

DO GENDER DIFFERENCES AFFECT THE ACCURACY OF ASSESSING RISK IN THE PLANNING PHASE OF AUDIT? AN EXPERIMENTAL STUDY

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Abstract

Audit planning is an important phase that the auditor must do well. Good planning will provide a good audit quality. In the planning phase, the auditor must have an in-depth understanding of the client's business processes and then assess the audit risks it faces. Auditing is often synonymous with work done by men because of the greater work pressure. Work pressure is related to tight audit time. Therefore, the audit planning must be prepared carefully. This research aims to find out the differences in audit risk in the planning phase between female and male auditors. The research was conducted using an experimental method on students majoring in accounting. The study results indicate that in a company with poor control conditions, female auditors will assess a higher risk than male auditors with female auditors. However, the assessments of risk are not significantly different. The audit process consists of 3 main phases: planning, testing, and reporting. In planning, careful assessment is needed. Women, in general, can sort information more systematically to have a more accurate assessment. Although in the audit process in the field, men can deal with pressure better, in the planning phase, female auditors can analyze information systematically. The implication is that the results of this study are beneficial for the auditor manager to be able to allocate audit assignments based not only on the ability to deal with pressure but also pay attention to aspects of accuracy.

Keywords

Audit, Auditor Quality, Gender, Planning Phase, and Risk

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Introduction

Working as an accountant has been one of the most lovable professions for those who have graduated from university. Being an accountant does not mean that this profession only deal with balancing between debits and credits, but accountant must also aware that the world has changed. The emergence of information for the last five years have brought a new era, shown by a revolution in the industry, referred as 4.0. The discussion about the industrial revolution 4.0 does not only appear in the field of education and industry, but it has also expanded to other fields. The impact of this revolution has brought a discussion whether some professions can be replaced by the Artificial Intelligence (AI) system. Accountant is argued to be one of the professions that may be substituted by AI.

Past study showed that there will be 94 percent of accountants and auditors lose their jobs due to the emergence of computerized finance and technology (Frey & Osborne, 2017). Given the Artificial Intelligence (AI) system, where later positions in new graduates every university that has been prepared, whether their role be replaced by a digital technology system. The reality is that the system has weaknesses and is estimated to be unable to run properly, so human capabilities are still very much needed. Furthermore, the accuracy of advanced technology cannot be measured and produces decisions properly. Especially considering that identical audit work is carried out by someone such as men and women who have the experience, knowledge, and skills to carry out audits of financial statements in providing opinions or reasonable opinions on the presentation of financial statements. This study contributes by providing insight into the importance of a person's ability to make decisions and is strengthened by the number of auditors who can predictably influence decisions that are absolute and open in the era of revolution 4.0 and not only refer to digital technology.

In the audit's implementation, there are a series of processes and steps to support the process, which is commonly known as the audit process. Several important stages must be carried out in carrying out the audit process, such as the audit planning stage, the audit testing stage, and the audit reporting stage. Audit planning is the initial stage of the auditing process that is decisive in the success of audit assignments. The audit plan should ensure that the objectives of the audit are achieved and are of high quality, economical, effective, and efficient. Failure to plan an audit can lead to erroneous audit reports so that the resulting audit is inefficient and ineffective. In planning it is necessary to consider audit risks and how the auditor can limit these risks as low as possible. Limiting the risk to avoid an auditor's misrepresentation in giving a reasonable opinion, even though the report has material misstatements. Several things cause audit risks such as uncertainty regarding the competence of evidence, the effectiveness of the control structure, and uncertainty whether the financial statements have been presented reasonably after the audit is carried out. Limiting audit risk is needed in planning to produce efficient and effective audit quality. The more the

auditor can carry out audit planning properly and can reduce audit risk, the better the quality of the audit that will be produced.

In assessing the quality of the audit, it is necessary to have the effectiveness and compliance of audit planning with the Public Accountant Professional Standards. The quality of the audit is influenced by several factors, one of which is how an entity can compile its audit planning. The problem that often occurs with auditors is how each auditor can analyze risk assessments properly to produce good audit quality and minimize the presence of material misstatements. Risk assessment reflects how important assessment is in the audit process and the leading role in audit standards related to abuse such as fraud so that having a broad impact on audit testing (Boyle et al., 2015; Hammersley, 2011). Based on the level of experience, knowledge, and gender of auditors can systematically influence risk assessment and lead to low audit quality (Calderon & Cheh, 2002). The low level of knowledge and skills affects the risk assessment and results in poor audit quality, so it is necessary to prepare competent prospective auditors (Le et al., 2022; Sardasht & Rashedi, 2018).

Male is believed to have good risk assessment analysis skills so the final results are believed to get higher audit quality. Male auditors in conducting audits result in more accurate risk assessments (O'Donnell & Johnson, 2001). The possibility of this is made clear that male with independent character, leadership, and courage are believed to be willing to take risks (Asriati & Hidayat, 2018). In conducting risk assessments, accuracy becomes a weakness for male in decision-making, if faced with material misstatements in financial statements. Often the analysis carried out is rushed so that material misstatements can occur in conducting an audit. Another study stated that female were more careful in conducting risk assessments so that the quality of the audits produced was higher than that of male (Hardies et al., 2016; Ittonen et al., 2013; Yang et al., 2018). The ability of a female to conduct an audit has a side of accuracy and caution in every analysis, if the work resulting by a female is longer than male it is intended for good results. Another study suspected that the average female auditor was considered less competent than the male auditor (Gold et al., 2009; Hossain et al., 2018; Mgbame et al., 2012; Yang et al., 2018; Ye et al., 2011; Zhang et al., 2014). Supporting research related to gender in the accountant and audit profession shows that female are more risk-averse and measures more ethically (Abdelfattah et al., 2021). Submissive character and avoid of taking high risks are the weaknesses of female (Asriati & Hidayat, 2018). However, another study found there were no gender differences do work and leadership positions (Elmagrhi et al., 2019; Zalata et al., 2019).

According to several previous studies, it has been shown that there are still doubts about the results of risk assessments conducted by male auditors. Risk assessment of male auditors is predominantly conducting an analysis of audit evidence, although the male weakness factor is that it is often hasty in deciding and less thorough in conducting risk analysis. Meanwhile, female are naturally more thorough and pay attention to the details of each process, and have a trustworthy and honest character (Mgbame et al., 2012). Potential variations and inequalities between risk assessment

processes and procedures conducted by female and male auditors are interesting to do re-research. Therefore, overall outlining the previous research there is still the possibility that male and female auditors alike have abilities that cannot be measured at the time of conducting audits and conducting analyses moreover auditors come with different levels of characteristics such as gender, level of education, age, religion, experience etc. Based on the description above, the focus of this study explores based on gender find out how the differences in audit risk in the planning phase between female and male auditors in decision making.

Literature Review

Audit risk assessment in the auditor's planning phase at gender

Auditing is a process carried out by professional accountants with various skills and experience. The audit consists of collecting evidence to state and issue audit opinions regarding whether the preparation of financial statements is in accordance with aspects of the applicable reporting framework. The opinion is whether the financial statements have been presented reasonably and correctly. In the auditing process, it is known as audit planning. The role phase of the audit is a detailed stage and how the auditor plans to carry out an audit. Success in planning will have an impact on good audit quality, resulting in a low-risk assessment. Audit risk assessment is an important identification in the form of analysis, and management of relevant risks to prepare financial statements and their procedures take place in the audit planning phase period. (Porcuna-Enguix et al., 2021). Relate to audit risk assessment, several things must be done to understand the meaning of audit risk. Audits should be conducted using a risk-based approach, improper disclosure of audits resulting in material misstatements not being detectable.

Risk assessment is carried out by an auditor by looking for information on weak parts, prone to material misstatements of financial statements. Material misstatements can occur during the audit process. Accuracy in the analysis of low audit risk carried out by male auditors. O'Donnell and Johnson (2001) found that risk assessments conducted by male auditors tend to be more accurate. This is due to the audit planning process carried out on male auditors oriented on stronger behavior, emphasis, power, rules, focusing on results and goals (Niskanen et al., 2011; Sun et al., 2011; Yang et al., 2018). High level of public trust in male compared to female when performing audits assignment (Carnegie & Napier, 2010). Female auditor processes are weaker in decision-making over audit risk (Chung & Monroe, 2001; Porcuna-Enguix et al., 2021; Yang et al., 2018). The fact that female are more risk-averse, but wiser when facing problems (Säve-Söderbergh, 2012). Female auditors are seen as recipients of information that is used thoroughly, evaluate the information they obtain, and rely less on information recurring. Male assume that information is part of the burden. The better the quality of the information received by the auditor, the more accurate and relevant the report results (Apandi, Utama & Rosieta, 2016). According to research

Abdelfattah et al. (2021) preferring female auditors, how not female auditors are more likely to report more quality and greater audit details, hoping this will make female auditors in the company get attention with the aim of being able to overcome the avoidance of the risk of misstatement. Women tend to evaluate the report in detail and slowly, using the information obtained in a complex manner so that the decisions obtained are consistent. They (male) predict an event in the audit planning process with a little hint of information resulting in inaccuracies in the analysis. While high-complexity jobs contain more informational cues and are consistent with predicted processes. When they are placed in a position at the same job, the level of trust can be a factor in generating good decisions. The doubts that arise in a person are capable of generating audit decisions to be weak. The lack of use of one's ability to process information is often overlooked in training, individual assignments, audit decision-making processes, and audit review processes.

Thoroughly past study showed that, audit risk assessments carried out by men and women each have risks posed, if women avoid the risk of impact on audit reporting, it means that the results of the audit report that will be produced are worse than expected. Risk assessments carried out by men often decide in a hurry because of which the results of the audit reports produced are inaccurate and inefficient, meaning that if men make rash decisions, there will be important things missed during the audit process. Weaknesses that occur in both auditors raise doubts about their abilities and decrease trust when conducting risk assessments.

Methods

Participants

The participants of this study were accounting students who enrolled in the Universitas Pendidikan Indonesia (UPI) in 2018. There were 56 students from the accounting study program who conducted the trials, where 40 of the participants were female students and the remaining 16 participants were males. The students who have taken and passed the accounting subjects, i.e., basic audit and advanced audit courses, were chosen as samples. Consequently, they were expected to give a better analysis and overview of the research objectives. The selection of these students as the participants in this study is due to the research objectives that aimed to examine the audit process that has been conducted in the university.

Research Design

This research used an experimental method. This study used a 2x1 factorial design. Factorial design is a type of experimental design that simultaneously accommodates research on the influence of two or more independent variables, both the main effect and the interaction effect, on the dependent variables (Nahartyo, 2013). The first factor, the participants acting as auditors, is divided into two parts, namely (i) the audit planning phase (good-bad information) and (ii) the audit planning phase (bad-good

information). The second factor, the participants were asked to conduct a risk assessment of material misstatements. Following the factorial design in this study:

Table 1: Factorial Design

Treatments	Audit Planning Phase	
	Information (Good-Bad)	Information (Bad-Good)
Risk Assessment of Material Misstatements	SEL 1	SEL 2

This study used normality tests, such as Kolmogorov-Smirnov and homogeneity tests. Then, the researchers analyzed the result using a two-way ANOVA. ANOVA is one of the multivariate analysis techniques that distinguish the mean of over two groups of data by comparing their variances (Imam Ghozali, 2006).

Case Materials and Procedures of The Experiments

This research conducting using google form media. Participants in this study used within-subject, meaning that each student participant only followed one (1) google form filling. In this study, simulations were carried out by participants, where participants would act as auditors who were conducting audits on the company.

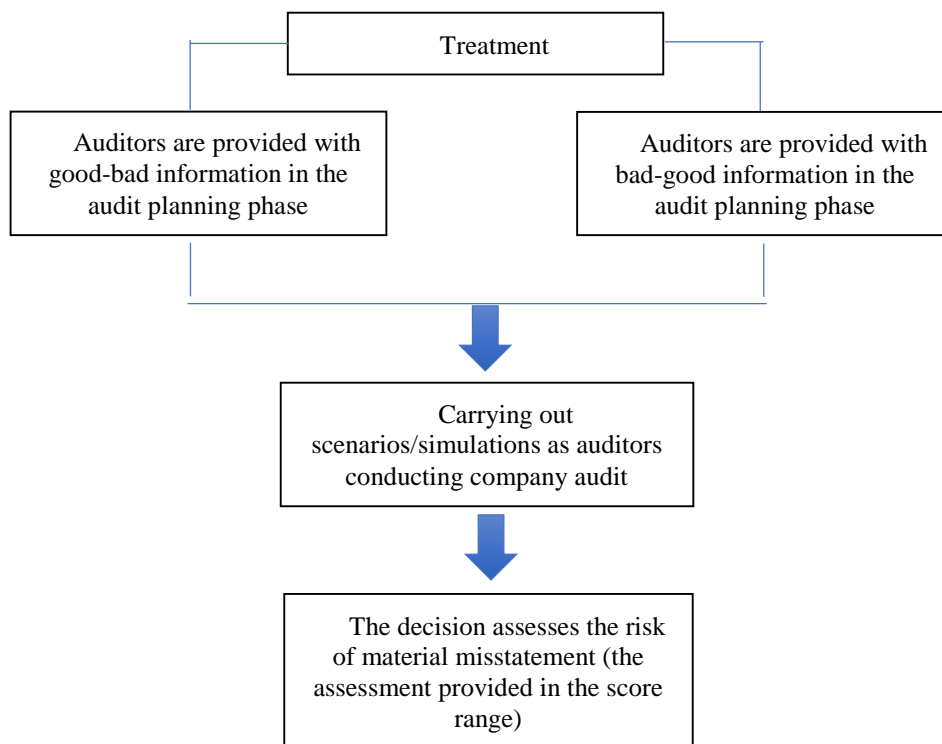


Figure 1: Experimentation Process

Participants in this study were divided into two (2) parts of the experimental class, namely experimental class one and experimental class two, where each class was divided into two (2) scenario groups with an audit planning process for male and female auditors. The difference between the two is how each auditor can conduct a risk assessment in the planning phase. Participants in cell 1 were given information on the planning phase of the risk assessment audit for good-bad control. Cell 2 participants are directed to audit using the process provided to assess the audit planning process in the bad-good control information. After all participants have simulated the role, regarding the audit planning phase, participants will then be given a test instrument and asked to assess the risk of material misstatements in the company by providing a score range from a numerical scale of 1 (one) to 9 (nine). The score range is interpreted: (i) scores 1 to 3 show a low risk of misstatement; (ii) scores of 4 to 5 show a moderate risk of misstatement; (iii) scores of 6 to 9 show a high risk of misstatement. Finally, it will be concluded how the audit planning process in assessing the risk of material misstatements, when getting good-bad information and otherwise.

Results and Discussion

How the differences in audit risk assessment in the planning phase between female and male auditors in decision making are the objectives of this study. Respondents of most of the study were female, and the rest were male. The study participants were fifty-six (56) people shown in the figure below:

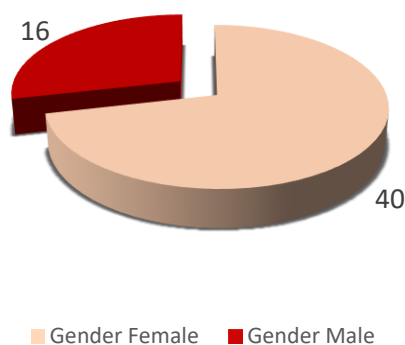


Figure 2: Participant Statistics

Based on Figure 2 the distribution of respondents based on audit planning information with student treatment received good-bad information and vice versa, 56 participants comprised 16 male and 40 female. The study used One-Way ANOVA analysis. Before the analysis, a normality test using Kolmogorov-Smirnov was carried out and a homogeneity test using Levene Statistic was carried out. After the test is

carried out, it will be analyzed looking for a comparison of risk assessments carried out males and females.

Table 2: Descriptive Statistics of Risk Assessment of Planning Phases of Research Instrument

Risk assessment based on gender	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
					Female	50		
Male	36	4.17	2.535	0.423	3.31	5.02	1	8
Total	86	4.8	2.371	0.256	4.29	5.31	1	9

Table 2 shows that the average score results got were higher in females than males. The average value of the risk assessment of the females' group against the audit planning phase in decision-making in the condition of companies with bad control was got by a value of 5.26. The average score of the male group assessment was 4.17. Female do higher risk assessments. The standard deviation in the females' group was lower than the risk assessment conducted by males. The standard deviation of the misstatement risk assessment in females is 2.155. The standard deviation of males is 2.371. A smaller standard deviation male stating that the risk assessment carried out by female is close to the average value got, it is likely that the risk assessment carried out is the same. Therefore, a larger standard deviation is interpreted as a risk assessment carried out by each individual far from the average value got, hence the distribution of the data varies. As it should be those standard deviations are used to see the distribution of data, which means the risk assessments carried out by males are varied and scattered compared to females.

The results of the risk assessment analysis in the female group ranged from 4.56-5.87. This estimate shows that the risk assessment in the audit planning phase carried out by females is in the high category. Meanwhile, the male participants in their risk assessment showed a range of numbers starting from 3.31-5.02 means that the risk assessment carried out by males was in a low phase. Previous research was according to Nur Apandi et al (2016). The assessment of male and female auditors regarding the risk of material misstatements of the same company may differ, depending on how the information is used as a comparison. If the risk assessment carried out by a female is higher than a male, it means that female in carefully analyzes the information got.

The Variance Homogeneity test is performed to test whether the ANOVA assumption is fulfilled. Therefore, the results of the Homogeneity test based on Levene Statistics are presented in Table 3 below:

Table 3: Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
2.851	1	84	0.095

Table. 3 The results of the statistical analysis of Levene are 2,851, and the signification value is $0.095 > 0.05$ So the assumptions for the ANOVA test are fulfilled. Finally, ANOVA's one-way variance analysis can test comparison regarding decision-making in risk assessment in the planning phase conducted by females and males, as presented in Table 4 below:

Table 4: ANOVA Results of Risk Assessment of the Planning Phase on Gender

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	25.020	1	25.020	4.643	0.034
Within Groups	452.620	84	5.388		
Total	477.640	85			

The results of Table. 4 above show that the significant value is $< 5\%$ or equivalent to 0.05. The results of the one-way ANOVA test produced in Table. 4 are 0.034 meaning that there is a difference between risk assessments carried out by male and female. Different risk assessments will affect the decision-making conducted by male and female auditors. As presented in Table. 2, the average score in women's assessments is more dominant than males This difference affects how auditors can receive and process information properly and how the process of audit planning is conducted between the two, so that the decisions taken by the two will be different not in line as they should be.

Previous according to research Chung and Monroe (2001), the proportion of female power is higher for new information. In terms of information, males are selective information processors, while female are comprehensive information processors. Therefore, on assignments audit, males spend more time studying information than females. If information can relieve all the work for females, then for males, information is an inhibition to completing audit assignments. Supported previous research according to Apandi et al (2019), the risk assessments on auditors showed against something object that would be affected by another set of objects that they believed could be assessed. The level of trust and confidence of each auditor at the time of conducting the audit can also affect of the final decision. Female auditor to belief are very sensitive when compared to male. If male audit more relies on field facts on the level of trust and confidence so that for decision making, they will be confident. A good

decision is based on a systematic and logical process and weaves together the problems faced from early to late.

The results of a study conducted on fifty-six respondents stated that the risk assessment of the audit planning phase in decision-making turned out to be more dominant for women than men. Judging from the condition of companies with poor control, women can carry out higher risk assessments, meaning that if women face the condition of companies with poor control, women are believed to receive and process information properly and the planning carried out by women is systematically arranged, so that whatever decisions are taken by women can produce good audit reports as well. Different the results of previous studies such as O'Donnell and Johnson (2001), Niskanen et al (2011), Sun et al (2011), Yang et al (2018), and Carnegie and Napier (2010) states that male auditors are dominant in making high-risk decisions in the audit process, it is become a force for them and the level of public trust becomes high. Meanwhile, the low level of trust in female auditors states that women avoid making risky decisions over audit risks (Chung & Monroe, 2001; Porcuna-Enguix et al, 2021; Yang et al, 2018; Säve-Söderbergh, 2012). Therefore, although female have the advantage of being careful in every job, male auditors still are more dominant in conducting risk assessments. There are differences in the current research and previous research between women and men in the audit planning process in decision making. This can provide knowledge to companies that female auditor also have a high-risk assessment in the audit planning phase, so that auditor can provide accurate and reliable information in decision-making and ensure the conformity between the financial statements prepared by management and existing accounting standards.

Conclusion

The audit process consists of 3 main phases: planning, testing, and reporting. In the planning phase, a careful assessment is needed. It is argued here that female in general can manage to assess the information more systematically and accurately than the males. Although males can handle the pressure better when conducting fieldwork audit in the planning phase, female auditors can analyze the information better.

Data has shown that Indonesia has relatively low number of public accountant compared to other ASEAN countries. In 2022, the members of public accountants have reached only up to 1,444 people, comprise of 65% men and 35% women. Males accountant are found to be dominant than the females. The work load as auditor is too much; thus, it requires auditors who have the capability to handle big pressures while during the job. Despite the male domination in the audit professions, the researchers argue that females can analyze the audit information better than the males. Although the findings show that companies with bad control conditions, female auditors assess a higher risk than male auditors, the risk assessments indicate that the results are not significantly different.

The implication of this study can benefit the auditor manager as they can allocate the audit assignments based not only on the ability to deal with pressure but also pay attention to aspects of accuracy. The limitation of the study, first the relatively small amount of data. Therefore, further research is expected to use samples from several universities so that the data obtained have different characteristics. Second, the timing of the experiment is conducted differently to get accurate data.

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