

CHAPTER 5

MULTIPLE REGRESSION ANALYSIS AND THE RESULTS

5.1 Introduction

Chapter Five discusses multiple regression analysis and presents the results of the study. To achieve this objectives, two structural models were created in order to examine 11 hypothesized direct effects and 3 hypothesized moderation effects by using SmartPLS 3 to perform a path analysis and testing the significance of the path coefficients for each proposed path as follows: Audit quality as dependent variable and these independent variables, Auditor Characteristics (ACH), Audit Firm Attributes (AFA), Effective Municipal Internal Control (EMIC), Ethics (ET), Independence (IN), Competency (CM), Audit Fees (AF), Audit Firm Size (AFS), Internal Auditing (IA), Accounting Basis (AB), and Laws and Regulations (LR). This chapter discusses the structural models - stage 2 of SEM, examining direct effect hypotheses - structural model 1, examining moderation effect hypotheses, and examining direct effect hypotheses - structural model 2.

5.2 Structural Models - Stage 2 of SEM

The second primary step in the SEM analysis is the structural equation model. After the measurement model has been verified, the structural model can be represented by defining the connections between the constructs.

Details on connections between the variables are provided by the structural model. It demonstrates the precise details of the interaction between independent (exogenous) and dependent (endogenous) variables (Hair et al., 2006; HO, 2006).

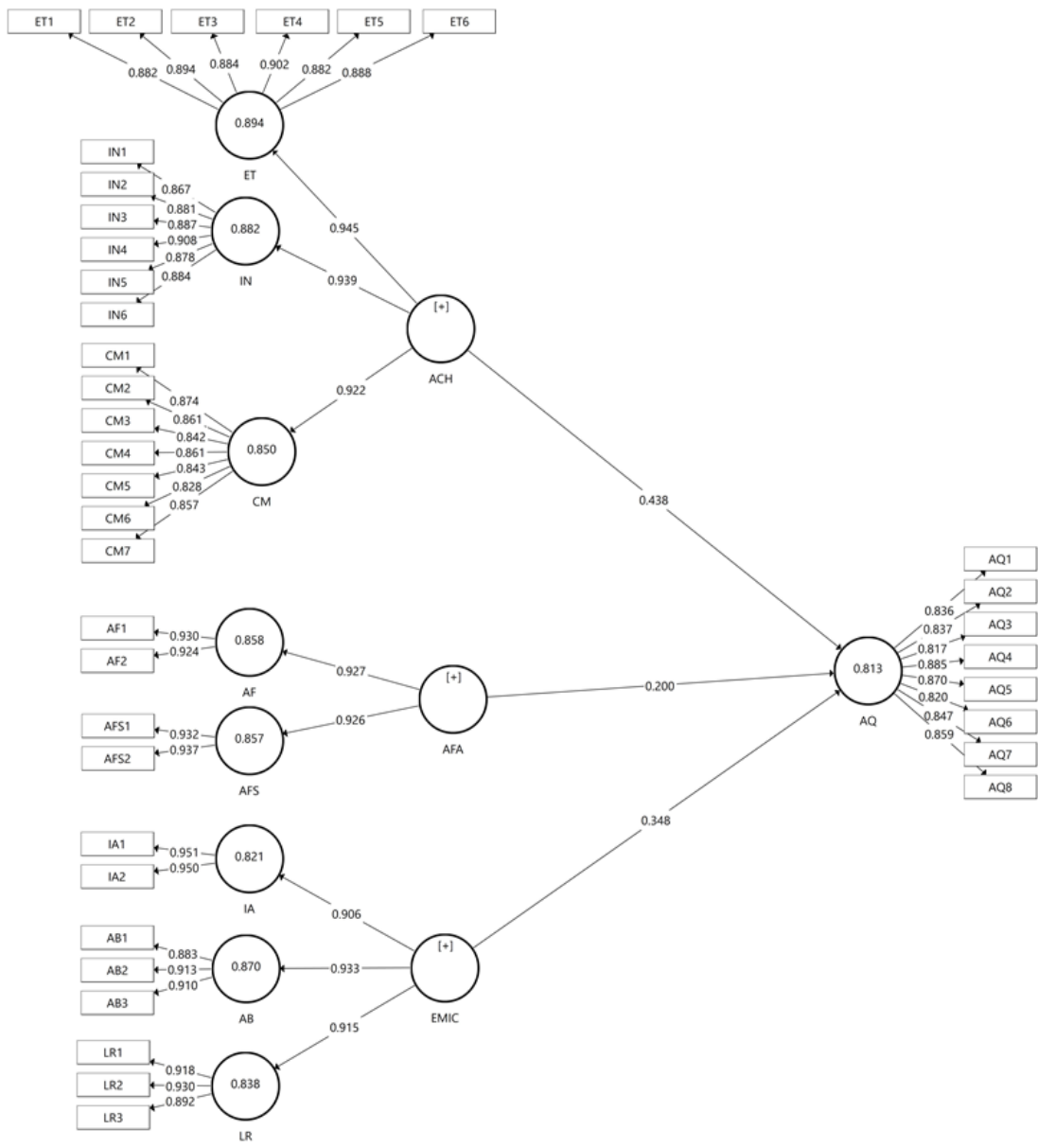
The overall model fit is first evaluated, followed by the size, direction, and significance of the hypothesized parameter estimates, as shown by the one-headed arrows in the path diagrams (Hair et al., 2006). The final stage involved the validation of the study's structural model, which was based on the proposed relationship between the variables identified and assessed.

In this study, the structural models were estimated using the PLS technique and bootstrapping with 1000 replications to examine the research hypotheses. The two structural models that were created to test the research hypotheses listed in Table 2 -1 are discussed in the following sub-sections.

5.2.1 Examining Direct Effect Hypotheses - Structural Model 1

In the structural model 1, the direct causal effects from Auditor Characteristics (ACH), Audit Firm Attributes (AFA) and Effectiveness of Municipal Internal Control (EMIC) on Audit Quality (AQ) were examined (i.e., H1, H2 and H3 respectively).

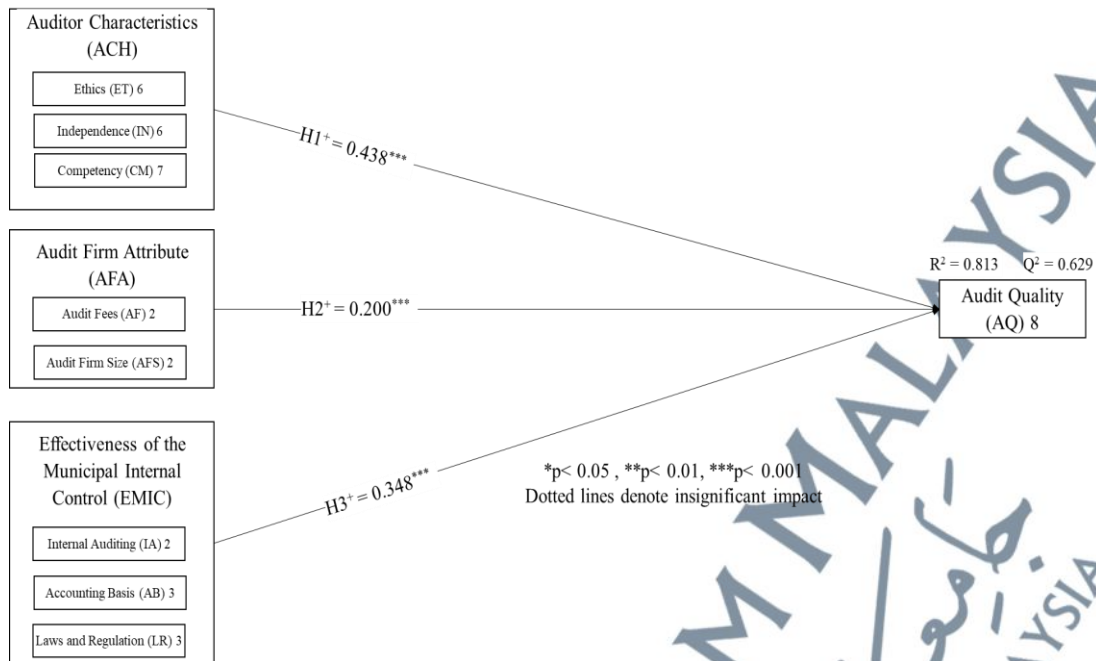
The structural model for testing the direct effects of the hypothesized variables as the SmartPLS 3 model is portrayed in Figure 5.1 and Appendix 8.



Source: Smart PLS3

Figure 5.1: Structural Model 1 – Causal Effects – Path Coefficients

The structural model for testing the direct effects of the hypothesized variables is summarized in the Figure 5.2.



Source: Smart PLS3

Figure 5.2: Results of Direct Effect Hypotheses in Structural Model 1

The value of R^2 for Audit Quality (AQ) was 0.813. This indicates 81.3% of variations in Audit Quality (AQ) are explained by its three predictors (i.e., ACH, AFA and EMIC). The R^2 value of 0.813 is high and satisfies the requirement for the 0.19 cut off value as recommended by (Wynne W Chin, 1998).

The value of Q^2 for Audit Quality (AQ) was 0.629, far greater than zero which refers to predictive relevance of the model as suggested by Chin (2010). In sum, the model exhibits acceptable fit and high predictive relevance.

The result indicated that the model's goodness of fit measure (GOF) was 0.763, referring to a large goodness of fit of the model as recommended by Wetzels et al., (2009)

$$GOF = \sqrt{0.813 * 0.717} = 0.763$$

(5.1)

The current structural model's SRMR value with 95% confidence interval was 0.043, indicating good fit as the threshold value should be less than 0.08 (Hair et al., 2014).

The result of this study showed that the RMS_{θ} value was 0.123, within the acceptable range of 0.1 and 0.14 as recommended by Henseler et al. (2014).

The estimated coefficient parameters are then used to test the hypothesized direct effects of the variables addressed in Table 2.1. Table 5.1 shows the path coefficients and the results of examining hypothesized direct effects.

Table 5.1: Hypothesized Direct Effects of the Constructs in Structural Model 1

Path	Std Beta	Std Deviation	t-value	p-value	95% LL-CI	95% UL-CI	f ²	VIF	Hypothesis Result
ACH→AQ	0.438***	0.040	11.109	0.000	0.358	0.517	0.401	2.563	H1 ⁺ : Supported
AFA→AQ	0.200***	0.049	4.077	0.000	0.102	0.298	0.082	2.623	H2 ⁺ : Supported
EMIC→AQ	0.348***	0.048	7.106	0.000	0.242	0.437	0.210	3.083	H3 ⁺ : Supported

*p< 0.05, **p< 0.01, ***p< 0.001

Source: Smart PLS3

As can be seen in Table 5.1, all paths were statistically significant because their p-values were below the threshold of 0.05 for standard significance and their t-values were greater than 1.645. Thus, the H1, H2, and H3 direct effect hypotheses were confirmed. The path analysis findings are discussed in relation to the direct effect hypotheses in structural model 1 in the following subsections.

5.2.1.1 The Relationship Between the Auditor Characteristics and the Audit Quality

As shown in Table 5.1, the t-value and p-value of Auditor Characteristics (ACH) in predicting Audit Quality (AQ) were 11.109 and 0.000, respectively. It

means that the chance of getting a t-value as large as 11.109 in absolute value is 0.000. In other words, the regression weight for Auditor Characteristics (ACH) in the prediction of Audit Quality (AQ) is significantly different from zero at the 0.001 level. Furthermore, the confidence intervals bias corrected 95% did not show any intervals straddling a 0, lower level of 0.358, and upper level of 0.517. The standard path coefficient was 0.438, indicating that the relationship was positive. It means that for every one standard deviation increase in Auditor Characteristics (ACH), Audit Quality (AQ) increases by 0.438 standard deviations. Furthermore, f^2 was 0.401, indicating that the effect size of Auditor Characteristics (ACH) on Audit Quality (AQ) was significant. The findings also revealed that the VIF of Auditor Characteristics (ACH) in predicting Audit Quality (AQ) was 2.563, which was less than the 5 threshold. Thus, single source bias is not a significant problem with the data, and the model can be said to be free of collinearity.

These findings show that hypothesis H1 (H1: Auditor Characteristics (ACH) has significant positive effect on Audit Quality (AQ)) is supported; $\beta = 0.438$, 95%LL-CI = 0.358, 95%UL-CI = 0.517, $t > 1.645$, $p < 0.001$, $VIF < 5$, $f^2 = 0.401$.

The significant positive relationship indicates that ACH is critical to increasing the level of AQ. In other words, the commitment of external of auditors with the audit team individual's characteristics has increased audit quality in the municipalities. This result is consistent with previous studies (ALBeksh, 2016; Knechel et al. 2013; Haeridistia and Agustin 2019; Christensen et al., 2016; Schroeder et al., 1986; Carcello et al., 1992). This finding is also supported by the of Public Interest Theory, which proposes that municipal management must follow laws and regulations which require specific characteristics of auditors such as independence, experience auditing public sector organizations, and compliance with general ethics.

As a result, it is recommended that municipalities to implement some procedures to hire audit firms based on the characteristics of audit staff and to require specific attributes of the audit team through the assessment of the audit team's history records.

5.2.1.2 The Relationship Between the Audit Firm Attributes and the Audit Quality

As shown in Table 5.1, the t-value and p-value of Audit Firm Attributes (AFA) in predicting Audit Quality (AQ) were 4.077 and 0.000, respectively. It means that the chance of getting a t-value as large as 4.077 in absolute value is 0.000. In other words, the regression weight for Audit Firm Attributes (AFA) in the prediction of Audit Quality (AQ) is significantly different from zero at the 0.001 level of p-value. Furthermore, the confidence intervals bias corrected 95% did not show any intervals straddling a 0, lower level of 0.102, and upper level of 0.298. The standard path coefficient was 0.200, indicating that the relationship was positive. It means that for every one standard deviation increase in Audit Firm Attributes (AFA), Audit Quality (AQ) increases by 0.200 standard deviations. Furthermore, f^2 value was 0.082, indicating that the effect size of 0.082 on Audit Quality (AQ) was small effect size. The findings also revealed that the VIF of Audit Firm Attributes (AFA) in predicting Audit Quality (AQ) was 2.623, which was less than the 5 thresholds.

These results demonstrated that H2 (H2: Audit Firm Attributes (AFA) has significant positive effect on Audit Quality (AQ)) is supported; $\beta = 0.200$, 95%LL-CI = 0.102, 95%UL-CI = 0.298, $t > 1.645$, $p < 0.001$, $VIF < 5$, $f^2 = 0.082$.

A small positive correlation indicates that AFA is something that increases the level of AQ. In other words, the high attributes of audit firm affect positively the audit

quality in the municipalities. This result is consistent with previous studies (Alareeni 2019; Yebba & Elder, 2019; Omer et al., 2016; Elder et al., 2015; Boon et al., 2008). This finding is also supported by the Public Interest Theory, which proposes that municipal management must follow laws and regulations requiring specific attributes of audit firms, such as the minimum number of audit team and their experiences, and selecting the best financial audit offer with considering the competency of the audit firms.

As a result, it is recommended that municipalities implement some procedures to hire audit firms based on their reputation, and the existence of experienced and sufficient auditors.

5.2.1.3 The Relationship Between the Effectiveness of Municipal Internal Control (EMIC) and the Audit Quality (AQ)

As shown in Table 5.1, the t-value and p-value of the Effectiveness of the Municipal Internal Control (EMIC) in predicting Audit Quality (AQ) were 7.106 and 0.000, respectively. It means that the chance of getting a t-value as large as 7.106 in absolute value is 0.000. In other words, the regression weight for the Effectiveness of the Municipal Internal Control (EMIC) in the prediction of Audit Quality (AQ) is significantly different from zero at the 0.001 level. Furthermore, the confidence intervals bias corrected 95% did not show any intervals straddling a 0, lower level of 0.242, and upper level of 0.437. The standard path coefficient was 0.348, indicating that the relationship was positive. It means that for every one standard deviation increase in the Effectiveness of Municipal Internal Control (EMIC), Audit Quality (AQ) increases by 0.348 standard deviations. Furthermore, f^2 was 0.210, indicating that the effect size of Effectiveness of Municipal Internal Control (EMIC) on Audit

Quality (AQ) was medium. The findings also revealed that the VIF of the Effectiveness of Municipal Internal Control (EMIC) in predicting Audit Quality (AQ) was 3.083, which was less than the threshold of 5. Thus, single source bias is not a significant problem with the data, and the model can be said to be free of collinearity.

These results demonstrated that H3 (H3: Effectiveness of the Municipal Internal Control (EMIC) has significant positive effect on Audit Quality (AQ)) is supported; $\beta = 0.348$, 95%LL-CI = 0.242, 95%UL-CI = 0.437, $t > 1.645$, $p < 0.001$, $VIF < 5$, $f^2 = 0.210$.

The medium positive correlation indicates that EMIC moderately increases the AQ level. In other words, the high effectiveness of Municipal Internal Control affects positively the audit quality in the municipalities. This result is consistent with previous studies (Yebba & Elder, 2019; Sari et al. 2019; DeFond & Zhang, 2014). Also, this result supports the public interest theory, which proposes that the municipal government regulator required from the municipal management to implement effective internal controls, such as internal auditing and an appropriate accounting system, and adhere to the applicable laws and regulations that govern all municipal activities.

As a result, it is recommended that municipalities implement and maintain effective internal controls, and that external auditors examine the internal controls components in municipalities, specifically the internal auditing, financial accounting system, and applicable laws and regulations.

5.2.2 Examining Moderation Effect Hypotheses

This study also investigated the moderating effects of Supreme Audit Institutions (SAI) as a moderating variable on the relationship between the Auditor

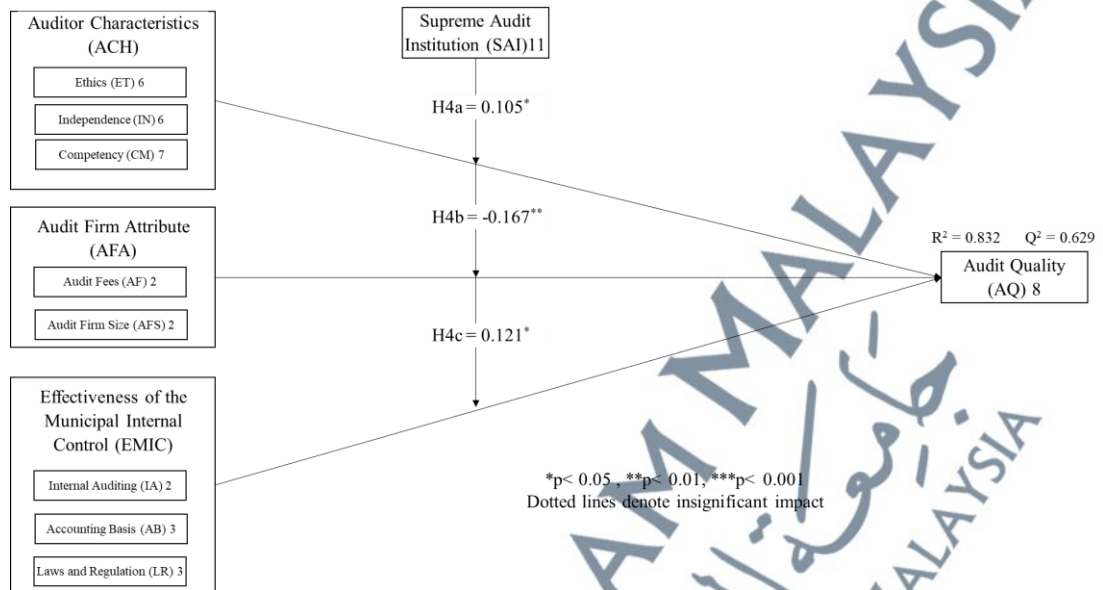
Characteristics (ACH) as independent variables and Audit Quality as dependent variable (H4a), Audit Firm Attributes (AFA) as independent variables and Audit Quality as dependent variable (H4b), and Effectiveness of Municipal Internal Control (EMIC) as independent variable and Audit Quality as a dependent variable (H4c).

To confirm that a third variable has a moderating effect on the relationship between the independent variables and dependent variable, the nature of the relationship should change as the moderating variable's values change. This is accomplished by including an interaction effect in the model and determining whether or not such an interaction is significant.

When using this analysis, all predictors must be standardised or centred to make subsequent interpretations easier and to avoid the problem of multicollinearity (Aiken & West, 1991). This was accomplished by subtracting a measured variable from its respective mean and then dividing the result by the measured variable's standard deviation. After that, the centered indicator's product was calculated and used as an indicator of the latent interaction term. The effect of the interaction term on the DV should be significant to determine whether the moderator effect is significant. According Aiken and West (1991), method of creating plots for each interaction was used to demonstrate the moderator's influence on the correlation between the predictor and outcome variable. Therefore, four cell means must be generated in order to graph the interaction between the variables. One divides the independent variable (low and high) and the moderating variable (low and high) into two levels and crosses them to obtain four cell means. The term "low" refers to one standard deviation below the mean, while "high" refers to one standard deviation above the mean.

The structural model with interaction terms to investigate the moderation effects of the SAIs as the SmartPLS 3 model is portrayed in **Appendix 9**.

Figure 5.3 depicts the results of moderation effect hypotheses in structural model 1.



Source: Smart PLS3

Figure 5.3: Results of Moderation Effect Hypotheses in Structural Model 1

The R^2 value for Audit Quality (AQ) was 0.832, which was greater than the Chin (1998) cut off value of 0.19. According to Chin (2010), the value of Q^2 for Audit Quality (AQ) was 0.629, which is far greater than zero and indicates the model's predictive relevance. The model's goodness of fit measure (GOF) was 0.772 which is relatively large. The SRMR was 0.048, less than the threshold of 0.08. The RMS_{theta} value was 0.112, within the acceptable range of 0.1 and 0.14.

As shown in Table 5.2, the moderating effects of the Supreme Audit Institutions (SAI) in structural model 1 were investigated. The path coefficient was additionally used to assess each interaction term's impact on the dependent variable.

Table 5.2 demonstrates that all paths were statistically significant because their p-values were below the threshold for statistical significance of 0.05 and their t-values were greater than 1.645. The hypotheses H4a, H4b, and H4c regarding the moderation

effect were thus supported. The following section discusses the path analysis results in relation to the moderation effect hypotheses in structural model 1.

Table 5.2: Examining Results of Hypothesized Moderation Effects of SAI

Path	Std Beta	Std Deviation	t-value	p-value	95% LL-CI	95% UL-CI	f ²	VIF	Hypothesis Result
ACH*SAI→AQ	.105*	.049	2.103	.034	-.009	.192	.029	1.874	H4a: Supported
AFA*SAI→AQ	-.167**	.060	2.735	.006	-.254	.004	.065	2.256	H4b: Supported
EMIC*SAI→AQ	.121*	.058	2.057	.038	-.015	.217	.029	2.500	H4c: Supported

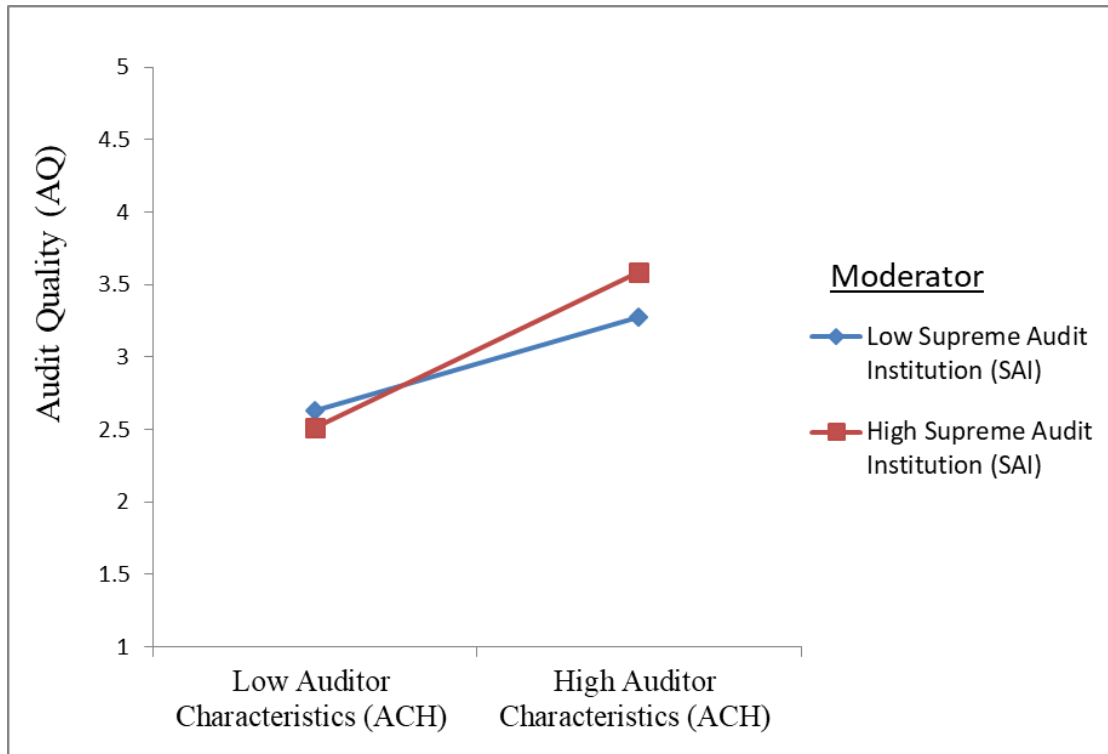
*p < 0.05, **p < 0.01, ***p < 0.001

Source: Smart PLS3

5.2.2.1 The Moderating Role of SAIs between the Auditor Characteristics and Audit Quality

As shown in the Table 5.2, the moderation effect of Supreme Audit Institutions (SAI) on the relationship between Auditor Characteristics (ACH) and Audit Quality (AQ) was statistically significant despite of existence of intervals straddling a 0, because the t-value is greater than 1.645 and the p-value is less than the standard significant level of 0.05 (coefficient path = 0.105; t-value = 2.103; p-value = 0.034). The f² value was 0.029, indicating small effect size. The VIF was 1.874, less than threshold of 5 and demonstrated free from collinearity. Thus, H4a (H4a: Supreme Audit Institutions moderates the relationship between Auditor Characteristics and Audit Quality) was supported; $\beta = 0.105$, 95%LL-CI = -0.009, 95%UL-CI = 0.192, $t > 1.645$, $p < 0.05$, $VIF < 5$, $f^2 = 0.029$.

Figure 5.4 shows the line chart effect of Auditor Characteristics (ACH) on Audit Quality (AQ) at low and high level of Supreme Audit Institutions (SAI).



Source: Smart PLS3

Figure 5.4: Effect of ACH on AQ at Low and High Level of SAI

The two lines in Figure 5.4 indicate a positive relationship between Auditor Characteristics (ACH) and Audit Quality (AQ). The two lines were not parallel, implying the presence of a moderation effect. However, the relationship was steeper and thus greater for high level of Supreme Audit Institutions (SAI) compare to the low level. As a result, it is possible to conclude that the Supreme Audit Institutions (SAI) moderates the relationship between Auditor Characteristics (ACH) and Audit Quality (AQ). It implies that the positive impact of Auditor Characteristics (ACH) on Audit Quality (AQ) is stronger at higher levels of Supreme Audit Institutions (SAI).

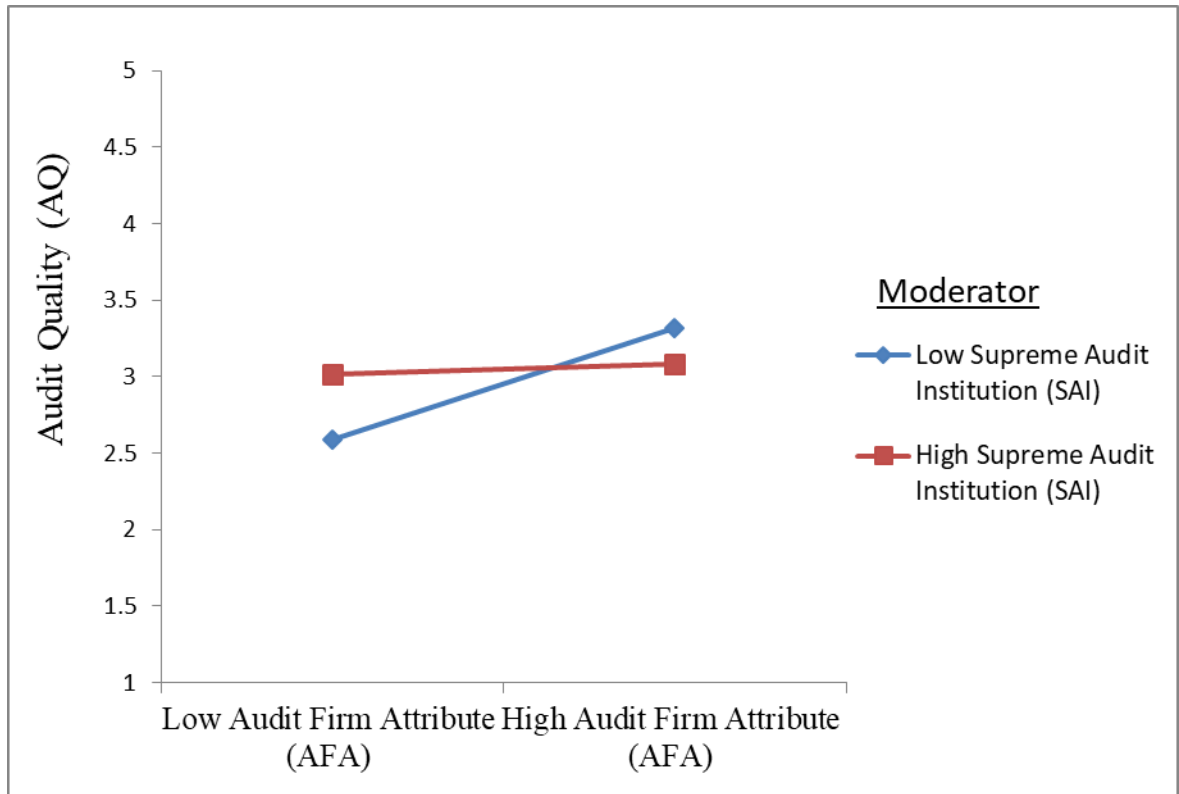
This result consistent with the findings of an examination of the annual audit reports of the Palestinian SAIs (FACB and GDCG), in which they did not mention direct notes and recommendations about the auditor characteristics in municipalities, but because all external auditor hiring processes are subject to FACB auditing,

municipalities will be more commitment with the ToR of hiring external auditors. In addition, FACB issued audit standards for auditors who audit public sector organizations; these standards outlined some of the auditors' characteristics and behaviors. Furthermore, the SAIs may assist external auditors in evaluating internal control in the municipalities and motivating them to detect violations of applicable laws and regulations that have a direct impact on the financial statements' fairness. Therefore, the SAIs encourage the municipalities to hire high qualities auditors who increases the audit quality in these municipalities.

5.2.2.2 The Moderating Role of SAIs between the Audit Firm Attributes and Audit Quality

As shown in the Table 5.2, the moderation effect of Supreme Audit Institutions (SAI) on the relationship between Audit Firm Attributes (AFA) and Audit Quality (AQ) was statistically significant, and there were no intervals straddling a 0, because the t-value is greater than 1.645 and the p-value is less than the standard significant level of 0.05 (coefficient path = -0.167; t- value = 2.735; p-value = 0.006). The f^2 value was 0.065, indicating small effect size. The VIF was 2.256, less than threshold of 5 and demonstrated free from collinearity. Thus, H4b (H4b: Supreme Audit Institutions moderates the relationship between Audit Firm Attributes and Audit Quality) was supported; $\beta = -0.167$, 95%LL-CI = -0.254, 95%UL-CI = -0.004, $t > 1.645$, $p < 0.01$, $VIF < 5$, $f^2 = 0.065$.

Figure 5.5 shows the line chart effect of Audit Firm Attributes (AFA) on Audit Quality (AQ) at low and high level of Supreme Audit Institution (SAI).



Source: Smart PLS3

Figure 5.5: Effect AFA on AQ at Low and High Level of SAI

As shown in Figure 5.5, the two lines indicated a positive relationship between Audit Firm Attributes (AFA) and Audit Quality (AQ). The two lines were not parallel which implied the existing of moderation effect. The relationship, however, was steeper and thus greater for the low level of Supreme Audit Institutions (SAI) when compared to the high level. Hence, it could be concluded that Supreme Audit Institutions (SAI) negatively moderates the relationship between Audit Firm Attributes (AFA) and Audit Quality (AQ). It means the positive effect of Audit Firm Attributes (AFA) on Audit Quality (AQ) is stronger for lower level of Supreme Audit Institutions (SAI).

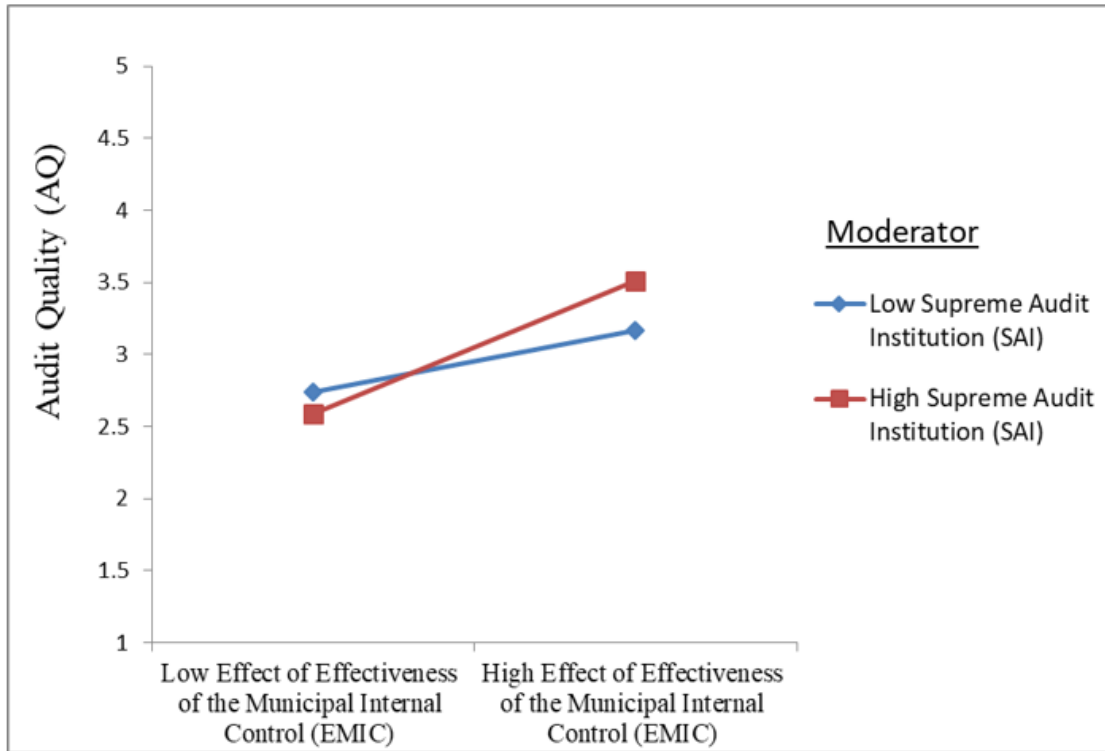
This finding is consistent with the findings of an examination of the annual audit reports of the Palestinian SAIs (FACB and GDCG), which did not include any recommendations or notes about the audit firm attributes, such as audit fees or audit

firm size. As previously stated, all external auditor hiring processes are subject to FACB auditing. As a result, municipalities will be more compliant with the ToR of hiring external auditors, which states the size of the audit team but not the audit firm size. Also, the audit fees always stated by bidding procedures which are control by specific laws and regulations, these procedures lead to the least audit fees which may affected on the auditors' efforts and decreased the audit quality. Also, the external auditor may use the audit reports of the SAIs as audit evidence and helping him in evaluating the audit risk and the effectiveness of the internal control in the municipalities. This is leading to make the cost of auditing more reasonable and at minimum level. Therefore, SAIs affect negatively on the relationship between the audit quality and audit firm attributes.

5.2.2.3 The Moderating Role of SAIs between the Effectiveness of Municipal Internal Control and Audit Quality

As shown in Table 5.2, although there was an interval straddling a 0, the effect of Supreme Audit Institutions (SAI) interaction with Effectiveness of Municipal Internal Control (EMIC) on Audit Quality (AQ) is statistically significant because of having t-value above 1.645 and p-value below the standard significant level of 0.05 (coefficient path = 0.121; t-value = 2.057; p-value = 0.038). The f^2 value was 0.029, indicating small effect size. The VIF was 2.500, less than threshold of 5 and demonstrated free from collinearity. Thus, H4c (H4c: Supreme Audit Institutions moderates the relationship between Effectiveness of the Municipal Internal Control and Audit Quality) was supported; $\beta = 0.121$, 95%LL-CI = -0.015, 95%UL-CI = 0.217, $t > 1.645$, $p < 0.05$, $VIF < 5$, $f^2 = 0.029$.

Figure 5.6 shows the line chart effect of Effectiveness of Municipal Internal Control (EMIC) on Audit Quality (AQ) at low and high level of Supreme Audit Institutions (SAI).



Source: Smart PLS3

Figure 5.6: Effect of EMIC on AQ at Low and High Level of SAI

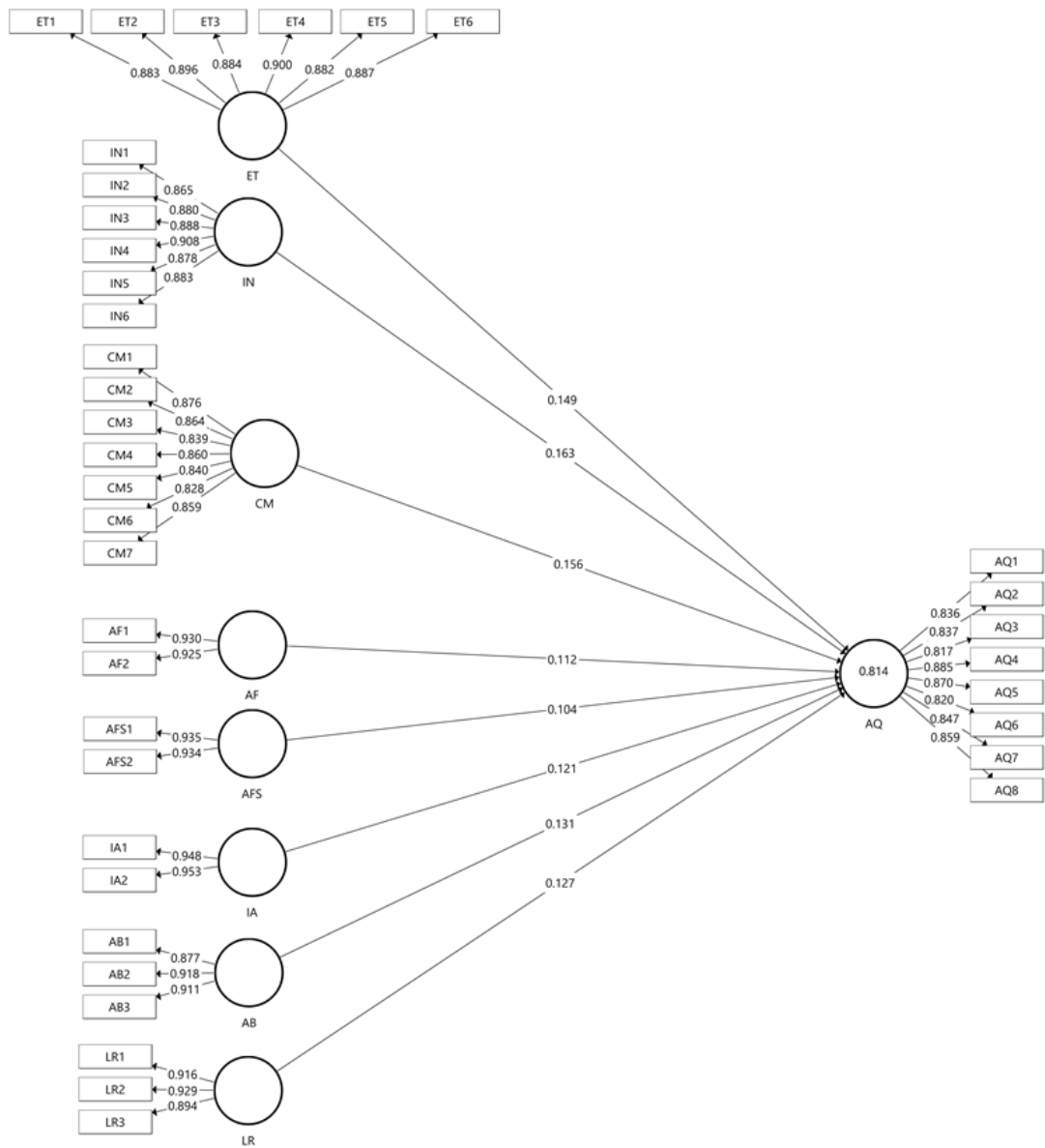
As shown in Figure 5.6, the two lines indicated a positive relationship between Effectiveness of Municipal Internal Control (EMIC) and Audit Quality (AQ). The two lines were not parallel which implied the existing of moderation effect. However, the relationship was steeper and thus greater for high level of Supreme Audit Institutions (SAI) compare to the low level. Hence, it could be concluded that Supreme Audit Institutions (SAI) positively moderates the relationship between the Effectiveness of Municipal Internal Control (EMIC) and Audit Quality (AQ). It means the positive effect of Effectiveness of Municipal Internal Control (EMIC) on Audit Quality (AQ) is stronger for higher level of Supreme Audit Institutions (SAI). This result is

consistent with the findings of an examination of the annual audit reports of the Palestinian SAIs (FACB and GDCG), in which they mentioned many recommendations and notes related to effective internal control and the main factors of internal control, including internal auditing, accounting bases (the foundation of the accounting system), and compliance with applicable laws and regulations, directly or indirectly. This means that by strengthening internal control and its determinants, such as internal auditing, accounting bases, and compliance with relevant laws and regulations, the audit of SAIs in municipalities enhances the audit quality.

5.2.3 Examining Direct Effect Hypotheses - Structural Model 2

The structural model investigated the direct causal effects of Ethics (ET), Independence (IN), Competency (CM), Audit Fees (AF), Audit Firm Size (AFS), Internal Auditing (IA), Accounting Basis (AB), and Laws and Regulation (LR) as independent variables on Audit Quality (AQ) as dependent variable were investigated in this study hypotheses (H1a, H1b, H1c, H2a, H2b, H3a, H3b and H3c respectively).

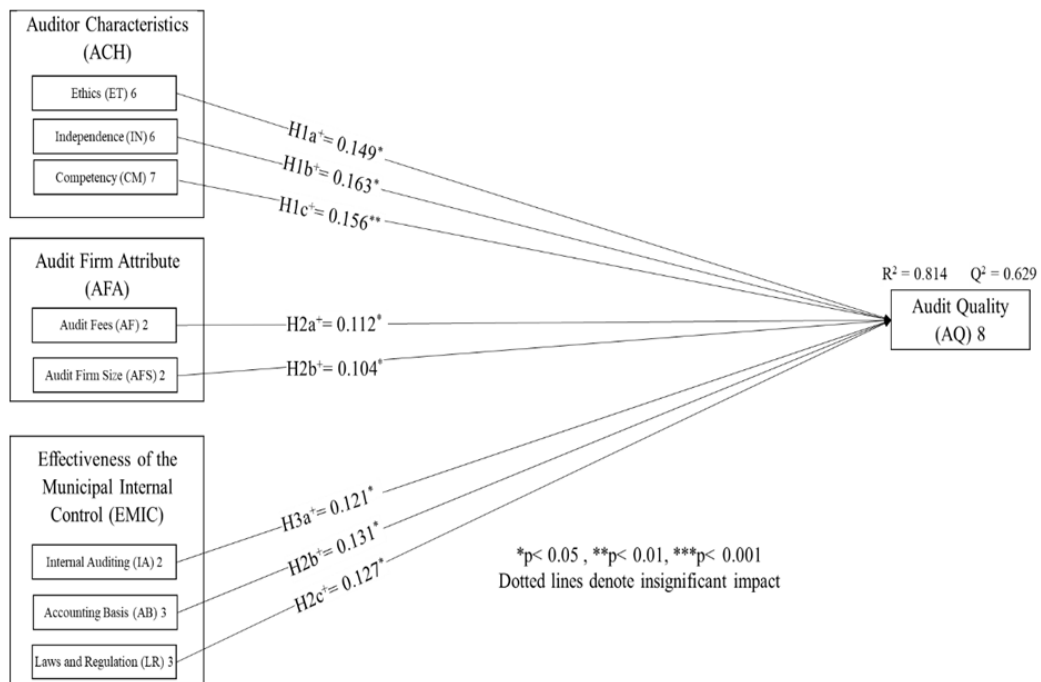
The structural model for testing the direct effects of the hypothesized variables in structural model 2 as the SmartPLS 3 model is portrayed in Figure 5.7 and Appendix 10.



Source: Smart PLS3

Figure 5.7: Structural Model 2 – Causal Effects – Path Coefficients

The structural model for testing the direct effects of the hypothesized variables in structural model 2 is summarized in Figure 5.8



Source: Author

Figure 5.8: Results of the Structural Model 2

The R^2 value for Audit Quality (AQ) was 0.814, which was higher than the Chin, (1998) cut off value of 0.19. The value of Q^2 for Audit Quality (AQ) was 0.629, which is far greater than zero and refers to the model's predictive relevance, as suggested by Chin (2010). The model's goodness of fit (GOF) was 0.764, which is quite high. The SRMR was 0.036, which was less than the 0.08 threshold. The RMS_{theta} value was 0.127, within the acceptable range of 0.1 and 0.14.

The estimated coefficient parameters are then used to test the hypothesized direct effects of the variables addressed in Table 2.1.

Table 5.3 displays the path coefficients and results of examining hypothesized direct effects in structural model 2.

Table 5.3: Hypothesized Direct Effects of the Constructs in Structural Model 2

Path	Std Beta	Std Deviation	t-value	p-value	95% LL-CI	95% UL-CI	f ²	VIF	Hypothesis Result
ET→AQ	0.149*	0.064	2.456	0.020	0.032	0.281	0.027	4.457	H1.a ⁺ : Supported
IN→AQ	0.163*	0.070	2.293	0.019	0.025	0.300	0.033	4.313	H1.b ⁺ : Supported
CM→AQ	0.156*	0.058	2.731	0.007	0.042	0.279	0.035	3.755	H1.c ⁺ : Supported
AF→AQ	0.112*	0.055	2.116	0.044	0.002	0.218	0.026	2.599	H2.a ⁺ : Supported
AFS→AQ	0.104*	0.052	2.976	0.045	0.005	0.200	0.022	2.584	H2.b ⁺ : Supported
IA→AQ	0.121*	0.051	2.294	0.018	0.019	0.216	0.027	2.919	H3.a ⁺ : Supported
AB→AQ	0.131*	0.063	2.019	0.039	0.007	0.254	0.022	4.229	H3.b ⁺ : Supported
LR→AQ	0.127*	0.056	2.297	0.023	0.015	0.236	0.028	3.161	H3.c ⁺ : Supported

*p<0.05, **p<0.01, ***p<0.001

Source: Smart PLS3

As shown in Table 5.3, all paths were statistically significant as their p-values were below the standard significance level of 0.05 and t-values above the threshold of 1.645. Thus, the direct effect hypotheses H1a, H1b, H1c, H2a, H2b, H3a, H3b and H3c were supported. The following sections discuss the results of path analysis in relation to the direct effect hypotheses in structural model 2:

5.2.3.1 The Relationship Between the Auditor Ethics and the Audit Quality

According to Table 5.3, the t-value and p-value of Ethics (ET) in predicting Audit Quality (AQ) were 2.456 and 0.020, respectively. It means that the chance of getting a t-value as large as 2.456 in absolute value is 0.020. In other words, the regression weight for Ethics (ET) in the prediction of Audit Quality (AQ) is significantly different from zero at the 0.05 level of p-value. Furthermore, the confidence intervals bias corrected 95% did not show any intervals straddling a 0, lower level of 0.032, and upper level of 0.281. The standard path coefficient was

0.149, indicating that the relationship was positive. It means that for every one standard deviation increase in Ethics, Audit Quality (AQ) increases by 0.149 standard deviations. Furthermore, f^2 value was 0.027, indicating that the effect size of 0.027 on Audit Quality (AQ) was small effect size. The findings also revealed that the VIF of Ethics in predicting Audit Quality (AQ) was 4.457, which was less than the 5 threshold and demonstrated free from collinearity.

These results demonstrated that H1a (H1a: Ethics (ET) has significant positive effect on Audit Quality (AQ)) is supported; $\beta = 0.149$, 95%LL-CI = 0.032, 95%UL-CI = 0.281, $t > 1.645$, $p < 0.05$, $VIF < 5$, $f^2 = 0.027$.

The significant positive relationship indicates that auditor ethics is critical to increasing the level of audit quality. In other words, the commitment of external auditors with the audit team individual's Ethics has increased audit quality in the municipalities. This result is consistent with previous studies (Lord and DeZoort 2001; Blay et al., 2019; ALBeksh, 2016; Knechel et al., 2013; Haeridistia and Agustin, 2019; Christensen et al., 2016). According to the Public Interest Theory, the MOLG required from the auditor to registered in the audit professional regulators and has good reputation as mentioned in the ToR of hiring external auditors in the municipalities.

As a result, it is recommended that the profession regulator establish procedures to increase compliance with general ethics and international accounting ethics standards, and that municipalities implement some procedures to hire a high-profile audit firm with ethical audit teams.

5.2.3.2 The Relationship Between the Auditor Independence and the Audit Quality

According to Table 5.3, the t-value and p-value of Independence (IN) in predicting Audit Quality (AQ) were 2.293 and 0.019, respectively. It means that the chance of getting a t-value as large as 2.293 in absolute value is 0.019. In other words, the regression weight for Independence (IN) in the prediction of Audit Quality (AQ) is significantly different from zero at the 0.05 level of p-value. Furthermore, the confidence intervals bias corrected 95% did not show any intervals straddling a 0, lower level of 0.025, and upper level of 0.300. The standard path coefficient was 0.1632, indicating that the relationship was positive. It means that for every one standard deviation increase in Independence (IN), Audit Quality (AQ) increases by 0.1632 standard deviations. Furthermore, f^2 value was 0.033, indicating that the effect size of 0.033 on Audit Quality (AQ) was small effect size. The findings also revealed that the VIF of Ethics in predicting Audit Quality (AQ) was 4.313, which was less than the 5 threshold and demonstrated free from collinearity.

These results demonstrated that H1b (H1b: Independence (IN) has significant positive effect on Audit Quality (AQ)) is supported; $\beta = 0.1632$, 95%LL-CI = 0.025, 95%UL-CI = 0.300, $t > 1.645$, $p < 0.05$, $VIF < 5$, $f^2 = 0.033$.

The significant positive relationship indicates that auditor independence is critical to increasing the level of audit quality. In other words, the commitment of external auditors with independence either for the audit firm or audit team individuals has increased audit quality in the municipalities. This result is consistent with previous studies (Ismail et al., 2019; Kyriakou & Dimitras, 2018a; Hardies et al., 2016; Hardies et al. 2016; Junaidi et al., 2016; Knechel, 2016; Octavia and Widodo 2015; and Bouhawia et al., 2015; Elder et al., 2015; Francis, 2011; Francis, 2004; Ruiz-

Barbadillo et al., 2004; Ashbaugh et al., 2003). According to the Public Interest Theory, the MOLG required independence auditors for the municipalities in order to achieve high audit quality.

As a result, it is suggested that profession regulators establish guidelines and standards for auditor independence and determine which services the auditor can provide to his client.

5.2.3.3 The Relationship Between the Auditor Competence and the Audit Quality

According to Table 5.3, the t-value and p-value of Competency (CM) in predicting Audit Quality (AQ) were 2.731 and 0.007, respectively. It means that the chance of getting a t-value as large as 2.731 in absolute value is 0.007. In other words, the regression weight for Competency (CM) in the prediction of Audit Quality (AQ) is significantly different from zero at the 0.05 level of p-value. Furthermore, the confidence intervals bias corrected 95% did not show any intervals straddling a 0, lower level of 0.042, and upper level of 0.279. The standard path coefficient was 0.156, indicating that the relationship was positive. It means that for every one standard deviation increase in Competence, Audit Quality (AQ) increases by 0.156 standard deviations. Furthermore, f^2 value was 0.035, indicating that the effect size of 0.035 on Audit Quality (AQ) was small effect size. The findings also revealed that the VIF of Competence in predicting Audit Quality (AQ) was 3.755, which was less than the 5 threshold and demonstrated free from collinearity.

These results demonstrated that H1c (H1c: Competency (CM) has significant positive effect on Audit Quality (AQ)) is supported; $\beta = 0.156$, 95%LL-CI = 0.042, 95%UL-CI = 0.279, $t > 1.645$, $p < 0.05$, $VIF < 5$, $f^2 = 0.035$.

The significant positive relationship indicates that auditor competence is critical to increasing the level of AQ. In other words, the commitment of external auditors to continuous education, understanding the client industry, and gaining experience in auditing and accounting-related fields has increased audit quality. This result is consistent with previous studies (Ismail et al., 2019; Kyriakou & Dimitras, 2018a; Hardies et al. 2016; Junaidi et al., 2016; Knechel, 2016; Octavia and Widodo 2015; and Bouhawia et al., 2015; Elder et al., 2015). According to the Public Interest Theory, the MOLG required some qualities must be met in the audit firm and audit team to be eligible for external auditing in the municipalities.

It is advised that as a result, profession regulators adopt the procedures and policies necessary to guarantee the presence of qualified auditors. Furthermore, municipalities need to hire people who have expertise in auditing public sector organizations, particularly municipalities.

5.2.3.4 The Relationship Between the Audit Fees and the Audit Quality

According to Table 5.3, the t-value and p-value of Audit Fees (AF) in predicting Audit Quality (AQ) were 2.116 and 0.044, respectively. It means that the chance of getting a t-value as large as 2.116 in absolute value is 0.044. In other words, the regression weight for 0.044 in the prediction of Audit Quality (AQ) is significantly different from zero at the 0.05 level of p-value. Furthermore, the confidence intervals bias corrected 95% did not show any intervals straddling a 0, lower level of 0.002, and upper level of 0.218. The standard path coefficient was 0.112, indicating that the relationship was positive. It means that for every one standard deviation increase in Audit Fees, Audit Quality (AQ) increases by 0.112 standard deviations. Furthermore, f^2 value was 0.026, indicating that the effect size of 0.026 on Audit Quality (AQ) was

small effect size. The findings also revealed that the VIF of Audit Fees in predicting Audit Quality (AQ) was 2.599, which was less than the 5 threshold and demonstrated free from collinearity.

These results demonstrated that H2a (H2a: Audit Fees (AF) has significant positive effect on Audit Quality (AQ)) is supported; $\beta = 0.112$, 95%LL-CI = 0.002, 95%UL-CI = 0.218, $t > 1.645$, $p < 0.05$, $VIF < 5$, $f^2 = 0.026$.

The significant positive relationship indicates that the amount of the audit fees almost reflects the auditor efforts in auditing process. The more efforts in the audit process, the better the quality of the audit. This result is consistent with previous studies (Yebba & Elder, 2019; Hardies et al., 2015; DeFond & Zhang, 2014; Carson et al., 2013; Francis & Yu, 2009; Geiger & Rama, 2003). This finding is also supported by the Public Interests Theory, which proposes that municipal management must follow Law of Public Purchase when hiring and determining the auditor fees, particularly the municipalities compliance with the tendering or quotation processes. Accordingly, it is advised that municipalities first evaluate the technical aspects of the audit offers before evaluating the financial offers in order to determine which auditor is best suited to provide high audit quality at affordable audit fees.

5.2.3.5 The Relationship Between the Audit Firm size and the Audit Quality

According to Table 5.3, the t-value and p-value of Audit Firm Size (AFS) in predicting Audit Quality (AQ) were 2.976 and 0.045, respectively. It means that the chance of getting a t-value as large as 2.976 in absolute value is 0.045. In other words, the regression weight for 0.045 in the prediction of Audit Quality (AQ) is significantly different from zero at the 0.05 level of p-value. Furthermore, the confidence intervals bias corrected 95% did not show any intervals straddling a 0, lower level of 0.005, and

upper level of 0.200. The standard path coefficient was 0.104, indicating that the relationship was positive. It means that for every one standard deviation increase in Audit Firm Size (AFS), Audit Quality (AQ) increases by 0.104 standard deviations. Furthermore, f^2 value was 0.022, indicating that the effect size of 0.022 on Audit Quality (AQ) was small effect size. The findings also revealed that the VIF of Audit Firm Size (AFS) in predicting Audit Quality (AQ) was 2.584, which was less than the 5 threshold and demonstrated free from collinearity.

These results demonstrated that H2b (H2b: Audit Firm Size (AFS) has significant positive effect on Audit Quality (AQ)) is supported; $\beta = 0.104$, 95%LL-CI = 0.005, 95%UL-CI = 0.200, $t > 1.645$, $p < 0.05$, $VIF < 5$, $f^2 = 0.022$.

The significant positive relationship indicates that larger audit firm size (AFS) equals higher audit quality. Because a large company always has more experienced staff in many fields and many alternatives to meet the audit quality requirements. This result is consistent with previous studies, Alareeni (2019) reported that many past studies confirmed the positive connection between audit firm size and audit quality. This conclusion is also supported by the Theory of Public Interests, which contends that municipal management must adhere to laws and regulations requiring a minimum number of auditors with various specialties in the audit team in accordance with the classification of the municipality.

As a result, it is recommended that municipalities hire audit firms that have a sufficient number of auditors with diverse experience in a variety of areas.

5.2.3.6 The Relationship Between the Internal Audit and the Audit Quality

According to Table 5.3, the t-value and p-value of Internal Auditing (IA) in predicting Audit Quality (AQ) were 2.294 and 0.018, respectively. It means that the

chance of getting a t-value as large as 2.294 in absolute value is 0.018. In other words, the regression weight for 0.018 in the prediction of Audit Quality (AQ) is significantly different from zero at the 0.05 level of p-value. Furthermore, the confidence intervals bias corrected 95% did not show any intervals straddling a 0, lower level of 0.019, and upper level of 0.2161. The standard path coefficient was 0.121, indicating that the relationship was positive. It means that for every one standard deviation increase in Internal Auditing, Audit Quality (AQ) increases by 0.121 standard deviations. Furthermore, f^2 value was 0.027, indicating that the effect size of 0.027 on Audit Quality (AQ) was small effect size. The findings also revealed that the VIF of Internal Auditing in predicting Audit Quality (AQ) was 2.599, which was less than the 5 threshold and demonstrated free from collinearity.

These results demonstrated that H3a (H3a: Internal Auditing (IA) has significant positive effect on Audit Quality (AQ)) is supported; $\beta = 0.121$, 95%LL-CI = 0.019, 95%UL-CI = 0.2161, $t > 1.645$, $p < 0.05$, $VIF < 5$, $f^2 = 0.027$.

The significant positive relationship indicates that existence of internal auditing in the municipality leads to increase the level of audit quality. This result is consistent with previous studies (Sari et al., 2019; DeFond & Zhang, 2014).

This finding is also supported by the Public Interests Theory, which proposes that municipal management in the large municipality as class (A) must establish a separate audit department for internal auditing, and other classes of municipalities are recommended by MOLG to hire internal auditors, and all municipalities must establish audit committee in the governance council.

As a result, it is recommended the municipalities to hire experienced auditors, and implement training programs to make them more qualified in internal audit, and it

recommended the external auditors to cooperate with the internal auditors in order to facilitate the auditing process in the municipality.

5.2.3.7 The Relationship Between the Accounting Basis and the Audit Quality

According to Table 5.3, the t-value and p-value of Accounting Basis (AB) in predicting Audit Quality (AQ) were 2.019 and 0.039, respectively. It means that the chance of getting a t-value as large as 2.019 in absolute value is 0.039. In other words, the regression weight for 0.039 in the prediction of Audit Quality (AQ) is significantly different from zero at the 0.05 level of p-value. Furthermore, the confidence intervals bias corrected 95% did not show any intervals straddling a 0, lower level of 0.015, and upper level of 0.236. The standard path coefficient was 0.131, indicating that the relationship was positive. It means that for every one standard deviation increase in Accounting Basis (AB), Audit Quality (AQ) increases by 0.131 standard deviations. Furthermore, f^2 value was 0.026, indicating that the effect size of 0.022 on Audit Quality (AQ) was small effect size. The findings also revealed that the VIF of Accounting Basis (AB) in predicting Audit Quality (AQ) was 4.229, which was less than the 5 threshold and demonstrated free from collinearity.

These results demonstrated that H3b (H3b: Accounting Basis (AB) has significant positive effect on Audit Quality (AQ)) is supported; $\beta = 0.131$, 95%LL-CI = 0.015, 95%UL-CI = 0.236, $t > 1.645$, $p < 0.05$, $VIF < 5$, $f^2 = 0.022$.

The significant positive relationship indicates that the transferring from using the cash accounting basis will increase the audit quality in the municipalities. In other words, the accountant and internal auditor in the municipalities perceived that the accounting basis affects the audit quality, particularly when the municipality moved to use the accrual accounting basis. This result is consistent with previous studies

(Ademola et al., 2020; Cuadrado-Ballesteros et al., 2019; DeFond & Zhang, 2014) This finding is also supported by Public Interests Theory and the Theory of Stakeholders. When MOLG requires municipalities to issue financial reports on an accrual basis, these reports can meet the needs of the various stakeholders.

As a result, municipalities are advised to use accrual accounting in order to issue relevant financial statements to all stakeholders in the municipalities.

5.2.3.8 The Relationship Between the Laws and Regulations and the Audit Quality

According to Table 5.3, the t-value and p-value of Laws and Regulations (LR) in predicting Audit Quality (AQ) were 2.297 and 0.023, respectively. It means that the chance of getting a t-value as large as 2.297 in absolute value is 0.023. In other words, the regression weight for 0.023 in the prediction of Laws and Regulations (LR) is significantly different from zero at the 0.05 level of p-value. Furthermore, the confidence intervals bias corrected 95% did not show any intervals straddling a 0, lower level of 0.015, and upper level of 0.236. The standard path coefficient was 0.127, indicating that the relationship was positive. It means that for every one standard deviation increase in Laws and Regulations, Audit Quality (AQ) increases by 0.127 standard deviations. Furthermore, f^2 value was 0.028, indicating that the effect size of 0.028 on Audit Quality (AQ) was small effect size. The findings also revealed that the VIF of Audit Fees in predicting Audit Quality (AQ) was 3.161, which was less than the 5 threshold and demonstrated free from collinearity.

These results demonstrated that H3c (H3c: Laws and Regulations (LR) has significant positive effect on Audit Quality (AQ)) is supported; $\beta = 0.127$, 95%LL-CI = 0.015, 95%UL-CI = 0.236, $t > 1.645$, $p < 0.05$, $VIF < 5$, $f^2 = 0.028$.

The significant positive relationship indicates that the existence and compliance with the applicable laws and regulations increase the audit quality. This result is consistent with previous studies (Yebba and Elder 2019; Brusca et al., 2015). This finding is also supported by of Public Interests Theory, which proposes that municipal management must follow the applicable laws and regulations that ruled all activities in the municipalities.

As a result, it is advised that municipalities comply with all applicable laws and regulations and conduct ongoing monitoring of them. Moreover, it is advised that the regulators of the audit profession and the municipalities make revising and updating all applicable laws and regulations to be more effective.

5.3 Summary of Chapter Five

Two structural models were created in order to examine 11 hypothesized direct effects and 3 hypothesized moderation effects. These were carried out by using SmPLS 3.0 to perform a path analysis and testing the significance of the path coefficients for each proposed path.

According to the findings, all the 11 direct effect hypotheses put forward were supported. But the auditor characteristics was the most important factor in predicting Audit Quality. Also, the results of the moderation analysis, the effects of the Auditor Characteristics and the Effectiveness of Municipal Internal Control on the Audit Quality were stronger at higher levels of Supreme Audit Institutions, while the effect of the Audit Firm Attributes was stronger at lower levels of Supreme Audit Institutions. In other words, the effect of Audit Firm Attributes on Audit Quality was negatively moderated by Supreme Audit Institutions, while the positive effects of Auditor Characteristics and Effectiveness of Municipal Internal Control were

positively moderated by SAI. As a result, all three of the proposed moderation effect hypotheses were confirmed.

