# Does Anti-Corruption Information Disclosure Affect Government Linked Companies' Financial Performance?

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According to the Malaysian Anti-Corruption Commission (MACC), there were about 821 investigation papers opened and the same number was arrested due to committing corruption from January to November 2018. It has been reported that the Government Linked Companies (GLCs) staffs are part of criminals being arrested due to corruption where there were about 26 arrested criminals. This is alarming since GLCs being a key player in the economy; contributes about 42% control in the entire Bursa Malaysia. Hence, this study aims to investigate the level of Anti-Corruption Information Disclosure (AAID) and its relationship to the firm performance of GLCs in Malaysia for the period of 2015 to 2017. To achieve the objective of this study, a sample was selected from 60 companies through random stratified sampling. This study uses elements of Policy, Organization, Reporting and Risk Assessment to describe AAID, while firm performance is represented by the Sales Growth (ROS) and Return on Asset (ROA). The results reveal that AAID did not significantly influence the ROS, but significantly affected the ROA. It is also concluded that the extent of AAID among GLCs in Malaysia was at a moderate level indicating less transparency of AAID information among GLCs in Malaysia.

**Keywords:** *Anti-Corruption Disclosure, Government Linked Companies, Legitimacy Theory, Firm Performance*

## 1. INTRODUCTION

Corruption is a very intense issue for the time being and it never stops growing. It is a very serious concern to the business as it may give a bad impact on the company's reputation. Corruption is the act of power of public officials that have been abused for private gain by contravening the regulations (Jain, 2001; UNGC, 2006). Global Infrastructure Anti-Corruption Centre (GIACC) (2014) used the term corruption in a wider definition by including bribery, extortion, fraud, cartel, abuse of power, misappropriation of assets and money laundering.  Jain (2009) also highlighted that an individual who undertakes this illegal action normally involves public officials and politicians by which this act can influence government policy. Corruption does not give any positive impact. It may cause the retardation of economic competitiveness and the wealth that are not well segregated (Hills et al., 2009). Corruption is daunting the development and growth of a country (Jain. 2001). According to Datuk Akhbar Satar, President of Transparency International Malaysia, there was about RM49.6bil loss in 2017 due to the corruption in the public sector. AmBank Group chief economist, Anthony Dass stated that corruption causes the channelling process of benefit from the country's revenues is not well segregated for the nation's benefit. In fact, corruption has affected the equality of rich and poor (Kana, 2017). The epidemic of corruption also caused the country's competitiveness to lower down, increasing government spending as well as causing misallocation of resources (Hoseah, 2014). In fact, according to expertise, inflation has raised by 2.2% in 2017 due to the corruption factor only (Kana,2017). Previous research on corruption and inflation by Al-Marhubi (2000) also stated that higher corruption leads to higher inflation. Additionally, corruption also distorts economic and market development and make the inefficient market operating. Similarly, corruption obnoxiously harms the political instability in a country because of the greediness and power abuse (Mo, 2001).

According to GIAAC (2014), there are many reasons for these corruption activities. The first thing that trigger corruptions, of course is motivation. It basically stated either voluntary of individuals to commit corruption and under some circumstances, a person being extorted and threaten. Not to surprise, corruption may occur as it may be the normal business practices and being a part of daily activities and also maybe a tradition from the earlier years of business. The reason why it is hard to deter corruption is the government itself is corrupted. Even with the developed policy on anti-corruption, lack of consistency can be a factor that erodes the attempt to curb corruption. GIACC (2014) added that people are afraid on reporting corruption because they scare it will backfire them. As corruption was confirmed when there was only clear evidence, unscrupulous individuals will continue to commit corruption as long as they were able to hide the core evidence of their crime. Started from the scandalous corruption issue of Enron and WorldCom, corporate governance started to revolve and becoming stronger. Transparency and disclosure were encouraged in order for a company to get approved by the public and market. In fact, the Corruption Perception Index (CPI) established Transparency International gives parameters on the

corruption level through surveys and ratings in objective to encourage transparency and avoiding corruption.   Malaysian ranking has never been better to this day. It became worst in 2017 where the lowest ranking throughout history, 62nd as published by Transparency International in 2018.

However, even with the poor CPI, the economy still be good like normal, and companies still manage to have a high return on the profit and able to continuously keep their promise to their shareholder. According to the Central Bank of Malaysia statistic as at 2018, it shows that the economic is at an increasing rate and stable position even there were corruption and increase in CPI ranking. Moreover, most GLCs still able to stay at the top of the hierarchy in the Malaysian market as in the ranking of top 100 companies in Malaysia by Minority Shareholders Watch Group (MSWG) in 2018.

An increasing number of corruption cases may give a substantial impact on the CPI as it may influence the investment decisions made by investors. Investors are inclined to sufficient information disclosure in publicly available reports to avoid wrong investment in suspicious companies (Sayekti & Wondabio, 2008). Lack of corporate governance and transparency on companies' disclosure create advantages and loopholes that might be wrongfully used by the criminals (Agyei-Mensah, 2017). The criminal normally has access and capability to hide his wrongdoing which causes the increase in asymmetric information, and this negatively affects the firm value (Jensen & Meckling, 1976). Often, when there is an attempt to hide significant publicly available information, there might be a signal of the existence of corruption and other illegal activities as that information should be freely obtained (Transparency International, n.d). Disclosing on selective information will not be able to portray true and fair views of firm performance which resulting in less sufficient information to be used by the investors' investment evaluation.

Al-Matari, Al-Swidi and Fadzil (2014) stated that firm performance becomes a focus for investors to consider and evaluate on firm's sustainability and future performance. However, an untrue firm performance due to concealing of information, corruption and fraud may give untrue valuation and cause losses to the investors. For investors to have more trust in companies and be able to forecast future performance of the companies, accessibility to any public information including anti-corruption related information is crucial for accurate assessment. Early detection of corruption, fraud and misallocation of resources can be determined through information disclosure in financial statements when the market valuation was going in the opposite direction. Indeed, companies that have good performance are those that reinforce management for quality disclosure (Herly & Sisnuhadi, 2011).

Due to the above issues, this study aims to examine the extent of anti-corruption information disclosure among GLCs in Malaysia. Secondly, it is to examine the relationship between AAID and firm performance of GLCs in Malaysia. AAID is assessed based on four components of the disclosure, such as Policy, Organization, Reporting and Risk Assessment.

The firm performance is measured using accounting-based measures represented by sales growth (ROS) and return on assets (ROA). This study aims to provide a clear picture of how governance plays an important role in directing which information on AAI should be disclosed as it is expected to improve firm performance. The findings may help investors and users of financial statements to grasp a basic knowledge about AAID, firm performance and how it can relate to detecting fraud and corruption among companies in Malaysia.

## 2. LITERATURE REVIEW

### 2.1 Overview of Anti-Corruption Efforts in Malaysia

Robust anti-corruption efforts were made in order took reduce corruption rate. Business entities are stimulated to implement approaches to deter corruption activities (Hills et al., 2009). For instance, Securities Commissions Malaysia (SC) evolving MCCG guideline to sturdier parameter to encourage honesty and transparency in business from it first enforcement in 2000 till the latest in 2017. For example, the whistle-blower policy needs to be established in the company to encourage employees who witness the crime to report while being protected by the law. Auditing process should made to the requirement and the companies need to justify the reason for each of the regulation that does not fulfil the MCCG requirement as per stated. The risk assessment also should be conducted to evaluate any possible risk in the future.  MACC as the main bodies combating corruption in Malaysia has been conducting numerous campaign and activities to give public information and awareness on corruption. Transparency International also become more active in establishing more robust and strict regulation such as Anti-Corruption Principles for State-Owned Enterprises, A Best Practice for Whistleblowing and Global Anti-Bribery Guidance which focus on the governance of the corruption from time to time in order to reduce the corruption and also bribery. In addition, there were integration of corporate responsibility and anti-corruption initiatives have been made by the United Nation Global Compact (UNGC) and other international investment community (Transparency International, 2010). Not only the establishment of regulations and guidelines, but there were also various program and campaign were carried out to open public's eyes and business entities awareness on the corruption and the important of anti-corruption practices. For instances, MACC has been established Corporate Integrity Pledge (CIP) in 2011 with companies like GLCs and other government bodies to have their promise to fight over corruption. At the end of 2018, there were about more than 100 companies already signed to this Corporate Integrity Pledge by MACC. Additionally, the National Anti-Corruption Plan (NACP) also stated in its objective to make the country free from corruption in 5-years period with a robust laws and regulation (Rodzi, 2019).

### 2.2 Anti-Corruption Information Disclosure and Firm Performance

 Numerous research has been developed to relate firm performance to measure effectiveness and efficiency from a situation, factors, regulations and others. There are plentiful approaches that can be used in studies related to firm performances.  An accounting-based indicator is

considered an effective indicator of the company's profitability and is good for comparing the benchmark rate (Al-Matari et al., 2014). According to Orlitzky, Schmidt and Rynes (2003), they recommended that CSR which included anti-corruption practices is rather strongly associated with accounting-based measures than market-based measures. Using the accounting-based to evaluate profitability can assist investors in decision making of the best investment and provide them with the best future return expectation on the company (Al-Matari et al., 2014). For this study, firm performance will be measured using an accounting-based measure which is expressed by sales growth and return on assets.

Sales growth assesses the changes in the return of sales (ROS). The use of sales of growth is to measure sales growth spreads fixed costs over revenue (Sam & Hoshino, 2013; Martin, Yadiati & Pratama, 2018). Sales growth is represented by the ratio of return on sales where it can be systemically measured by dividing net income over total sales. Meanwhile, Herly and Sisnuhadi (2011) measured the sales growth by using three-year sales upon firms' anti-corruption efforts disclosure.

While, return on asset (ROA) is often used by researchers in determining a firm's economic performance and profitability (Belu & Manescu, 2013). ROA is normally used to examine the ability of firms to effectively utilize its asset to generate profit. In fact, return on asset is the most relevant accounting-based measure in measuring company financial performance as it directly compares return from the asset to profit (Aliabadi, Dorestani & Balsara, 2013). A high ROA ratio shows that the firms are able to attain higher earnings from its assets when it is efficiently using the assets to generate the profit.

## 2.3 *Development of Hypotheses*

There are mixed findings on the relationship between AAID and firm performance. Based on a prior study by Herly and Sisnuhadi (2011), they examined the causes and consequences of anti-corruption efforts among the largest companies in the world stated that the relationship is adverse where the company that practices anti-corruption have lower performance compared to the one that not applying the anti-corruption effort. Additionally, various measures had applied to corruption does not improve the situation but worsen the performance. This indicated that even with various policies applied to deter corruption through disclosure with robust guidelines does not contribute to increasing the performance particularly (Sahakyan & Stiegert, 2012).

In a study conducted on 480 world's largest companies, it has been stated that when low anti-corruption disclosure is made in so-called a corrupt country, the higher the sales growth which is by 15% compared to the country that has high anticorruption disclosure. This shows that AAID has an adverse effect on performance (Herly & Sisnuhadi, 2011). On the other hand, Martin et al. (2018) found a non-significant effect of disclosure on the sales growth as the perceptions of investors are changing and unlikely to have an immediate benefit. The

study mentioned that the disclosure made would actually take effect in a longer time in order to let investors change their consumptions patterns.

Based on the recent studies by Servaes and Tamayo (2013), the results revealed that disclosure does not have a significant positive effect on sales growth. It has also been stated that disclosure had made a company's sales decreases. The reason why disclosure tends to reduce sales growth is because of customer behaviour where some investors are willing to pay a premium price for the socially responsible firms, but some fewer investors wanted to buy the product (Martin et al., 2018). It is either the revelation made customers cannot accept the premium or do not accept the disclosure on the transparency report of companies. Hence, the hypothesis is as follows:

*H1: There is a significant negative relationship between anti-corruption disclosure and ROS among GLCs in Malaysia.*

A study by Martin et al. (2018) revealed that disclosure has a significant positive effect on return on assets. This is consistent with the study by Johansson, Karlsson and Hagberg (2015) that the relationship between CSR disclosure is positive even when it is not that strong. More CSR disclosure that also contained anti-corruption matters will increase the investors' awareness of the importance of anti-corruption disclosure for companies' sustainability besides increasing companies' reputation. Furthermore, Mittal, Sinha and Singh (2008) stated that ROA has a strong and positive relationship with disclosure. This is consistent with the study conducted by Razali, Sin, Lunyai, Hwang and Yusoff (2018) where disclosure helps the company to achieve optimum financial performance in competitive surroundings through disclosing as it increases the firms' competitiveness.

In contrast, Chen, Hung and Wang (2018) indicated that disclosure mandates made by companies reduces the firm profitability in terms of ROA. This shows an adverse relationship where the disclosure becomes a cost to firm performance. On the other hand, few researchers who claimed that there is no significant relationship between ROA and disclosure, it is refuted and has little influence such as in Dewi, Sudarma, Djumahir and Ganis (2014) and Palmer (2012). Hence, the hypothesis below is developed:

*H2: There is a significant positive relationship between anti-corruption disclosure and return on assets among GLCs in Malaysia.*

To illustrate the above-developed hypotheses, Figure 1 shows the proposed research framework indicating the relationship between anti-corruption information disclosure and the firm performance.
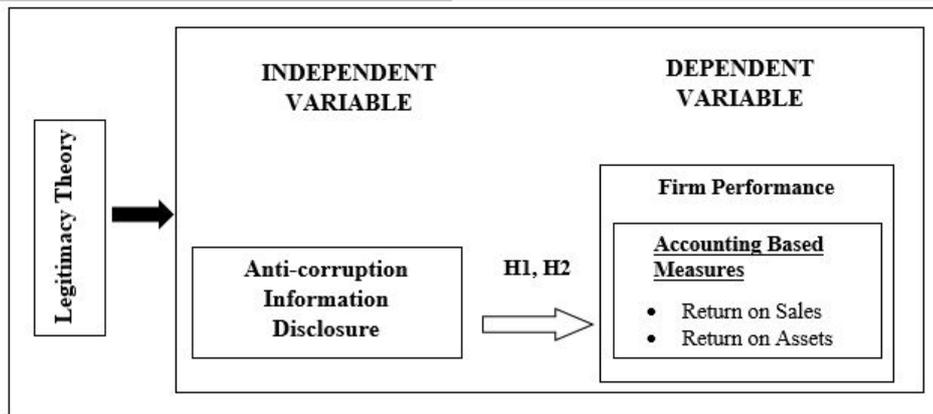
Figure 1: Proposed Research Framework of the Relationship between AAID and Firm Performance

## 3. RESEARCH METHODOLOGY

### 3.1 Sample Selection

This study selects 60 government-linked companies as the sample from the population of 791 in the Main Market of Bursa Malaysia as of 31 December 2017. Data from three years will be collected, hence final sample of 180 firms' years were analysed. A list of GLCs was obtained by checking through government ownership in the companies manually, as there was no exact listing made from Bursa Malaysia for GLCs and Government Investment Division Companies (GIC) in Malaysia. In addition, the chosen companies should have been listed as government-linked companies for more than three years to fulfil the relevant time frame to see the changes in the disclosure and firm performance. Financial services companies were excluded from the sample as they were not operating as normal operation businesses. The secondary data of the published annual reports and any other related and reliable sources were used to identify the relationship between AAID and firm performance. The dependent variable of firm performance can be obtained from the annual reports and Eikon Thomson Reuters DataStream.

### 3.2 Variables Measurement

The measurement of variables has been adopted from previous studies to ensure consistent use of measurements with prior studies. Table 1 indicates the variable measurements.

Table 1: List of variables and their proxies

| Variable | Proxy | Acronym | Measurement | Sources | References |
|---|---|---|---|---|---|
| INDEPENDENT: Anti-corruption information disclosure | Anti-Disclosure Index | AAID | Total items disclosed divided by total items should be disclosed | Annual Reports (Bursa Malaysia), Other Published report by companies | Joseph et al. (2015); Transparency International (2017); MCCG (2017) |
| DEPENDENT: Firm Performance – Accounting Based Measure | Sales Growth | ROS | Net income divided by sales | Eikon Datastream, Annual Report | Healy and Serafeim (2011); Razali et al. (2018) |
| | Return on Asset | ROA | Net income divided by total asset | Eikon Datastream, Annual Report | Inchausti (1997); Haniffa and Cooke (2002) |

The independent variable of AAID is determined using the anti-corruption disclosure index adopted from Dissanayake, Islam and Dellaportas (2011), UNGC (2006) and MCCG (2018). The index comprises four categories with a total of 16 items as listed in Table 2. The four categories are (1) policy, (2) organisational (3) reporting and (4) risk assessment. The score of these four criteria will indicate the level of AAID. The annual report and other reliable reports were individually examined and coded in order to derive the level of disclosure. Other related studies of Joseph et al. (2015) and Agyei-Mensah (2017) also had used this method to measure the level of disclosure by identifying sentences related to specific matters and scoring it using numerical to run the analysis. A score of one will be assigned for the disclosure of items of four categories, otherwise, a zero score will be assigned to them (Agyei-Mensah, 2017; Joseph et al., 2015; Dissanayake et al., 2011).

*3.3 Research Models*
A simple linear regression analysis was conducted to investigate the relationship between AAID and firm performance using the longitudinal time series panel data. Likewise, this simple regression also helps to examine the influence of AAID on the firm performance. Previous study by Martin et al. (2018) also used this regression to examine the result on the AAID. The following proposed models were used to examine the relationship between AAID and firm performance.

$$ROS = \beta_0 + \beta_1 \, AAID + \varepsilon_i \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (1)$$
$$ROA = \beta_0 + \beta_1 \, AAID + \varepsilon_i \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (2)$$

where,

$\beta_0$ = intercept, FP= Firms Performance, ROAb= Return on asset, ROS = Return on sales, AAID = Anti-corruption information disclosure, $\varepsilon$ = error term

## 4. RESULTS AND DISCUSSION

*4.1 Descriptive Statistics*

Table 2 summarises the descriptive analysis of the dependent variable of AAID. Descriptive analysis shows the overall means score for ROS is -55.81%, indicating GLCs on average are experiencing a loss in their operations by 55.81% as compared to the revenues for three fiscal years.

Table 2 Descriptive Statistics of Dependent Variables

|  | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| ROS | 180 | -5412.79 | 70.49 | -55.8136 | 472.73453 |
| ROA | 180 | -42.76 | 32.48 | 1.4876 | 8.85895 |
| Valid N (listwise) | 180 |  |  |  |  |

The maximum value for ROS is 70.49 and minimum of -5412.79. The standard deviation is 472.73 which indicates that the value is spread out in wide range. For ROA, the mean is 1.49% which indicate that assets were utilized and provide return 1.49% on every asset invested. It has maximum value of 32.48 and minimum value of -42.76. the standard deviation is 8.86 which smaller disperse compared to ROS. Following the previous literature (see Joseph et. al, 2015), this study assessed the extent of AAID using the mean percentage as shown in Table 3. An average score of 50% is reported; with the lowest score of 6.25% and the highest score of 93.75%. The score is a sum of four criteria of AAID. The score was contributed to the AAID by the four criteria following the Transparency International and ACCA (2008) survey on AAID. the descriptive statistics for all four (4) criteria of independent variables from 180 samples. In detail, the range score for POLICY is between 20% and 100% with the average score of 71.00% While, both ORGANIZATION and RISK range between 0% to 100% with mean of 76.11% and 53.71% respectively. The least was REPORTING where it has lowest mean of 11.00% with range between 0% to 80%.

Table 3 Descriptive Statistics for criteria of AAID for Content Analysis

|  | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| AAID | 180 | 6.25 | 93.75 | 50.0000 | 21.31542 |
| POLICY | 180 | 20.00 | 100.00 | 71.1111 | 23.08326 |
| ORGANIZATION | 180 | .00 | 100.00 | 76.1113 | 40.06124 |
| REPORTING | 180 | .00 | 80.00 | 11.0000 | 14.38109 |
| RISK | 180 | .00 | 100.00 | 53.7055 | 28.71002 |
| Valid N (listwise) | 180 |  |  |  |  |

It is also found that the highest criterion that is being disclosed is ORGANIZATION by 76.11%. The organization information is related to an establishment of management in the anti-corruption efforts, involvement of the board in anti-corruption efforts and whether there was any involvement of third party and business partners. Interestingly, the active involvement of management, business partners and the Board could create awareness on the anti-corruption practices in order for companies to legitimize their accountability to the public and extent their existence (Ho & Wong, 2001). ORGANIZATION criterion has a maximum value of 100% indicating all GLCs are willing to disclose all related information as regard to ORGANIZATION.

The second highest which is slightly different from the organization score is POLICY criterion. This criterion contains the establishment of policy including anti-corruption policy, code of conduct and whistleblowing policy and its implementation. ACCA (2008) and Joseph et., al. (2015) state the establishment of policy and code of conduct shows the companies' effort to communicate with the public which pictures the companies have good corporate governance internally. It indicates promoting legitimacy and to get accepted in the community of investors (Lodhia, 2008). Joseph et. al. (2015) in their study mentioned that disclosure on whistleblowing policy was higher in comparison to all other items which could be the reason where companies wanted to legitimize their activities and be recognized in the market (Naser et al, 2006).

RISK is at the medium level of disclosure where it made only slightly over half of the 100% which is at 53.70%, at average. This is contradicting from a study by Agyei-Mensah (2017) where the result was slightly higher on the risk disclosure by a difference of 9.3%. It is also indicates that risk assessment disclosure was influenced by the non-executive director and also indicated that a company with low anti-corruption will have an inadequate risk assessment. This implies a similar result in this study where risk assessment is lower because GLCs may have low continuous anti-corruption efforts even they have applied policies and regulations on anti-corruption (ACCA, 2008; Agyei-Mensah, 2017).

The least disclosure is under REPORTING criteria. With the average score of 11%, it evidenced that the disclosure on reporting corruption incidents, employee's dismissal,

contract termination and any issue related to corruption are not that high where some companies included this information as confidential and shall not disclose publicly where it might affect their reputation in businesses. This indicated that even with high performing anti-corruption efforts, reporting on very sensitive information is meant to be avoided to maintain the reputation and firm performance.

Overall, the disclosure on anti-corruption is affected by the involvement of boards and top management of companies. GLCs mainly still considering keeping their internal corruption incidents happen confidentially. Even there established of policy on anti-corruption and whistleblowing, there is no definite on the transparency on corruption that happened within the companies to be disclosed publicly. In short, this study found that the extent of anti-corruption disclosure is consider in the middle range and still need an improvement since the overall disclosure on anti-corruption is slightly above 50% by computing the average of total mean scores of the four criteria under AAID.

As regression analysis requires that the data be normally distributed, the observation values were initially converted to its natural logarithmic equivalents on the dependent variables and then subjected again to the Skewness and Kurtosis; Test of normality. The normality test was carried out using Skewness and Kurtosis value on ROS, ROA, and AAID. The Skewness and Kurtosis values for LN ROS and LN ROA are in the range of -2 to 2 as according to George & Mallery (2010). That is, the observation values of ROS and ROA in its natural logarithmic equivalents are now normally distributed, hence satisfying the assumption of regression analysis. This means that the mean values are normally distributed. Following this conclusion, the study uses the nonparametric statistical tool in the following analysis.

*4.2 Correlation Analysis*
Correlation analysis can be used to identify the associations between variables as well the direction of the linear relationship and also the strength of the relationships, thus, Spearman Coefficient of Correlation analysis will be employed to examine the relationship between the variables in this study. Numerous prior studies using Spearman Rho correlation coefficient to indicate the strength and type of the relationship between variables by including significant state. Numerous prior studies using Spearman Rho correlation coefficient to indicate the strength and type of the relationship between variables by including significant state. This included prior studies by Wilmshurst et la. (2000); Agyei-Mensah (2017); Blanc et al. (2017). Table 4 surfaced out the value of the Spearman Rho in assist to examine the relationship between ROS and ROA with AAID.

Table 4 Summary Statistics of Correlation Analysis between AAID and Firm Performance

| Variable | AAID | |
| --- | --- | --- |
| | Spearman Coefficient of Correlation ($r$) | $p$-value |
| ROS | 0.083 | 0.267 |
| ROA | 0.165 | 0.027* |

* Significant at 0.05
**Significant at 0.01

The result in Table 5 it shows that ROS have positive relationship with AAID (0.083). However, the value is not significant (p>0.05). Hence, the value indicated that the relationship not significant and has small and very little correlation as according to Hinkle et al. (1998). Consequently, there is no linear relationship between ROS and AAID.

In contrast with ROS, ROA have significant value of relationship with AAID ($r$ = 0.165; $p$<0.05). There was positive relationship and significant associations between these variables and very little correlation which below than 0.30 as according to Hinkle et al. (1998) guideline on the interpretation of correlation coefficient. Thus, it indicated that there is a linear relationship between ROA and AAID in this study. That is, to a small extent, an increase of AAID by 1 is associated with an increase in ROA by 0.165 and vice versa.

Hence, as a conclusion of Spearman Rho correlation coefficient analysis, both of the dependent variables have positive relationship with AAID but little correlation. However, ROS has insignificant positive and lower correlated relationship whereas ROA has a significant linear relationship with AAID which indicated that AAID are able to significantly influence ROA.

*4.3 Simple Linear Regression*

Table 5 provided that the value of the simple coefficient of correlation, R = 0.083. With $R^2$ of 0.07%, it indicated that 0.07% of the variation in ROS can be explained by AAID. Adjusted $R^2$ shows how well the model has been generalizing displays -0.01% of the overall model which clarified that AAID is not relevant to influence ROS in this study. It shows that F (0.914), p-value = 0.341. Since p-value (0.000) > α (0.05), we reject $H_1$. Thus, it can be concluded that the regression model is not statistically significantly predicts the ROS.

The proposed research model for ROS as illustrated below:

$ROS = \beta_0 + \beta_1\ AAID + \varepsilon_i$

Table 5 Model 1

| Dependent Variable: Return on Sales | | | | | |
|---|---|---|---|---|---|
| R | .083ᵃ | | | | |
| $R^2$ | .007 | | | | |
| Adjusted $R^2$ | -.001 | | | | |
| F-value | .914 | | | | |
| Sig | .341 | | | | |
| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | |
| (Constant) | 1.847 | .222 | | 8.336 | .000 |
| AAID | .004 | .004 | .083 | .956 | .341 |

Since the regression model is not significantly predicting ROS as exhibited in Table 5 where β=0.004 (p>0.05), therefore the H1 is rejected, indicating there is no significant negative relationship between ROS and AAID. Hence, the result of this study was consistent with the prevailing studies by Servaes and Tamayo (2013) and Martin et al. (2018) where the relationship between these variables are not related to each other which where ROS only takes effect after a long time of the disclosure made. Thus, the three years fiscal is literally short to see the impact of AAID on ROS. However, the result contradicted to study by Healy and Serafeim (2011) and Athanasouli et al. (2012) where the influence of AAID on ROA was found to be negative as low anti-corruption will increase in ROS as anti-corruption efforts were only "cheap talk" by the management of the companies. Table 6 shows $R^2$ for ROA is 0.346 which indicated that 34.6% of the variation in ROA can be explained by the variation in AAID. Adjusted $R^2$ shows how well the model has been generalizing exhibit 27.3% of the overall model which displays that AAID is relevant to influence ROA in this study. From the R-value, it specified that this model has a medium-size effect between AAID and ROA as according to *Cohen's d* size of effect.

Table 6 Model 2

| Dependent Variable: Return on Asset | | | | | |
|---|---|---|---|---|---|
| R | .186 | | | | |
| $R^2$ | .346 | | | | |
| Adjusted $R^2$ | .273 | | | | |
| F-value | 4.698 | | | | |
| Sig | .032 | | | | |
| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | |
| (Constant) | .715 | .213 | | 3.357 | .001 |
| AAID | .018 | .004 | .186 | 2.167 | .032 |

Table 6 exhibits the value (β=0.018) and significant value below than 0.05. Hence, based on above table, it shows that that for every 1 percent increase in AAID, ROA will increase by 0.018. Prior studies by Mittal et al. (2008); Karlsson et al. (2015); Martin et al. (2018) and Mohd Razali et al. (2018) where results from their study found a significant positive relationship between these variables. It ascertained that disclosure usually would help company to retain optimal performance and able to efficiently utilize the assets to generate profit. Karlsson et al. (2015) added that ROA always have significant positive relationship even the association is not that strong. Thus, H2 is accepted, indicating a significant positive relationship between AAID and ROA among GLCs in Malaysia.

## 5. Conclusions and Recommendation

This study has achieved its intended objectives. Based on the first objective and overall results of this study, it is concluded that the extent of anti-corruption information disclosure (AAID) among GLCs in Malaysia is at moderate level where it is clarified that the AAID in Malaysia is still not transparent enough if compared to the group influences in the Malaysian economy and the support received by the government. The highest disclosure made by GLCs under the criterion of organization displays that the management was involved in enforcing the anti-corruption effort as it is important for the top management to be the first group in practising and spreading the awareness on anti-corruption efforts as they have bigger position and roles in a company. On the other hand, most companies reported lower disclosure of anti-corruption under reporting criterion as it was classified as confidential and reputational related information similar to Association of Chartered Certified Accountants (ACCA, 2008) findings where the company preferred this information to be kept for confidential issues and reputation. Interpreted through legitimacy theory, it does prove that GLCs actively are trying to improve disclosure to make their company legitimized.

In relation to the second research objective, it was found that the AAID significantly influences the Return on Asset (ROA) where more disclosure in anti-corruption will give a significant increase in ROA value even to a small extent. The accounting-based measures provide the effectiveness and efficiency of the company in generating profit. It simplifies that AAID has a significant relationship and influence firm performance in terms of ROA among GLCs in Malaysia which is supported by prior studies (Martin et al., 2018; Johansson et al., 2015; Mittal et al., 2008; Razali et al., 2018). This indicates that ROA is the most relevant accounting-based measure in measuring company financial performance as it directly compares return from the asset to profit (Aliabadi et al., 2013). Hence, companies that efficiently utilize their assets to obtain return will give a great result. The significant positive relationship between ROA and AAID shows that the firms can attain higher earnings from their assets when it is efficiently using the assets to generate the profit from the disclosure of information made on anti-corruption.

However, AAID did not significantly influence the firm performance in terms of Return on

Sales (ROS), as the result was also consistent with prevailing studies (Martin et al., 2018; Servaes & Tamayo, 2013; Mittal et al., 2008; Dewi et al., 2014). Here, ROS did not have a significant effect since the growth of sales would only give beneficial results in a longer period of time. However, the effectiveness of return on sales cannot be seen in this study. In a nutshell, it stated that AAID has a significant positive relationship with ROA for firm performance where the disclosure made by companies on anti-corruption information would give impacts on firm performance.

This study intends to provide awareness to companies and investors on how this anti-corruption disclosure would play its role in determining the performance of the firm. Additionally, this study might provide valuable insights for investors and shareholders to realize the importance of information disclosure in decision making in their investment to fulfil their future expectations of the company. Beneficially, the result of this study may be useful for the management of companies to increase their disclosure of anti-corruption which not only increases their quality in reporting and public trust but will also be able to increase their firm performance as it will affect the investors and shareholders decision.

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