

Institutional Investors and Financial Performance Among Malaysian Public Listed Companies

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Abstract

Since the world was shocked by the global financial crisis in 2008, government bodies and regulators around the world have focused on reforming their corporate governance (CG) structure, as it is strongly believed that weak CG monitoring mechanisms contributed to the financial crisis. The concerns about CG issues and agency conflict in Malaysia's corporate environment motivated the government and agencies to strengthen CG by enhancing its monitoring mechanisms. For example, the Malaysian Code for Institutional Investors (MCII), which was introduced by MSWG in 2014, promotes more stewardship responsibility for institutional investors to ensure that investee companies perform better. Since previous studies stated that there are unresolved issues in terms of the agency conflict between shareholders and managers, the objective of this study is to examine the relationship between institutional investors and financial performance among public listed companies in Malaysia from the year 2012 to 2016. Panel data analysis has been applied to test the relationship among 1090 companies. Institutional investors are categorized by the type of institution (bank, insurance company, mutual fund, pension or provident fund, pilgrims fund, government ownership and other institutions) and investment behavior (transient and dedicated). Four types of financial indicators are used (ROA, ROE, NPM and EPS) as dependent variables. This study found that unit trusts and mutual fund shareholdings, as well as government shareholdings, have a significant positive relationship with company performance. By aggregating the institutional investors into dedicated and transient investors, the findings showed no evidence of a direct impact of institutional investors with company performance. The implications of the findings are that different institutional investors have different preferences in their investment portfolios, and, thus, each type of institutional investor might have a different impact on company performance.

Keywords: Institutional Investors, Financial Performance, MSWG, Agency Theory, Corporate Governance

1. INTRODUCTION

The economic downturn faced by many countries globally in 2007 and 2008 was considered to be the worst global financial crisis since the Great Depression in 1930 (Gupta, Krishnamurti & Tourani-Rad, 2013; Lai, Abdul Aziz & Chan, 2014). Financial institutions were accused of being the main contributors to the 2008 financial crisis, as they were considered to have taken an excessive risk (Munir and Baird, 2016). A large number of financial failures occurred among financial institutions including JPMorgan Chase and Lehmann Brothers in 2008 (Munir & Baird, 2016 and Lai et al., 2014). The Malaysian market was also impacted by the 2008 financial crisis, especially the manufacturing sector, with a reduction in production from 7.4 percent to 1.1 percent in the fourth quarter of 2008. Other sectors also faced problems as the global demand on trade and investment reduced rapidly during the first quarter of 2009, which resulted in a reduction in production and the number of employees (BNM, 2009). Such a large impact raised questions concerning the effectiveness of the corporate governance mechanism promoted by governments and institutional bodies.

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In Malaysia, since the post-Asian financial crisis in 1997/1998, corporate governance (CG) was reformed in 2000 and revised three times (2007, 2012, & 2017) to promote better corporate governance among public listed companies. The CG reforms by the Securities Commission (SC), and supported by the Malaysian government, indicated that, practically, Malaysian companies have sound corporate governance practices. However, Malaysia's corporate environment is well-known to have high concentrated ownership (Lee & Hooy, 2018; Abdul Samad & Wan Yusoff, 2016), which leads to the occurrence of information asymmetry between the controlling shareholders and the minority shareholders (La Porta, Lopez-de-Silanes & Shleifer, 1999; Tee 2017). This is also known as type II agency problem, where there is a conflict of interest between the majority shareholders and the minority shareholders. Such misalignment of information causes companies to bear high costs (Kamardin, Latif & Mohd, 2016). Although companies with concentrated ownership are likely to acquire more expertise in terms of their strategic decisions (Shleifer & Vishny, 1986; Hashim & Devi, 2012), higher controlling shareholders can lead to the expropriation of shareholders' wealth, and the expropriation of information to meet the interests of the executive directors, which can result in a reduction in a company's financial performance (Jong & Ho 2018).

Such agency conflict, as mentioned earlier, can be mitigated by having an efficient external monitoring system (Friedman, 1970). As concentrated ownership companies might face a conflict between controlling shareholders and minority shareholders, external monitoring, such as institutional investors, is expected to re-align and balance the informational advantages between these two parties (Jusoh, 2016). This is due to the nature of the institutional investors, as when they hold a large portion of shares, they are motivated to actively monitor investee companies, thus helping to mitigate agency conflicts (Hashim & Devi, 2012).

Concerns have arisen about the protection of minority shareholders (Benjamin, Mat Zain & Abdul Wahab, 2016). To minimize the type-II agency problem, large institutional investors, with the support of the Malaysian government, initiated the formation of the Minority Shareholder Watchdog Group (MSWG) in 2000. MSWG was founded by four large institutions – Armed Forces Fund Board (also known as Lembaga Tabung Angkatan Tentera – LTAT), National Equity Corporation (also known as Permodalan Nasional Bhd – PNB), Social Security Organisation (also known as Pertubuhan Keselamatan Sosial – PERKESO), and Pilgrimage Board (also known as Lembaga Tabung Haji – LTH). The establishment of the MSWG in 2000 was an initiative of the Malaysian government to protect the interests of minority shareholders by promoting shareholders' activism. One of the objectives of MSWG is to monitor companies that have poor governance and to be involved in the CG of companies to ensure that the investee companies employ best practices. Such initiatives by the government have signalled that shareholders have the right to protect their own interests and have a voice in companies (Azizan & Ameer, 2012).

In 2014, the monitoring role of institutional investors was strengthened when MSWG issued the Malaysian Code for Institutional Investors (MCII). MCII recommends that institutional investors must take initiatives to act as responsible stewards in investee companies. MCII also provides guidelines for institutional investors to engage in other matters – performance, conflicts, or governance issues – in investee companies. Currently, the shares owned by institutional investors among Malaysian listed companies amount to 13 percent, which is quite low compared to other emerging countries (Abd-Muttalib, Jamil & Wan-Hussin, 2016). Nevertheless, large institutional investors, such as the Employees Provident Fund (EPF) and Pilgrimage Fund (LTH), hold 50 percent of the shares of the 10 largest companies (Saleh, Zulkifli & Muhammad, 2010), which indicates that large companies are attractive to institutional investors and that these large companies provide strategic advantages as they have diversified business operations (Saleh et al., 2010).

Given the emergence of the current CG reforms (MCCG 2012, MCCG 2017) and the stronger monitoring system by institutions through the introduction of MCII in 2014, it can be expected that the Malaysian corporate environment has a good CG mechanism, which, ultimately, can protect both shareholders' and stakeholders' interests as well as improve performance. Moreover, the debate concerning the relationship between ownership and performance is still inconclusive as prior studies argue about the advantages and disadvantages of the types of ownership in companies (Wang & Shailer, 2018). Therefore, as a longitudinal study, this study can present the impact of the monitoring mechanism by institutional investors on company performance during the period of CG reform between the years 2012 and 2016. The contribution of this study is that the findings could provide insights into how stronger mechanisms for external monitoring by institutional investors could lead to an improvement in company performance. Moreover, by aggregating institutional investors into various types, this study provides evidence that company performance depends on the institutional' business type and portfolio investments.

The subsequent sections discuss the prior studies concerning the role of institutional investors as a monitoring mechanism in companies, the impact of institutional investors on company performance, and the types of institutional investors.

2. LITERATURE REVIEW

2.1 Role of institutional investors

Institutional investors constitute one of the external CG mechanisms that have been recognized in the literature as being an efficient monitoring system in a company. Musa (2012) proposed that shareholder activism through institutional investors is an efficient monitoring system because the existence of such bodies in corporations leads to better governance practices and transparency, which, in turn, enhances firm values. According to Fama & Jensen (1983), external mechanisms can be considered to be a backup structure when the internal CG structure is not strong enough to mitigate agency conflicts. Gillan & Starks (2000) stated that institutional investors were more likely to promote activism in companies with weak CG in order to discipline managers. Such external intervention shows that institutional investors have the ability to strengthen the CG structure and have effective controlling power to monitor managers to ensure they perform better, as well as protect other shareholders' interests (Chang, 2015). Furthermore, institutional shareholders with larger shares are motivated to be actively involved in company governance and reduce agency conflict (Azizan & Ameer, 2012; Hashim & Devi, 2012; Othman & Borges, 2015).

Prior literature acknowledges that the role of institutional investors is significant in terms of company governance as such effective monitoring tools can align the interests of the managers and shareholders (Schleifer & Vishny, 1997). External pressure from institutional investors can affect management decisions and is likely to push managers to perform better (Scott, 2014; Denes, Karpoff, & McWilliams, 2016). When institutional investors have considerable power, they can have a large impact on the company stock prices, as a threat to exit by an institutional investor can bring down a company's stock price (Bushee, 2004). Hence, such pressure pushes managers to meet the expectations of institutional investors (Shi, Conelly & Hoskisson, 2016) and will result in healthier performance for those companies (Hadani, Goranova & Khan, 2011). Moreover, companies that can fulfil the interests of both the shareholders and the stakeholders are exposed to lower risk and are expected to achieve long-term financial stability (Graves & Waddock, 1994), as well as be more likely to be selected as part of the investment portfolio of institutional investors.

With the ability to closely monitor companies, institutional investors have an advantage as they can predict the market, which directly benefits companies (Lqunjvist, Marston, Starks, Wei & Yan, 2007; Bushee, 1998). However, it has been argued that the characteristics of institutional investors do not play an important role in the governance of certain companies and do not have a large influence on corporate decisions (Sohail, Rasul & Fatima, 2017; Jaffar & Abdul Shukur, 2016; Chang, 2015), as some contend that institutional investors are heterogeneous with different investment portfolios and behavior (Katan & Nor, 2015; Dong & Ozkan, 2008).

2.2 The relationship of institutional investors and company performance

This study is designed based on the agency theory, in which the relationship between managers and shareholders, where the managers act as agents who must perform on behalf of the shareholders (principals) in some decision-making processes (Jensen & Meckling, 1976). As managers have informational advantages and tend to fulfil their interests more than those of the shareholders (Rahman, Ibrahim, & Che Ahmad, 2017), agency conflict between the managers and shareholders will occur. Such conflict could reduce the corporate value when shareholders have a lack of trust in their investment. Jensen & Meckling (1976) stated that an efficient CG mechanism provides more control and an efficient monitoring system for the company. The literature suggests that intervention by an external mechanism could reduce such conflicts (Gillan & Starks, 2000), as holding large portions of portfolios in a company affects the company's stock price (Wahab, How & Verhoeven, 2007), and, hence, the more power they have to control managers (Bushee, 2001).

In the literature, the relationship between institutional investors and company performance is still inconclusive. Past literature argues that institutional investors can impact company value as they hold a large share in companies and have expertise in monitoring companies effectively (Ferreira, Massa & Matos, 2010; Othman & Borges, 2015). Lee & Park (2009) found that the involvement of institutional investors through activism has a positive impact on stock returns. Moreover, companies with poor governance are targeted by institutional investors, thus reducing agency costs and having a positive impact on company performance.

A study by Jusoh (2016) concerning the impact of institutional investors on company performance in Malaysia, found that institutional investors have a positive relationship with financial performance, as proxied by ROA & Tobin's Q. The result implies that institutional investors in Malaysia play an active role in mitigating agency conflicts. Similarly, Tee (2017) found that institutional investors were an effective monitoring mechanism among

Malaysian companies, especially companies that were politically related, as he found that institutional investors can improve information regarding stock-price. In the same context as Tee (2017), Jaffar & Abdul-Shukor (2016), however, found that institutional investors are ineffective as a monitoring mechanism in Malaysian politically connected companies, as the presence of institutional investors only reduces the performance of such companies. Chang (2015) also found that institutional investors in Malaysia do not influence the company's performance (ROE), which implies that institutional investors do not act as an effective monitoring mechanism. Another study, in Pakistan, found mixed results regarding institutional ownership. Sohail, Rasul & Fatima (2017) provided evidence that external mechanisms improve performance with institutional investors having a negative significant relationship with ROA. Rostami, Rostami, & Kohansal (2016), and Wahab, How & Verhoeven (2008) suggested that the mixed results may be due to institutional investors being treated as homogenous in prior studies whereas they should be treated as heterogeneous since they have different investment portfolios and behaviors.

2.3 Types of institutional investors and impact on financial performance

2.3.1 Banks, insurance companies and mutual funds

In Malaysia, financial institutions, such as banks and insurance companies, commonly have a close relationship with Malaysian companies as they are the main source of financing (Tam & Tan, 2007). Banks are also considered to be pressure-sensitive investors, which can influence company decisions as they provide financial services to the companies (Cornett, Marcus & Saunders, 2007; Rose, 2007; Almazan, Hartzell & Starks, 2004; Kochhar & David, 1996). Although banks can influence company decisions, banks tend to look after their self-interests and play a minor role in the corporate governance of companies (Schleifer & Vishny, 1997). Ruiz-Mallorquí and Santana-Martín (2011) found that banks as dominant owners have a negative impact on company value as they are able to expropriate company benefits. Similarly, Edwards & Nibler (1999) found that banks have a negative influence on company performance in Germany.

Insurance companies are also recognized to be pressure sensitive investors since their nature of the operation is similar to banks, and both types of the institution have close relations with companies (Firth, Gao, Shen & Zhang, 2016; Ferreira & Matos, 2008). Nevertheless, Firth et al. (2016) found that neither bank nor insurance companies have an impact on company performance in China. Cornett et al. (2007) found that pressure-sensitive investors (banks and insurance companies) have no impact on company performance, which implies that they are not efficient in monitoring companies. In addition, Ferreira & Matos (2008) found that banks and insurance companies, which they categorized as passive institutions, have no impact on financial performance. Due to mixed findings, hypotheses 1 and 2 were developed as follows:

H1: There is a negative relationship between banks and company financial performance

H2: There is a relationship between insurance companies and company financial performance

Mutual funds are another type of institutional investor. Generally, mutual funds do not have a business relationship with companies (Ashrafi & Muhammad, 2013), and are recognized as being short-term investors (Abd Mutalib et al., 2016; Bamahros & Wan-Hussin, 2016). Mutual fund managers either receive bonuses or penalties based on quarterly performance and, thus, they are expected to affect the short-term performance of companies (Shin-Ping and Tsung-Hsien, 2009). Regarding their impact on company performance, Firth et al. (2016) found that mutual funds help improve company performance. The researchers also found that, through their cash dividend policies, mutual funds are an effective monitoring mechanism in companies. Moreover, mutual funds are also acknowledged to be pressure-insensitive and are likely to be more involved in corporate governance, thus impacting company performance (Ferreira & Matos, 2008). Therefore, Hypothesis 3 is as follows:

H3: There is a significant positive relationship between mutual funds and company financial performance

2.3.2 Provident, pensions or retirement funds and pilgrims fund

Pension funds are institutional investors that have long-term investment behavior (Abd Mutalib et al., 2016) with long-term investments, such as pensions and provident funds, and, hence, have the motivation to closely monitor companies. In Malaysia, the EPF is one of the main organizations that manage the Employees Provident Scheme, alongside LTAT, and the Retirement Fund (Incorporated) or KWAP. Retirement Fund (Incorporated) or Kumpulan Wang Persaraan (Diperbadankan) (KWAP), is an institution that was formed in 2007 to manage pension funds and help Malaysian federal governments to finance pension liabilities. It also manages the fund contributions of the federal government, statutory bodies, local authorities, and other agencies. KWAP is the

largest public pension fund in Malaysia with a total fund size of approximately Malaysia Ringgit (RM) 140.8 billion (sources: kwap.gov.my). Since such organisations hold large funds in the capital market, they are expected to have a positive impact on the corporate governance of companies (Wahab, How, & Verhoeven, 2007) and directly enhance company performance. However, having such an organisation as a majority shareholder in the company might be a drawback in terms of company' performance as companies might pursue the agenda of the pension funds managers with little benefit to the companies (Erenburg, Smith & Smith, 2016).

Another type of long-term investment institution in Malaysia is that of the pilgrim's fund, which is managed by LTH. LTH, similar to the pension fund organizations, is also one of the Government-Linked Investment Companies, and mainly manage pilgrimage funds. Government-Linked Investment Companies (GLIC) comprise seven organisations – Employees Provident Fund (EPF), Permodalan Nasional Berhad (PNB), Kumpulan Wang Persaraan (Diperbadankan) (KWAP), Ministry of Finance Incorporated (MOF), Khazanah Nasional Berhad (KHAZANAH), Lembaga Tabung Angkatan Tentera (LTAT) and Lembaga Tabung Haji (LTH). EPF is the largest with RM300 billion in equity investment and manages around RM 685 billion of total fund size (source: Investor stewardship and future key priorities 2016). Both pension and pilgrims funds can be categorized as long-term investors (Wahab et al., 2007; Abd Mutalib et al., 2016). Rezaei & Sheikhi (2015), who conducted a study in Iran, found that long-term investors have strong monitoring mechanisms of companies, and, therefore, reduce agency costs. Long-term investment institutions have been proven by prior studies as having a positive relationship with financial performance (Borochin & Yang, 2017, Chang et al., 2016). Therefore, hypotheses 4 and 5 were developed as follows:

H4: There is a significant positive relationship between provident or pension funds and company financial performance

H5: There is a significant positive relationship between pilgrims fund and company financial performance

2.3.3 Government Ownership

Government ownership is also known as long-term investors. The literature recognizes that the government provides a better controlling mechanism that reduces information asymmetry in companies, which, in turn, has a significant impact on financial performance (Ab Razak, Ahmad & Aliahmed, 2008; Najid & Abdul Rahman, 2011). In Malaysia, local-government ownership is common in the private sector, as the Malaysian government has supported privatization initiatives since late 2000 (Mohd Ghazali, 2010). The government is expected to provide an effective monitoring mechanism and better corporate governance (Lim, How & Verhoeven, 2014), thus helping company performance. This is because government-owned companies have a greater advantage in accessing resources. Previous literature found that government ownership has a significant impact on financial performance (Ab Razak et al., 2008; Mohd Ghazali, 2010; Najid & Rahman, 2011). However, it is also argued that the intervention of the government in companies has a negative effect on performance (Wang & Shailer, 2018). Wang & Shailer (2018) found that government ownership does not impact company performance. Furthermore, Jaffar & Abdul-Shukor (2016) found that government ownership has a negative impact on financial performance in Malaysian companies. Due to the mixed findings, hypothesis 6 is developed as follows:

H6: There is a significant relationship between government ownership and company financial performance

2.3.4 Other institutions

Other institutions comprise investors that are not categorized as banks, insurance companies, mutual funds, government, or provident funds, such as a charity or foundation institutions, universities, or cooperative companies that hold an insignificant amount of shares in companies (Abd Mutalib et al., 2016). Moreover, since other institutions are also categorized as undetermined investment behavior (Wahab et al., 2008), such institutions do not fall under either long-term or short-term investment behavior. With such small amounts of shares, the direction towards company performance is not clear and hypothesis H7 is stated as follows:

H7: There is a significant relationship between other institutions and company financial performance

2.3.5 Long-term investors vs. short-term investors

Institutional investors can be recognized according to three types of investment behavior, dedicated investors, quasi-indexer, and transient investors (Bushee, 1998). Dedicated and quasi-indexer investors are categorized as long-term investors, while transient investors are categorized as short-term investors (Chang, Kang & Li, 2016). The difference between these two investors is determined by their investment portfolio. A long-term investor can best be described as an institution with a large proportion of shares in companies with a low turnover portfolio (Bushee, 1998) and that positions itself for a longer period of time (Bamahros & Wan-Hussin, 2016). With regards to the CG mechanism, this type of investor is believed to have a strong motivation to monitor companies and be active in terms of the company governance (Goranova & Ryan, 2014) to secure their long-term investments. Agency theory supports that long-term or dedicated investors can help reduce the agency problem in companies, due to a strong monitoring mechanism (Borochin & Yang, 2017; Goranova & Ryan, 2014; Shleifer & Vishny, 1997). Meanwhile, short-term investors invest for the short-term, with a high turnover portfolio and diversification (Bushee, 2001). Since transient investors hold smaller portfolios, they might not be interested in monitoring activities as they do not have enough resources and it is more likely that it will be costly to do so (Boone & White, 2015; Dong & Ozkan, 2008).

Prior literature has proven that long-term institutional investors provide more effective monitoring activities in terms of the governance of companies. The study conducted by Dong & Ozkan (2008) found that, in the UK, long-term investors are better monitors as they use a director pay-performance system to discipline directors. Similarly, Lin (2016) found that the existence of dedicated investors among US companies led to accounting conservatism being higher compared to companies with transient investors. Borochin & Yang (2017) also found that dedicated or long-term investors play an important role in reducing risk and earnings management, and increasing payouts. Bamahros & Wan-Hussin (2016) also found that dedicated investors provide a better monitoring system among Malaysian companies.

H8: There is a positive significant relationship between dedicated investors and company financial performance

H9: There is a negative relationship between transient investors and company financial performance

This study provides two models, first regarding the relationship between the types of institutional investors and company' financial performance. In the first model, H1 – H7, institutional investors are differentiated based on their business type. Moreover, for the second model, H8 and H9, institutional investors are aggregated based on their investment period, which is dedicated and transient.

3. METHODOLOGY

3.1 Sampling method

The total number of companies listed on Bursa Malaysia as at 31st December 2016 was 904. This study includes all sectors listed on Bursa Malaysia except the financial services sector due to different regulations (Nuryanah & Islam, 2011; Ibrahim, Ahmad & Khan, 2016). The final population after excluding the financial sector was 873. Based on the table of Krejcie & Morgan (1970) for determining the sample size, 270 is suitable for large populations. The 270 companies were randomly selected. The sample covers data from the year 2012 to 2016. This particular period was chosen as Malaysian corporate governance experienced several enhancements and initiatives by the government with the introduction of MCII in 2014 (Securities Commission 2014), which signalled the monitoring intensity by institutional investors in companies. However, only 218 companies, giving a total of 1090 company-years (2012-2016), were available as the final sample after excluding newly listed companies in a particular year and missing data.

3.2 Data measurement

3.2.1 Institutional investors

The data for institutional investors were manually collected from company' annual reports by examining the top 30 largest shareholders. To measure the institutional investors, Hutchinson, Seamer & Chapple (2015) categorized institutional investors according to their business characteristics – banks, insurance companies, pension funds, and other investment companies; as shown in Table 1.

Table 1: Types of institutional investors

Types	Institutional Investors	Category
Other Institutions (OTHER)	State government-related institutions/ agencies, Cooperatives companies, Foundation & Charity agencies	Undetermined
Banks (BANK)	Foreign and Domestic banks	
Insurance Companies (INSUR)	Foreign and Domestic insurance companies	Transient
Unit Trust & Mutual Funds (MF)	PNB, Other (Foreign, Domestic, or Government-managed funds)	
Pension Funds (PENSION)	EPF, KWAP, LTAT & Private-managed	
Pilgrims Fund (PILGRIM)	LTH	Dedicated
Government (GOV)	Federal and Foreign Government	

Such categories are in line with other studies related to institutional investors (El Diftar, Jones, Ragheb & Soliman, 2017; and Abd Mutalib et al., 2016). The final categories of institutional investors used in this study include banks, insurance companies, unit trust/mutual funds, provident/pension funds, pilgrims funds, government ownership and other institutions. Other institutions include government-related agencies (i.e., Majlis Agama Islam; Perbadanan Kemajuan Negeri), cooperative companies, foundations, and charities agencies. This type of institution is categorized as undetermined since they only hold a small amount of shares in the listed companies (Abd Mutalib et al., 2016).

To further investigate the relationship between institutional shareholdings and company performance, this study further categorized the institutional investors based on their investment behavior and characteristics. Bushee (1998) divided institutional investors into three categories, which is transient investors, dedicated investors, and quasi-indexers. Transient institutional investors are recognized by their short-term investment behavior, which includes banks, mutual funds, and insurance companies. Dedicated institutional investors are recognized by their long-term investment behavior and have more motivation to monitor companies. These include pension funds, pilgrims funds, and government-managed funds (Wahab et al., 2007; Katan & Nor 2015; Abd Mutalib et al., 2016). Meanwhile, quasi-indexers are investors that have a low portfolio turnover and are highly diversified (Bushee, 1998). However, following Borochin & Yang (2017), quasi-indexer institutions are excluded as they have passive behavior. Therefore, the final categorization that this study uses for further analysis is transient and dedicated investors.

3.2.2 Financial performance

Company financial performance in this study is measured using the accounting-based measurement of return on equity (ROE) and return on assets (ROA) as both indicators represent the efficiency of the companies in utilizing assets to generate profits (Al-Matari, Al-Swidi & Fadzil., 2014; Hutchinson & Gul, 2004). In addition, this study also used the net profit margin (NPM) as one of the favourable accounting-based measures for corporate governance-related studies (Flammer, 2013; Azam, Usmani & Abassi, 2011). EPS is used as another accounting measure in this study, as this indicator reflects shareholder value creation (Hamidah, 2015). The financial performance indicators were collected from the DataStream database.

$$\begin{aligned} \text{ROA} &= \text{Net income after tax} / \text{Average Total Assets} & (1) \\ \text{ROE} &= \text{Net income after tax} / \text{Average Total Equity} & (2) \\ \text{EPS} &= \text{Net income after tax} / \text{Common share outstanding} & (3) \\ \text{NPM} &= \text{Net income after tax} / \text{Revenue} & (4) \end{aligned}$$

3.2.3 Control variables

The control variables included in this study are company size – proxied by log total assets (LOG_TA); company financial leverage – proxied by debt ratio (TL_TA); book value per share (BV_SH); log market capitalization (LOG_MCAP); and company industrial sector (SECTOR).

3.3 Regression model and panel data analysis

In testing H1 to H7, the first model is separated into four models for four types of financial indicator (ROA, ROE, NPM, and EPS).

The econometric equations for Model 1:

Model 1A

$$ROA_{it} = a_0 + \beta_1 BANK_{it} + \beta_2 INSUR_{it} + \beta_3 MFI_{it} + \beta_4 PENS_{it} + \beta_5 PILG_{it} + \beta_6 GOV_{it} + \beta_7 OTHER_{it} + \beta_8 LOG_TA_{it} + \beta_9 TL_TA_{it} + \beta_{10} BV_SH_{it} + \beta_{11} LOG_MCAP_{it} + \beta_{12} SECTOR_{it} + \epsilon_{it} \quad (5)$$

Model 1B

$$ROE_{it} = a_0 + \beta_1 BANK_{it} + \beta_2 INSUR_{it} + \beta_3 MFI_{it} + \beta_4 PENS_{it} + \beta_5 PILG_{it} + \beta_6 GOV_{it} + \beta_7 OTHER_{it} + \beta_8 LOG_TA_{it} + \beta_9 TL_TA_{it} + \beta_{10} BV_SH_{it} + \beta_{11} LOG_MCAP_{it} + \beta_{12} SECTOR_{it} + \epsilon_{it} \quad (6)$$

Model 1C

$$EPS_{it} = a_0 + \beta_1 BANK_{it} + \beta_2 INSUR_{it} + \beta_3 MFI_{it} + \beta_4 PENS_{it} + \beta_5 PILG_{it} + \beta_6 GOV_{it} + \beta_7 OTHER_{it} + \beta_8 LOG_TA_{it} + \beta_9 TL_TA_{it} + \beta_{10} BV_SH_{it} + \beta_{11} LOG_MCAP_{it} + \beta_{12} SECTOR_{it} + \epsilon_{it} \quad (7)$$

Model 1D

$$NPM_{it} = a_0 + \beta_1 BANK_{it} + \beta_2 INSUR_{it} + \beta_3 MFI_{it} + \beta_4 PENS_{it} + \beta_5 PILG_{it} + \beta_6 GOV_{it} + \beta_7 OTHER_{it} + \beta_8 LOG_TA_{it} + \beta_9 TL_TA_{it} + \beta_{10} BV_SH_{it} + \beta_{11} LOG_MCAP_{it} + \beta_{12} SECTOR_{it} + \epsilon_{it} \quad (8)$$

For the second model, Model 2 for testing H8 and H9, the model is also separated into four models for four types of financial indicator (ROA, ROE, NPM, and EPS).

The econometric equation for Model 2:

Model 2A

$$ROA_{it} = a_0 + \beta_1 DEDICAT_{it} + \beta_2 TRANS_{it} + \beta_3 LOG_TA_{it} + \beta_4 TL_TA_{it} + \beta_5 BV_SH_{it} + \beta_{10} LOG_MCAP_{it} + \beta_6 SECTOR_{it} + \epsilon_{it} \quad (9)$$

Model 2B

$$ROE_{it} = a_0 + \beta_1 DEDICAT_{it} + \beta_2 TRANS_{it} + \beta_3 LOG_TA_{it} + \beta_4 TL_TA_{it} + \beta_5 BV_SH_{it} + \beta_{10} LOG_MCAP_{it} + \beta_6 SECTOR_{it} + \epsilon_{it} \quad (10)$$

Model 2C

$$NPM_{it} = a_0 + \beta_1 DEDICAT_{it} + \beta_2 TRANS_{it} + \beta_3 LOG_TA_{it} + \beta_4 TL_TA_{it} + \beta_5 BV_SH_{it} + \beta_{10} LOG_MCAP_{it} + \beta_6 SECTOR_{it} + \epsilon_{it} \quad (11)$$

Model 2D

$$EPS_{it} = a_0 + \beta_1 DEDICAT_{it} + \beta_2 TRANS_{it} + \beta_3 LOG_TA_{it} + \beta_4 TL_TA_{it} + \beta_5 BV_SH_{it} + \beta_{10} LOG_MCAP_{it} + \beta_6 SECTOR_{it} + \epsilon_{it} \quad (12)$$

Since this study employed longitudinal data from 2012 to 2016, panel data analysis is more suitable as it enables the data to be treated as heterogeneous, which are varied across time and sections. Panel data allow the heterogeneity bias to be controlled by applying both fixed and random effects models (Allison, 2009; Hsiao, 2003). However, after several tests regarding the assumptions of normality, multicollinearity, heterogeneity, cross-section dependence, and autocorrelations, normality testing suggested that the distribution of data was not normal based on the test results for the skewness and kurtosis. However, since this study has a large sample size, the problem of normality is common (Pallant, 2005). As the test indicates the presence of outliers, the data were winsorized for 1% and 99% for all the dependent variables.

For multicollinearity, the data do not violate the assumptions of multicollinearity, as the variance inflation factor (VIF) for all independent variables is between 1.07 and 2.03 ($VIF < 10$). Since the VIF value is below 10, no serious multicollinearity issue occurred (Gujarati and Porter, 2009). For the heteroscedasticity test, the White test shows that all four models have a heteroscedasticity problem ($p < 0.05$). Since the data suffered from this issue, this study applied the estimation method using robust-standard errors. Robust standard errors or the Huber/White sandwich variance estimation procedure, as stated in *A Handbook of Statistical Analyses Using Stata* by Rabe-Hesketh and Everitts (2004). Such procedures have the ability to provide the “correct” standard errors in heteroscedastic models (Baltagi, 2005). The procedure for robust standard errors, as explained in the *Stata User Guide*, is by adding the options estimates variance-covariance matrix “vce(robust)” after the parameter estimates.

4. RESULTS AND DISCUSSIONS

4.1 Descriptive statistics

Table 2 shows the descriptive statistics for the company sectors in this study. The sectors were based on the sector classifications of Bursa Malaysia. The highest frequencies of companies were from the industrial products & service sector with 370 companies or 33.94% of the total sample of 1,090. While the lowest frequencies were the utility sector with only 15 companies or 1.38% of the total sample.

Table 2: Descriptive statistics for company sector from the year 2012-2016

SECTOR	Freq.	Percent	Cum.
Construction	60	5.5	5.5
Consumer products & services	215	19.72	25.23
Energy	50	4.59	29.82
Health care	35	3.21	33.03
Industrial products & services	370	33.94	66.97
Plantation	65	5.96	72.94
Property	130	11.93	84.86
Real estate investment trusts	20	1.83	86.7
Technology	45	4.13	90.83
Telecommunications & media	30	2.75	93.58
Transportations & logistics	55	5.05	98.62
Utilities	15	1.38	100
Total	1,090	100	100

Table 3: Descriptive statistics for institutional investors from year 2012-2016

Institutional investors types					
Variable	Obs	Mean	Std. Dev.	Min	Max
BANK	1,090	3.508	6.878	0.000	75.950
INSUR	1,090	0.668	1.545	0.000	12.930
MF	1,090	4.203	10.003	0.000	84.010
PENS	1,090	2.472	6.575	0.000	70.820
PILG	1,090	1.223	5.385	0.000	73.830
GOV	1,090	1.192	6.898	0.000	65.280
OTHER	1,090	34.659	24.063	0.000	98.041
Institutional Investors categorized by investment behavior					
Variable	Obs	Mean	Std. Dev.	Min	Max
TRANS	1,090	8.379	12.415	0.000	84.150
DEDICAT	1,090	4.887	11.928	0.000	82.060
INST_INV	1,090	47.925	26.640	0.000	98.135

Variables definition:

OTHER = other institutional investors includes cooperative companies, investment companies; BANK = banks include foreign and local banks; INSUR = insurance companies; MF = Unit trust mutual funds; PENS = pension and provident funds include EPF, LTAT, KWP and private-managed pension funds; GOV = other government-related institution; PILG = pilgrims fund institutions include LTH; OTHER = other institutions include cooperative bodies, state agencies, and foundations/charities organisations
TRANS = institutional investors with short-term behavior; DEDICAT = institutional investors with long-term behavior; INST_INV = total institutional investors in companies

From Table 3, the mean value for BANK and INSUR was 3.508 percent and 0.668 percent, respectively, while the maximum value was 75.95 percent and 12.93 percent, respectively. The mean value for MF was 4.203 percent and the maximum value was 84.01 percent. For PENS, the mean value was 2.472 percent and the maximum value was 70.82 percent. For PILG, the mean value was 1.223 percent and the maximum value 73.83 percent. For GOV the mean value was 1.192 percent and the maximum value was 65.28 percent. The mean value for OTHER type of institution was 34.659 percent and the maximum value was 98.041 percent.

For institutional investors, which are categorized based on investment behavior, the mean value for TRANS investors was 8.379 percent with a maximum value of 84.15 percent. DEDICAT investors have a mean value of 4.887 percent and a maximum score of 82.06 percent. For total institutional investors (INST_INV), the mean value was 47.295 percent and the maximum value was 98.135 percent.

Table 4: Descriptive statistics for financial indicators from year 2012 - 2016

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	1090	0.038	0.211	-3.151	5.521
ROE	1090	0.043	0.811	-24.602	5.964
EPS	1090	0.098	0.282	-3.963	4.867
NPM	1090	0.063	0.794	-12.361	17.552
LOG_TA	1090	8.739	0.671	6.916	10.971
TL_TA	1090	0.427	0.208	0.005	2.313
BV_SH	1090	1.347	1.461	-0.508	11.368
LOG_MCAP	1090	8.453	0.742	6.834	10.787

Table 4 shows the descriptive statistics for the dependent variables ROA, ROE, EPS, and NPM. The mean value for ROA was 0.038 (3.8 percent), minimum -3.151 (31.51 percent) and maximum 5.521 (55.21 percent). Meanwhile, ROE has a mean value of 0.043 (4.3 percent), a minimum of -24.602 (-246.02 percent) and a maximum of 5.964 (59.64 percent). For EPS, the mean value was 0.098 (9.8 percent), with a minimum of -3.963 (-39.63 percent) and a maximum of 4.867 (48.67 percent). The mean value for NPM was 0.063 (6.3 percent), with a minimum of -12.361 (-123.61 percent) and a maximum of 17.552 (175.52 percent). Regarding the control variables used in this study, firm size was indicated by logarithm total assets (LOG_TA) with a mean value of 8.739, a minimum of 6.916 and a maximum of 10.971. For the second control variable, financial leverage (TL_TA), the mean value was 0.427, minimum 0.005 percent, and maximum 2.313 percent. For book value per share (BV_SH) the mean value was 1.347 percent, with a minimum of -0.508 percent and a maximum of 11.368 percent. Lastly, for the logarithm company market capitalization (LOG_MCAP), the mean value was 8.453, with a minimum of 6.834 and a maximum of 10.787.

4.2 Correlation analysis

Table 5 shows the correlation matrix between the variables based on the types of institutional investors. The table shows that all the dependent variables – ROA, ROE, NPM, and EPS – have significant positive relations. Regarding the independent variables, only INSUR has a weak positive significant correlation with ROA. For ROE, all types of institutional investors have an insignificant weak positive correlation with ROE. For EPS, all the institutional investors have a positive weak significant correlation with EPS, except PILG. For NPM, only MF, GOV, and DEDICAT have a positive weak correlation with NPM, while other institutions have an insignificant positive correlation, except BANK, which has a weak insignificant negative correlation with NPM.

Table 5: Correlation matrix between variables

	ROA	ROE	EPS	NPM	BANK	INSUR	MF	PENS	PILG	GOV	OTHER	TRANS	DEDICAT	LOG_TA	TL_TA	BV_SH	LOG_MCAP	SECT
ROA	1.000																	
ROE	0.368*	1.000																
EPS	0.621*	0.263*	1.000															
NPM	0.812^*	0.264*	0.478*	1.000														
BANK	0.010	0.003	0.040	-0.016	1.000													
INSUR	0.070*	0.047	0.111*	0.057	-0.032	1.000												
MF	0.054	0.038	0.147*	0.067*	0.001	0.161*	1.000											
PENS	0.043	0.031	0.152*	0.033	0.012	0.292*	0.238*	1.000										
PILG	-0.001	0.010	0.024	0.020	0.003	0.040	0.054	0.119*	1.000									
GOV	0.034	0.020	0.084*	0.064*	-0.041	0.189*	0.109*	0.157*	-0.002	1.000								
OTHER	0.034	0.027	0.071*	0.057	-0.136*	0.012	-0.177*	-0.069*	-0.106*	-0.144*	1.000							
TRANS	0.058	0.038	0.154*	0.052	0.551*	0.236*	0.826^*	0.235*	0.050	0.089*	-0.216*	1.000						
DEDICAT	0.043	0.033	0.143*	0.064*	-0.015	0.288*	0.219*	0.695*	0.516*	0.664*	-0.169*	0.204*	1.000					
LOG_TA	0.092*	0.084*	0.253*	0.084*	0.152*	0.222*	0.344*	0.460*	0.203*	0.245*	0.097*	0.389*	0.487*	1.000				
TL_TA	-0.143*	-0.103*	-0.078*	-0.117*	-0.009	-0.014	0.076*	0.142*	0.103*	0.000	-0.010	0.055	0.125*	0.277*	1.000			
BV_SH	0.040	0.039	0.409*	0.067*	0.071*	0.023	0.226*	0.216*	0.078*	0.066*	0.133*	0.224*	0.192*	0.461*	-0.087*	1.000		
LOG_MCAP	0.172*	0.117*	0.323*	0.112*	0.152*	0.315*	0.355*	0.487*	0.138*	0.269*	0.119*	0.409*	0.486*	0.859^*	0.078*	0.359*	1.000	
SECT	-0.055	-0.018	-0.021	-0.006	-0.072*	0.126*	0.107*	0.121*	0.030	0.175*	-0.024	0.062*	0.182*	0.112*	-0.053	0.015	0.129*	1.000

^ Correlation value more than 0.7; *Significant at 5 percent level ($p < .05$)

4.3 Empirical findings model 1: relationship between types of institutional investors and financial performance

The robust standard error estimation method was used since all the data in this study violate the assumptions of heteroscedasticity. Therefore, in this study, the regular Hausman identification test was invalid to choose the type of model, and the modified Hausman is used instead. The fixed-effects model was chosen for all four models.

Table 6: Panel data regression model for ROA, ROE, NPM, and EPS, and model.

Dependent Variables	ROA	ROE	EPS	NPM
	Coefficients			
<i>Robust Standard errors</i>				
BANK	-0.0003 <i>0.0002</i>	-0.0008 <i>0.0006</i>	-0.0008 <i>0.0006</i>	-0.0031 <i>0.0022</i>
INSUR	-0.0058* <i>0.0018</i>	-0.0116* <i>0.0035</i>	-0.0058[^] <i>0.0032</i>	-0.0076[#] <i>0.0033</i>
MF	0.0010 <i>0.0007</i>	0.0025[^] <i>0.0015</i>	0.0014 <i>0.0013</i>	0.0000 <i>0.0025</i>
PENS	-0.0018 <i>0.0011</i>	-0.0047 <i>0.0033</i>	-0.0069 <i>0.0070</i>	0.0001 <i>0.0025</i>
PILG	-0.0024* <i>0.0009</i>	-0.0036 <i>0.0028</i>	-0.0060 <i>0.0059</i>	-0.0016 <i>0.0041</i>
GOV	0.0011 <i>0.0008</i>	0.0021 <i>0.0015</i>	0.0009 <i>0.0007</i>	0.0034[^] <i>0.0020</i>
OTHER	-0.0003 <i>0.0003</i>	-0.0009 <i>0.0006</i>	-0.0011 <i>0.0007</i>	-0.0013 <i>0.0009</i>
LOG_TA	0.0133 <i>0.0316</i>	0.0309 <i>0.0625</i>	0.0397 <i>0.0606</i>	0.0897 <i>0.1117</i>
TL_TA	-0.1363* <i>0.0238</i>	0.0473 <i>0.1314</i>	-0.1177[#] <i>0.0480</i>	-0.4820* <i>0.0726</i>
BV_SH	-0.0006 <i>0.0071</i>	0.0052 <i>0.0177</i>	0.0047 <i>0.0245</i>	-0.0421 <i>0.0270</i>
LOG_MCAP	0.0345[#] <i>0.0142</i>	0.0733[#] <i>0.0337</i>	0.0862[#] <i>0.0387</i>	0.0578 <i>0.0370</i>
SECTOR	<i>(included)</i>	<i>(included)</i>	<i>(included)</i>	<i>(included)</i>
_cons	-0.2935 <i>0.2628</i>	-0.8079 <i>0.5126</i>	-0.8727 <i>0.5266</i>	-0.8846 <i>0.9429</i>
R-SQUARE	0.1664	0.1119	0.1806	0.0888
F-TEST	5.53	2.1	2.49	5.41
prob >F	0	0.0214	0.0059	0

**Significant at 1 percent level (p < .01); [#]significant at 5 percent level (p < .05); [^]significant at 10 percent level (p < .10)*

From Table 6, it can be seen that banks (BANK) as institutional investors have a negative but not significant relationship with all models (ROA, ROE, EPS, and NPM). Meanwhile, for insurance companies (INSUR), the variable has a negative significant relationship at the 1 percent level, ($p < .01$) for both the ROA and ROE models, 10 percent significant level ($p < .10$) in the EPS model, and 5 percent level ($p < .05$) in the NPM model. For mutual funds (MF), the variable has a positive relationship with all four models (ROA, ROE, EPS, and NPM), but a significant relationship is only found in the ROE model at the 10 percent level ($p < .10$). The variable for pension funds (PENS) is found to have a negative but insignificant relationship for three models (ROA, ROE, and EPS) but has a positive insignificant relationship with NPM. The variable for pilgrims fund (PILG) is found to have a negative and significant relationship with ROA at the 1 percent level ($p < .01$), but it is insignificant with the ROE, EPS, and NPM models. The government (GOV) variable is found to be positive and significant at the 10 percent level ($p < .10$) with NPM, but it has a positive insignificant relationship with the ROA, ROE, and EPS models. Lastly, for OTHER, the study found a negative but not significant relationship with all four models tested

With regards to the control variables, LOG_TA is found to be positive but not significant for all four performance measurements tested, while financial leverage (TL_TA) is found to have a negative and significant impact at the

5 percent and 10 percent level for ROA, ROE ($p < .05$), and NPM ($p < .10$). Book value per share (BV_SH) is found to have a negative (positive) insignificant relationship with ROA and NPM (ROE & EPS). Lastly, company market capitalization (LOG_MCAP) is found to have a positive and significant relationship with all three models (ROA, ROE & EPS) but it is not significant in the NPM model.

4.3.1 Discussion for the relationship between types of institutional investors and financial performance

From the findings, based on the four models (ROA, ROE, NPM, and EPS) tested in the study, no relationship was found between banks and company financial performance. The negative sign for the relationship is in line with previous literature (Ruiz-Mallorquí and Santana-Martín, 2011; Edwards & Nibler, 1999), which suggests that banks do not help improve company performance. The insignificant results suggest that banks have a high tendency to align their own benefits with company interests by holding a higher number of shareholdings. Banks are also known to have a close relationship with companies as they provide them with financial services. Therefore, they have weak motivation to heavily monitor companies to maintain their relationship and do not want to jeopardize their business dealings with them (Cornett et al., 2007). Therefore, H1 is rejected.

For H2, the negative significant impact of insurance companies (INSUR) with all the performance measures found in this study is in line with prior literature, such as Firth et al. (2016), and Ferreira & Matos (2008). The result indicates that insurance companies in Malaysia act as a passive monitor, as they are only interested in monitoring their own investments and returns, and not company performance. The findings can also be because insurance companies only have small investments in the companies (El-Diftar et al., 2017) with the maximum ownership size being 12.95 percent of shareholdings in the total sample. Thus, the small shareholdings of insurance companies are not enough to improve company performance. Therefore, H2 is accepted.

For H3, this study found that mutual funds (MF) have a significant positive relationship with ROE, which is in line with Firth et al. (2016), and Ruiz-Mallorquí & Santana-Martín (2011). This suggests that the presence of mutual funds or investment funds in companies as large shareholders can increase the value for companies, thus providing higher returns for them. The positive sign suggests that there is evidence of mutual fund managers pursuing short-term returns for their investments without taking an interest in the company performance since they have no business-attachments with the companies (Bamahros & Wan Hussin, 2016). The findings can also be explained by the fact that mutual funds managers are known to be active-traders with a high portfolio turnover (Tan & Keeper, 2008).

H4 is rejected in this study as no significant relationship was found between pension/provident funds (PENS) and company performance. This result is contrary to the findings of Wahab et al. (2007), and Abd Mutalib et al. (2016) who provide evidence that pension fund institutions have long-term investment behavior and are more interested in reducing agency costs (Rezaei & Sheikhi 2015), which results in higher performance. Nevertheless, the findings of this study are similar to those of Erenburg et al. (2016), which suggests that the pension fund managers tend to hold larger holdings in companies, especially in companies with good performance and that their presence in companies might pressure companies to pursue non-profit activities, thus bearing higher costs. Similar to pension funds, the study found a negative but not significant relationship between pilgrims fund (PILG) with ROE, NPM, and EPS (H5). The unexpected results for both types of institution might be due to the dominant agencies in both types of investors. The dominant pension funds or retirement funds in Malaysia were EPF and KWAP, and the main and only organisation that manages the pilgrims fund was LTH. EPF, KWAP, and LTH are large GLIC institutions that are more attracted to large companies with diversified business (Saleh et al., 2010). The monitoring role by both types of investors can be considered to be inefficient as company governance has become much stronger after several CG reformations (Wahab et al., 2008).

For H6, the findings show a positive and significant impact for government institutions and NPM, thus H6 is accepted. The findings indicate that the government has more resources and has put large proportions of its investment in larger companies, which are mainly held by government-linked companies (GLC) (Najid & Abd Rahman, 2011), and, thus, increase company performance. Nevertheless, H7 was not supported in this study as no significant relationship was found between other types of institutional investors (OTHER) with any of the four financial performance measurements. This shows that OTHER types of institutional investors, such as cooperative bodies or foundation organisations, do not help companies to perform better, which is in line with the studies conducted by Wahab et al. (2007). Other institutions, irrespective of whether they have business relations with companies, are more likely to be passive in terms of a monitoring mechanism. There is the possibility that some companies with high shareholdings in investee companies are more likely to have controlling power that tends to benefit themselves.

In order to find evidence regarding the investment behavior of institutional investors, additional analysis is provided and discussed in the next section of this study.

4.4 Empirical findings model 2: the relationship between institutional investors' investment behavior and financial performance

In testing the relationship between short-term and long-term institutional investors and company performance, the robust standard error regression method is used. The modified Hausman test suggests that the random effect for both the ROA and ROE models, and the fixed effect for both the EPS and NPM models are appropriate to test the relationship.

Table 7: Panel data regression for long-term and short-term institutional investors

Dependent Variable	ROA	ROE	EPS	NPM
	Random	Random	Fixed	Fixed
	Coefficients			
	<i>Robust Standard errors</i>			
DEDICAT	0.0001 <i>0.0004</i>	-0.0001 <i>0.0005</i>	-0.0005 <i>0.0011</i>	0.0027 <i>0.0016</i>
TRANS	0.0001 <i>0.0002</i>	0.0002 <i>0.0004</i>	-0.0001 <i>0.0004</i>	-0.0020 <i>0.0017</i>
LOG_TA	-0.0215 <i>0.0152</i>	-0.0829* <i>0.0264</i>	0.0179 <i>0.0583</i>	0.0826 <i>0.1060</i>
TL_TA	-0.1133* <i>0.0186</i>	0.0342 <i>0.0585</i>	-0.1204# <i>0.0481</i>	-0.4840* <i>0.0723</i>
BV_SH	-0.0026 <i>0.0021</i>	0.0007 <i>0.0038</i>	0.0002 <i>0.0237</i>	-0.0452^ <i>0.0264</i>
LOG_MCAP	0.0605* <i>0.0112</i>	0.1372* <i>0.0226</i>	0.0895# <i>0.0404</i>	0.0597^ <i>0.0359</i>
SECTOR	(included)	(included)	(included)	(included)
_cons	-0.2212 <i>0.0769</i>	-0.3633 <i>0.1061</i>	-0.7613 <i>0.4505</i>	-0.8895 <i>0.8917</i>
R-SQUARE	0.3622	0.4074	0.3053	0.1047
F-TEST	127.16	85.97	3.39	9.3
prob >F	0.0000	0.0000	0.0033	0.0000

*Significant at 1 percent level ($p < .01$); #significant at 5 percent level ($p < .05$);
^significant at 10 percent level ($p < .10$)

Table 7 shows that DEDICAT investors has a positive but insignificant relationship with both ROA and NPM, and a negative but insignificant relationship with both ROE and EPS. For TRANS investors, the results reveal a positive insignificant relationship with both ROA and ROE, and a negative insignificant relationship with both EPS and NPM.

For the control variables, LOG_TA has a negative insignificant relation with ROA, negative significant ($p < .01$) with ROE, and positive insignificant with both EPS and NPM. TL_TA, has a negative significant relationship at the 1 percent level with ROA and NPM ($p < 0.01$), at the 5 percent level with EPS, and a positive insignificant relationship with ROE. BV_SH has a negative insignificant relationship with ROA, a positive insignificant relationship with both ROE and EPS, and a negative significant relationship with NPM at the 10 percent level ($p < .10$). Lastly, LOG_MCAP, has a positive significant relationship with ROA and ROE at the 1 percent level ($p < .01$), at the 5 percent level with EPS ($p < .05$), and at the 10 percent level with NPM ($p < .10$).

4.4.1 Discussion for the relationship between long-term and short-term investors

The second analysis shows that dedicated (DEDICAT) or long-term investors do not have a relationship with any of the four types of financial indicators; therefore, H8 is rejected. The positive signs, however, are supported by prior studies that argue that long-term institutional investors are a better monitoring mechanism in terms of company governance (Wahab et al., 2007; Rezaei & Sheikhi, 2015). However, no relationship indicates that institutional investors with a long-term investment portfolio are not efficient in improving company performance. The reason explained in previous studies, is that such investors might have more opportunities to control companies and provide indirect benefits to companies (Erenburg et al., 2016). In addition, in terms of monitoring mechanisms, it seems that institutional investors are not efficient as monitors, especially in Malaysian companies

that are known to have highly concentrated ownership and are largely controlled by family owners (Che Ahmad & Mustafa, 2017; La Porta et al., 1999).

For short-term institutional investors (TRANS), all the models provide evidence that transient or short-term investors are only interested in short-term returns (Rezaei & Sheikhi, 2015) and have little incentive to monitor companies (Bamahros & Wan-Hussin, 2016; Boone & White, 2015; Dong & Ozkan, 2008) as such activities are more risky and costly to them. The study does not find any significant impact on short-term institutional shareholdings and company performance. Moreover, since transient investors have different types of institutions, this implies that different institutions in Malaysia have different investment portfolios, which might change over time (Ashrafi & Muhammad, 2013), and, thus, might have an uncertain impact on company performance. Therefore, H9 is rejected.

5. CONCLUSION

To conclude, this study provides insights into the monitoring system by institutional investors concerning company performance, especially after the CG reform in 2012 and the MSWG initiative in 2014. From the agency theory, the extensive monitoring mechanism in corporate governance tends to reduce agency conflicts in companies (Jensen & Meckling, 1976). Thus, institutional investors, which also act as an external governing mechanism, not only strengthen company governance but also enhance their performance (Wahab et al., 2008). Particularly, by conducting panel data analysis for 1090 companies for the period 2012 until 2016, this study found that unit trusts and mutual fund shareholdings, as well as government shareholdings, have a significant positive relationship with company performance. The presence of mutual funds or investment funds in companies suggests that they act as active traders with a higher portfolio turnover (Tan & Keeper, 2008), which, in turn, increases the value of the companies. Similarly, monitoring by the government mainly through their large shareholdings by government-linked companies (GLC) (Najid & Abd Rahman, 2011), increases the company financial performance as they have a greater advantage in accessing resources.

Prior studies regarding institutional investors and financial performance treat institutional investors as homogenous. This study treats institutional investors as heterogeneous and classified them based on business characteristics and investment behavior. In addition, it provides evidence that short-term institutional investors have a negative relationship with company performance, while long-term institutional investors have a positive relationship with company performance (Borochin & Yang, 2017; Bamahros & Wan-Hussin, 2016; Goranova & Ryan, 2014; Shleifer & Vishny, 1997). Nevertheless, the impact is not significant, which suggests that the institutional investors in Malaysia are not efficient in monitoring company performance; this might be due to the highly concentrated ownership structure in Malaysian companies that are largely controlled by family owners.

This study has several limitations regarding the findings. First, the use of accounting measures of financial performance, such as ROA and ROE, which reflect the historical performance of companies. Market-based measuring tools, such as Tobin's Q and stock performance, have greater potential to assess company performance. Additionally, since institutional investors have different preferences in terms of investments and portfolios (Asharafi & Muhamad, 2013), any indicators related to share-price can effectively capture the impact of institutional investors concerning company performance. The second limitation is regarding institutional investors as independent variables. This study classified institutional investors based on the type of organisation or institution, which includes banks, insurance companies, mutual funds, pilgrims fund, pension funds, government, and other (Abd Mutalib, et al., 2016; El Diftar et al., 2016), and based on their investment behavior, such as short-term investment (transient) investor or long-term investment (dedicated) behavior (Wahab et al., 2007; Bushee, 2001). Another suggestion regarding institutional investors is that future research can also add geographical factors for institutional investors, such as foreign or local institutions. Different types of location, either foreign or local, might bring different results for related studies. The third limitation is that this study does not include other types of ownership characteristics. As it is known that Malaysian companies are highly concentrated with family and individual owners (Che Ahmad & Mustafa, 2017; La Porta et al., 1999), different types of ownership structure, particularly family owners, should be considered to add to the model of analysis.

Some implications from this study are that it provides evidence that different institutional investors have different preferences in terms of the investment portfolio for investment decisions. When institutional investors are differentiated by their type of business, the impact of each institution is different in terms of the financial indicators, although they share similar investment behavior. While agency theorists support that having an external mechanism of corporate governance in companies can reduce agency costs and improve company value, the findings provide evidence that the Malaysian corporate environment has a weak monitoring system, especially from institutional investors. Therefore, regulators, particularly MSWG, might provide more incentives for

institutional investors to strengthen their monitoring mechanism in companies, as promoted in MCII, to encourage institutional investors to have greater monitoring responsibility. In terms of the implications for future researchers, this study provides a glimpse of the different types of institutional investors with different agencies and business types and how they might impact company performance in different ways.

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