#### RESEARCH ARTICLE

# An Experimental Study: Audit Quality Importance on Selecting a Public Accountant Firm (PAF)

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The study aims to emphasize the importance of knowledge of audit quality on Public Accountant Firm (PAF) selection for a company by employing a 2x1 factorial design between-subject. To achieve this goal, we identified differences between the experimental and control groups. The experimental group was given knowledge of audit quality, whereas the control group had no treatment during the process selection of PAF. There were 10 indicators used in term of audit quality, namely audit workload, business expertise, audit turnover, audit hours, result of employee satisfaction surveys, partner compensation, result of client satisfaction surveys, PCAOB inspection results, restatements on audit reports, and litigation of PAF. Further, these indicators were classified into input and output in the audit process. The result revealed a significant difference between the experimental and control group. It is concluded that experimental group which was equipped with knowledge of audit quality can reduce bias in PAF selection decisions.

Keywords: Audit Quality, PAF Selection, Experimental Study

JEL Classifications: M42, M48, C91

Public accountants offer accounting services under the legalization of Public Accountant Firm (PAF). Public accountants are deemed to be independent in delivering a trusted opinion and responsible for increasing the reliability of the financial statements of a company. Further, a reliable PAF allows the stakeholder and shareholder to rely on the information provided in financial statements and implement it in the decision-making process (Abdulmalik & Ahmad, 2016). A PAF relies on indicators to perform a high-quality audit, and hence, involvement of audit quality indicators in the selection process of PAF for a company is indispensable. Selecting a PAF for a company is determined by the financial management and audit committee. Financial management plays an important role on behalf of the internal party, whereas the audit committee is responsible for undergoing the job and functions as a part of the Board of Commissioners. Hence, the independence of the audit committee is higher compared to the management in respect of the PAF selection process.

According to the Minister of Finance Decree No.17/ PMK.01/2008, about public accountant services, a PAF has to perform an audit of a company not later than six years (Ministry of Finance Republic of Indonesia, 2008). A longer audit tenure will increase the propensity for closer relationships that can potentially reduce independence (Joshi et al., 2009). There was a noteworthy issue in late 2001 related to accounting fraud involving a big five auditor firm (i.e., Arthur Andersen) and Enron, an energy company with enormous total assets, which resulted in the withdrawal of the auditor firm's license ("Enron Fast Facts," 2021; Chu & Hsu, 2017; Sridharan et al., 2002). This case prompted U.S. Congress to issue The Sarbanes-Oxley Act 2002 (SOX Act) as the aftermath (United States Federal Law, 2002). Since then, four big auditor firms have remained in the U.S. Moreover, the SOX Act is addressed to listed public companies on the U.S. Stock Exchange to reform their financial disclosure. This regulation has been passed to secure investors from the listed companies' default. It should be noted that in case of report manipulation, the PAFs should also be held accountable as much as the client. Therefore, management under audit committee supervision should conduct the accurate PAF selection process to ensure engaging the PAF, which performs high audit quality by employing indicators to measure audit quality.

Accordingly, we conducted a small-scale experimental study to demonstrate the PAF selection process. We compared the PAFs with several criteria, such as similar in size, similar industry to company, and affiliated with big four auditors. Big four auditor was chosen because the non-big four counterparts offer audit quality that does not meet the eligibility based on PCAOB guidelines (Harris & Williams, 2020). This experimental activity was attended by 50 undergraduate students majoring in Accounting at the Faculty of Economics, University of Sriwijava. They were presented with a case and activity sheet using 10 indicators of audit quality. Ten indicators are used in measuring audit quality, namely, audit workload, business expertise, audit turnover, audit hours, result of employee satisfaction surveys, partner compensation, result of client satisfaction surveys, PCAOB inspection results, restatements on audit report, and litigation of PAF. This study is based on the works of Dickins et al. (2018), which used experimental research methods in Illinois, U.S.A., as well as Gunny & Zhang (2013) and DeFond & Francis (2005) regarding audit quality measurement. The purpose of this study is to determine whether an understanding of audit quality can reduce bias in the PAF selection process for a company. Particularly, this study aims to determine whether there is a difference between the group that had and had not been given knowledge of audit in the process of selecting a company.

Hence, the hypothesis of this study is given as follows:

H<sub>0</sub>: There is no difference between the group that is given knowledge of audit quality indicators and the group that is not given knowledge of audit quality indicators.



Figure 1. Theoretical Framework

\*Audit quality is proxied to audit workload (Heo et al., 2020; Chen et al., 2020), business expertise (Bills et al., 2020), audit turnover (Li et al., 2017), audit hours (Dickins et al., 2018; Dekeyser et al., 2019), the result of employee satisfaction surveys (Dickins et al., 2018), partner compensation (Joshi et al., 2009), the result of client satisfaction surveys (Aghazadeh & Hoang, 2020), PCAOB inspection results (Dickins et al., 2018), restatements on audit report (Boland et al., 2016), and litigation of PAF (Kang et al., 2019)

 $H_1$ : There is a significant difference between the group that is given knowledge of audit quality indicators and the group that is not given knowledge of audit quality indicators.

## Methods

### Data Collections

This study is adapted from the research of Dickins et al. (2018), with treatment modifications adjusted to the existing context in Indonesia. Data collection was obtained from students specializing in auditing at the Accounting Department of the University of Sriwijaya, South Sumatera, Indonesia, based on activity sheets and post-tests carried out at the end of the experimental study. The stages of this activity are depicted in Table 1.

#### Table 1. Experimental Study Stages Chart

1	Divide the participants into two groups: a control group and an experimental group
2	Divide each group into two more groups, respectively: financial management and audit committee
3	Participants complete the activity sheet individually
4	Participants in groups discuss group choices
5	Each group (control and experiment) draws

- 5 Each group (control and experiment) draws one conclusion on the PAF choice
- 6 Discussion between the control and experimental groups, then tally the final results

This study compared two groups, namely, experimental and control groups. The two groups received different treatment at each meeting. They later were divided into two groups, which acted as the role of financial management and the role of audit committee. They had to fulfill the tasks, which resulted in a selected PAF for a company they played a role in. Only the experimental group was given knowledge of audit quality indicators, which were discussed and classified one by one to input or output in the audit process. Understanding of the audit indicators was given through the material presented by class instructors and also practitioners who are auditors at the big four PAF. Thus, the understanding of audit indicators is directly associated with the audit simulation that actually occurs in practitioner fields.

Afterward, the groups were asked to fill out an activity sheet describing the 10 audit quality indicators between two comparable PAFs. They were asked to evaluate each PAF and complete the activity sheet individually based on their roles. Anyone who did not understand or misunderstand their role was eliminated as a participant of this study. Moreover, each group discussed their group choices, drew one conclusion, then matched it into one choice in one class. Furthermore, a discussion was held between the experimental group. Later, the control group discussed the audit quality indicators based on their understanding. The change of final choice was allowed for each group. After tallying the result, a post-test was carried out to evaluate their knowledge of audit quality indicators. The instrument on the post-test is calculated using a scale of 1 to 4, wherein 1 = strongly agree and 4 = strongly disagree. PT Bukit Asam, Tbk (PTBA) is a national energy company based in Tanjung Enim, South Sumatera, Indonesia. PTBA is a listed public company on the Indonesia Stock Exchange. PTBA is deemed as an exact example to be demonstrated as an object to the case in this study. Further, we used PAF A and PAF B in terms of PAF candidates, both are affiliated with the big four.

#### Data Analysis Technique

The obtained data were analyzed using parametric statistical methods with a difference-test (one-way ANOVA) to indicate bias in the less knowledge of audit quality indicators. There are several assumptions to fulfill the difference-test: (a) The data is normally distributed; (b) The data have similar variance (homogeneity); and (c) The data comes from an independent sample (non-paired sample; Sugiyono, 2015).

### **Results and Discussion**

This experimental study was conducted on 60 undergraduate students majoring in Accounting. There were only 50 people who met the requirements until the completion of the experiment. The population and samples are described in Table 2.

Participants are fourth-year undergraduate students who have taken auditing classes since the third year of college; thus, they are considered to have sufficient basic knowledge about auditing. To support the

<b>Table 2.</b> Experimental Study Stuges Ch
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Information	Total	Percentage (%)
Total Participants	60	100
Participants who fail the manipulation check	4	6,7
Participants who fail the role	6	10
Total Legitimate Participant	50	83,3



Figure 2. Distribution of Auditing Subject Score of the Participants

aforementioned statement, Figure 2 depicts the auditing subject score of participants. There are two subjects that represent the basic knowledge of audit, namely auditing I and auditing II. By calculating the score of participants, we got the average score of two auditing subjects as 3.61, where three indicates B grade (good) and four indicates A grade score (excellent). Further, the average auditing I and auditing II subject scores are 3.58 and 3.62, respectively.

There were 50 participants comprising of 14 male students and 36 female students. It should be noted that the participants were based on two campuses of the University of Sriwijaya, namely Indralaya and Palembang campuses, of which it was used as a dichotomy in the study as well. The Indralaya and Palembang campuses were represented by 24 and 26 participants, respectively.

Table 3.	Statistic	Descri	ptive
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Information	Total	Percentage (%)
Male	14	28.0
Female	36	72.0
Total	50	100.0

The average GPA of the participants was in the excellent category, with an average of 3.53 (maximum GPA of 4.00), as seen in Figure 5. The highest GPA was within the GPA range between 3.50–3.75, with a total of 24 participants. Meanwhile, there are only four participants in the lowest bracket of the GPA category.



Figure 3. Distribution of GPA of the Participants

### **Hypothesis Testing**

We used one-way ANOVA to test the hypothesis. Before conducting the difference-test, we need to confirm that the data is normally distributed and

#### Table 4. Normality Test

	Crowns		Shapiro-Wilk				
	Groups	Statistic	Df	Sig.			
Audit Quality	Control Group	.950	25	.246			
	Experiment Group	.949	25	.233			
a. Lilliefors Sig	nificance Correction						
Ta	ble 5. Variance Test						
A	udit Quality						
	Levene Statistic	df1	df2 Sig.				
	.262	1	48 .611				

#### Table 6. One-Way ANOVA Test

Audit Quality					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	499.280	1	499.280	177.996	.000
Within Groups	134.640	48	2.805		
Total	633.920	49			

homogeneous. Therefore, the data merit being tested. Because the sample in this study was not smaller than 50 participants, the Shapiro-Wilk test was used to test the normality. The result of the normality test shows that the significance value of 0.246 and 0.233, which is greater than the significance value of  $\alpha = 5\%$  (0.05), indicating that the data is normally distributed.

Moreover, the Levene test result shows a significance value of 0.611, which was greater than the significance value of  $\alpha = 0.05$ . Thus, it is concluded that the data in this study are homogeneous (Table 5). Because all the assumptions met the requirements, the data is valid to be subjected to a one-way ANOVA test. The result is shown in Table 6.

The results of the one-way ANOVA test show a significance value of 0.00, which is lower than the significance level of  $\alpha = 5\%$ . The result indicates that  $H_0$  is rejected, and the hypothesis proposed in this study, namely  $H_1$  is accepted. It can be concluded that there is a significant difference between the examined groups. It is apparent that the propensity of bias to the PAF can be effectively avoided by providing audit quality knowledge. These results were obtained from the post-test comparison between the control and experimental group of financial management and audit committee

The case illustration (see Appendix) used a company engaged in the coal mining industry, namely PT Bukit Asam (PTBA). Only one PAF between two choices (PAF A and B) can be selected to represent the PAF. It is noted that both of them are affiliated with the big four. The information included in the case contained the results of interviews from the company with each PAF to carry out a survey on the selection process of PAF to be engaged by the company. The comparison descriptions between PAF A and PAF B based on 10 audit quality indicators are provided in Table 7.

Based on the guidelines issued by the International Auditing and Assurance Standards Board (IAASB) in 2014, the audit framework consists of several elements, namely input, process, output, financial reporting cycle, and contextual factors (IAASB, 2014). The three fundamental aspects are input, process, and output. Furthermore, prior to the audit engagement, the company, which consists of financial management and audit committees, classified the audit quality indicators into inputs and outputs in the audit. Auditor workload, business expertise, audit turnover, audit hours, and partner compensation are classified as inputs in the audit process. On the other hand, PCAOB inspection results, restatements on the audit report, and litigation of PAF are classified as outputs in the audit process.

## Table 7

PAF Comparison on Activity Sheet

In dia stars	Input/Output?	Information				
Indicator	Or Both?	PAF A	PAF B			
1. Audit workload	Input	All audit personnel work approximately 37 hours a week (do not include official travel).	Audit personnel work approximately 43 hours a week.			
2. Business expertise	Input	This PAF has two audit teams that have conducted audits on mining companies.	This PAF combines the audited business fields for mining and energy companies and construction for mining companies.			
3. Audit turnover	Input	The PAF personnel turnover rate is around 21% per year.	The percentage of audit personnel turnover has been 12% over the past four years.			
4. Audit Hours	Input	The total allocation is 2200 hours, 40% for the preliminary stage; the rest is substantial stage to final stage.	Total allocation is 2600 hours, one-third of the total allocation for preliminary, additional 50 hours discussing audit technology.			
5. Result of employee satisfaction surveys	Input/Output	Conducted an employee satisfaction survey using a 360-degree review.	Employees fill out a job satisfaction survey to HRD without mentioning their identity (blind survey).			
6. Partner compensation	Input	Audit partners are paid on a compensation package that includes a base salary and incentives.	PAF partners have a basic salary; bonuses are given based on client satisfaction. Partners are more focused on performance rather than bonuses.			
7. Result of client satisfaction surveys	Input/Output	Clients are satisfied with the service and professionalism of this PAF.	The results of the customer survey consisted of questions with a score of 1 (disagree) to 10 (agree). The client consistently gives a score of 10.			
8. PCAOB inspection results	Output	The latest PCAOB inspection report revealed that out of 75 audit reports, 10 were examined and produced two findings. There are suggestions for findings for PAF.	The latest inspection report revealed that this PAF had issued 12 audit reports, only one of which was examined in-depth. PAF B did not receive any criticism and suggestions for its audit report.			
9. Restatements on the audit report	Output	None.	None.			
10. Litigation of PAF	Output	This PAF does not have findings related to internal controls except for a solution to the problem for the last ongoing case (the problem is not explained further).	At the beginning of 2019, there was an incident involving the senior auditor at this PAF with the client's daughter. In the end, the senior auditor was given sanctions from the Indonesian Public Accountants Association.			

The results of the employee satisfaction survey and results of client satisfaction surveys can be classified as inputs and outputs in the audit process because they can be used as indicators that affect the PAF selection process by potential clients. Moreover, this indicator is a report or the result of an audit process that may be kept internally and not shared with the public by PAF; however, these results may deliver a positive impact on the improvement of PAF if followed up responsibly by the PAF itself.

Auditor workload is marked by the large number of clients handled by the auditor or the limited time for the auditors to carry out the audit process. Heo et al. (2020) stated that when audit firms are in a busy season, the involvement of senior auditors will attenuate. Moreover, the involvement of senior auditors improves audit quality. Senior auditors are deemed to have ideal abilities in detecting and reporting errors and fraud because their experiences increase professionalism in performing a high-quality audit. Furthermore, the heavier the workload of the auditor, the more attenuated audit quality would be.

The second indicator is business expertise, which specifies the experience of the PAF. For example, the most experienced PAF in a company would be more likely to be more knowledgeable than their peers, especially regarding internal information within the company in question. A company tends to choose an external auditor who has experience in auditing similar businesses to a client (Bills et al., 2020). Obviously, with more skills and knowledge regarding the operational activities, a PAF would be able to perform higher audit quality. Hence, the PAFs used in this study obtained an equivalent result because both are engaged in a similar field to the prospective client.

Changes of auditors in a PAF are common for various reasons. According to the result of research conducted by Li et al. (2017), companies tend to choose PAF with lower auditor turnover rates rather than PAF with higher auditor turnover rates. Lower audit personnel turnover indicates that the last longer auditor will perform higher audit quality. The duration of audit hours is associated with efficiency. Appropriate time planning during audit engagement translates to improved efficiency that increases audit quality. Audit hour imposes on the auditor to accomplish the audit process based on the time planned. According to DeZoort and Lord (1997), auditors respond in two ways when facing time budget pressures—functional and dysfunctional. Functional type is the behavior of the auditor to utilize the limited time as well as they can, contrary to the dysfunctional type. On the other hand, Dekeyser et al. (2019) found that lower audit hours do not affect audit quality in terms of auditor industry scale.

It is substantial for PAFs to measure employee satisfaction through surveys. The results are worthy of being a benchmark to overcome the problems faced by employees. Satisfied employees are directly proportional to good performance because good performance increases employee performance to conduct a quality audit.

Previous studies included partner compensation as a consideration in choosing a PAF (i.e., Joshi et al., 2009). In addition, partner compensation salary basically depends on the audit fee in the audit engagement of each client. More clients in total that are engaged to the PAF would affect the partner compensation.

The proper result of the client satisfaction survey indicates that PAF has provided good services related to audits (Aghazadeh & Hoang, 2020). Good service and high-quality audits impart positive effects to clients. According to Regulation of the Indonesian Ministry of Finance Number 17/PMK.01/2008, it is mandatory for PAF to improve technical capability and auditor independence sustainably in accordance with developments in accounting and auditing standards and other related (Ministry of Finance, 2008). Increasing the overall service quality will support the performance of PAF to meet the needs of service users. The quality of audit of a PAF can be perceived from the PCAOB inspection results-a large number of findings indicates a lower audit quality (Dickins et al., 2018). PCAOB examination includes the adequacy of audit procedures that have been performed, compliance with accounting standards and auditing standards in its scope of tests from SOX Control and Management Override Control, and accountability of financial statement information. The results of the PCAOB inspection can lead to a restatement of the audit opinion, which has a severe sanction for the PAF. However, Boland et al. (2016) found that less than 2% of the findings from PCAOB inspections lead to a restatement of audit opinion.

Reflecting on the case of Enron (1999-2002), a restatement of the audit report would enhance the global audit methodology and cover a wider area of examination related to the company and audit quality. It is noteworthy that the assurance service covers the

level of reasonableness at 95%; thus, the misstatement of the audit report needs to be observed in the audit evidences and procedures performed. Presently, audit opinion has become the benchmark in evaluating the audit quality of a PAF. However, the process of finding material errors takes a long time. Therefore, finding a misstatement of opinion does not necessarily indicate high audit quality. For example, a company that presents a fair financial report prepared by competent professionals will certainly produce an opinion at the highest hierarchy despite being audited by PAF that performs a low-quality audit. The number of litigation is certainly a consideration for companies in selecting PAF. A large number of litigations indicates many problems faced by the PAF; thus, the quality of the audit could be questionable, albeit it is not certain that the legal guidance is related to the audit quality of the PAF itself. An in-depth investigation is needed to determine what cases are related to litigating the company. Lastly, a company prefers to choose a PAF that is free from legal problems that reflect the quality of audit performance.

According to the evaluation of 10 audit quality indicators, PAF B outperformed PAF A in five indicators, namely audit turnover, results of the employee satisfaction survey, partner compensation, results of the client satisfaction survey, and PCAOB inspection results. Meanwhile, PAF A outperformed PAF B in only two indicators: auditor workload and audit hours. Both PAF A and B tied on the remaining indicators, namely business expertise, restatement of audit report, and litigation of PAF. This study shows that the participants in the experimental group correctly chose PAF, which is prominent in each indicator compared to the participants in the control group. It indicates that participants in the experimental group understood and applied knowledge of audit quality indicators properly in the illustrated case. Moreover, they accomplished the PAF selection process better than participants in the control group. In other words, understanding the audit quality indicators provides broader considerations to reduce the possibility of bias in the PAF selection process for a company.

The result of the activity sheets from control and experimental groups are shown in Tables 8 and 9. Previously, the financial management and audit committee in the control group had different choices, which was explained earlier. However, in the end, the control group has switched to PAF A. The choices between the control and the experimental group were also different. Nevertheless, at the end of the discussion, the control group agreed to the choice of the experimental group. It is possible that because the control group participants did not have sufficient knowledge of audit quality indicators, they could not stay with their initial choice. The discussion results of the two classes based on their respective roles show that the participants from the experimental group can

		Experim	ent Grou	ıp		Contro	ol Group			
Indicator	PA	FA	PA	.F B	PA	FA	PA	FB	PAF A	PAF B
	FM	AC	FM	AC	FM	AC	FM	AC		
1	10	8	4	3	4	2	8	11	24	26
2	3	2	10	10	8	7	5	5	20	30
3	1	3	9	12	7	11	3	4	22	28
4	7	8	4	6	5	6	9	5	26	24
5	4	5	8	8	9	11	2	3	29	21
6	1	3	10	11	7	13	4	1	24	26
7	5	3	9	8	8	9	5	3	25	25
8	3	5	10	7	7	7	3	8	22	28
9	5	7	7	6	7	9	5	4	28	22
10	3	7	8	7	5	7	6	7	22	28

Table 8. The Comparison of Activity Sheet Result

DAE	С	ontrol Gro	up	Group	Ex	periment Gr	oup	Crown Docult
ГАГ	FM	CA	Total	Result	FM	СА	Total	- Group Kesuit
PAF A	8	6	14		4	2	6	
PAF B	5	6	11	РАГ А	9	10	19	PAF B

 Table 9. Activity Sheet Result of Control and Experimental Groups

maintain their selected PAF by defending the choices in each audit quality indicator based on the knowledge that has been given previously. On the other hand, the participants in the control group cannot maintain their selected PAF regarding the less knowledge of audit quality indicators. Participants in the control group cannot argue with evidence and theory that their choice is prominent. It is also noted that all participants can play their role properly, both as financial management and audit committee, in the control and experimental group.

### Discussion

Audit quality measurement can vary from one to another. Nonetheless, it is not limited to the ability of an auditor to discover and report misstatements, meet legal and professional requirements, or meet the needs of investors. Despite the difficulties of defining and measuring audit quality, the need for high-quality audits is universally recognized. High-quality audits increase investor confidence and contribute to efficient financial markets (Dickins et al., 2018).

Audit quality uses a wide range of measurements to ensure PAFs perform high-quality audits, which is not restricted to the output produced yet considering the input factors in it. Therefore, this study includes input and output factors on PAF selection process by a company. The results of the study indicate that there is a significant difference between the group treated by knowledge of audit quality indicators (experiment group) and those that were not treated by knowledge of audit quality indicators (control group). The experimental study employed a 2x1 factorial design between-subject, which means there is a variable employed through two treatments, namely audit quality.

The audit quality was proxied into 10 indicators classified as input and output in the audit. The result of experimental activity showed that 69.71% of participants from the control group miscast in evaluating each audit quality indicator, which was higher than the percentage of miscast in the experimental group at the percentage of 28.57. Participants in the experimental group were more prominent than participants in the control group. In other words, a misjudgment of the audit quality indicators leads to bias in the PAF selection process. Meanwhile, the percentage of miscast in the PAF selection attenuated in the group with knowledge of audit quality indicators.

These results indicate that the 10 audit indicators (audit workload, business expertise, audit turnover, audit hours, result of employee satisfaction surveys, partner compensation, result of client satisfaction surveys, PCAOB inspection results, restatements on audit report, and litigation of PAF) has the potential to determine the audit quality in order to select a PAF that is the most appropriate for a company. The results of this study support the previous study conducted by Dickins et al. (2018) despite employing different treatments and a study by Aghazadeh and Hoang (2020), which employed manipulation in the audit quality indicator, namely the client satisfaction survey.

In addition, this study indicates that the participants recommend the experimental group to other students who take the audit course because it provides benefits in understanding audit quality indicators. Lastly, participants who were given the treatment of audit quality indicators were able to classify the inputs and outputs in the audit and were able to select the preferable PAF. Moreover, it reduces bias towards the selection of a similar PAF. In practice, it is appropriate to provide knowledge about audit quality indicators to management and audit committees in a company to reduce the possibility of bias in the PAF selection process.

#### Conclusions

It is understood that the possibility of bias may arise due to a lack of knowledge of audit quality indicators. Therefore, the importance of providing information of audit knowledge to PAF personnel cannot be understated. In this study, the participants in the experimental group who were treated by knowledge of audit quality indicators were able to classify audit quality indicators into inputs and outputs. They were able to sort the audit quality indicators from the highest to the lowest in regard to PAF selection. We conclude that providing knowledge of audit quality indicators is crucial in determining and even rectifying the quality of decision-making in selecting PAF for a company. The limitation is that the experimental design classifies two classes to a treatment. Therefore, we suggest various treatments on a larger number of samples to carry out broader conclusions to contribute to the PAF selection process that is generally applicable to the companies in a practical situation.

## References

- Abdulmalik, S. & Ahmad, A. C. (2016). Audit fees, corporate governance mechanisms, and financial reporting quality in Nigeria. *DLSU Business & Economics Review*, 26(1), 122–135.
- Aghazadeh, S., & Hoang, K. (2020). How does audit firm emphasis on client relationship quality influence auditors' inferences about and responses to potential persuasion in client communications? *Accounting*, *Organizations and Society*, 87, (2020), Article 101175. https://doi.org/10.1016/j.aos.2020.101175.
- Bills, K. L., Cobabe, M., Pittman, J., & Stein, S. E. (2020). To share or not to share: The importance of peer firm similarity to auditor choice. *Accounting, Organizations* and Society, 83 (2020) 101115. https://doi.org/10.1016/j. aos.2020.101115.
- Boland, C., Brown, V., & Dickins, D. (2016). PCAOB inspections on the audit process and audit standard setting. Working paper presented at the 2017 AAA Auditing Mid-year Meeting.
- Chen, J., Dong, W., Han, H., & Zhou, N. (2020). Does audit partner workload compression affect audit quality?. *European Accounting Review*, 29(5), 1021-1053. https:// doi.org/10.1080/09638180.2020.1726196
- Chu, B., & Hsu, Y. (2017). Non-audit services and audit quality—The effect of Sarbanes-Oxley Act. Asia Pacific Management Review, 23(3), 201-208. https://doi. org/10.1016/j.apmrv.2017.07.004.
- DeFond, M. L., and Francis, J. R. (2005). Audit Research after Sarbanes Oxley. Auditing: A Journal of Practice & Theory 24(Supplement 2005), 5–30.
- Dekeyser, S., Gaeremynck, A., & Willekens, M. (2019). Evidence of industry scale effects on audit hours, billing rates, and pricing. *Contemporary Accounting Research*, 36(2), 666-693 https://doi.org/10.1111/1911-3846.12460.

- DeZoort, F. T., & Lord A. T. (1997). A review and synthesis of pressure effects research in accounting. *Journal of Accounting Literature*, 16, 28–85.
- Dickins, D., Johnson-Snyder, A. J., & Reisch, J. T. (2018). Selecting an auditor for Bradco using indicators of audit quality. *Journal of Accounting Education, 45*, 32–44.
- Gunny, K. A. & Zhang, T. C. (2013). PCAOB inspection reports and audit quality. *Journal of Accounting and Public Policy*, 32(2), 136-160. https://doi.org/10.1016/j. jaccpubpol.2012.11.002.
- Harris, M. K., & Williams, L. T. (2020). Audit quality indicators: Perspectives from non-big four audit firms and small company audit committees. *Advances in Accounting*, 50, Article 100485.
- Heo, J. S., Kwon, S. Y., & Tan, H. (2020). Auditors' responses to workload imbalance and the impact on audit quality. *Contemporary Accounting Research Journal*, 38(1), 338-375. https://doi.org/10.1111/1911-3846.12612.
- Enron fast facts. (2021, April 25<sup>th</sup>). *CNN*. Https://edition.cnn. com/2013/07/02/us/enron-fast-facts/index.html.
- International Auditing and Assurance Standards Board. (2014). Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements. https://www.ifac.org/system/ files/publications/files/2014-IAASB-HANDBOOK-VOLUME-1\_0.pdf.
- Joshi, P. L., Ajmi, J. A., & dan Bremser, W. G. (2009). A study of auditor-client relationships and problems in the Bahraini audit environment. *Advances in Accounting*, 25(2) 266–277. https://doi.org/10.1016/j. adiac.2009.08.003.
- Kang, M., Lee, H., Mande, V., & Woo, Y. (2019). Audit firm attributes and auditor litigation risk. *Abacus*, 55(4), 639-675. https://doi.org/10.1111/abac.12171.
- Li, X. (D.), Sun, L., & Ettredge, M. (2017). Auditor selection following auditor turnover: Do peers' choices matter? *Accounting, Organizations and Society*, 57 (2017), 73-87. https://doi.org/10.1016/j.aos.2017.03.001.
- Ministry of Finance Republic of Indonesia. (2008, February 5<sup>th</sup>). *Minister of Finance Decree No.17/PMK.01/2008 about public accounting services*. https://jdih.kemenkeu.go.id/fullText/2008/17~PMK.01~2008Per.HTM.
- Sridharan, U. V., Caines, W. R., McMillan, J., & Summers, S. (2002). Financial statement transparency and auditor responsibility: Enron and Andersen. *International Journal of Auditing*, 6(3), 277–286. https://doi. org/10.1111/j.1099-1123.2002.tb00018.x.

Sugiyono. (2015). Management research methods. Alfabeta.

United States Federal Law. (2002, July 30<sup>th</sup>). *Sarbanes-oxley Act of 2002*. https://www.govinfo.gov/content/pkg/ COMPS-1883/pdf/COMPS-1883.pdf

Participant	Control	Experimental
1	17	21
2	14	23
3	18	22
4	18	23
5	12	22
6	16	19
7	15	18
8	17	22
9	15	20
10	14	24
11	15	19
12	14	21
13	14	22
14	12	22
15	15	20
16	14	23
17	13	21
18	16	20
19	15	21
20	15	22
21	16	19
22	14	18
23	15	20
24	13	24
25	13	22

## **Post-test Result**

Control Group						
Financial Management						
Individual Result	Group Result					
PAF B						
PAF A						
PAF A						
PAF B						
PAF B						
PAF A						
PAF A	PAF A					
PAF A						
PAF A						
PAF B						
PAF B						
PAF A						
PAF A						

## Appendix 3

Control Group		
Audit Committee		
Individual Result	Group Result	
PAF B		
PAF A		
PAF A		
PAF B		
PAF B	PAF B	
PAF B		
PAF A		
PAF A		
PAF B		
PAF A		
PAF B		
PAF A		

Experimental Group		
Financial Management		
Individual Result	Group Result	
PAF B		
PAF B		
PAF A		
PAF B		
PAF A		
PAF B		
PAF B	PAF B	
PAF B		
PAF A		
PAF B		
PAF B		
PAF A		
PAF B		

## Appendix 5

Experimental Group		
Audit Committee		
Individual Result	Group Result	
PAF B		
PAF B	PAF B	
PAF B		
PAF A		
PAF B		

#### Information of the Company

The company illustrated in this case is PT Bukit Asam, Tbk. This company has a very long history in the national coal industry. The first operation was in 1919 and on March 1, 1981. PN TABA changed its status to a corporation under the name PT Bukit Asam (Persero), hereinafter PTBA. To increase the development of the coal industry in Indonesia, in 1990, the Government decided to merge Perum Tambang Batubara with the Company. In accordance with the national energy security development program, in 1993, the Government assigned the Company to develop a coal briquette business. On December 23, 2002, the Company listed itself as a public company on the Indonesian Stock Exchange with the trading code "PTBA."

On November 29, 2017, it became a historical record for PTBA when it held an Extraordinary General Meeting of Shareholders. The main agenda in the EGMS of PTBA includes three things: (a) the approval of the amendment to the Articles of Association of the Company related to the change in the status of the Company from Persero to Non-Persero in regard to PP 47/2107 concerning the Addition of Capital Participation of the State of the Republic of Indonesia to the Share Capital of PT Inalum (Persero), (b) Approval of Nominal Splitting Shares (stock split), and (c) changes in the composition of the Company's Management. With the transfer of shares of the Indonesian government to Inalum, the three companies officially became members of the Mining Industry BUMN Holding, with Inalum as its main company (Holding).

On December 14, 2017, PTBA conducted a stock split. The company took steps for a stock split to increase the liquidity of stock trading on the Stock Exchange and expand the distribution of share ownership by reaching various layers of investors, as well as to support the "Yuk Nabung Saham" program. Bukit Asam's strong commitment to improving the company's performance is a fundamental factor in this corporate action. PTBA is a company that is stable in terms of finances, shown by the acquisition of profits in the last three years amounting to 3,859,402 (2017), 5,861,571 (2018), and 3,843,338 (2019), respectively.

#### Information of the PAFs

There are two PAFs available which are big four PAF (the name of PAFs are hidden to prevent a conflict of interest). The two PAFs were selected based on the audit experience that is similar in terms of characteristics, types, and amount of assets. Thus they are worthy of being compared. For your deliberation, here is the comparison between the two PAFs based on the available data:

### **PAFA**

PAF A is a public accounting firm based in Jakarta, Indonesia, affiliated with the big four PAF. The firm has been around for 25 years and is committed to providing cost-effective services with high audit quality results. Information regarding this PAF is publicly available on the website and the latest PCAOB inspection report. PAF A has issued 75 audit reports representing 65% of the total clients. Non-audit services provided by PAF to clients are only related to tax services. PAF and all audit personnel have never received a penalty related to the results of the audit report. Overall, there are 121 auditors employed in this PAF, 12 of which are audit partners. The latest PCAOB inspection report revealed that out of 75 audit reports, 10 were examined and discovered two findings. Suggestions for the findings for PAF are: (a) appropriately applying GAAP standards as a basis for carrying out the audit process to avoid material errors and changes in opinion (restatement) in the audit report and (b) be guided by the information provided by the party given the authority of the client to deal with the PAF compared to information provided by other independent parties.

### PAF B

PAF B is a public accounting firm that provides all accounting services, with the main office located in Jakarta and has a branch office outside Jakarta. This branch office has been established for 11 years. This PAF has long been affiliated with the big four PAF. Some general information regarding this PAF can be obtained generally on the website and its latest PCAOB inspection report. PAF B has issued 12 audit reports consisting of 10% of clients as a whole (the clients of PAF B are not only clients in audit services). This PAF provides taxation, audit, and other services related to services that accountants can provide according to official permits. PAF B has never experienced a penalty. An audit partner at this PAF has retired after 42 years

of experience as a CPA. Overall, 65 auditors work at this PAF, two of which are audit partners. Employees at PAF B consist of 15 senior auditors, and 48 people are staff and junior auditors. The latest inspection report revealed that PAF B had issued 12 audit reports, only one of which was an in-depth review. PAF B did not receive any criticism and suggestions for its audit report.