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# HOW DOES RISKS AND ETHICAL ISSUES IMPACT THE ADOPTION OF ARTIFICIAL INTELLIGENCE IN AUDITING?

**ANDI MUHAMMAD ALIF FAHD ZAKY[1], RINDANG WIDURI[2]**

[1,2] Accounting Department, School Of Accounting - Master Of Accounting, Bina Nusantara University Jakarta, Indonesia, 11480

E-Mail: [1]andi.zaky@binus.ac.id, [2]rindangw@binus.edu

**ABSTRACT**

AI has become commonly used due to its many benefits. It is also applied in auditing, where AI has been utilized to support the auditor's auditing process. AI reputation as of now has been a mixed one where its seen as beneficial but also accompanied by concerns and debates. Applying AI in audits may result in risk or ethical issues. This study uses the extended TAM (Technology Acceptance Model) by adding Risk and Ethical Issues variables, hypothesized to affect Perceived Usefulness and Ease of Use. Data is collected by distributing questionnaires to auditors working in Indonesia's Big 4 auditing firm. Data is analysed through SEM-PLS. The result indicates that Risk and Ethical Issues does not affect Perceived Usefulness, but affect Perceived Ease of Use negatively. The perceived usefulness and ease of use influence the intention to use, while the perceived ease of use influences perceived usefulness. Risk and ethical issues exist, albeit they do not significantly impact how auditor perceived their benefits. It does, however, makes it harder to use. As such, auditors should thread carefully on utilizing AI in future endeavours. Previous research have tackle the topic of the use and ethical concerns of AI in auditing. This research discusses things that have not been addressed in previous research, namely how the risks and ethical issues that arise with AI influence auditors' perceptions of AI in audits and their willingness to use them.

**Keywords:** *Risk, Ethical Issues, Artificial Intelligence (AI), TAM (Technology Acceptance Model), Innovation.*

## 1. INTRODUCTION

Technology is no longer a luxury but a necessity in today's world of work. Every profession must be able to adapt to technological changes to enjoy the convenience it offers, and auditing is no exception [1]. Artificial intelligence (AI) is one of the technologies discussed nowadays. AI has become commonly used in work due to its time, cost and efficiency benefits. AI is expected to improve and provide greater efficiency, productivity and accuracy to workplace activity. Many companies today are already utilizing AI because of its benefits that provide economic advantages [2].

In auditing, the benefits of AI are varied, including but not limited to efficiency and effectiveness, consistency, audit task structure, improved decision-making and communication, improved staff training, skill development for novices and shorter decision-making times [3]. Some of the largest audit firms already have plans to invest billions of dollars in audit technology in the coming years. One of the technologies being considered is the application of machine learning or artificial intelligence (AI) to audit activities [4].

However, there is some reluctance to trust AI. [4] research discusses "algorithm aversion" – the tendency to ignore computer-based advice more than human advice, even when the advice is the same. The results of [4] show that auditors' vulnerability to algorithm aversion has proven detrimental to their profession and users of financial reports.

From the explanation above, it has been established that the use of AI in auditing has many benefits. AI has the potential to help with repetitive tasks in data-intensive audits, leading to time savings and increased efficiency within firms. Additionally, AI has significant prospects to serve as a data management tool, facilitating more precise communication of client outcomes to auditors [5]. However, if left unchecked, several

problems with AI could negate the anticipated benefits. The development of AI has a significant impact on everyday life and work environment. AI certainly benefits humans, but that does not eliminate the possibility of adverse effects. The use of AI in human life and its accompanying risks and issues do not stop. One of the issues arising from using AI is ethical issues [6].

The use of AI in audits is expected since it significantly improves the efficiency of auditors. However, auditors are concerned about possibly being replaced by AI technology due to this problem. However, AI is not intended to replace professional accountants but to augment their intelligence with the ability to explore complex, voluminous and quickly changing data [7]. Being replaced aside, it is not the only risk that may come from utilising AI.

Ethical issues in using AI can arise in various forms, for example, biased algorithms. An example of this problem can be seen from the research results of [8] where it was found that algorithms that recommend health services have racial bias. The algorithm recommends health services such as prioritizing white people over black people even though both groups have the same diagnosis. Until now, there have been no cases of ethical issues in auditing. However, this does not rule out the possibility of ethical problems in using AI in audits. Due to AI's unique features, such as its intelligence, data retrieval, and complexity, there is a chance that ethical issues will arise [6]. It is important to discuss because auditors need high ethics so that the user of said audit results can trust their results.

The Technology Acceptance Model (TAM) is a model that describes how an individual's attitudes influence user behaviour towards technology. Following the topic of this research, TAM is a theory often used to assess user acceptance of AI technology [9]. Perceived usefulness and ease of use are two critical factors in this model. These factors have a relationship that influences the acceptance of technology in the TAM. This research uses the TAM to determine the auditor's perception of their trust in using AI to improve their performance, their perception of whether using AI requires minimal effort, and their intention to use said AI in their auditing activities. This study extends TAM by adding two new variables: Risk and Ethical Issues.

Recently, AI has been seen showing significant growth in the world. This growth, while beneficial, has sown the seed of worry in a significant number of people. The uses of AI in auditing may bring a risk or ethical issues in its uses. For example, it is essential to test for bias in AI and whether humans using AI can exercise sound judgment and decision-making [10]. As the uses and benefits of AI continue to emerge in the audit profession, there is awareness that unintended consequences may arise. Research have been conducted on the topic of AI in accounting and auditing before such as the ethical implication of AI [2,6,7,11–16] or its impact and acceptance [9,10,17–19]. This research discusses things that have not been addressed in previous research, namely how the risks and ethical issues that arise with AI influence auditors perceptions of AI in audits. By knowing the risk and ethical issues of AI, will auditors willing to use AI in their auditing work that is the question for this research. For this research, the independent variables, namely risk and ethical issues, will be tested to determine whether the influence of these variables will affect perceived usefulness and perceived ease of use in using AI in auditing.

This study is expected to benefit various parties, mainly auditors, and offer the perception that AI while posing some risk and ethical issues, is still useful for auditing. This study is expected to boost the usage of AI in the auditing process as its benefits outweigh its risks. It is anticipated that the application of AI will become more frequent in an audit firm in the future, and this study may help its readers consider mastering AI. This study also aims to expand knowledge of this topic by offering new contributions. This study provides evidence on how risk and ethical issues affect auditors' intention to use AI in auditing. While there are previous research that discuss risk, this research add etchial issues as one of its main discussion. This research is structured as follows: literature review, research design, result, discussion, and conclusion.

## 2. LITERATURE REVIEW

### 2.1. AI technology

AI combines hardware and software that works like a human brain and can evaluate, decide, and carry out complex assessment processes based on available data [1]. AI can also imitate human abilities such as seeing, hearing,

conducting logic tests, learning, and solving problems [20]. AI systems are divided into three types: Assisted AI, Augmented AI, and Autonomous AI. Assisted AI is an AI system that helps in decision-making or reacts to situations by carrying out repetitive tasks. This system is only for simple work, and decision-making remains in the hands of humans [20]. Augmented AI augments human decision-making capabilities and learns from human and environmental interactions. In this type of AI, machines perform the actions, but collaborative decision-making between humans and machines is required [6]. Lastly, Autonomous AI can adapt to different situations and thus act independently, without human help. In this system, humans delegate decision-making to AI [6]. It is not strange to say that AI will become a part of people's daily lives. AI will not only change everyday life but also affect work. AI will be used in significant ways, such as how companies make decisions and interact with external stakeholders [21].

### 2.2. AI in audit

The use of AI in accounting and auditing began in the 1980s with a focus on financial report analysis, fraud detection, and prediction of future performance [7]. Nowadays, the use of AI in auditing is no longer something new. However, some reasons support that the impact of AI on this profession will be more significant in the coming years due to recent developments in information and technology [10]. Many public accounting firms invest money in developing IT systems to help auditors carry out challenging tasks [4]. Experts estimate that each "Big 4" company spends $250 million annually on AI technology [20]. [3] concluded that the focus areas for implementing AI in accounting & auditing are:

1. Expert Systems (ES).
2. Continuous Auditing.
3. Decision Support Systems.
4. Neural Networks (NN).
5. Deep learning & Machine learning.
6. Natural Language Processing (NLP).
7. Fuzzy Logic.
8. Genetic Algorithm.
9. Robotic Process Automation (RPA).
10. Hybrid Systems.

[22] conclude that AI positively influences audit quality and auditors support the use of AI in audits. [23] conclude that auditors believe the profession's future depends on the application of AI, namely in the efficiency and effectiveness of audit procedures, sampling techniques, cost-benefit relationships and recognition of material distortions. AI can assist in audits, and simultaneously, auditors can improve their technical skills regardless of the type of audit firm they work for [24].

### 2.3. Risk

Although AI provides many benefits, the collection, use, and misuse of data used to train and give input to AI can pose unrecognized risks [12]. In auditing, these risks include a lengthy decision-making process due to exploring more alternatives, high costs, system maintenance, hampered base knowledge of beginners, hindered development of skills to exercise professional judgment, risk of the tool being transferred to competitors and the possibility of the tool being used against the auditor in legal court [3]. [25] stated that the application of AI could result in the possibility of income inequality, reduced labour requirements, and endanger financial security. In the auditing context, the application of AI also risks causing algorithms to be exploitative, deceptive, and internally biased or containing human logic errors or embedded human bias. Decisions based on biased algorithms can cause financial and reputational damage to investors and company owners.

### 2.4. Ethical issues

The main goal of any technology is to help humans and improve their lives. However, despite proving its potential, AI raises many moral questions and demands intervention from social science [13]. Due to AI's unique features, such as its intelligence, data retrieval, and complexity, there is a chance that ethical issues will arise [6]. [13] stated that in the use of AI, where the data is in large and almost unlimited volumes, who has the right to control and use the data. How data is tracked, used, processed, and ultimately unethical machine-based predictions are typical AI incidents gone wrong. AI can perform only one specific task but does not have the human brain's general characteristics, which could violate the ethical principles of security and non-maleficence. Using AI where large datasets are needed for AI training can raise ethical privacy, confidentiality, and data protection issues. The complexity of AI can also be a source of ethical issues where it can

present transparency and accessibility problems [6]. Research by [2] concluded five ethical issues in applying AI in auditing: objectivity, privacy, transparency, accountability and trust. Suppose this technology is to be directed in a more socially responsible manner. In that case, it will require dedicating time and attention to AI ethics education [12].

### 2.5. TAM (Technology Acceptance Model)

Even though technology such as AI is known for its reputation for helping make work more accessible and more manageable, that is not yet a strong reason for people to start using it. Before applying technology, users must understand that technology can help in their work [20]. Davis (1989) proposed a model called TAM (Technology Acceptance Model). TAM is a theory often used to assess user acceptance of AI technology [9]. According to Davis (1989), TAM is an information systems theory that describes how users receive and use technology. Two crucial factors in the TAM model are perceived usefulness and ease of use, complemented by intention to use [26]. Perceived usefulness is the extent to which a person believes using a particular system will improve their work [19]. A person's tendency to use technology depends on whether the technology is helpful for him or not. If technology is useful, it will be used, and vice versa. Perceived Ease of Use is the extent to which a person believes using a particular system will be effort-free [19]. The ease of using technology influences people's tendencies to use it. Convenience without having to spend much effort is what humans want. The easier it is to use a technology, the more the intention to use the technology increases. TAM is a theory used to assess the intention to use technology, and in this research, AI. Perceived Usefulness and Perceived Ease of Use are used to evaluate the level of Intention to Use. Intention to Use is a factor that encourages users to use the technology [19]. Another definition is the user's tendency to use technology.

## 3. HYPOTHESIS DEVELOPMENT

### 3.1. Influence of Risk on Perceived Usefulness

The use of AI in auditing, while bringing many benefits, also poses some risks. This risk arises in the context of risks in the audit work or the risk of auditors being replaced by technology. However, this technology cannot replace human abilities to exercise reasoning, express emotions, apply professional scepticism, and use professional judgment [3]. The risks of using AI in audits will undoubtedly influence the auditor's perception of using AI in audits. Auditors do not want to use AI if the risks brought by using AI exceed the benefits. Even so, AI has been proven many times to provide many advantages. So, how severe this risk is depends on the auditor's perception. Judging from previous research, the research results of [27] concluded that perceived risk negatively influences Perceived Usefulness. This statement aligns with research [28], completing the same. It means that if the user's risk perception is high, then acceptance of the technology is low. From the explanation above, the following hypothesis can be formulated:

***$H_1$*: Risk negatively affects Perceived Usefulness.**

### 3.2. Influence of Risk on Perceived Ease of Use

Perceived Ease of Use is the extent to which a person believes using a particular system will be effort-free [19]. Knowing the risks involved in using AI will raise concerns when using it. The risk can influence user perceptions regarding the ease of use of the technology. Judging from previous research, the research results of [27] concluded that perceived risk negatively influences Ease of Use. This statement aligns with research [28], concluding the same. Research by [29] also concludes that risk will negatively affect trust in AI and its dependability. From the explanation above, the following hypothesis can be formulated:

***$H_2$*: Risk negatively affects Ease of Use.**

### 3.3. The influence of ethical issues on Perceived Usefulness

With the recent development of AI, questions have arisen over the ethical issues that may occur when using AI. Although the concept of "machine ethics" was proposed around 2006, AI ethics is still in its infancy. AI ethics is a field that studies ethical issues in AI [11]. This ethical issue can influence how someone accepts the use of AI in their activities. Ethical issues can be a problem that, if not resolved, could negate the benefits that AI is expected to provide [6]. Research by [16,30] conclude that ethical issues

affect Usefulness. From the explanation above, the following hypothesis can be formulated:

**$H_3$: Ethical Issues negatively affect Perceived Usefulness.**

### 3.4. Influence of Ethical Issues on Perceived Ease of Use

Perceived Ease of Use is the degree to which a user uses technology without additional effort. Low explainability, data bias, data security, data privacy, and ethical issues of AI-based technologies pose significant risks to their users [11]. These ethical issues will make users more careful when using AI, which means using AI will create additional efforts to combat these ethical issues. Ethical issues can also influence how reluctant a user is to use a technology. Research by [16,30] conclude that ethical issues affect Usefulness. Knowing existing ethical issues can influence how auditors use AI in their audits. From the explanation above, the following hypothesis can be formulated:

**$H_4$: Ethical Issues negatively affect Perceived Ease of Use.**

### 3.5. Influence of Perceived Usefulness on Intention to Use

TAM (Technology Acceptance Model) assesses users' acceptance and use of technology. One of the factors of TAM is Perceived usefulness. Perceived usefulness is the extent to which a person believes using a particular system will improve their work [19]. Knowing how a technology helps in work makes users want to use the technology. It is also applied to implementing AI in auditing. AI provides many advantages in the audit process [20]. Research by [18] concluded that Perceived Usefulness significantly influences system use. Research by [17] concluded that Perceived Usefulness influences the intention to use. It means that a person's perception of the usefulness of a system will affect their intention to use the system. From the explanation above, the following hypothesis can be formulated:

**$H_5$: Perceived Usefulness positively affects Intention to Use.**

### 3.6. Influence of Perceived Ease of Use on Intention to Use

Perceived Ease of Use is one of the factors of TAM. Perceived Ease of Use is the extent to which a person believes using a particular system will be effort-free [19]. The ease of using a technology will undoubtedly influence the user's intention to use the technology. Research by [18] concluded that Perceived Ease of Use significantly influences system use. Research by [17] concluded that Perceived Ease of Use influences intention to use. From the explanation above, the following hypothesis can be formulated:

**$H_6$: Perceived Ease of Use positively affects Intention to Use.**

### 3.7. Influence of Ease of Use on Perceived Usefulness

[19] explains that the impact of Ease of Use on Usefulness can be seen by how users' trust in technology depends on the perceived Ease of Use. The more user-friendly a technology is, the more people perceive its value. [17,31] concluded that Perceived Ease of Use has a positive relationship with Perceived Usefulness. From the explanation above, the following hypothesis can be formulated:

**$H_7$: Perceived Ease of Use positively effect Perceived Usefulness.**

### 3.8. Conceptual Research Model

With all the established hyphothesis explained previously, we can establish a conceptual research model. This model is used to represent the relationship between variable as hypothesized. Below can be seen the conceptual research model in Figure 1 below.

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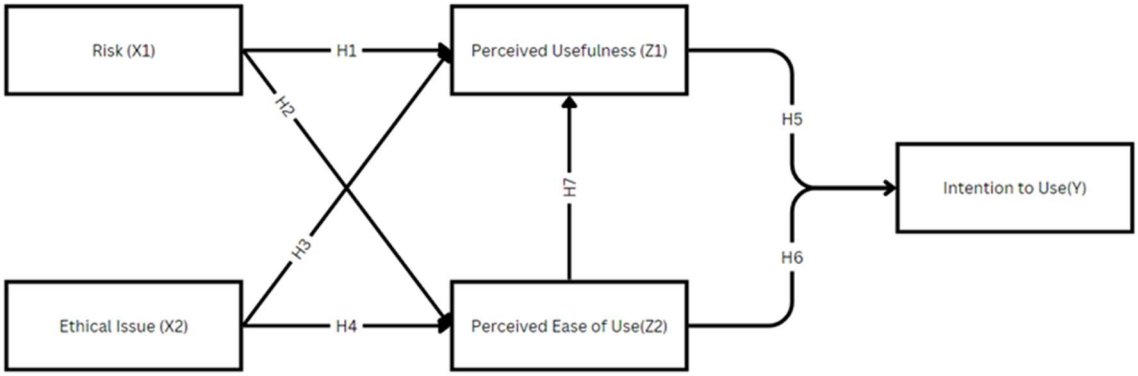


*Figure 1. Conceptual Research Model*

## 4. RESEARCH METHODS

For this research, researchers will use a quantitative approach with primary data. A questionnaire will be used as an instrument for this research. Following [32] instructions, it was determined that this research would aim for 100 samples as the minimum limit. A non-probability sampling method with a purposive sampling technique will be used as a sampling method. The criteria for selecting samples for this research are as follows:

1. An auditor is employed at a Big Four auditing firm.
2. An auditor may be a partner, manager, senior, or junior.
3. An auditor who is not in an internship or probationary term.

There are 31 items in the questionnaire divided into five parts in tune with the variables in the research. For the risk variable, nine items are taken from [33] and [34]. The variable of ethical issues items are taken from [15] and [14]. Thirteen items are taken from [20] for Perceived Usefulness and Perceived Ease of Use, six for each. Five items are taken from [35] dan [36] for the Intention to Use.

This research uses a Structural Equation Modelling (SEM) approach. SEM allows researchers to simultaneously model and estimate complex relationships between multiple dependent and independent variables [37]. The data analysis method used to manage this research data is SEM-PLS using SmartPLS. Descriptive statistical analysis was carried out to describe the respondent data obtained from the questionnaire. Common Method Bias is first done to avoid any error. The SEM-PLS model was evaluated using the Model Assessment and Structural Model Assessment [38]. Testing for reliability and validity is the first step for testing models. Reliability testing uses composite reliability (CR), while validity testing uses Convergent Validity and discriminant validity. After that, we do the Structural Model Assessment. In Partial Least Squares (PLS) analysis, model accuracy is evaluated using Path Coefficient (PC). Bootstrapping is used to get results from PC.

## 5. RESULTS AND DISCUSSION

From the results of the 147 respondents who completed the questionnaire, only 134 were deemed eligible for use in this research. The rest of the 13 have been considered ineligible for this analysis. The number of respondents based on the distribution of the questionnaire can be seen in Table 1 below.

*Table 1. Questionnaire Distribution*

| Distribution | Total respondents |
|---|---|
| Returned | 147 |
| Not eligible | 13 |
| Eligible | 134 |

Respondents are grouped based on age group, gender, last education, experience in audit, position, and firm. There is also a question of whether they have used AI before in the auditing process, whether their firm provides that AI and in what auditing process they use AI. The details of the demographic respondents can be seen in Table 2 and Figure 2 below.

*Table 2. Respondents Demographic*

| | N | % |
|---|---|---|
| **Age group** | | |
| 20-25 years | 61 | 46% |
| 26-35 years | 57 | 43% |
| 36-45 years | 13 | 10% |
| >45 years | 3 | 2% |
| **Gender** | | |
| Male | 65 | 49% |
| Female | 69 | 51% |
| **Last education** | | |
| Associate's degree | 3 | 2% |
| Bachelor | 119 | 89% |
| Master | 11 | 8% |
| Doctoral | 1 | 1% |
| **Experience in audit** | | |
| <5 years | 112 | 84% |
| 6-10 years | 16 | 12% |
| 11-15 years | 4 | 3% |
| >16 years | 2 | 1% |
| **Position** | | |
| Junior | 54 | 40% |
| Senior | 62 | 46% |
| Manager | 13 | 10% |
| Partner | 4 | 3% |
| Other | 1 | 1% |
| **Firm** | | |
| EY | 43 | 32% |
| Deloitte | 34 | 25% |
| KPMG | 26 | 19% |
| PwC | 31 | 23% |
| **Used AI in audit** | | |
| Yes | 97 | 72% |
| No | 37 | 28% |
| **Firm provides AI** | | |
| Yes | 79 | 82% |
| No | 18 | 18% |


*Figure 2. Respondents Based on the Use of AI in Audit*

Figure 2 shows that AI is often used for audit implementation, with a 29.2% respondent rate, followed by Audit report and Audit planning with 26,1% and 24.2%, respectively. Audit follow-up is the lowest usage of AI in auditing, with 20.5%.

### 5.1. Common Method Bias

The first thing to do is Common Method Bias (CMB). [39] states that for a model to be declared free from CMB, the VIF value must be lower than 3.3. Table 3 shows the results of the CMB test.

*Table 3. Collinearity Statistics (VIF)*

| Construct | Items | VIF |
|---|---|---|
| Risk | RI1 | 3.041 |
| | RI2 | 3.208 |
| | RI3 | 2.058 |
| | RI4 | 2.497 |
| | RI5 | 3.245 |
| | RI6 | 2.834 |
| | RI7 | 3.084 |
| | RI8 | 2.673 |
| | RI9 | 2.355 |
| Ethical Issues | EI1 | 3.505 |
| | EI2 | 4.230 |
| | EI3 | 2.399 |
| | EI4 | 1.975 |
| | EI5 | 2.359 |
| | EI6 | 2.078 |
| Perceived Usefulness | PU1 | 2.454 |
| | PU2 | 2.944 |
| | PU3 | 3.467 |
| | PU4 | 2.792 |
| | PU5 | 2.369 |
| | PU6 | 3.020 |
| Perceived Ease of Use | PE1 | 2.949 |
| | PE2 | 3.441 |
| | PE3 | 2.304 |
| | PE4 | 3.261 |
| | PE5 | 3.895 |
| | PE6 | 3.838 |
| | EI1 | 2.830 |

| | | |
|---|---|---|
| Intention to Use | EI2 | 3.289 |
| | EI3 | 3.287 |
| | EI4 | 2.898 |
| | EI5 | 2.432 |

From the test results above, it can be seen that there are several items that do not meet the CMB requirements. Items that do not meet these requirements will therefore not be used for analysis in this research.

### 5.2. Measurement Model Evaluation

Testing for reliability is done using Composite Reliability (CR). It is stated in [40] that CR is more suitable for use in PLS-SEM than Cronbach alpha. [41] stated that the recommendation value for CR is > 0.6. Table 3 shows that all items had a CR greater than 0.6. As such, all the items meet CR requirements and are recognised as reliable.

Testing for validity is done using two methods: convergent validity and discriminant validity [38]. Convergent Validity is formed when the items in a particular measure converge to represent an underlying construct. Convergent validity is determined when the Outer Loading of the items is greater than 0.7 and its Average Variance Extracted (AVE) is greater than 0.50 [40]. Table 3 below shows that all items had an outer loading greater than 0.7 and the AVE greater than 0.5. As such, all the items meet the requirement for Convergent Validity. The result of reliability and validity test can be seen below in table 4.

*Table 4. Reliability and Validity of the Measurement Model*

| Construct | Items | Loading | CA | CR | AVE |
|---|---|---|---|---|---|
| Risk | RI1 | 0.70 | 0.82 | 0.88 | 0.65 |
| | RI2 | 0.70 | | | |
| | RI3 | 0.74 | | | |
| | RI4 | 0.79 | | | |
| | RI5 | 0.79 | | | |
| | RI6 | 0.75 | | | |
| | RI7 | 0.83 | | | |
| | RI8 | 0.76 | | | |
| | RI9 | 0.79 | | | |
| Ethical Issues | EI3 | 0.79 | 0.90 | 0.92 | 0.71 |
| | EI4 | 0.81 | | | |
| | EI5 | 0.83 | | | |
| | EI6 | 0.79 | | | |
| Perceived Usefulness | PU1 | 0.80 | 0.81 | 0.88 | 0.72 |
| | PU2 | 0.85 | | | |
| | PU4 | 0.81 | | | |
| | PU5 | 0.83 | | | |
| | PU6 | 0.89 | | | |
| Perceived Ease of Use | PE1 | 0.80 | 0.89 | 0.92 | 0.70 |
| | PE3 | 0.85 | | | |
| | PE4 | 0.90 | | | |
| Intention to Use | EI1 | 0.83 | 0.91 | 0.92 | 0.58 |
| | EI2 | 0.86 | | | |
| | EI3 | 0.89 | | | |
| | EI4 | 0.82 | | | |
| | EI5 | 0.81 | | | |

Discriminant validity measures the extent to which a construct differs from other constructs, or in other words. The construct measures what it wants to measure. To test this requirement, the AVE of each construct must be higher than the squared correlation with other constructs [40]. As seen in Table 5 and table 6 below, all items meet the requirement.

*Table 5. Discriminant Validity based on Fornel-Larckel*

| | EI | IU | PE | PU | RI |
|---|---|---|---|---|---|
| EI | 0.81 | | | | |
| IU | -0.48 | 0.84 | | | |
| PE | -0.48 | 0.74 | 0.85 | | |
| PU | -0.40 | 0.78 | 0.77 | 0.84 | |
| RI | 0.68 | -0.41 | -0.43 | -0.38 | 0.76 |

*Table 6. Discriminant Validity based on Heterotrait-Monotrait ratio of correlations*

| | EI | IU | PE | PU | RI |
|---|---|---|---|---|---|
| EI | | | | | |
| IU | 0.55 | | | | |

| | | | | | |
|---|---|---|---|---|---|
| PE | 0.59 | 0.87 | | | |
| PU | 0.46 | 0.86 | 0.89 | | |
| RI | 0.80 | 0.45 | 0.49 | 0.42 | |

### 5.3. Structural Model Assessment

After Measurement Model Evaluation, the next step of PLS-SEM is evaluating the structural model. The model's accuracy is estimated using the Path Coefficient (PC). Bootstrapping is used to get results for PCs. PC represents the hypothesized relationships that link constructs [40]. Evaluation of the t-value and p-value is carried out to report the significance of the variable relationship. To state that the hypothesis is supported, the t-value is to be greater than 1.96, and the p-value is lower than 0.05 [42]able 5 below summarises the findings.

*Table 7. Result of Structural Model Assessment*

| H | Path coefficients | T Statistics | P Values | Decision |
|---|---|---|---|---|
| $H_1$ | -0.065 | 0.741 | 0.230 | Rejected |
| $H_2$ | -0.191 | 1.915 | 0.028 | Accepted |
| $H_3$ | -0.001 | 0.009 | 0.496 | Rejected |
| $H_4$ | -0.354 | 3.191 | 0.001 | Accepted |
| $H_5$ | 0.501 | 4.711 | 0.000 | Accepted |
| $H_6$ | 0.362 | 3.498 | 0.000 | Accepted |
| $H_7$ | 0.743 | 14.542 | 0.000 | Accepted |

As seen in Table 7, the risk does not influence Perceived Usefulness but does influenced Perceived Ease of Use negatively. This result indicates that $H_1$ are rejected while $H_2$ is accepted. The ethical issue does not affect Perceived Usefulness but affects Perceived Ease of Use negatively. This result suggests that $H_3$ is rejected while $H_4$ is accepted. Perceived usefulness has a positive relationship with Intention to Use. This result supports $H_5$. Lastly, Perceived Ease of Use is related to Intention to Use and Perceived Usefulness. This result supports $H_6$ and $H_7$. Below can be seen Figure 3, which depicts the Structural Research Model.

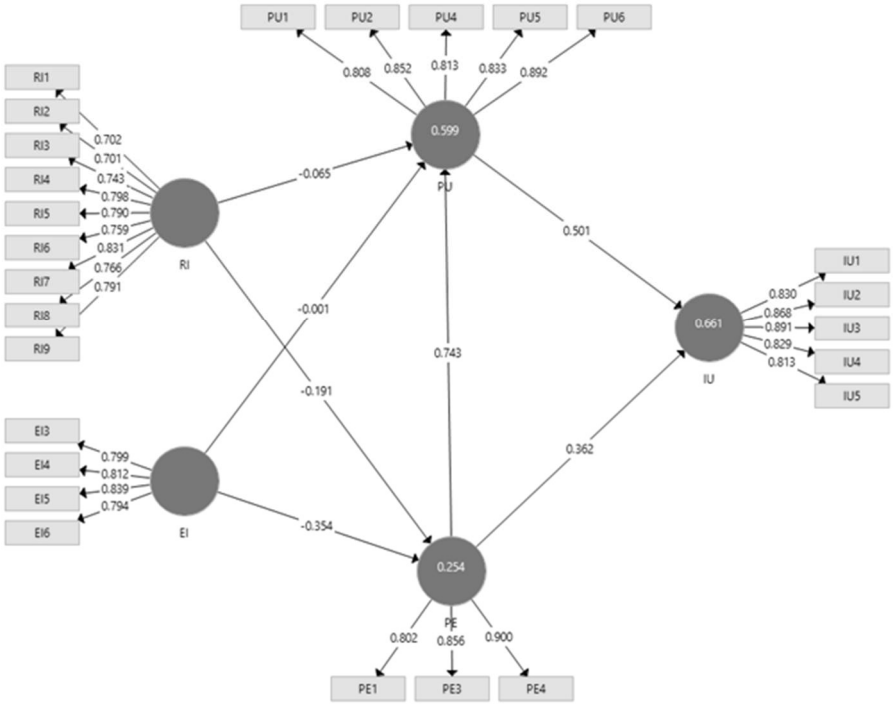


*Figure 3. Structural Research Model*

The figure above shows the stuctual research model of this analysis. It depicts the factor loading of each items and the path coefficient between each variables namely Risk (RI), Ethical Issues (EI), Perceived Uasefulness

(PU), Perceived Ease of Use (PE), and Intention of Use (IU).

### 5.4. Discussion

This study examines risk and ethical issues affecting AI adoption for audit using TAM. The result of this research based on the analysis above revealed the following:

The outcome of this analysis indicates that $H_1$ are rejected. This result is not in line with previous studies [27–29]. While the stated hypotheses are not supported by the result of the analysis, this study indicates the auditor's willingness to use AI despite the risk. AI technology is seen to be so beneficial that the initial risk can be ignored or deemed worth it.

The results of this analysis shows that $H_2$ is accepted. This result is in line with previous studies [27–29]. Risks can raise concerns that can make it difficult for an auditor when using AI in an audit. The existence of risks makes auditors more wary of the use of AI because they want to avoid these risks. This vigilance hinders the use of AI in auditing or leads to the potential for not using AI at all.

The outcome of this research indicates that $H_3$ has been rejected. Artificial intelligence, however beneficial, presents several ethical concerns in its applications. The analysis suggests that despite encountering these ethical dilemmas, auditors are inclined to use AI due to its notable utility. The result of this is not in line with [16,30] that conclude that ethical issues affect Usefulness. According to the result of this study, ethical issues does not affect the usefulness of AI in auditing. Even with the existing issues, AI is considered useful to be use for auditing.

The outcome for $H_4$ is accepted. The results suggest that ethical issues have an impact on the perceived ease of use, and this impact is negatively related. The findings of [16,30] align with our understanding that ethical issues have a negative relationship with perceived ease of use. Ethical issues prompt the user to exercise more caution in its use, thus making the application of AI more difficult than it seems. Ethics is an important aspect for an auditor because high ethics ensures to maintain trust, accountability and transparency in an industry. The use of AI requires client data for AI learning in external audits. This action may compromise the confidentiality of client data. The use of AI in audits may also come from third parties, exacerbating ethical issues in the absence of strong regulations. Therefore, it is essential for internal controls and regulatory procedures to supervise the use of AI, guaranteeing its neutrality and compliance with ethical norms [5].

Perceived usefulness is shown to have a positive relationship with Intention to Use, which supports $H_5$. It shares the same result as the previous study [17,18]. The higher the Perceived Usefulness, the higher the intention to use AI in auditing. The usefulness of technology naturally draw people to use said technology as it helps in any task. AI has been proven to bring many benefits to auditors in many ways such as shortening time on audit procedures and helps by providing a greater degree of decision-making. This effectiveness and productivity nature of AI pulls auditors to use it for their convenience.

Perceived Ease of Use affects Intention to Use and Perceived Usefulness, supporting $H_6$ and $H_7$. Previous studies [17,18] also share the same result. The higher the Perceived Ease of Use, the higher the intention to use AI in auditing. using technology will undoubtedly influence the user's intention to use the technology. People generally yearn for comfort and ease at doing a task. Auditors seem to find AI relatively easy to use and therefore desirable to use. It can also be said for Perceived Usefulness. The higher the Perceived Ease of Use, the higher the Perceived Usefulness of AI in auditing. This is in line with previous studies [17,31]The ease of The original theory of TAM by [19] explained that the usefulness of a technology depends on its Ease of Use. This result shows that it is true.

### 5.5. Problems and Open Research Issues

Based on the results of the analysis, this research finds that risk and ethical issues affect perceived ease of use negatively but not perceived usefulness. It suggests that while auditors may acknowledge the usefulness of AI in improving auditing processes, they may also feel that AI tools are difficult to use due to its risk and ethical concerns. The outcome of $H_1$ and $H_3$ deviates from previous studies which suggest that auditor willing to overlook its risk and ethical issues for achieving greater efficiency or productivity. This raises questions about the trade-off auditors might

make between the risk and ethical concerns with the functional benefits of AI.

With risk and ethical issues effect to ease of use, there need to be more research on how to mitigate risk and ethical concerns surrounding AI in auditing. Future studies could explore how to design AI tools that address risk and ethical concern while still providing value to auditors. There is a need to investigate how AI systems can be made more user-friendly and implemented with guidelines and frameworks to maintain transparency and accountability. Exploring how training and education can reduce perceived difficulty in AI adoption and help auditors understand both the benefits and risks more effectively could be a valuable research topic.

While auditors are currently open to using AI, the long-term effects on the auditing profession, such as changes in job roles or shifts in the auditing process, are not yet fully understood. Research could focus on the long-term implications of AI adoption in auditing, such as how it might change the nature of auditors' work, impact employment, or reshape industry standards. Exploring how AI will evolve over time and how auditors can adapt to these changes would provide valuable insights.

The study indicates that while perceived usefulness and ease of use is positively related to the intention to use AI, this doesn't guarantee that auditors will ultimately adopt AI in practice. There might be a disconnect between intention and actual behavior. Exploring the gap between intention and actual usage could be a significant research avenue. This would involve studying factors that influence actual AI adoption in practice.

## 6. CONCLUSION

Artificial intelligence (AI) has been increasingly used in daily activities and work settings. This tendency is hardly unexpected, considering the frequent displays of AI's effectiveness and usefulness. However, this does not erase the fact that AI carries its fair share of risk and ethical issues. This study attempts to examine those factors that may influence the adoption of AI in auditing using extended TAM with the addition of risk and etchial issues variable. A total of seven hypotheses were developed for this study, in which all of them were tested.

Risk does not seem to affect Perceived Usefulness but affect Perceived Ease of Use negatively. Ethical Issues do not affect perceived usefulness but affect Perceived Ease of Use ngeatively. The relationship between perceived usefulness and ease of use influences the intention to use. The perceived ease of use further influences the perceived usefulness. This research results indicates that both risk and ethical issues only affect the ease of use of AI in auditing and have no effect to its usefulness. This results deviates from previous studiesl [16,27–30] which states that risk and ethical issues does affect perceived usefulness.

The advantages of using AI in the auditing sphere seem greater than the existing hazards or ethical issues to most auditors. Auditors are willing to use AI in their work as they know the benefit they reap from using AI despite its risks and ethical issues. Even with its benefits, auditor must recognize the hazards and ethical concerns that exist in using AI. Despite AI's perceived ease and usefulness in auditing, existing risks and ethical problems may cause auditors to choose not to use AI in auditing work. Most researchers and organizations must fully acquire the essential skills and knowledge to embrace AI [43]. Mastering AI to be used in auditing work may lower the chance of risk and ethical issues arising. AI may introduce new issues and dangers in the future but will surely bring more benefits [44]. The result of this study can contribute to AI research in auditing and AI adoption for auditors while also elevate understanding of previous research regarding AI in auditing. Understanding the benefit of AI in auditing while also being aware of the risk and ethical issues that may arise will help auditor work more efficiently. This research may also open the opportunity for future research on AI adoption in auditing. For auditor and accounting firms, this study can be used for consideration of using AI in their auditing process.

This study is subject to several limitations, which future researchers may endeavor to enhance in order to further advance this research. The first limitation is that this research was only conducted in Indonesia, so it does not represent the global population. Second, this research only relies on auditors from the Big

4 accounting firms as participants, so the entire auditor population in Indonesia is underrepresented. It is recommended that future research broaden its scope to include respondents from more countries and industries. Apart from that, this research only uses the Technology Acceptance Model (TAM) as the main theoretical framework. Future research could use other models to better understand this subject. Future research could include other aspects that could potentially influence the use of artificial intelligence in auditing. This research may also open up opportunities for future research on topics related to AI or AI adoption in auditing. Further research can be conducted qualitatively to explore how far the application of AI in auditing has been carried out in Indonesia or other developing countries, as well as discussing how auditors respond to the risks and ethical issues that exist in the application of AI.

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