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The financial reporting systems quality (FRSQ) and institutional investors: The case of an emerging market

Adel Ali Al-Qadasi^{1,2*}, Hamdan Amer Ali Al-Jaifi^{3*}, Ahmed Hussein Al-Rassas⁴ and Ayad Ahmed Al-Qublani⁵

Abstract: Attracting institutional shareholders in stock markets has drawn the attention of financial market regulators and researchers. Globally, governments are trying to attract institutional investors by reducing information asymmetry and improving governance and transparency, in order to produce a high-quality financial reporting system. Hence, this study investigates the impact of financial reporting systems quality (FRSQ) on institutional ownership. It uses all non-financial listed companies on Bursa Malaysia over the period 2009–2016. Ordinary Least Square (OLS) regression based on two-way cluster-robust standard errors (firm and year) is used to achieve the objective of the study. The findings show a positive relationship between institutional ownership and FRSQ, suggesting that institutional investors prefer to invest in a firm that has effective FRS. The study differs from previous research in terms of capturing the FRSQ based on a wider set of governance attributes, namely audit committee characteristics (size, independence, diligence and expertise), internal audit function (IAF) cost and sourcing arrangements, and external auditors' attributes (audit fees, industry auditor specialist, auditor's reputation and size) that are yet to be examined in either developed or developing countries. It offers insights for regulators in Malaysia and other emerging economies which are in the process of undertaking regulatory reforms in their corporate governance structure. Managers could learn which aspects of corporate governance

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PUBLIC INTEREST STATEMENT

Financial market authorities and experts are interested in attracting institutional shareholders to stock markets. This study examines the effect of financial reporting systems quality (FRSQ) on the ownership of institutional investors in an emerging market, Malaysia. The findings show that institutional ownership is significantly and positively related to FRSQ, suggesting that institutional investors prefer to invest in a firm that has a high FRSQ. Our findings provide useful information for regulators in Malaysia and other emerging economies who are working to change their corporate governance structures. Managers also could understand which aspects of corporate governance should be taken into account in order to keep their company competitive in terms of attracting institutional investors.

should be considered to keep their firm in a strong position in terms of its ability to attract institutional investors.

Subjects: Business, Management and Accounting; Accounting; Corporate Governance

Keywords: Financial reporting system; institutional investors; emerging market; Malaysia

1. Introduction

Stakeholder Theory predicts that a firm that addresses stakeholders' claims improves long-term financial performance and creates value (Freeman, 1984). Williamson (1985) argues that investors expect some safeguards (i.e., incentive realignment, governance structures and regularities of behaviour) when they invest their assets in a corporation. On the other hand, the perceptions of investors could be affected by the adoption of best practice to protect their investments. For example, institutional investors are more likely to invest in firms with a good corporate governance structure (Bushee et al., 2014; McCahery et al., 2016).

As integration is the main goal of global capital markets, institutional shareholders play a significant role in the world economy (Drobetz et al., 2021; Kim et al., 2016). The International Monetary Fund (IMF) reports that the assets under the management of institutional investors increased more than sevenfold from 1990 to around \$100 trillion in 2015. Binay (2005) documents that institutional investors are the largest class of investors in the US stock market, responsible for about two-thirds of daily stock trading (Hutchins, 1994). In the same way, there is a rapid growth in the shareholdings of institutional investors in emerging markets (Ashrafi & Muhammad, 2013). For example, Saleh et al. (2010) reported that 51 per cent of the ownership of the ten largest Malaysian listed companies are held by institutional investors. In addition, 94 per cent of the Malaysian listed companies have at least one substantial institutional investor who holds more than 5 per cent share ownership in the firm (Asian-Development-Bank, 2014).

Nowadays, there is a tendency in the accounting literature to examine how corporate governance influences ownership by institutional investors (Bushee et al., 2014; Chung & Zhang, 2011; McCahery et al., 2016). This research trend is inspired by calls from Giannetti and Simonov (2006) and Leuz et al. (2009) for accounting researchers to investigate the corporate governance preferences of institutional investors. It is arguable that corporate governance is important in the investment decisions of institutional investors, most of whom are willing to invest in a firm that has good governance. In response to the calls to examine the role of corporate governance mechanisms in the behaviour of institutional investors, Chung and Zhang (2011) provide initial evidence that increasing the quality of a firm's governance structure leads to greater holdings in that firm by institutional investors. Consistent with these findings, Bushee et al. (2014) provide evidence that institutional investors prefer to invest in firms that have good governance mechanisms. More recently, McCahery et al. (2016) and Al-Jaifi et al. (2019) reported that corporate governance is considered important in the investment decisions of institutional investors, who are more willing to invest in firms with high-quality governance mechanisms.

Current literature testing this kind of association between corporate governance mechanisms and institutional investors involves measuring the characteristics of boards of directors and ownership structures, and then correlating these characteristics with ownership by institutional investors. However, these studies have serious limitations. First, they neglect the other main pillars of corporate governance (i.e., audit committee (AC), internal audit function (IAF) and external auditing). Gramling et al. (2004) argue that a framework of corporate governance consists of four cornerstones: AC, board of directors, IAF and external auditor. Bédard and Gendron (2010) document three mechanisms, AC, IAF and external auditor, as the main dimensions of the financial reporting system (FRS). The key goal of the FRS is to produce high-quality financial information in order to strengthen the confidence of investors and financial markets in its quality (Bédard &

Gendron, 2010). A good quality of financial information, in addition to a strengthened FRS, could enhance the confidence of investors in the quality of financial reporting and the functioning of financial markets (Bédard & Gendron, 2010). Thus, the literature of institutional investor preferences may not provide a complete picture of the role of governance mechanisms in the preferences of institutional investors.

Secondly, studies are mostly conducted in the US context, where equity ownership is more dispersed. However, in contexts such as Malaysia where ownership is highly concentrated, the agency problem is accentuated in the association between majority and minority shareholders (Claessens & Yurtoglu, 2013; Shleifer & Vishny, 1997). This does not help in generalizing the results of current studies to the context of developing economies. Thirdly, the board of directors' characteristics are assessed by individual structural variables. Using a composite measure for governance characteristics reduces the inherent error in this approach (Srinidhi et al., 2014).

To mitigate these limitations, this paper exploits the cornerstones of the FRS (AC, IAF and external auditing) which have been neglected in prior studies, to provide a comprehensive picture of the impact of the firm's governance structure on the ownership of institutional investors. Audit committees have been considered as an influential source of the effectiveness of corporate governance and the appropriate structure could be a powerful source of enhancing the quality of FRS, in addition to ensuring audit independence (Cadbury Committee, 1992). Thus, this could improve the confidence of investors in the system. Pizzini et al. (2014) argue that the IAF reviews and tests the effectiveness of controls, considered as the eyes and ears of management. Therefore, the existence of effective IAF in a firm could be a good signal to actual and expected investors that their interests would be well monitored (Abbott et al., 2016). DeFond and Zhang (2014) define a higher auditor quality as greater assurance of high financial reporting quality. Choice of high-quality auditors could signal effective audit monitoring, corporate governance and good financial reporting (Lin & Liu, 2009).

The presence of such unique features in the institutional setting makes emerging markets such as Malaysia an interesting research setting. The ownership structure in Malaysia and most East Asian countries is highly concentrated. However, the traditional agency problem characterized by a conflict of interests between principals and agents that is common in developed markets may not fit in the context of emerging markets, where conflict of interests is created between majority and minority shareholders (Claessens et al., 2000; Claessens & Yurtoglu, 2013; Shleifer & Vishny, 1997). Thus, this unique feature of the paper's setting is important for identifying the decisions of institutional investors and complementing the current literature.

Using a sample of 4,207 firm-year observations of Malaysian listed companies on the Bursa Malaysia from 2009 to 2016, this paper investigates the strength of FRSQ in attracting institutional investors. It is measured by using a composite measurement of three monitoring mechanisms: AC (size, independence, diligence and expertise); IAF (investment in IAF, and IAF sourcing); and external auditor's attributes (auditor size, brand name, specialist auditor and audit fees). Looking at the governance mechanisms as a group is more beneficial than in isolation (Ward et al., 2009). Srinidhi et al. (2014) conclude that a composite measure could reduce the error of using one structural measurement. Therefore, it could be said that with a higher score of FRSQ (effective AC, IAF and a higher auditor quality), there will be greater ability to protect the interests of investors. The study predicts that the more effective the FRS assigned, the more attractive an organization is to institutional investors. Consistent with this, the findings show that the stronger the FRSQ, the greater the shareholdings of institutional investors. The results suggest that institutional investors may prefer to invest in firms that have effective FRS, as it may be a means of reducing their monitoring costs and offering more assurance for their interests.

This study contributes to the literature in the following ways. First, we investigate institutional investors' preferences by providing a comprehensive understanding of how the quality of FRS

influences them. It complements the existing literature that covers the impact of some pillars of FRS on institutional ownership (Al-Jaifi et al., 2019; Bushee et al., 2014; Chung & Zhang, 2011; McCahery et al., 2016), by investigating the role of other monitoring mechanisms, particularly AC, IAF and external auditing on the ownership of institutional investors. To our knowledge, no research has directly examined the role of FRSQ in influencing institutional ownership.

Secondly, this paper considers the improvement in the regulatory environment in Malaysia as one of the procedures taken by the Malaysian government to strengthen the confidence of investors. Bursa Malaysia mandated all listed companies to establish IAF in the revised code 2007 (part 2, section BB-VII) and to ensure the effectiveness of the audit committee with eligibility criteria for appointing financially literate members (part 2, section BB-I & V). In January 2008, the Listing Requirements Bursa Malaysia (LRBM) (Chapter 9 Appendix 9C Part A) mandated all listed companies to disclose whether their IAF is performed in-house or is outsourced, and to disclose the costs incurred for the IAF. Thus, to evaluate this change in the regulatory environment this study selects the data after the important regulatory reform period between 2009 and 2016. Thirdly, conducting this study in an emerging market such as Malaysia enriches the body of knowledge and increases our understanding of how institutional investors function with regard to FRSQ. We also extend the work of Al-Jaifi et al. (2019) and E. A. A. Wahab et al. (2008) on corporate governance and institutional investors in the context of emerging markets. Particularly, E. A. A. Wahab et al. (2008) investigate the association between the effectiveness of corporate governance based on the 30 provisions of the Malaysian Code of Corporate Governance (MCCG) and institutional ownership. Al-Jaifi et al. (2019) examine the impact of IAF and audit committee effectiveness on institutional ownership. Thus, our study extends this line of research by examining the influence of audit committee effectiveness, IAF, and external auditing characteristics as a proxy for FRSQ on institutional ownership. Finally, this paper provides a methodological contribution by using an aggregate measurement for FRSQ comprising AC, IAF, and external auditing, following the call by Srinidhi et al. (2014) that an aggregate measure reduces the possibility of errors resulting from using individual structural measures.

2. Institutional Malaysian background

In Malaysia, institutional investors held around 13 per cent of the shareholdings of market capitalization of Bursa Malaysia in 2003, which is high compared to most other South-East Asian countries (E. A. Wahab et al., 2009). How et al. (2014) report that in 2009 ownership by institutional shareholders in Malaysia was about 16.8 per cent and they had become important players in the Malaysian market. Most of the ten largest shareholders in Malaysian listed companies are institutional investors (Saleh et al., 2010). In addition, the majority of Malaysian listed companies have at least one substantial institutional investor (Asian-Development-Bank, 2014). This increase in the shareholdings of institutional shareholders could be due to the Malaysian government's intervention to reduce unequal distribution of ownership among the various ethnic groups, by increasing the participation of *Bumiputera* (ethnic Malays) in the Malaysian market as part of the New Economic Policy of 1969. Consequently, the government established the Minority Shareholders Watchdog Group (MSWG) with the main aim of protecting minority shareholders' interest through involving active shareholders in helping publicly listed firms in terms of their corporate governance practices (Minority Shareholder's Watchdog Group (MSWG), 2010). The Malaysia Code of Institutional Investors (MCII) was compiled by a Steering Committee headed by the Chairman of the MSWG (Minority Shareholder's Watchdog Group (MSWG), 2014). The MCII is considered as guidance for Malaysian institutional investors to exercise their stewardship responsibilities effectively in order to ensure delivery of sustainable long-term value to their ultimate beneficiaries or clients (Minority Shareholder's Watchdog Group (MSWG), 2014). This reflects the concern of regulatory bodies for the important role which institutional investors could play in the implementation of corporate governance reforms.

In terms of the MCCG, one of the consequences of the Asian financial crisis of 1997 was the strengthening of the Malaysian government's corporate governance system. As a result of the

rapid economic decline in Malaysia in mid-1997, the Finance Committee on Corporate Governance (FCCG) and the MICG were established in 1998 to comprehensively review and reform the system of corporate governance in Malaysia. In March 2000, the MCCG was issued, developed by the Working Group on Best Practices of Corporate Governance which comprised members from public and private sectors. The MCCG was revised in 2007 and 2012 to strengthen the board of directors and audit committees in discharging their roles and responsibilities effectively.

The last decade has seen many changes in the regulatory environment with the increasing role of internal control systems (Petherbridge & Messier, 2016). For example, in 2003 the New York Stock Exchange passed a requirement (NYSE, 2003, Section 303A) that firms should mandatorily maintain an IAF to provide ongoing evaluation of the firm's internal control system and processes for risk management to a management and audit committee. Similarly, in Malaysia, all listed firms are required to establish IAF and report directly to the audit committee through the identified head of IAF, to preserve the independence of the IAF and ensure the effectiveness of the audit committee (Part 2, section BB-VII). In Chapter 9 Appendix 9C Part A of the LRBM (2008), all listed companies are mandated to disclose whether a firm has in-house IAF or outsources the work of the IAF to a third party, and to disclose the costs expended on the IAF.

3. Review of theoretical literature

Extending the ownership of institutional investors in the global capital market contributes to increasing their vital role in economic development (Ferreira & Matos, 2008). As a result of their substantial share, institutional investors can exercise significant influence over their investee firms by creating the need for good governance, appropriate transactions and efficient risk evaluation, to guarantee and provide sustainable long-range value for their beneficiaries. Stakeholder Theory predicts that a firm that addresses the stakeholders' claims in the long-run will enjoy improved financial performance and value creation (Freeman, 1984). Williamson (1985) argues that stakeholders expect some safeguards (i.e., incentive realignment, governance structures and regularities of behaviour) from their investee firms.

Previous studies have addressed the determinants or preferences of institutional investors either across countries (e.g., Aggarwal et al., 2011; Dahlquist et al., 2003; Ferreira & Matos, 2008; Leuz et al., 2009) or at a single country level (e.g., Appel et al., 2016; Bushee et al., 2014; Bushee & Noe, 2000; Chung & Zhang, 2011; McCahery et al., 2016). Aggarwal et al. (2011) examine the preferences of institutional investors on corporate governance systems of companies across 23 countries for the period 2003 to 2008. Their results show that the more effective the governance system, the greater the international institutional ownership, suggesting that a foreign institutional investor promotes good corporate governance practices around the world. In the same way, Ferreira and Matos (2008) conclude that institutional investors strongly prefer to invest in a large firm that has a good governance structure. Dahlquist et al. (2003) provide supporting evidence for the close association between corporate governance and the ownership of investors. Their results suggest that controlling investors in countries with poor investor protection have a strong preference for good governance firms.

At the national level, Bushee and Noe (2000) argue that institutional investors prefer firms with better disclosure rankings to reduce monitoring costs. Given that companies that have better governance structures require less outside monitoring, institutional investors are likely to prefer those with better governance mechanisms to those with poor mechanisms. Abdioglu, Khurshed and Stathopoulos (2013) investigated the preferences for investment decisions of foreign institutional investors in the US market. Their findings suggest that investors domiciled in countries with good governance prefer to invest in firms that have a good corporate governance structure. This is driven by a decline in the monitoring effort by institutional investors. Bushee et al. (2014) also investigated the preferences of institutional investors for governance mechanisms in US listed firms, concluding that there is little evidence to show a relationship between ownership by institutional shareholders and firms' governance. However, they found that substantial institutional investors in firms with more growth are more likely to prefer good corporate governance

structures, suggesting that with more effective governance mechanisms the monitoring role of institutional investors could be less, reducing monitoring costs mainly for firms with more opportunities for growth. In a similar vein, Chung and Zhang (2011) reveal that the ownership by institutional investors increases in firms with higher-quality governance. Appel et al. (2016) divide the institutional investors into passive and non-passive, and investigate whether these two types have the same or different preferences in the governance system of their firms. They conclude that passive institutional investors are more influenced by the governance choices of firms, suggesting that passive shareholding is related positively with improvements in firms' governance and thereby the longer-term performance of these firms. McCahery et al. (2016) explore the views of institutional investors on investor protection and corporate governance. They provide supporting evidence for the proposition that the firms' governance structure is an influencing factor in investment decisions.

4. Review of empirical literature and hypothesis development

All the literature on institutional investors' preferences, whether investigating the impact of the governance structures of multiple or individual countries on the investment preferences of institutional investors, indicates a significant link between ownership by institutional shareholders and the quality of corporate governance. Researchers conclude that there are many reasons for institutional investors preferring to invest in firms with higher-quality governance. For example, there is a fiduciary duty on institutional investors to strictly monitor the firms' managers to protect their investments and holdings. Because of these fiduciary obligations, institutional investors have strong incentives to invest in firms with good governance that closely monitor their managers against erosion of their investment. Furthermore, the fiduciary obligations of larger institutional investors are high, leading to increased costs of monitoring. Therefore, firms with good governance structures are preferred by institutional investors as a way of offsetting monitoring costs, as the good governance mechanisms could be an alternative to monitoring by the institutional investors (Bushee et al., 2014). Velury et al. (2003) argue that higher-quality financial reports are preferred by institutional investors over lower-quality reports. La Porta et al. (2000) argue that an investor prefers firms with a better governance structure which treat investors well and are less risky. Therefore, with large shareholdings, institutional investors prefer firms with good governance as a way of protecting and reducing risk to their investments.

Unlike research that relies on the board of directors' characteristics in measuring the quality of corporate governance, this study employs other significant governance mechanisms that reflect the strength of the financial reporting system (i.e., audit committee, IAF and external auditing). Our study is encouraged by the argument of Bédard and Gendron (2010) that a firm with strong controls (effective AC, strong internal and external auditing) could provide good-quality information, thereby increasing the confidence of investors in its FRS and the functioning of financial markets. AC was identified by the Cadbury Committee (1992) as a powerful foundation for improving the financial reporting system; an appropriate AC structure would be more likely to improve the quality of the FRS and provide additional protection for investors or creditors (DeZoort et al., 2002). Bédard and Gendron (2010) and Ghafran and O'Sullivan (2013) argue that an effective AC would improve the confidence of investors in the quality of financial reporting, and that they would react positively when the AC adopts best practices. Four elements (composition, authority, resources, and diligence) are identified by DeZoort et al. (2002) as essential to the effectiveness of the AC. Other studies (e.g., Baatwah & Al-Qadasi, 2020; Baatwah et al., 2020; Carcello & Neal, 2000; Klein, 2002; Krishnan, 2005) have emphasized the size (composition), independence and financial expertise of the AC in reflecting its quality. Gendron et al. (2004) suggest that meetings with the external and internal auditors could reflect the best practices of AC. Consequently, this study uses four characteristics (size, independence, financial expertise and number of meetings) of the AC to measure its effectiveness.

Another monitoring mechanism that determines the quality of FRS is IAF. Ege (2015) and Prawitt et al. (2009) provide supporting evidence that higher IAF quality leads to an increase in the quality

of financial reporting and deters management misconduct. Ege (2015) and Holt and DeZoort (2009) conclude that an IAF with more information disclosed about it may increase the confidence of stakeholders in the quality of governance, and probably affects investment decisions. There is little research examining this because of the limited amount of publicly available data on IAF (Hay et al., 2008). The LRBM mandated Malaysian listed firms to disclose costs on IAF and whether the IAF was performed in-house or outsourced. This study therefore measures IAF by using the costs incurred on it and whether it is maintained in-house or outsourced. It is argued that good funding of IAF has greater monitoring ability to deter management misconduct, because more resources empower it to employ and maintain more competent staff (Al-Qadasi et al., 2019; Ghaleb et al., 2020; Prawitt et al., 2009). Thus, institutional investors prefer to invest in a firm with greater investment in IAF, to reduce the cost of their own monitoring responsibilities. The IAF can be improved by using external providers as internal auditors (outsourced IAF) or by establishing a department for internal audit within a firm (in-house IAF). There are two competing views about the preference for outsourcing or keeping the IAF in-house, and the proponents on both sides present vehement arguments. The opponents of outsourced IAF argue that external providers do not understand a firm's business as well as do internal auditors. The outsourced IAF might use an auditing approach inappropriate to the auditee's situation, with less commitment to the audited firm. This might reduce the ability of outsourced auditors to identify or prevent inappropriate accounting practices (Prawitt et al., 2012). In contrast, the proponents of outsourced IAF assert that the external providers of IAF are perceived to be more objective and competent (Glover et al., 2008). Prawitt et al. (2012) argue that firms that outsource their IAF to external providers have lower accounting risks than firms with in-house IAF. In addition, a firm whose IAF is performed by a third party (external auditor) could send a good signal to current and potential investors that the firm is well monitored.

The third significant determinant of FRS is external auditing. It is argued that external auditing improves the quality of FRS by increasing the credibility of the financial reports (DeFond & Zhang, 2014). DeFond and Zhang (2014) define higher audit quality as "greater assurance that the financial statements faithfully reflect the firm's underlying economics, conditioned on its financial reporting system and innate characteristics". These authors document that the presence of a higher-quality auditor could increase the confidence of current investors and might be an incentive for potential investors. Many proxies have been used by previous researchers to measure the audit quality with minor guidance on selection criteria (DeFond & Zhang, 2014). Previous studies argue that specialist auditors invest more in technologies, physical facilities, personnel and organizational control systems, and are more resilient and confident, making them less likely to be influenced by firms' managers and more capable of detecting irregularities and misleading financial statements effectively, as well as having stronger reputation incentives to provide high audit quality (DeFond & Zhang, 2014; Krishnan, 2005; Srinidhi et al., 2014). Thus, the presence of a specialist auditor in a firm could maintain existing and attract future investors, as they believe that their interests will be protected. Another proxy for audit quality is audit fees, as used in many prior studies (Carcello et al., 2002; Francis, 2004; Hay et al., 2008; O'Sullivan 2000). Higher audit fees are argued to indicate additional audit effort or the presence of specialist audit staff. Therefore, higher fees reflect a good audit quality. Thus, the more investment a firm puts into external auditing, the greater the motivation for institutional investors to substitute the costs of their responsibilities. In addition, Francis and Wilson (1988) argue that audit quality is expected to be high in large audit firms because these firms have more to lose from an audit failure than small audit firms. The larger audit firms also have superior resources to carry out an audit, giving them more independence from the client and helping them to perform their job carefully and competently, compared to small audit firms (Dopuch & Simunic, 1980). Usually, audit firm size is represented by the membership of the Big Four (formerly the Big Eight; DeAngelo, 1981; DeFond & Zhang, 2014). It is expected that the Big Four would be more competent and efficient because they enjoy economies of size which enable them to attract and retain higher-quality audit inputs, particularly with respect to human resources and expertise. In sum, a firm

that invests more in external auditing (paying higher audit fees) and hires a Big Four auditor could be more desirable to institutional investors. Following the argument of Srinidhi et al. (2014) for using an aggregate measure for governance mechanisms rather than an individual structural measurement, as explained above, this study uses indices that aggregate the variables (AC's characteristics, IAF and audit quality) to measure the strength of FRSQ.

In Malaysia, three studies have analysed the determinants of institutional investors' preferences. Ashrafi and Muhammad (2013) conclude that larger firms that have more tangible assets, profitability and growth and less leverage, management ownership and business risk are preferred by institutional investors. E. A. A. Wahab et al. (2008) examined the association between institutional shareholdings and corporate governance after the significant reform of the Malaysian corporate governance structure. They provide evidence of the positive association between corporate governance and institutional ownership, although this association became less positive after 2001, the date of the establishment of MCCG, as a result of the simultaneous and endogenous increase of the monitoring impact on institutional investors and corporate governance. Recently, Al-Jaifi et al. (2019) examine institutional investors' preferences for internal governance mechanisms (i.e., IAF and AC effectiveness). Their findings indicate that there is a positive relationship between the IAF and AC effectiveness and institutional ownership. Thus, our hypothesis is developed as follows:

H1: *Firms with strong FRSQ are more likely to attract more institutional investors.*

5. Research design

5.1. Data and sample selection

The sample comprises all non-financial listed companies on Bursa Malaysia from 2009 to 2016. In 2008, the LRBM mandated all Malaysian listed companies to disclose the costs expended on IAF. Thus, our data are collected from 2009 to allow the companies time to alter their internal governance mechanism characteristics in accordance with the new regulation. Financial companies are excluded because they operate in a stricter regulatory environment and possess different characteristics. The initial sample was 958 Malaysian companies listed in 2009; those with incomplete data were excluded, and we eliminated all companies that did not disclose their investment in IAF, one of the main items in computing FRSQ. Companies delisted between 2010 and 2016 were not included. Thus, 4,207 firm-year observations remain in the sample. We obtained our sample data from two sources: the annual reports available on the Bursa Malaysia website, and the Thomson Financial DataStream Advance available in Sultanah Bahiyah Library, University Utara Malaysia. Table 1 shows the sample selection.

5.2. Regression model

Following prior studies (e.g., Bushee et al., 2014; Chung & Zhang, 2011), Ordinary Least Square (OLS) regression based on two-way cluster-robust standard errors (firm and year) is used to achieve the main objective of this study by examining the association between FRSQ and ownership by institutional investors, after including all the control variables. All continuous variables are winsorized at the 1 and 99 percentiles to avoid the effect of outlier values. The following is the main model of this study:

$$\begin{aligned} \text{INSTOW}_{it} = & \beta_0 + \beta_1 \text{FRSQ}_{it} + \beta_2 \text{BODEFF}_{it} + \beta_3 \text{LEV}_{it} + \beta_4 \text{INOW}_{it} + \beta_5 \text{ROA}_{it} \\ & + \beta_6 \text{TASS}_{it} + \beta_7 \text{RISK}_{it} + \beta_8 \text{BETA}_{it} + \beta_9 \text{VOLATILITY}_{it} \\ & + \beta_{10} \text{DIVPERSHARE}_{it} + \beta_{11} \text{PRISEBV}_{it} + \beta_{12} \text{PRISEBV}_{it} + \beta_{13} \text{AGE}_{it} \\ & + \beta_{14} \text{SALESGR}_{it} + \beta_{15-19} \text{YEAR}_{it} + \beta_{20-25} \text{SECTOR}_{it} \end{aligned}$$

Table 1. Sample selection

Company-years data from 2009 to 2016	7,664
Less financial and utilities company-years	(296)
Less delisted and uncompleted data company-years	(3,161)
Final company-year observations	4,207

5.3. Dependent variables

Following the literature on institutional ownership (Bushee et al., 2014; Chung & Zhang, 2011), this study utilizes the total percentage of institutional investors' ownership (INSTOW) as a proxy for institutional ownership.

5.4. Test variable

Srinidhi et al. (2014) argue that using a composite of structural variables reduces the error resulting from individual structural variables. Thus, the test variable is FRSQ which is measured by aggregating the characteristics of AC (size, independence, number of meetings, and expertise), IAF (IAF costs and type of sourcing of IAF), and audit quality proxies (expertise, audit fees, size, and reputation) to obtain an aggregate measure of FRSQ. That is, we use this aggregate measure of FRSQ that combines these ten characteristics.

The FRSQ aggregates the following variables are AC size (ACsize) (measured as number of AC members), AC independence (ACInd) (measured as the percentage of independent directors), AC meetings (ACMeet) (measured as the number of AC meetings held in a year) and AC expertise (ACExp) (measured as the percentage of directors on the AC with accountancy qualifications or experience): IAF costs (IAFCOST) (investment in IAF scaled by total assets), IAF sourcing arrangement (IAFARR) (measured as a dummy variable taking the value "1" if a firm has in-house IAF and "0" otherwise); and a specialist auditor (AUSPEC) (an audit firm is considered as a specialist if it has at least 30 per cent annual market share of audit fees at national level; in this case a company will be assigned "1" if it is audited by a specialist auditor, and otherwise "0"), audit fees (AFEES) (measured as the fees of audit services scaled by total assets), Big 4 audit firms (BIG4) (measured as a dummy variable, where a company is equal to "1" if its auditor is one of the Big 4 audit firms, and "0" otherwise), and the auditor's reputation (AUREPUT) (measured as a categorical variable, where a company is assigned "2" if it is audited by a Big 4 auditor, "1" by a second-tier auditor (international non-Big 4 or ones with international affiliations) and "0" by local auditors. Following Srinidhi et al. (2014) to obtain the aggregate measurement of FRSQ all continuous variables are standardized to fall in the range [0, 1]; variables whose values are outside this range are scaled by the maximum value of the variable in the whole sample to obtain a value between 0 and 1. Thus, we sum the values of the ten variables of AC, IAF, and audit quality to obtain the aggregate measurement of FRSQ. To supplement our main results, our sample is split into high- and low-FRSQ sub-samples based on a median split of company FRSQ for the industry and year. A dummy variable of "1" is used for companies that have a FRSQ value above the median value for the industry and year, and "0" for those below the median value.

5.5. Control variables

Following the institutional ownership literature (e.g., Bushee et al., 2014; Chung & Zhang, 2011; McCahery et al., 2016), a set of commonly used control variables is included. Leverage (LEV) is the percentage of total debt to total assets; the firm's size (TASS) is expected to be positively related with institutional ownership so the natural log of total assets is calculated (McCahery et al., 2016). To control for the effectiveness of boards of directors (BODEFF) we calculate a composite measure for the BOD characteristics (size, independence, number of meetings and expertise; Omer & Al-Qadasi, 2020; Srinidhi et al., 2014). It is argued that how long a firm has remained in the market could influence investment preferences, so a firm's age (AGE) is included (Bushee et al., 2014;

Chung & Zhang, 2011). Insider ownership (INOW) is included to indicate ownership by directors (Bushee et al., 2014). A firm's growth and income ratios could affect the decisions of institutional investors, therefore sales growth (SALESGR), return on assets (ROA), percentage of dividend to share price (DIVPERSHARE), price to book value (PRISEBV), and the standard deviation of quote-midpoint daily returns (VOLATILITY) are included (Bushee et al., 2014; Chung & Zhang, 2011). To control for the firm's risk, BETA is included (Bushee et al., 2014), while RISK is measured by the sum of receivables and inventory divided by total assets (Hay et al., 2008). Lastly, we include dummy variables YEAR and INDUSTRY to control for the time and industry sectors.

6. Empirical results and discussion

6.1. Descriptive statistics and correlation matrix

Table 2 illustrates the descriptive statistics for the full sample and sub-samples of high- and low-FRSQ companies. The mean value of INSTOW is 18.10 per cent, while the mean for high- and low-FRSQ companies are 22.10 and 14.10 per cent respectively, indicating that INSTOW for high FRSQ companies is significantly higher (by 8 per cent, with $p < 0.000$) for companies with low FRSQ. The mean value of INSTOW for all samples is higher than that reported by E. A. A. Wahab et al. (2008), p. 12.58 per cent during 1999–2002, suggesting that there is increasing ownership of institutional investors in Bursa Malaysia. The average value for FRSQ is 4.58, while the minimum and maximum values are 1.54 and 7.74 respectively.

Table 3 provides the results of Pearson's test which is used to see correlations between the independent and dependent variables. Also, through Pearson's correlation, the reader can identify whether there is any relationship among the independent variables. As shown in Table 3, INSTOW is positively related with FRSQ, as expected. In addition, the results tabulated in Table 3 indicate that the correlations between the independent variables are small (lower than 0.80) which means that multicollinearity does not pose a significant problem for our analysis. Furthermore, untabulated results of the Variance Inflation Factor (VIF) test indicate that no harmful correlations were reported. Gujarati (2003) suggests that a VIF value of less than 10 is acceptable; our maximum VIF value is 1.93.

6.2. Regression results and discussion

Table 4 presents the findings of the main OLS regressions for the whole sample. As predicted in H1, the coefficient of FRSQ is positive and statistically significant at the 1 percent level. This finding suggests that institutional investors prefer to invest more in firms that have high-quality FRSQ. This result is consistent with the prediction that institutional investors are more motivated to invest in a firm with good monitoring mechanisms. This is in line with the proposition of Stakeholder Theory, that firms better able to address the claims of their investors have more value. So, firms are responsible to their stakeholders for preparing a higher quality of financial reporting. With higher FRSQ, a firm appears more responsible to its stakeholders, making it more attractive to institutional investors. In addition, our results provide supporting evidence for the prediction that the presence of a good FRSQ is preferred by institutional investors in order to reduce the cost of their own monitoring activities. This finding is consistent with the results of prior studies (e.g., E. A. A. Wahab et al., 2008; Al-Jaifi et al., 2019; Bushee et al., 2014; Chung & Zhang, 2011; Miletkov et al., 2014), that institutional investors prefer to invest in firms that have a good governance structure.

To determine whether the different measure of FRSQ could impact the preferences of institutional investors, we re-estimate our main regression model by using a dummy variable of FRSQ. The dummy variable takes the value "1" for companies that have FRSQ above the median value for the industry and year, and "0" for those below the median value. The findings in Table 4 columns 4 and 5 show that FRSQ is again significantly and positively associated with the ownership of institutional investors.

Table 2. Descriptive statistics

Variables	ALL	Mean		Median	SD	Min	Max	T-test
		Low FRSQ	High FRSQ					
INSTOW	0.181	0.141	0.221	0.085	0.229	0	0.955	-11.460***
FRSQ	4.576	-	-	4.742	1.526	1.536	7.743	-
ACsize	3.231	3.168	3.294	3	0.494	2	7	-8.373***
ACInd	0.887	0.887	0.887	1	0	0	1	-0.036
ACMeet	5	4.912	5.099	5	1	0	16	-5.306***
ACExp	0.475	0.469	0.481	0.333	0.202	0	1	-1.957*
AFEES	0.001	0.001	0.001	0.000	0.005	0.000	0.181	-0.975
BIG4	0.513	0.042	0.986	1	0.500	0	1	-190 ***
AUREPUT	1.210	0.437	1.986	2	0.879	0	2	-120***
AUSPEC	0.163	0.006	0.320	0	0.369	0	1	-30.541***
IAF COST	0.001	0.000	0.001	0.000	0.009	0.000	0.291	-3.038***
IAFARR	0.449	0.365	0.534	0	0.497	0	1	-11.171***
BODsize	7.310	7.043	7.577	7	1.843	3	18	-9.508***
BODInd	0.466	0.466	0.466	0.429	0.124	0.143	1	0.037
BODMeet	5.404	5.226	5.581	5	1.912	1	27	-6.040***
BODExp	0.335	0.335	0.336	0.333	0.156	0	1	-0.128
BODEFF	1.408	-	-	1.389	0.218	0.823	2.352	-
LEV	0.089	0.084	0.095	0.004	0.139	0	0.686	-2.577***
INOW	31.728	32.307	31.148	33.360	24.321	0	88.720	1.545
ROA	4.668	3.991	5.346	4.290	16.592	-130.630	633.780	-2.651***
TASS	1,928,597	1,034,648	2,824,673	350,000	7,296,279	2,600	133,000,000	-8.016***
RISK	0.308	0.329	0.287	0.287	0.195	0	0.976	6.991***
BETA	1.250	1.234	1.266	1.220	0.953	-5.020	6.110	6.991***
VOLATILITY	7.217	7.638	6.795	6	4.386	1	20	6.263***

(Continued)

Table 2. (Continued)

Variables	Mean			Median	SD	Min	Max	T-test
	ALL	Low FRSQ	High FRSQ					
DIVPERSHARE	0.050	0.024	0.076	0.015	0.153	0	3.12	-11.216***
PRISEBV	1.442	1.292	1.592	0.780	4.024	-16.020	163.050	-2.417**
AGE	18.127	16.934	19.323	16.397	10.925	0.101	106.678	-7.133***
SALESGR	5.021	4.000	6.045	0.094	79.011	-100.000	3229.234	-0.839

Table 3. Pearson correlations

Variables	INSTOW	FRSQ	BODEFF	LEV	INOW	ROA	TASS	RISK	BETA	VOLATILITY	DIVPERSHARE	PRISEBV	AGE	SALESGR
INSTOW	1													
FRSQ	0.110***	1												
BODEFF	0.151***	0.112***	1											
LEV	0.160***	0.012	0.052***	1										
INOW	-0.332***	0.014	-0.235***	-0.200***	1									
ROA	0.048***	0.040***	0.001	-0.047***	0.008	1								
TASS	0.311***	0.029*	0.078***	0.695***	-0.243***	0.045***	1							
RISK	-0.064***	-0.094***	-0.122***	-0.021	0.076***	-0.023	-0.140***	1						
BETA	0.009	0.010	0.032**	0.014	-0.094***	-0.040***	-0.004	0.019	1					
VOLATILITY	-0.022	-0.105***	-0.031**	0.335***	-0.134***	-0.073***	0.371***	0.012	0.143***	1				
DIVPERSHARE	0.268***	0.136***	0.062***	0.003	-0.131***	0.156***	0.099***	-0.042***	-0.127***	-0.152***	1			
PRISEBV	0.085***	0.025	0.007	0.027*	-0.118***	0.112***	0.071***	-0.031**	-0.046***	0.028*	0.351***	1		
AGE	0.224***	0.032**	0.150***	0.216***	-0.214***	0.017	0.392***	-0.137***	-0.037**	0.002	0.142***	0.006	1	
SALESGR	-0.002	0.005	0.010	0.064***	-0.017	0.029*	0.074***	-0.002	0.013	0.015	0.026*	-0.002	0.047***	1

*, **, and *** denote significance at the p < 0.10; p < 0.05 and p < 0.01 levels, respectively

Table 4. Main results

Variables	FRSQ		FRSQ Dummy	
	Coef.	t-statistics	Coef.	t-statistics
FRSQ	0.010***	4.900	0.046	7.020***
BODEFF	0.042***	2.800	0.043	2.840***
LEV	-0.001***	-3.840	-0.001	-3.780***
INOW	-0.002***	-13.920	-0.002	-14.000***
ROA	0.000	0.090	0.000	0.120
TASS	0.027***	7.460	0.025	6.880***
RISK	0.046**	2.520	0.046	2.550**
BETA	0.006**	1.990	0.006	1.850*
VOLATILITY	-0.005***	-6.650	-0.005	-6.580***
DIVPERSHARE	0.264***	6.310	0.255	6.190***
PRISEBV	-0.002**	-2.180	-0.002	-2.200**
AGE	0.001	1.510	0.000	1.220
SALESGR	0.000***	-2.860	0.000	-2.770***
_cons	-0.077**	-2.200	-0.039	-1.130
No. of observations	4,207		4,207	
F-statistics	52***		53.630***	
R ²	0.272		0.277	

Notes: *, ** and *** denote significance at the $p < 0.10$; $p < 0.05$ and $p < 0.01$ levels, respectively

In terms of control variables, this study finds that institutional investors are less likely to invest in a firm with insider major shareholders, consistent with the results of a previous study (Bushee et al., 2014). Further, institutional investors prefer to invest in large firms (Chung & Zhang, 2011), and those with less leverage (Bushee et al., 2014), higher dividends (Chung & Zhang, 2011), more growth, and an effective BOD (Al-Jaifi et al., 2019).

6.3. Robustness tests

6.3.1. Alternative measurement of INSTOW and FRSQ

In this section, we re-estimate the main model by using alternative measurements of INSTOW (domestic and international institutional shareholders; How et al., 2014). In Table 5, the findings indicate that FRSQ is positively and significantly related with both types. This suggests that whether institutional investors are domestic and international, they prefer to invest in firms that possess a high FRSQ. This finding adds credence to our conjecture that the positive association between FRSQ and INSTOW could be driven, at least in part, by domestic and international institutional investors' preference for firms with a high FRSQ.

It is argued that short-term (i.e., private) or long-term (i.e., state) institutional investors are likely to have different objectives (Qasem et al., 2021). Thus, these groups may have different preferences over the FRSQ of the companies they invest in. Following Qasem et al. (2021), we re-run the main model by classifying INSTOW as private or state institutional investors. The findings in Table 5, columns 6–9 show that FRSQ is significantly and positively associated with INSTOW whether the institutional investors are they are private or public. These findings suggest that private and state INSTOW are more likely to invest in firms with good FRSQ, strengthening the results of the main analysis.

Al-Jaifi et al. (2019) argue that institutional investors prefer to invest in firms with better internal governance, to reduce their monitoring responsibility and exit costs. Thus, we re-estimate the main

Table 5. Results of using alternative measurements for institutional ownership (domestic, international, private and state)

Variables	Domestic INSTOW		International INSTOW		Private INSTOW		State INSTOW	
	Coef.	t-statistics	Coef.	t-statistics	Coef.	t-statistics	Coef.	t-statistics
FRSQ	0.006***	3.120	0.004***	5.330	0.004**	2.010	0.002***	2.720
BODEFF	0.053***	3.500	-0.011**	-2.210	0.002	0.140	0.036***	5.990
LEV	-0.001**	-2.460	-0.001***	-3.380	-0.001***	-2.700	0.000	1.080
INOW	-0.002***	-12.870	0.000***	-3.280	-0.001***	-8.070	-0.001***	-11.150
ROA	0.000	0.330	0.000	-1.130	0.000	0.640	0.000	0.760
TASS	0.024***	6.720	0.003*	1.790	0.017***	5.060	0.006***	5.090
RISK	0.012	0.720	0.033***	2.820	0.022	1.400	0.009*	1.660
BETA	0.005*	1.700	0.001	1.050	0.001	0.190	0.005***	4.940
VOLATILITY	-0.005***	-6.360	0.000	-0.910	-0.004***	-5.660	-0.001	-3.940
DIVPERSHARE	0.155***	2.790	0.109***	5.710	0.174***	3.100	-0.006	-1.090
PRISEBV	-0.001*	-1.690	0.000	-1.330	-0.001	-0.730	-0.001**	-2.490
AGE	0.000	0.880	0.000	1.330	0.001**	2.260	0.000***	-4.350
SALESGR	0.000***	-2.580	0.000	-0.490	0.000**	-2.240	0.000***	-2.670
_cons	-0.053	-1.500	-0.024	-1.460	-0.002	-0.050	-0.054***	-4.620
No. of observations	4,207		4,207		4,207		4,207	
F-statistics	38.380		6.310		34.550		6.910	
R ²	0.212***		0.105***		0.189***		0.103***	

* , ** and *** denote significance at the p < 0.10; p < 0.05 and p < 0.01 levels, respectively

model by re-measuring the FRSQ of the company including the components of all governance mechanisms (BOD, AC, IAF, and external auditing; Srinidhi et al., 2014). As shown in Table 6, columns 2 and 3, the findings indicate that FRSQ remains related positively and significantly associated with the shareholding of institutional investors. These findings provide supporting evidence for the results of the main model, that institutional investors prefer to invest in firms that have a high level of FRSQ.

6.3.2. Endogeneity problem

The literature indicates that the endogeneity problem is relevant to accounting research, one of its main sources being the potential for reverse causality (Kanagaretnam et al., 2014). We use the lagged FRSQ variable as an independent variable to partially mitigate this issue. To test for reverse causality, we re-estimate the main model by regressing the lagged FRSQ as an independent variable on the dependent variable (INSTOW). Following previous studies (e.g., Al-Qadasi & Abidin, 2018; Alves et al., 2015; Miletkov et al., 2014), Table 6, columns 4 and 35 shows that the significant relationship between FRSQ and INSTOW persists and is significant in the same direction, indicating that reverse causality is unlikely.

A two-stage least squares (2SLS) instrumental variable method is used to further address the endogeneity issue (Larcker & Rusticus, 2010). Prior research provides evidence that the mandatory adoption of International Financial Reporting Standards (IFRSs) enhances the quality of financial reporting. Consistent with this view, Landsman et al. (2012) find that the adoption of IFRS increases the informativeness of earnings. It is argued that the IFRS adoption, as well as a country's legal structure, culture, and institutions, influence the quality of financial reporting (George et al., 2016). However, Ahmed et al. (2013) find that mandatory adoption of IFRS by more than 1,600 firms from 20 countries resulted in a deterioration in financial reporting

Table 6. Results of using alternative measurements for FRSQ and lagged independent variables

Variables	FRSQ (AC, BOD, IAF, & External Auditing)		Lagged Independent Variables	
	Coef.	t-statistics	Coef.	t-statistics
FRSQ	0.011***	5.550	0.010*	1.750
BODEFF	-	-	-0.009	-0.260
LEV	-0.001***	-3.830	0.000	0.100
INOW	-0.002***	-14.540	0.001***	3.580
ROA	0.000	0.080	0.000**	-2.480
TASS	0.027***	7.470	0.006**	2.240
RISK	0.044**	2.400	0.004	0.160
BETA	0.006**	2.020	0.007	0.980
VOLATILITY	-0.005***	-6.700	-0.008***	-4.170
DIVPERSHARE	0.264***	6.280	0.150	1.390
PRISEBV	-0.002**	-2.250	0.000	0.600
AGE	0.001*	1.660	0.000	0.070
SALESGR	0.000***	-2.840	0.000	-0.450
_cons	-0.037	-1.240	0.184***	41.770
No. of observations		4,207		3,456
F-statistics		53.720***		3.890***
R ²		0.271		0.009

*, ** and *** denote significance at the $p < 0.10$; $p < 0.05$ and $p < 0.01$ levels, respectively

quality. IFRSs were fully adopted in 2012 by the Malaysian Security Commission. Thus, the instrumental variable IFRSs adoption is selected for the reason that its effect on the quality of FRS. A dummy variable IFRS is created with a value of 1 for firms after IFRSs adoption, and 0 otherwise (Omer & Al-Qadasi, 2020). The model of the first stage reflects the financial reporting system's determinants. Table 7, Columns 2–5 present the findings for the 2SLS estimation. The findings of the first stage show that there is a negative and significant association between IFRS adoption and the quality of FRS, suggesting that the mandatory IFRS adoption resulted in a decrease in FRSQ. The results of the second stage indicate that FRSQ is positively and significantly related to institutional investors' ownership, indicating that our main findings are robust after addressing the endogeneity issue.

6.3.3. Panel data estimation

To check the robustness of the OLS findings, our main model is re-estimated using a panel data regression. It argued that the pooled regression ignores the potential heterogeneity that occurs over time and between companies (Gujarati & Porter, 2009). Thus, it is important to control these heterogeneities. Our data was verified among fixed effects and random effects regressions based on the Hausman test. Untabulated results of the Hausman test indicate that the fixed effects regression is the most adherent. Thus, the fixed effects model is applied based on Driscoll and Kraay's (1998) standard errors to control the cross-sectional dependence, heteroskedasticity, and autocorrelation issues (Hoechle, 2007). Table 7, columns 6 and 7 present the results of fixed effects estimation. The findings are similar and lead to the same conclusions that institutional investors prefer to invest in companies that have an effective financial reporting system.

Table 7. Results of using 2SLS estimation and fixed effects estimation

Variables	2SLS Estimation				Fixed Effects Estimation	
	First Stage		Second Stage		Coef.	t-statistics
	Coef.	t-statistics	Coef.	z- statistics		
FRSQ	-	-	0.052**	1.980	0.003**	2.960
BODEFF	0.786***	7.230	0.016	0.630	0.017	1.510
LEV	0.002	1.030	-0.001***	-4.330	0.000	-1.370
INOW	0.004***	3.770	-0.002***	-14.200	0.000	0.590
ROA	0.001	0.690	0.000	-0.480	0.000	-1.270
TASS	0.043***	3.890	0.018***	14.040	-0.006**	-3.320
RISK	-0.382***	-3.020	0.055***	2.610	-0.034**	-2.580
BETA	0.073***	2.970	0.004	0.970	0.006***	4.230
VOLATILITY	-0.030***	-4.950	-0.005***	-3.780	-0.004***	-4.790
DIVPERSHARE	1.263***	7.530	0.216***	5.230	-0.031	-0.950
PRISEBV	0.000	0.070	-0.002**	-2.100	-0.001	-1.440
AGE	-0.004*	-1.750	0.001***	2.730	-0.001*	-2.040
SALESGR	0.000	-0.250	0.000*	-1.940	0.000	-0.450
IFRS	-0.380***	-5.430	-	-	-	-
_cons	3.193***	14.610	-0.185**	-1.990	0.175***	6.790
No. of observations	4,207		4,207		4207	
F-statistics	19.380***		Wald CHI ² /1218.950***		194.090***	
R ² /Adj. R ²	0.081/0.077		0.173		0.292	

*, ** and *** denote significance at the p < 0.10; p < 0.05 and p < 0.01 levels, respectively

7. Summary and conclusion

The current study contributes to the ongoing debate about the preferences of institutional investors by providing evidence on the influence of FRSQ on the ownership of institutional investors for Malaysian listed firms (4,207 firm-year observations) during 2009–2016. Specifically, we examine to what extent FRSQ is a determinant of the investment decisions of institutional investors. It is argued that institutional investors prefer to invest in firms that have good monitoring mechanisms, in order to alleviate concerns over their own monitoring costs and to signal a commitment to high-quality financial reporting. The results indicate that institutional investors prefer to invest in firms with good FRSQ, particularly those with effective AC, IAF, and high-quality external auditing. The findings further show that a firm with high-quality FRS could be more attractive to institutional investors. Our findings, along with the findings reported in other concurrent institutional ownership research (e.g., E. A. A. Wahab et al., 2008; Al-Jaifi et al., 2019; Bushee et al., 2014; Chung & Zhang, 2011; McCahery et al., 2016) do support the argument that firms with effective monitoring mechanisms are more preferred by institutional investors. The results are complemented by various tests which support the robustness of the findings of the main model. Specifically, using alternative measures of INSTOW (i.e., domestic, international, private, and public institutional investors), the results indicate that all types of institutional investors are more likely to invest in a firm that has strong FRSQ. Furthermore, our findings remain unchanged after using an alternative measure for FRSQ and addressing the endogeneity issue.

This study has important implications for regulators, investors, and researchers. For regulators, strengthening the role of the corporate governance structure in attracting institutional investors may prompt them to improve the governance regulations. From our results, investors could increase their understanding of the role of FRSQ in substituting their monitoring responsibilities. Our results also have managerial implications, as firms' managers may attract more institutional investors by implementing an effective FRS that could increase the confidence of institutional investors to make investment decisions. In addition, our study offers some suggestions for forthcoming research to enrich the literature not only concerning institutional investors' preferences but, more significantly, of the design of governance structures. Like other studies, this one has some limitations. First, it uses Malaysian data, so its findings may not be generalizable to other nations. It also neglects other classifications of institutional investor (e.g., transient and dedicated institutional investors) so it would be interesting to examine the impact of FRSQ on these. This is a promising direction for future research. In addition, future research can focus on acquiring a deeper grasp of how integrated reporting affects institutional ownership.

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