheses Testing Result (Moderated)

Hypothesis	Relationship	Original Sampel (O)	T-Statistics (|O/STDEV|)	P-Values	Information
$H5_a$	Gender X PE→BI	0.050	0.186	0.852	Rejected
$H5_b$	Gender X EE→BI	-0.494	1.464	0.144	Rejected
$H5_c$	Gender X SI→BI	0.309	1.427	0.154	Rejected

Hypothesis	Relationship	Original Sampel (O)	T-Statistics (|O/ STDEV|)	P-Values	Information
$H6_a$	Size X PE→BI	0.320	0.786	0.434	Rejected
$H6_b$	Size X EE→BI	-0.041	0.086	0.932	Rejected
$H6_c$	Size X SI→BI	-0.171	0.658	0.511	Rejected
$H6_d$	Size X FC→BI	-0.057	0.166	0.868	Rejected

Source: Research (2024)

To improve the presentation of information on the development of financial auditors in adopting big data analytics, here are the results of a moderating hypothesis test:

1. *Hypothesis 5a*: Gender does not moderate the relationship between Performance Expectancy and Behavioral Intention. Based on the above processing result shows a p-value of 0.852 > 0.05, which means that the p-value is greater than the specified criterion. Therefore, H5a is rejected.
2. *Hypothesis 5b*: Gender does not moderate the relationship between Effort Expectancy and Behavioral Intention. Based on the above processing result shows a p-value of 0.144 > 0.05, which means a p-value greater than the specified criterion. Therefore, H5b is rejected.
3. *Hypothesis 5c*: Gender does not moderate the relationship of Social Influence to Behavioral Intention. Based on the above processing result shows a p-value of 0.154 > 0.05, which means a p-value greater than the specified criterion. Therefore, H5c is rejected.
4. *Hypothesis 6a*: Audit Firm Size does not moderate the influence of the Performance Expectancy on Behavioral Intention. Based on the above processing result shows a p-value of 0.434 > 0.05, which means a p-value greater than the specified criterion. Therefore, H6a is rejected.
5. *Hypothesis 6b*: Audit Firm Size does not moderate the influence of the Effort Expectancy variable on Behavioral Intention. Based on the above processing result shows a p-value of 0.932 > 0.05, which means a p-value greater than the specified criterion. Therefore, H6b is rejected.
6. *Hypothesis 6c*: Audit firm size does not moderate the influence of the Social Influence variable on Behavioral Intention. Based on the above processing result shows a p-value of 0.511 > 0.05, which means a p-value greater than the specified criterion. Therefore, H6c is rejected.
7. *Hypothesis 6d*: Audit Firm Size does not moderate the influence of the Facilitating Conditions variable on Behavioral Intention. Based on the above processing results show a p-value of 0.868 > 0.05 which means a p -value greater than the specified criteria. Therefore, H6d is rejected.

The Influence of Performance Expectancy on Behavioral Intention

Based on the data processing results of this study, the performance expectancy affects the behavioral intention positively, but not significantly. Although performance expectancy has a positive impact, it is not an important factor that motivates auditors to use big data analytics, because Audit Public Firm does not require auditors to use new technologies such as big data analytics, so auditors do not feel the difference between using auditing software and not using audit software and result in unchanged work performance between using big data analysis and non-using big data analytics.

The findings of this research are supported by Handoko & Chu (2021), which stated that performance expectancy did not have a significant influence on the behavioral intention of the auditor to adopt technology. However, the findings did not support the Mohamed et al. (2019) and Queiroz et al. (2019) research, which found that performance anticipation significantly influenced the auditor's behavioral intention to adopt and use technology. The researchers assume there are differences for the results due to differences in the context of the system and the characteristics of the sample, whereas stated by Kurniawan & Mulyawan (2023) there are a lot of differences in using system, even there are classified as cloud, data analytics, and so on (Azure, AWS, etc).

The Influence of Effort Expectancy on Behavioral Intention

Based on the data processing results of this study, it shows that the effort expectancy variable affects the behavioral intention variable positively but not significantly. Although effort expectancy has a positive impact, effort expectancy is not an important factor that motivates auditors to use big data analytics to support their audit activities when collecting data evidence.

The results of this study show that the level of convenience is not significant because, in the context of auditing, audit effectiveness procedures are essential so that the audit process does not take more time and cost than the established audit procedure. Therefore, external auditors in the sample of this research consider their personal

preference for the convenience level that accompanies the use of big data analytics relatively unimportant for their decision to adopt big data analysis (Al-Hiyari et al., 2019). The results support the study Cabrera et al. (2019) and Queiroz at al. (2019) which stated that effort expectancy did not have a significant effect on behavioral intention.

However, these findings do not support Aghimi et al. (2021) and Shahbaz et al. (2021), which show effort expectancy positively and significantly affects behavioral intention in adopting big data analytics. The researchers assume there are differences between the results of this study and previous studies due to differences in the characteristic context of the sample (Indipenrian et al., 2018).

The Influence of Social Influence on Behavioral Intention

According to the result, social influence has a positive influence on behavioral intention but not significantly. These results show that social factors such as opinions and advice from people around them cannot influence auditors to use big data analytics, although supported by colleagues and managers within the company, adoption of technology is still not significant.

The findings support Queiroz et al. (2019) and Mohamed et al. (2019) that found social influence had no significant influence on behavioral intention. However, these findings do not support the Shahbaz and al. (2021) and Cabrera et al. (2019) which show that social influences have a significant impact on the intention of using big data analytics. The researchers assumed that there were differences between the results of this study and previous studies due to differences in the cultural context, and the characteristics of the sample (Mohamed et al., 2019).

The Influence of Facilitating Conditions on Behavioral Intention

Based on the data processing results of this study, it is suggested that the variable facilitating conditions have positive impact on behavioral intention. This study supports Cabrera et al, (2019); Aghimien et al. (2021); Shahbaz et al. (2021). These results show that the availability of resources, adequate information, and assistance in using big data analytics are important factors that will boost the auditor's intention to adopt big data analysis. (Shahbaz et al., 2021).

Facilitating Conditions relate to the availability of resources that help users understand how to operate technology, such as infrastructure and technical support, as well as training provided by the Public Accounts Office (Cabrera et al., 2019). Therefore, the researchers concluded that facilitating conditions were an important factor that influenced the motivation of auditors towards the use of big data analytics. This is in line with Lai et al. (2018) that corporate support as an infrastructure provider affects the adoption of big data analytics.

The Influence of Gender as Moderator Variable

The study tested gender as a moderation variable with the aim of determining whether gender differences could affect the relationship between independent variables and dependent variables. The results of this study found that gender is incapable of moderating the relationship between performance expectancy, effort expectancy, and social influence on behavioral intention. That is, the relationship between variables does not change with or without gender differences.

This study is in line with the results of Omotunde et al. (2017) using the UTAUT model found that gender does not affect the relationship all variables on behavioral intention. In addition, Purnomo (2019) also found that gender cannot moderate the relationship between performance expectancy, effort expectancy, and social influence on behavioral intention. The researchers concluded that there were no differences in orientation between men and women in influencing the relationship between performance expectancy variables, effort anticipation, and social influence on behavioral intention, where they have the same role to succeed the implementation of big data analytics (Kurniawan & Mulyawan, 2023). Several studies showed an auditor's transformation to adopt the technology demonstrated by the entire gender in its data collection, which can be concluded that the entire male and female auditor could practice system-based auditing as a supporting tool (Widuri et al., 2016; Rosati et al., 2019; Mohamed et al., 2019; Calderon & Gao, 2021).

The Influence of Audit Firm Size as Moderator Variable

This study tested firm size audits as moderation variables to find out whether the presence of firm size audit differences can affect the relationship between all variables that inform the ability of financial auditors in using big data analytics according to the size of the firm. This study is in line with Mamun et al. (2022) who found that firm size cannot moderate the influence of performance expectancy, effort influence, and facilitating conditions on behavioral intention, there is no orientation difference between Audit Firm on big 4, big 10, and others, where the relationship between variables does not change with or without the difference in audit firm size.

However, this study does not support Chrisma et al. (2014) and Salah et al. (2021) who found firm size audit has a significant positive impact on the intention of auditors using technology because the size of the public accounting office is growing and has clients with complex that require increasingly sophisticated application of information technology in their audit process.

The researchers assumed that there were differences in results from previous studies due to the non-uniformity of samples representing firm size audits, most of the sample respondents of this study represented firm size audit from outside the big 4 and big 10, so the moderator effect of the audit firm size did not influence the relationship hypothesized.

CONCLUSION

With the rapid growth of data, it is imperative for auditors to adapt by adopting big data analytics to enhance competence in auditing performance ranging from collection, analysis, to presenting information based on findings to support assurance on the presentation of financial statements that serve as a source in decision-making. Based on the results of research can be concluded:

- Performance expectancy has a positive influence on behavioral intentions that influence auditors to adopt big data analytics because it is assessed to improve performance by obtaining hidden information that expands insight for auditors in conducting data testing more reliably and accurately, thus minimizing the risk of generating gap expectation from the public and stakeholders to the audit results.
- Effort expectancy has a positive influence on behavioral intention by making it easier for auditors to fulfil responsibilities effectively and flexibly. Through several features in the system help the auditor in identifying potential errors in data such as redundant data and fictitious data on transaction activities, thus expanding the auditor's point of view in giving judgment transparently.
- Social influence has a positive influence on behavioral intentions that shows that changes in audit performance are caused by internal and external environments that have adapted amid dynamic changes. With ever-increasing public demands driving companies to use technology to support operational activities that are transitioning from conventional to automated, where the presentation of financial statements has been integrated with the system, which thus becomes a consideration for auditors to update their competences so as not to hinder investigations and auditing. The audit team is also starting to look at some aspects that need to be switched to by system to save cost, effort, and time.
- Facilitating conditions have a positive influence on the behavioral intention of the firm's audit leaders, which has a major impact on the practitioners by providing adequate facilities to support the audit performance. Auditors see great opportunities that can be gained after using the system with the company's care through training and skills development on the auditor influences the attitude of the auditor to believe that the company always supports them in conducting auditing procedures more comfortably, efficiently, and effectively.

However, the relationship of all variables is not moderated by gender and that shows that auditors are not restricted by a specific gender to have a desire to adapt to technological developments, where auditing public firms in Jakarta as a whole have the intention to improve the quality of auditing by building an analytical data audit that supports data analysis as a potential finding to strengthen assurance on the presentation of financial statements that has been integrated into the system.

The limitation on the research is focused only on big data analytics because it aims to analyze the evolution of auditors with the state of the latest technological advances amidst growing big data, where it is necessary to do research by analyzing not only to big data analytics like cloud in audit, implementation of robot processing automation, and artificial intelligence to enhance the capabilities of more advanced data analytics in audit process. In addition, it can see the correlation of each type of technology that is considered by the auditor in the performance of the audit.

In future research, more in-depth analysis of the implementation of big data analytics by financial auditors can be done by focusing more on cybersecurity through awareness of financial audit and the collaboration of financial auditor with IT domains like digital audit, data analyst, and other professions. In addition, several factors needed to drive improved audit performance in the practice of technology, where the role of the regulator in providing audit rules helps provide a strong foundation for audit in carrying out audit activities by integrating with technology to minimize audit risk.

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