

# **NAS AND AUDITOR INDEPENDENCE: EVIDENCE FROM MALAYSIAN LISTED CONSTRUCTION COMPANIES**

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**Abstract:** Construction industry in Malaysia has been associated with various scandals of corruption and fraud cases over the years, which raised the question of the functionality and independence of the external auditor. Whether the provision of non-audit services (NAS) has affected auditor independence or not in construction companies is still unexplored. Therefore, this study tends to examine the relationship between NAS (NAS) and auditor independence of construction companies in Malaysia. The study also includes the control variables, which are grouped into financial, corporate governance and institutional. The study employs descriptive analysis, univariate tests and multivariate regression to investigate the potential effect of NAS on auditor independence. The data for NAS and other control variables were hand collected from annual reports downloaded from Bursa Malaysia's website. Based on 147 firm-year observations of construction companies for the period 2017-2019, the study found that the joint produce of audit and NAS did not compromise auditor independence. This empirical result failed to prove the economic bond created between auditors and clients, which restricted the auditors from performing their duty objectively. The finding supported the argument of knowledge spillover in which the auditor gained experience and yielded audit efficiency while doing the audit. These results contributed to Malaysia's policy deliberation to account for the effects of NAS on auditor independence using the direct method of audit opinion. This study contributes to theoretical perspectives on knowledge spillover, which is very limited in Malaysia.

**Keywords:** Auditor Independence, Audit Opinion, Audit Quality, Economic Bonding, Knowledge Spillover, NAS,

## **1. Introduction**

The collapse of many huge companies and audit firms around the world has raised doubt regarding the credibility of accounting and auditing profession as to whether auditors still remain independent. Do they conduct their responsibility with full integrity and in line with their objectivity? Do they still work for the public interest? Can we, as public eyes trust them? These questions bear in the public's mind for quite some time. As for the well-known international cases involving the failure of auditing role and corporate government such as Enron, Satyam, WorldCom, and not forgetting local cases such as Transmiles case, people have lost their trust in the accounting and auditing

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profession. Other recent financial scandal that happened in 2017, such as TH Heavy Engineering Bhd, has caught the media's concern on the credibility of accounting and auditing in Malaysia.

Agency theory, in the views of many scholars (Jensen & Meckling, 1976; José & Almeida, 2014; Panda & Leepsa, 2017), postulates that information asymmetry influences objective scrutiny of financial statements and agency problems. The principal-agent relationship is illustrated in agency theory which stipulates that the principals lack reasons to believe in their agents because of information asymmetries and conflicting interests. Agents may not always act in the best interest of shareholders. Therefore, the need to have an independent auditor to solve the agency problem and auditor independence is the key in bridging the information asymmetry gap between owners of entities and their agents (Panda & Leepsa, 2017; Mardiah & Muda, 2018).

Prior studies (Simunic, 1984; DeFond & Zhang, 2014) linked auditor independence to audit quality. Many studies have been conducted to explore this issue using various approaches such as accruals quality (Srinidhi & Gul, 2007; Manry et al., 2008; Abdul Wahab et al., 2020), audit opinion (Robinson, 2008; Callaghan et al., 2009; Ye et al., 2011; Ratzinger-Sakel, 2015; Zhang et al., 2016) and restatement (Kinney et al., 2004; Paterson & Valencia, 2011; Abdul Wahab et al., 2014). However, there is very scarce empirical evidence that connects audit opinion as a proxy to the auditor independence of Malaysia's construction companies.

Most studies on auditor independence have restricted the analysis to financially distressed companies and have examined only Going-Concern Modified Opinions (GCMO) (Carey & Simnett, 2006; Ye et al., 2011). Some studies have followed a more comprehensive approach and included all types of firm and audit qualifications into the analysis (Chi & Chin, 2011; Firth et al., 2012). Accordingly, the issuance of qualified opinions (not only GCMOs) by the auditor represents an exercise of independence. The ability of the auditor to form that opinion has been linked with a high degree of independence. Most prior research measured independence by the opinion of the audit report being conducted in high litigation risk countries (Carey & Simnett, 2006; Ye et al., 2011). In these countries, potential litigation costs should provide strong incentives to auditors to preserve independence. Hence, it is questionable whether this framework is still valid in a low litigation risk country such as Malaysia.

This study looks on the issue of auditor independence in Malaysia, focusing on NAS among construction companies listed on the Main Market of Bursa Malaysia. This is because the construction industry in Malaysia has been linked to various scandals of corruption and fraud cases over the years, which raised a question on the ability and functionality of auditor who is supposed to exercise professional skepticism, dig information, and report any found breach (Mohd Sanusi et al., 2011). For example, Kroll Annual Global Fraud Report for the year 2009 stated that 91% of companies in the construction and engineering sector were reported to commit some form of fraud over the past three years. The latest from Kroll Annual Global Fraud Report for the year 2019/2020 provided evidence that construction has less confidence in its anti-bribery and anti-corruption controls than any other industry surveyed. In addition, the construction industry in Malaysia has been identified to have high-risk exposure towards fraud and corruption compared to other industry as reported by the Malaysian Anti-Corruption Commission (MACC). Thus, we see here a great opportunity to test the level of independence among auditors in this industry.

NAS is one of the non-assurance services served by the external auditor and is regarded as one of the threats to auditor independence. Prior research in Malaysia and worldwide provided mixed evidence on the relationship between NAS and auditor independence. One side of the argument provided evidence that non-audit services affect auditor independence negatively (Nik Abdul Majid et al., 2021; Higgs & Skantz, 2006). The other side of the argument found that NAS provides knowledge spillover, which is an added value in auditing that does not affect auditor independence (Abdul Wahab et al., 2020; Paterson & Valencia, 2011).

The limited source of information on the discussion of auditor independence, especially those related to construction companies in Malaysia motivates this study. This study helps to clear the issue of auditor independence, especially in the construction industry in Malaysia, as to revise the rules and regulations. Therefore, the objective of the study is to examine the relationship between NAS and auditor independence which is proxied by audit opinion. We document a positive relationship between NAS and auditor independence which supports the perspective of knowledge spillover.

Section 2 proceeds with literature review and hypothesis development while section 3 presents the research method, section 4 highlights the results, and section 5 concludes the study.

## **2. Literature Review and Hypothesis Development**

Prior research provided mixed evidence on the relationship between NAS and auditor independence. Whether NAS negatively or positively affects auditor independence is still uncertain. Certain findings demonstrated that the quality of financial reporting declines with the provision of NAS from the auditor (Ferguson et al., 2004; Larcker & Richardson, 2004; Abu Bakar, 2018; Abdul Wahab et al., 2020, Nik Abdul Majid et al., 2021). On the other hand, the study of Ashbaugh et al. (2003) did not show a positive relationship between NAS and earnings management, which indirectly impairs auditor independence. This argument is supported by Kinney et al. (2004) where they stated that tax consulting can increase the quality of financial reporting. This argument is based on the assumption that the provision of NAS can improve financial audit through knowledge spillover and provide a better understanding of the client business environment to the auditor (Simunic, 1984).

From an economic perspective, auditors provide joint provision of NAS and audit services for cost efficiency, where the auditor can actually reduce the 'extra cost' incurred when they provide audit services and NAS separately. Auditors will be able to reduce their operation costs when both audit and NAS are provided jointly (Alles et al., 2005; Abdul Wahab et al., 2014), where separating auditing and NAS results in duplication of work and leads to greater societal costs.

In spite of the insufficient evidence about the effect of NAS on auditor independence, the MIA By-Laws still restricts most of the NAS provided by the incumbent auditor. This gives us an overview about the concern of the regulators on the issue of auditor independence and the provision of NAS as expressed by Bogle (2005) that "sometimes, statistics cannot prove what common sense makes obvious". Meanwhile, from the perspective of financial statement's users, they opined that the provision of NAS has a negative effect on auditor independence (Higgs & Skantz, 2006; Mishra et al., 2005). On the other hand, a study by Ghosh et al. (2009) showed no proof of the relation between perceived auditor independence and NAS.

DeFond and Zhang (2014) concluded that most studies examined the relationship of NAS and audit quality which failed to find concrete evidence in proving that the provision of NAS gives negative effects to audit quality as well as auditor independence (Chung & Kallapur, 2003). A study by Reynolds et al. (2004) at first detected a significant positive association between fees for NAS and audit quality; however, this result was limited to certain types of firms like those with initial public offerings. After including this item as a controlling variable, the result showed there was no evidence that supported NAS fees can impair audit quality. Furthermore, based on a previous study by Knechel et al. (2012), the issue of NAS impairing audit quality does not rise a serious concern, but on the other hand, it showed that it is associated with improving the overall audit quality. Based on that, we can propose that the provision of NAS may not impair auditor independence. Still, it improves the ability and competency of the auditor that provides knowledge spillover.

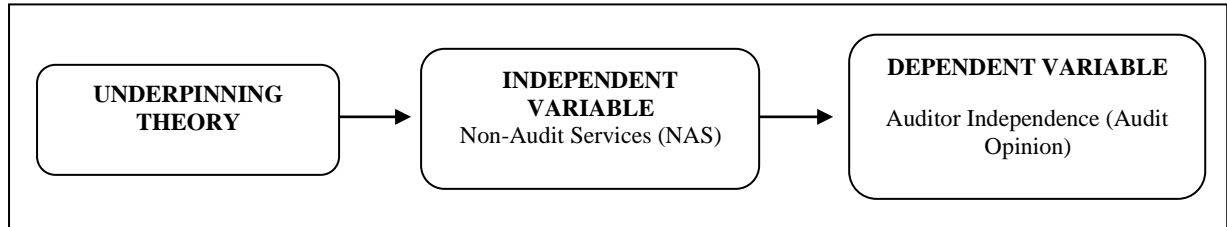
However, while most studies did not support a negative impact of NAS fees on auditor independence as well as audit quality, some counter-arguments also existed. Previous studies (Larcker & Richardson, 2004; Srinidhi & Gul, 2007) remarked a negative and significant relationship between the provision of NAS and audit quality which suggested that the auditors may impair their independence. In addition, a study by Ferguson et al. (2004) detected a positive association between the provision of

NAS to audit clients and earnings management; therefore, it can be concluded that the auditors are less likely to be independent. With reference to the above arguments, it is posited that:

H: There is a significant relationship between NAS and auditor independence among listed construction companies in Malaysia.

Figure 1 provides the conceptual framework of the study.

**Figure 1:** Conceptual Framework



### 3. Methodology

This study focused on the financial year of 2017 to 2019. The period was selected because it represented the latest data available which might capture the real and current situation of auditor independence issues faced in Malaysia recently. The sample comprised of listed construction companies in the main board of Bursa Malaysia. There were about 162 companies listed in the main market of Bursa Malaysia from the year 2017 to 2019, and only complete data were considered in the analysis. In this study, we excluded companies in which the annual reports were unobtainable or had missing information. After excluding those criteria in our sample, the data only comprised 147 companies. All data obtained were analysed using eviews 9.0.

The dependent variable for this study is auditor independence. To measure auditor independence, we used audit opinion as a proxy to auditor independence. We chose to use audit opinion as a proxy to auditor independence since it is the most direct method of assessing auditor independence. Thus, in order to assess auditor independence, we need to look at the ability, and the will of external auditors in forming qualified reports in the presence of factors, such as the provision of NAS provided on the construction companies listed in Bursa Malaysia. Hence, the study applied dichotomous variables, which took the value of 1 for qualified audit report and 0 for otherwise (unqualified report).

Following Paterson and Valencia (2011), Srinidhi and Gul (2007), Krishnan and Yu (2011), this study applied the natural log of NAS as a measurement for NAS. This method of measurement is able to capture the level of economic bonding resulting from the purchase of NAS. To test the hypothesis, this study adopted the previous models (Li, Hay, & Knechel, 2005; Garcia-Blandon & Argilés-Bosch, 2016) of probit model that focused on construction companies in Malaysia.

$$AO = b_0 + b_1NAS + b_2LEV + b_3LOSS + b_4CI + b_5BIG4 + b_6LAF + b_7AC\_IND + b_8FF + b_9 AE + \varepsilon$$

## 4. Results and Discussion

### 4.1. Descriptive Analysis

Table 1 presents the descriptive statistics for the dependent variable (Panel A), independent variables (Panel B), financial variables (Panel C), corporate governance variables (Panel D), and institutional variables (Panel E). AO in Panel data A represented audit opinion as a proxy of auditor independence. The mean for AO presented an average of 5.4 percent from the whole sample of 147 companies, showing that the number of qualified reports in the construction industry was low. This number might indicate that in the construction industry, the companies might either present good accounting practice with true and fair views in their reporting, or the auditor might have impaired their independence and failed to give their professional judgment through qualified opinions.

Panel data B presented the independent variables of NAS. The mean for NAS to the ratio of total fees was 15.7 percent which indicated that the average of NAS fees paid to auditors in the construction industry in Malaysia was 15.7 percent from the total fees paid to auditor. The minimum percentage of non-audit fees paid to the auditor was 1 percent, and the maximum non-audit fees paid was 95 percent from the total fees. Compared to a previous study by Abdul Wahab et al. (2020) that used the whole population of data from Bursa Malaysia, the average NAS fees paid by companies was 17.9 percent of the total fees paid; therefore, this study on construction companies mapped the whole population.

**Table 1:** Descriptive Analysis of the Variables in Construction Companies from the Years 2017-2019

Variable	Mean	Maximum	Minimum	Std. Dev.	Observations
<b>PANEL A: Dependent Variable</b>					
<i>AO</i>	0.054	1.000	0.000	0.228	147.000
<b>PANEL B: Independent Variable</b>					
<i>NAS</i>	0.157	0.950	0.010	0.166	147.000
<i>LOGNAS</i>	10.223	15.854	6.957	1.507	147.000
<i>NAS_RM</i>	127809.700	7678000.000	1050.000	647102.400	147.000
<b>PANEL DATA C: Control Variable (Financial)</b>					
<i>LEV</i>	0.528	0.950	0.000	0.207	147.000
<i>PLOSS</i>	0.177	1.000	0.000	0.383	147.000
<i>CI</i>	0.095	0.410	0.000	0.089	147.000
<i>AF</i>	363079.300	4174000.000	12000.000	508909.700	147.000
<i>LOGAF</i>	12.419	15.244	9.393	0.829	147.000
<b>PANEL DATA D: Control Variable (Corporate Governance)</b>					
<i>AC_IND</i>	0.926	1.000	0.500	0.134	147.000
<i>BIG4</i>	0.272	1.000	0.000	0.447	147.000
<b>PANEL DATA E: Control Variable (Institutional Variable)</b>					
<i>FF</i>	0.510	1.000	0.000	0.502	147.000
<i>AE</i>	0.061	1.000	0.000	0.241	147.000

Notes: *AO* is the audit opinion which is a dichotomous variable measured by 1 as qualified opinion and 0 otherwise. *LOGNAS* is the natural log of *NAS*. *LEV* is the total liability deflated by total assets. *PLOSS* is the previous loss measured by the company's previous year reported loss. *CI* is the capital intensity ratio measured as the ratio of gross value of property, plant and equipment of firm to total assets of the firm. *AC\_IND* is the audit committee independence which is an indicator of "1" if all the audit committees are independent, or "0" otherwise. *FF* is the family firm that takes the value of dummy variable coded as "1" if the firms have family connection and "0" otherwise. *BIG4* is an indicator variable that takes the value of '1' if the auditor is big 4 auditor, '0' otherwise. *LOGAF* is the natural log of total audit fees of group level. *AE* is the auditor ethnicity measured based on the Percentage of Malay auditor in the industry.

#### 4.2. Correlation

Table 2 explains the correlation between the variable using the Pearson (ordinary) and Spearman rank. The *LOGNAS* exhibited a significant positive relationship with audit opinion at 10 percent for both matrixes using two-tailed test (Pearson: 0.117, Spearman: 0.134). It indicated that the level of auditor independence increased when the *LOGNAS* increased. The preliminary result of the possible relation between *NAS* and auditor independence did not indicate that *NAS* impaired auditor independence (Che Ahmad et al., 2006; Srinidhi & Gul, 2007; Krishnan & Yu, 2011). A possible explanation of this result might be the argument regarding knowledge spillover (Krishnan & Yu, 2011; Knechel & Sharma, 2012; Abdul Wahab et al., 2014). It was argued that a provision of *NAS* to the clients does not impair auditor independence; however, it helps the auditor to form knowledge spillover and eases the audit process (Krishnan & Yu, 2011; Knechel & Sharma, 2012; Abdul Wahab et al., 2014). Most of the correlations between independent variables were relatively lower than 0.7, which indicated that no multicollinearity existed in the study.

#### 4.3. Regression

Prior research provided inconclusive and mixed evidence regarding the effect of *NAS* to auditor independence. It can either be impairing auditor independence (Che Ahmad et al., 2006; Srinidhi & Gul, 2007; Krishnan & Yu., 2011) or benefiting the auditor in the form of knowledge spillover (Krishnan & Yu, 2011; Knechel & Sharma, 2012; Abdul Wahab et al., 2014). The result from the regression analysis on the relationship between *NAS* and the proxy of auditor independence (audit opinion) showed that it was positively significant at 10 percent level of significant or 0.1 in which the z-stat was 1.856 and the probability was 0.063; thus, it supported the H1 of this study where there is a significant relationship between *NAS* and auditor independence among listed construction companies in Malaysia. This study argued that *NAS* might not harm auditor independence due to knowledge spillover developed during the services provided, which supported previous studies (Krishnan & Yu, 2011; Knechel & Sharma, 2012; Abdul Wahab et al., 2014). The auditor benefits from the services provided and becomes more familiar with the company's activity, operation, and environment, making it easier for them to conduct the audit process. *NAS* was also argued to reduce audit report lag affecting the knowledge spillover (Krishnan & Yu, 2011; Knechel & Sharma, 2012; Abdul Wahab et al., 2014), which did not impair auditor independence.

The regression analysis conducted in this study also found that the relationship between the control variable of *LEV* and the dependent variable of *AO* showed a significant positive relationship at 5 percent level of significant or 0.05 where the z-stat was 2.33, and the probability was 0.02. Besides, the control variable of *LOGAF* also showed a significant negative relationship at 10 percent level of significant or 0.1 where the z-stat was -1.673, and the probability was 0.094. Meanwhile, the other control variables such as *LOSS*, *CI*, *AC-IND*, *FF*, *BIG4*, and *AE* were not significant where the p-value was more than alpha value at 10 percent level of significant ( $p > 0.10$ ) which provided no evidence of association between the variables and auditor independence. Overall, there was no problem of multicollinearity between the variables since the variance inflation factor (VIF) was less than 10 with 1.828 (refer to table 3).

**Table 2:** Correlation Matrix Year 2017-2019

Correlation	AO	LOGNAS	LEV	PLOSS	CI	AC_IND	FF	BIG4	LOGAF	AE
<i>AO</i>	1.000	<i>0.117</i> *	<i>0.275</i> ***	<i>0.125</i> ***	<i>-0.061</i>	<i>-0.128</i>	<i>0.005</i>	<i>0.055</i>	<i>0.033</i>	<i>0.189</i> *
<i>LOGNAS</i>	0.134 *	1.000	<i>0.155</i> **	<i>0.135</i>	<i>-0.025</i>	<i>-0.057</i>	<i>0.035</i>	<i>0.330</i> ***	<i>0.405</i> ***	<i>-0.078</i>
<i>LEV</i>	0.271 ***	0.204 **	1.000	<i>0.084</i>	<i>-0.074</i>	<i>0.002</i>	<i>0.030</i>	<i>0.005</i>	<i>0.406</i> ***	<i>0.150</i> *
<i>PLOSS</i>	0.125	0.088	0.099	1.000	<i>-0.055</i>	<i>-0.041</i>	<i>0.223</i> ***	<i>0.117</i>	<i>0.147</i> **	<i>-0.044</i>
<i>CI</i>	-0.100	0.012	-0.116	-0.104	1.000	<i>-0.024</i>	<i>0.179</i> **	<i>0.224</i> ***	<i>0.088</i>	<i>-0.002</i>
<i>AC_IND</i>	-0.099	-0.097	-0.015	-0.057	-0.039	1.000	<i>0.096</i>	<i>0.226</i> ***	<i>0.017</i>	<i>-0.211</i> **
<i>FF</i>	-0.005	0.018	-0.015	-0.223 ***	0.192 **	-0.111	1.000	<i>0.140</i> *	<i>-0.090</i>	<i>0.035</i>
<i>BIG4</i>	0.055	0.333 ***	-0.045	0.117	0.276 ***	-0.246 ***	0.140 *	1.000	<i>0.297</i> ***	<i>-0.022</i>
<i>LOGAF</i>	0.061	0.377 ***	0.396 ***	0.191 **	0.048	0.028	0.037	0.215 ***	1.000	<i>-0.900</i>
<i>AE</i>	0.189 **	-0.067	0.136	0.101	-0.044	0.032	-0.158 *	0.090	0.035	0.024

Notes: *AO* is the audit opinion which is a dichotomous variable measured by 1 as qualified opinion and 0 otherwise. *LOGNAS* is the natural log of *NAS*. *LEV* is the total liability deflated by total assets. *PLOSS* is the previous loss measured by the company’s previous year reported loss. *CI* is the capital intensity ratio measured as the ratio of gross value of property, plant and equipment of firm to total assets of the firm. *AC\_IND* is the audit committee independence which is an indicator of “1” if all the audit committees are independent, or “0” otherwise. *FF* is the family firm that takes the value of dummy variable coded as “1” if the firms have family connection and “0” otherwise. *BIG4* is an indicator variable that takes the value of ‘1’ if the auditor is big 4 auditor, ‘0’ otherwise. *LOGAF* is the natural log of total audit fees of group level. *AE* is the auditor ethnicity measured based on the Percentage of Malay auditor in the industry.

\*, \*\*, \*\*\* denote significant at the 10%, 5% and 1% level respectively, which is based on two-tailed test. Italicized figures are Pearson correlations.

**Table 3:** Regression Analysis

<b>Dependent Variable: AO</b>					
<b>Variables</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>z-Stat</b>	<b>Probability</b>	
<i>Constant</i>	-0.595	5.883	-0.101	0.920	
<i>LOGNAS</i>	0.477	0.257	<b>1.856</b>	<b>0.063</b>	*
<i>LEV</i>	4.293	1.843	<b>2.330</b>	<b>0.020</b>	**
<i>PLOSS</i>	0.120	0.757	0.159	0.874	
<i>CI</i>	0.094	2.782	0.034	0.973	
<i>AC_IND</i>	0.127	1.745	0.073	0.942	
<i>FF</i>	0.105	0.598	0.176	0.861	
<i>BIG4</i>	0.102	0.645	0.158	0.874	
<i>LOGAF</i>	-0.861	0.514	<b>-1.673</b>	<b>0.094</b>	*
<i>AE</i>	0.222	0.840	0.265	0.791	
<i>McFadden R-squared</i>	0.471				
<i>Prob(LR Stat)</i>	0.001				
<i>VIF</i>	1.828				

Note: *AO* is the audit opinion which is a dichotomous variable measured by 1 as qualified opinion and 0 otherwise. *LOGNAS* is the natural log of *NAS*. *LEV* is the total liability deflated by total assets. *PLOSS* is the previous loss measured by the company's previous year reported loss. *CI* is the capital intensity ratio measured as the ratio of gross value of property, plant and equipment of firm to total assets of the firm. *AC\_IND* is the audit committee independence which is an indicator of "1" if all the audit committees are independent, or "0" otherwise. *FF* is the family firm that takes the value of dummy variable coded as "1" if the firms have family connection and "0" otherwise. *BIG4* is an indicator variable that takes the value of '1' if the auditor is big 4 auditor, '0' otherwise. *LOGAF* is the natural log of total audit fees of group level. *AE* is the auditor ethnicity measured based on the Percentage of Malay auditor in the industry.

\*, \*\*, \*\*\* denote significant at the 10%, 5% and 1% level respectively. Based on one-tailed tests for signed prediction, two-tailed test otherwise.

## 5. Conclusions

The provision of *NAS* as well as the enforcement of good corporate governance has become a serious concern among regulators as well as practitioners and academicians who argued on the pros and cons of this issue. However, despite continuous discussion in the literature, the MIA By-Laws has restricted some of the *NAS* that can be practiced and offered by auditors to their clients, and the government has also put some good work by keep improving and revising the regulation and guidelines for the corporate world which are highlighted in the newly revised Malaysian Code of Corporate Governance (MCCG) in 2017. Many studies (Nik Abdul Majid et al., 2021; Abdul Wahab et al., 2020, 2014; Paterson & Valencia 2011) were conducted in the field to provide a solid justification on their points of argument whether *NAS* gives a positive or negative impact to auditor independence, and this research also tends to give additional evidence on the current debate.

This study gave contribution to the institutions and practitioners by understanding and setting the regulation as well as strengthening the current rules and regulation on the provision of *NAS* in their engagement. Besides, this study also helped to enhance information and evidence by broadening the views and opinions on the construction industry in Malaysia to revise the rules and regulations in the future. For the theoretical aspect, this study contributed to the literature by filling the gap and adding crucial evidence on the discussion of auditor independence, especially those related to the construction companies in Malaysia, which are currently scarce.

The result reported in this study has further improved the evidence regarding the relationship between *NAS* and auditor opinion and strengthened the argument regarding the benefits of *NAS* to the auditor and knowledge spillover gained during the engagement. This study faced time constraints as it only observed the data within the period of three years and was limited to only one industry. Suggestion for



future research is to cater more years and samples that can present the whole industries in Malaysia. Large data are more generalizable, and the results are more empirically proven. Another opportunity to be explored in the future is the study of auditor independence using other proxies such as financial restatement earning management.

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