

Related party transactions and audit fees: the role of the internal audit function

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Abstract Related party transactions (RPTs) are viewed as genuine transactions that rationally fulfil other economic demands of a company. However, RPTs can also be used to transfer wealth from minority shareholders to controlling shareholders. The existence of such transactions may deteriorate financial reporting quality, increase audit risk, and as a result increase audit fees. This study examines the relationship between RPTs and audit fees in Malaysia, where ownership is often concentrated within a controlling family and corporate governance mechanisms are poor. It also investigates the moderating effect of the internal audit function (IAF) on this relationship. We find that external auditors base their fees on the types of RPTs undertaken. Specifically, our results show that audit fees are higher for firms that undertake RPTs involving the sale and purchase of assets, goods, and services. We also document that external auditors rely on the IAF, and thus their fees are lower for firms that undertake RPTs and that have made a large investment in an IAF. Our study is the first to provide evidence that RPTs in Malaysian firms may be abused as a channel to facilitate tunnelling and that the IAF plays a vital role in controlling such transactions.

Keywords Audit fees · Related party transactions · Internal audit · Malaysia

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1 Introduction

Related party transactions (RPTs) are transactions between a firm and individuals or organizations related to the firm, such as managers, boards of directors, major shareholders, and affiliates. Related party transactions include activities such as the selling and purchasing of assets, guaranteeing of loans, and exchanging of assets with different qualities. There are two competing views regarding RPTs. On the positive side, RPTs can be value enhancing as they can be utilized by business groups to share resources, reduce transaction costs, and as a result increase returns on assets. On the other hand, RPTs are often regarded as abusive; for example, RPTs can be used opportunistically by self-dealing controlling shareholders to extract private benefits at the expense of minority shareholders. In this case, controlling shareholders or parent firms may arrange transactions through related parties to extract private benefits or divert a firm's resources from minority shareholders to themselves. They may also use their influential relationship over business groups to structure transactions within groups in a way that allows profit to be shifted from firms in a group either to the controlling shareholders' pocket directly or to improve the financial position of troubled firms within the same group. These transactions may mislead the users of the financial statements of the affected firms.

The collapse of various corporations around the world such as Enron and Hollinger (in the United States), BAT-Yava (in Russia), Greencool (in China), and Transmile Group Berhad (in Malaysia) has led to widespread interest in tunnelling and opportunistic behaviours driven by RPTs. The usage of RPTs is also to a large extent behind the huge debate about profit shifting and tax avoidance by several multinational corporations around the world. Large corporations such as Apple, Google, and Starbucks have been shown to move profits to low-tax countries in order to minimize their taxes and boost overall profits (Fairless 2015). Firms that use abusive RPTs may also engage in earnings management activities (e.g. Henry et al. 2007; Chen et al. 2011; Yang et al. 2014) or experience low earnings quality (e.g. Ge et al. 2010; Wang and Yuan 2012).

In the accounting literature, many studies on RPTs focus on the consequences of RPTs from the earnings quality perspective; very little attention is given to the response of auditors to RPTs (Habib et al. 2015; Kohlbeck and Mayhew 2014). It would seem that the more a firm is involved in RPTs, the more challenges the external and internal auditors face. Since RPTs are highly likely to violate the arm's length assumption, auditors usually see them as red flags that are worth careful scrutiny. Levine et al. (1997) argue that because of the low transparency and intricate nature of RPTs, auditors find it hard to understand and audit such transactions. Moreover, the American Institute of Certified Public Accountants (AICPA) considers RPTs as difficult to audit and a potential indicator of audit risks (AICPA 2001).

In addition, RPTs are viewed by investors as one of the major reasons for firms restating financial statements (Gordon and Henry 2005). Consequently, if auditors believe that RPTs pose a potential risk of material misstatement, they are likely to charge higher fees to compensate for the audit risks and efforts they need to take to

untangle the transactions and provide an assurance that RPTs are not value devastating. To the best of our knowledge, very few studies have explored the effect of RPTs on audit fees (Kohlbeck and Mayhew 2014; Habib et al. 2015). One example, that by Habib et al. (2015), documented higher audit fees for firms involved in RPTs in China. Therefore, the first objective of this paper is to determine whether audit fees are higher for firms engaging in RPTs in another jurisdiction, namely Malaysia.

In estimating audit fees, the internal audit of a firm is a very important function that external auditors should consider (Mat Zain et al. 2015). Although the internal audit function (IAF) is one of the corporate governance cornerstones, along with the external audit function (Institute of Internal Auditors [IIA] 2005), the role of internal auditors has been ignored by the accounting literature. In the context of this study, we believe that the IAF should attenuate the controlling shareholders' abuse of RPTs and reduce the audit fees charged by external auditors. This is because, for one, other corporate governance mechanisms are often not effective and merely act more as a 'rubber stamp' in the Malaysian environment. Abdullah et al. (2010) argue that due to the prevalence of inter-firm cross-shareholdings as well as domination and control of the management on boards in Malaysia, the accountability of the independent directors is questionable because some independent directors are not truly independent and may be involved in related firms in the same business group. Second, boards of directors and audit committee members are nominated by family groups who run most Malaysian firms. Therefore, the capability of boards and audit committee members to fulfil their monitoring role and to provide independent judgement is jeopardized. Moreover, the International Standards on Auditing (ISAs) require external auditors to evaluate the effectiveness of corporate internal control over financial reporting. Where there is such control, this increases the probability that external auditors would rely on the activities performed by internal auditors to reduce the effort required to complete specific audit works, and to detect the audit risks. Thus, with such reliance on internal auditors' work, the firm is likely to be charged lower external audit fees (Felix Jr and Gramling 2001; Prawitt et al. 2009; Abbott et al. 2012).

However, the effectiveness of the IAF and the external auditor's decision to rely on the work of the IAF are influenced by the quality of the IAF. There are two factors that may influence the quality of the IAF: the amount of investment in the IAF and the sourcing arrangement of the IAF (in-house or outsourced). As far as investment in the IAF is concerned, Johl et al. (2013) contend that a well-funded internal audit unit can serve as a credible detection and deterrence mechanism that attenuates the risk of potential material misstatements in financial reports. A large investment in an IAF enables the IAF to appoint personnel who are more competent and who can effectively constrain opportunistic managerial actions (Prawitt et al. 2009).

As for the second factor, an IAF can either be outsourced or provided by in-house internal audit staff. It has been suggested that external auditors place a greater reliance on activities performed by outside internal audit providers because the latter offer high-quality internal audit services and may have a greater level of experience and expertise. Moreover, unlike in-house internal audit providers,

outside providers are less likely to give into management pressure (Munro and Stewart 2010; Desai et al. 2011).

As discussed above, RPTs are conducive to earnings management and firms that engage in RPTs may experience low-quality financial reporting. Based on the supply-side hypothesis, it can be argued that a high-quality IAF may decrease audit fees by affecting the external auditor's effort and risk. In other words, if the quality of the IAF improves the effectiveness of internal control activities or enhances the integrity of the financial reporting process, the inherent risk of misstatement of financial statements is reduced, and audit fees are lowered accordingly. The literature on the IAF has documented a lower propensity to manipulate earnings in firms that have a high-quality IAF (Prawitt et al. 2009; García et al. 2012; Johl et al. 2013). Furthermore, Ho and Hutchinson (2010) found that audit fees are lower for firms with a high-quality IAF because these firms provide strong signals that minority shareholders' interests are protected. If a greater investment in the IAF and the outsourcing of the IAF improve the quality or the effectiveness of the IAF, we expect the positive association between RPTs and audit fees to be weaker for firms with an effective IAF because such firms are less likely to indulge in abusive RPTs and bear a high audit cost. This leads us to the next objective of our study, which is to determine whether greater investment in the IAF and an outsourced IAF weakens the positive association between RPTs and audit fees.

Malaysia is an excellent choice for this study. First, prior research has found that Malaysia has a weak legal system (La Porta et al. 2000) as well as a high ownership concentration (Claessens et al. 2000) and a low level of disclosure quality (Fan and Wong 2002; Ball et al. 2003) among firms. These characteristics provide room for controlling shareholders who own shares in group firms through cross-shareholdings, pyramidal holdings, and dual-class shares to structure transactions that may result in extracting private benefits and expropriating the wealth of minority shareholders. Wahab et al. (2011) found that RPTs are detrimental to Malaysian firm performance. Also, Munir (2010) concludes that RPTs in Malaysia result in a serious agency problem between the majority and minority shareholders and attenuate the quality of earnings numbers. Second, the cases of Genting Malaysia Berhad and Tai Kwong Yokohama Berhad, where shareholders had to bear some losses from RPTs (Wahab et al. 2011), further highlights the importance of this issue in Malaysia. Third, this research is timely in that effective from 2007, all Malaysian listed firms are required to establish an IAF. They are also required to disclose whether the IAF is performed in-house or outsourced as well as the cost of the internal audit in their financial reports.

This study contributes to the accounting literature in several ways. First, as the current study is one of the few that examines the association between RPTs and audit fees (Habib et al. 2015; Kohlbeck and Mayhew 2014), we add to the audit fees literature by providing evidence that auditors price the increased risk of possible earnings manipulation and future restatements related RPTs. We find that audit fees are higher for firms that report related party sales and purchases. This thus suggests that related party sales and purchases are potentially abusive in the Malaysian stock market and are related to higher audit fees.

Second, we extend the recent study of Habib et al. (2015), whose work demonstrates that audit fees are higher for firms that undertake RPTs, by shedding some light on a hitherto unexplored area, that is, whether audit fees are lower for RPTs of firms that have a high-quality internal audit. We also contribute to the literature on corporate governance and RPTs (Liu and Lu 2007; Gao and Kling 2008; Jiang et al. 2010; Liu and Tian 2012; Shan 2013, 2015) by highlighting the role that internal audit plays in preventing the controlling shareholders' expropriation of economic resources from minority shareholders and in reducing the audit fees required by external auditors accordingly. Lastly, we provide evidence that firms that engage in selected types of RPTs and those with a greater investment in the IAF bear lower audit fees.

The rest of the paper is organized as follows. The next section reviews the prior literature and develops the hypotheses. Section 3 describes the research methodology and Sect. 4 presents and discusses the results. Additional analysis and sensitivity tests are summarized in Sect. 5, while the conclusion is presented in Sect. 6.

2 Institutional setting and hypothesis development

2.1 Institutional setting

2.1.1 *Related party transactions (RPTs) in Malaysia*

A related party is defined to include the following: an affiliated company, board members, executives, principle owners, or any other party with which the firm deals. Examples of RPTs include sale or purchase transactions between a parent company and its subsidiary, exchange of equipment between two companies owned by the same person, and loans to officers. Transactions with related parties are important to auditors because there is always a risk they may not be valued at the same amount as transactions with an independent third party. Therefore, auditors assess the inherent risk as high for a firm's transactions with its related parties, both because of the lack of independence between the parties involved in the transactions and the possibility that such transactions may provide opportunities to engage in fraudulent financial reporting.

Related party transactions are usually intricate and differ across settings depending on factors such as ownership structure, economic institutions, and legal system. It is argued that RPTs are of the particular concern in East Asian countries, where strong corporate governance mechanisms are not in place to protect minority shareholders (Liu and Lu 2007; Chen et al. 2011; Utama and Utama 2014). Such an argument could be true in a country like Malaysia, whose legal system is weak (La Porta et al. 2000) and where there is high ownership concentration (Claessens et al. 2000) and a low level of disclosure quality among firms (Fan and Wong 2002; Ball et al. 2003). Furthermore, controlling shareholders or the parent firm that control member firms through cross-shareholdings, pyramidal holdings, and dual-class

shares may structure transactions that may result in extracting private benefits and expropriating the wealth of minority shareholders.

In response to public concerns that RPTs may adversely influence the reliability of financial information, several courses of action have been taken to regulate RPTs in Malaysia. The regulations on RPTs in Malaysia are derived from the Companies Act 1965, the Malaysian Financial Reporting Standards (MFRS), and the Bursa Malaysia Listing Requirements (BMLR). In particular, there are provisions in Sections 131, 132E, 133, and 133A of the Companies Act, MFRS 124 (Related Party Disclosures), and Part E of Chapter 10 of the BMLR.

Section 131 of the Companies Act deals with disclosure by a director of his/her interest in contracts or proposed contracts with a company. Section 132E requires prior approval of the General Meeting in order for a listed company (or holding company) to carry out any arrangements or transactions to acquire or to dispose of shares or non-cash assets of requisite value from the director or substantial shareholders or connected persons. Sections 133 and 133A deal with loans to directors and persons connected with directors, in order to prevent self-dealing by directors or connected persons who may use the company's funds for their own interests.

MFRS 124 requires the disclosure of related party relationships, transactions, and outstanding balances (including commitments) in the entity's financial statements. Furthermore, an entity is required to disclose related party relationships when control exists, regardless of whether there have been transactions between the parties. Through the disclosure of this information, the users of financial statements can understand the potential impact that the relationship may have on the financial statements.

Part E of Chapter 10 of the BMLR outlines, among other things, the provisions under which immediate announcements, the sending of circulars, and appointment of advisers are required (Paragraph 10.08). Paragraph 10.09 specifies the criteria for immediate announcements of recurrent related party transactions.

2.1.2 Internal audit function (IAF)

Internal audit is one of the lines of defence in effective risk management and is expected to reduce the effort required by external auditors (Ho and Hutchinson 2010). Although there are some valuable studies that review the IAF, such as Allegrini et al. (2006) in Europe and Hass et al. (2006) in the United States and others that concentrate on the application of the Internal Auditing Standards and best practices by companies (Burnaby et al. 2009; Sarens and Abdolmohammadi 2011), the number of such studies is still not adequate, particularly in Asia. From the practical side, policymakers around the world have taken significant steps to enhance the role of internal audit. For example, the Sarbanes–Oxley Act of (2002) in the United States expanded the activities of the IAF and, in 2009, the New York Stock Exchange required all listed firms to maintain an internal audit unit. In addition, the ISAs encourage external auditors to rely on the work of internal auditors. After the Asian financial crisis, Malaysian policymakers and regulatory bodies issued a series of legislation to improve the role of the IAF. Currently, the

Malaysian Code of Corporate Governance requires all listed firms to have an independent internal audit unit that reports directly to the audit committee. The internal audit unit is also required to work in conjunction with the internal control and risk management unit. Also, firms must disclose information about the IAF such as the cost of internal audit and whether the IAF is performed in-house or outsourced (Johl et al. 2013).

2.2 Hypothesis development

2.2.1 RPTs and audit fees

Related party transactions have become the object of increasing attention among financial reporting and auditing scholars, especially in the aftermath of recent financial scandals around the world. In the literature, there are two competing views concerning RPTs. The first view, consistent with efficiency-enhancing theory, is that RPTs are utilized by business groups as a way to better allocate resources and reduce transaction costs. Moreover, a related party with in-depth knowledge and experience of the firm's activities can render services to the firm more effectively (Gordon and Henry 2005). Studies that support the efficiency-enhancing view include Chen et al. (2012) and Kohlbeck and Mayhew (2014). However, efficiency-enhancing theory may not be applicable in an environment where the enforcement of the laws that exist to protect minority shareholders interest is suboptimal and the majority shareholders can exercise their power over listed subsidiaries to divert firm resources from minority shareholders to themselves (Wong et al. 2015).

The second view is that self-dealing controlling shareholders can use RPTs opportunistically to extract private benefits and expropriate minority shareholders' wealth. This rent-seeking behaviour of controlling shareholders includes activities that can range from the selling of assets or products to loan guarantees and borrowings. Parent firms (or controlling shareholders) may sell or purchase goods and services to related parties at prices that are different from market prices. They can also extract funds from related parties through corporate loans and guarantees. Such transactions would result in resources being transferred within the corporate group, leading to gains for one party and losses for others. This second view is in line with agency theory that highlights the possible conflict between the minority and majority shareholders over corporate resources. Moreover, as RPTs are difficult to audit and intricate in nature, firms may utilize RPTs as a means to manipulate earnings.

Previous research has provided abundant empirical evidence of the significant influence of RPTs on earnings management and earnings quality. Ge et al. (2010) point out that Chinese firms selling goods or assets to related parties experienced less value relevance of earnings than those without such transactions during the period of 1997–2000. However, such a result was not observed for the period 2001–2003, which could be due to the new regulation on RPTs in China that could have attenuated the potential misuse of RPTs for earnings management purposes. Wang and Yuan (2012) provide empirical evidence that the earnings numbers of Chinese firms that are engaged in related party (RP) sales are less informative. They

also found that Chinese financial analysts provide less accurate forecasts because the analysts rely on earnings that are contaminated by unreliable RP sales. A recent study by Yang et al. (2014) points out that Taiwanese group firms experience aggressive earnings management, less conservative financial reports, and less persistent accruals than non-group firms. Chen et al. (2011) document that controlling shareholders structured operating RPTs in the pre-initial public offering (IPO) period to increase their firms' operating performance and prop up the firms' underlying earnings. Thus, a decline in these transactions would negatively affect the firms' post-IPO performance and earnings. In a related vein, Aharony et al. (2010) provide empirical evidence that Chinese parent firms engaged in abnormal RP sales in the pre-IPO period to boost their newly listed companies' earnings. The propping up of earnings is followed by the newly listed companies providing loans to their parent firms as a form of tunnelling in the post-IPO period to facilitate the expropriation of economic resources from minority shareholders. Jian and Wong (2010) contend that, in order to prop up earnings, Chinese listed firms use abnormal RP sales to their controlling owners. Gordon and Henry (2005) document that, unlike other types of RPTs, fixed-rate financing from related parties is positively and significantly associated with adjusted absolute abnormal accruals.

Lo et al. (2010) and Yeh et al. (2012) provide evidence that firms structure RP sales with their group members when they experience a decrease in reported earnings and plan to issue seasoned equity in the next period. Similarly, Liu and Lu (2007) reveal that Chinese listed firms manage their earnings through tunnelling activities to avoid delisting and to have the right to issue new shares. Good corporate governance mechanisms restrain firms from transferring earnings via tunnelling. Williams and Taylor (2013) found that RP sales of listed firms in China are abnormally high, especially when they have a low return on equity (ROE) and low proportion of non-tradable shares retained by state-based controlling shareholders. Thomas et al. (2004) point out that using affiliated transactions, Japanese parent companies manage their earnings numbers to avoid having losses, earnings declines, and negative forecast errors. Hwang et al. (2013) document that disclosure regulations mitigate the earnings management activities of Taiwanese firms that are engaged in RPTs with Chinese entities.

The above findings signal that firms engaging in RPTs disclose low-quality financial reports. As a result, such firms may restate their financial restatements. Indeed, Gordon and Henry (2005) contend that RPTs are one of major reasons why firms restate their financial statements. If RPTs are intricate in nature and may result in financial restatement risk, auditors will charge higher audit fees to compensate for the audit risks and efforts required to untangle the transactions and provide an assurance that they are not value devastating. Habib et al. (2015), for example, reveal that audit fees are higher for Chinese firms that disclose RPTs. In the context of Malaysia, a review of the literature indicates that RPTs are abusive and detrimental to investors (Munir 2010; Wahab et al. 2011).

The primary centrepiece of agency theory is that of restricting the expropriation of the wealth of minority shareholders by controlling shareholders. However, due to the concentrated ownership structure and weak legal system, East Asian countries face agency problems that arise from conflicts of interest and information

asymmetry between controlling and minority shareholders (Shleifer and Vishny 1997; Claessens et al. 2000; La Porta et al. 2000). The opportunistic instinct of controlling shareholders may induce them to conduct RPTs for their own benefit to the detriment of minority shareholders. The Malaysian environment, where the ownership concentration of firms is high and where enforcement of the laws that exist to protect minority shareholders and the governance mechanisms are suboptimal, represents an excellent opportunity to apply agency theory. Based on this theory, we expect a positive association between RPTs and audit fees. Our expectation is stated in the following hypothesis:

Hypothesis 1 Audit fees are higher for firms that are engaged in related party transactions, *ceteris paribus*.

2.2.2 RPTs, investment in IAF, and audit fees

Since the early 1990s, the role of the IAF in safeguarding minority shareholders' interests, monitoring management's actions, and overseeing the financial reporting process has attracted a great deal of attention from scholars. For instance, Allegrini and D'Onza (2003) examine the IAF with regards to risk assessment practices and Sarens et al. (2011) highlight the importance of the IAF based on the organizational profile. Other recent studies have identified four factors that add value to the IAF in a firm, including the independence and objectivity of the internal auditors (D'Onza et al. 2015). Regoliosi and d'Eri (2014) mention that the connection between corporate governance and internal audit is not well documented. With regards to RPTs, previous studies have focused on external and internal corporate governance mechanisms to mitigate the abuse of RPTs by parent firms (Liu and Lu 2007; Gao and Kling 2008; Jiang et al. 2010; Liu and Tian 2012; Shan 2013, 2015). Our study extends those works by emphasizing the importance of the quality of the IAF in monitoring transactions and reducing external audit fees. This is because an internal audit department plays an essential role in monitoring a company's internal controls and is considered to be independent from other operating departments. An IAF can offer a systematic approach to assess and improve the effectiveness of risk management, control, and governance processes (IIA 2005). It also provides an assurance regarding the veracity of financial information by testing financial transactions, accounting procedures, and balances. International Auditing Standards require external auditors to efficiently utilize internal auditors in order to gain an understanding of internal controls (Davidson et al. 2013).

Furthermore, based on the supply-side hypothesis, the presence of a high-quality IAF is bound to improve the effectiveness of the internal control activities of a firm. Due to the monitoring role of the IAF, the external auditor may decrease the number of auditing hours spent on evidence gathering and reduce the assessed level of control risk. This could consequently result in lower audit fees. Prior studies that provide empirical support for these suppositions include Abbott et al. (2012), Felix Jr and Gramling (2001), Prawitt et al. (2009). However, the extent of the external auditor's reliance on the IAF would depend on their perception of the effectiveness of the IAF. The auditing literature suggests two methods to improve IAF

effectiveness: adequate investment in the IAF (Prawitt et al. 2009; Johl et al. 2013) and suitable sourcing arrangements for the IAF (Glover et al. 2008; Desai et al. 2011). Scholars argue that the mere existence of an IAF alone is inadequate to achieve the desired outcomes (Abbott et al. 2012) and it is the investment in the IAF that is more critical in this regard (Prawitt et al. 2009; Johl et al. 2013). Additionally, Singh and Newby (2010) contend that the existence of an IAF might not be an ideal measure of IAF quality because it may not be sensitive enough to capture all the variation in external audit fees. Greater investment in an IAF enables the IAF to appoint personnel who are more competent and who can effectively monitor financial reporting processes and reduce auditing risks. Johl et al. (2013) found that a well-funded internal audit unit has a greater ability to deter and detect material misstatements in financial reports. Prawitt et al. (2009), in their empirical analysis, conclude that the financial resources available to the IAF should enable the internal auditors to constrain the opportunistic behaviour of management.

While there is a stream of research that shows that audit fees are influenced by a high-quality IAF, the role of the IAF in the audit fees charged to firms that undertake RPTs remains unexplored. In the RPT literature, controlling shareholders may utilize RPTs as a source of earnings management to extract private benefits or to enable a firm's profits and resources to be shifted from minority shareholders to themselves. Ho and Hutchinson (2010) argue that firms with an IAF are associated with better accounting information disclosure and quality. They found that audit fees are lower for firms with a high-quality IAF because such firms provide strong signals that minority shareholders' interests are protected. Moreover, a review of the literature indicates that firms with a high-quality IAF are less likely to engage in earnings manipulation (Prawitt et al. 2009; García et al. 2012; Johl et al. 2013). As the budget assigned to an internal audit department is one of the IAF quality indices, we believe that a greater investment in the IAF will enable the IAF to hire competent members of staff who can restrain firms from engaging in abusive RPTs, reduce the time spent on evidence gathering, and minimize the detection and audit risk due to the external auditors' reliance on the IAF. Thus, we hypothesize:

Hypothesis 2 A greater investment in the IAF negatively moderates the positive association between RPTs and audit fees, *ceteris paribus*.

2.2.3 RPTs, sourcing arrangements, and audit fees

A review of the literature reveals out that sourcing arrangements for the IAF have a significant influence on external auditors' reliance on the IAF and their perception of IAF quality and effectiveness (Glover et al. 2008; Munro and Stewart 2010; Desai et al. 2011). Recently, outsourcing of the IAF has become prevalent worldwide (Caplan and Kirschenheiter 2000; Glover et al. 2008), with internal audit services performed by outside internal audit providers who have a high level of experience and expertise (Caplan and Kirschenheiter 2000). Furthermore, it has been argued that an outsourced IAF is more objective than one that is in-house (Ahlawat and Lowe 2004; Gramling and Vandervelde 2006; Glover et al. 2008) because outsourced internal audit providers are expected to be less likely to submit

to management demands (Desai et al. 2011). These views are supported by Glover et al. (2008) and Desai et al. (2011). Glover et al. (2008) point out that, when inherent risk is high, external auditors rely more on activities undertaken by outsourced internal auditors than by in-house internal auditors. Desai et al. (2011) provide evidence that external auditors view the quality of an outsourced or co-sourced (a partnership between an in-house internal audit unit and an independent internal audit service provider) IAF to be higher than that of an in-house one and, therefore, they are more likely to rely on an outsourced or co-sourced than an in-house IAF.

Controlling shareholders may seek private benefits through structuring transactions with their related parties. Unlike in-house internal audit providers who are usually appointed by controlling shareholders, outsourced internal audit providers are expected to attenuate the controlling shareholders' abuse of RPTs and reduce the inherent risk of misstatement of financial statements because outside providers are independent and less likely to give into management (controlling shareholders) pressure (Munro and Stewart 2010; Desai et al. 2011). As such, we expect external auditors to consider the above-mentioned advantages of an outsourced IAF when evaluating the quality of corporate financial reports and estimating audit fees. We also posit that external auditors rely on the activities performed by outside internal audit providers to reduce the effort they need to make to complete their audit work and as a result the audit fees.¹ Therefore, we formulate the following hypothesis:

Hypothesis 3 An outsourced IAF negatively moderates the positive relationship between RPTs and audit fees, *ceteris paribus*.

3 Data collection and models

3.1 Data collection

Our sample consists of the top 120 listed firms in Malaysia based on the 2014 market capitalization. Our study focuses on the top 120 companies because data on RPTs and IAF had to be manually collected and details regarding the amount of RPTs and/or the nature of the IAF of most medium and small firms were either difficult to identify or unavailable. Moreover, large companies are more likely to be government-linked firms. As such, the government as the controlling shareholder may exercise significant control over such firms, which could increase the opportunities for transferring wealth from minority shareholders of the listed firm to the government. It was not until 2009 that Malaysian listed firms started to disclose information on their IAF in their annual reports. Also, at the time this study was conducted, the latest annual reports available were for the year 2013. Therefore, our

¹ If indeed sourcing arrangements affect the association between RPTs and audit fees, the sign on the interaction variable of outsourced IAF and RPTs may be either positive or negative. A positive sign is supported by the prior research, which suggests that compared to outsourced internal audit providers, external auditors utilize in-house internal auditors to assist in the discovery of fraud and misstatement. This is due to in-house internal auditors being more familiar with the day-to-day operations of the firm.

data analysis focuses on the period from 2009 to 2013. We gathered data on financial variables from the Data Stream database. Further information, including audit fees, non-audit fees, RPTs, and some control variables were manually collected from the firms' annual reports. We excluded firm-year observations with missing values for audit fees, RPTs, the IAF, and/or financial variables. Hence our final sample consists of 461 firm-year observations for the period 2009–2013.² Panel A of Table 1 shows the sample distribution by year, while Panel B shows the distribution by industry (based on the Bursa Malaysia classification).

3.2 Regression models

We model audit fees as a function of RPTs, IAF attributes, and a set of control variables as follows:

$$FEE_{it} = \alpha_0 + \alpha_1 RPTs_{it} + \alpha_2 IAFNV_{it} + \alpha_3 IAFSOU_{it} + \alpha_4 RPTs * IAFNV_{it} + \alpha_5 RPTs * IAFSOU_{it} + \alpha_{6-16} \sum X_{it} + error\ term$$

where FEE is the natural log of audit fees paid to the external auditors. Our variable of primary interest is the RPTs, which, following the work of Abdul Wahab et al. (2011), Cheung et al. (2009), and Habib et al. (2015), is the total amount of RPTs scaled by total assets. We also split the RPTs into two categories: related party sales (RP sales) and related party purchases (RP purchases), and analyse them separately. Related party sales (RP purchases) are represented by the sum of sales (purchases) of assets, goods, and services to (from) related parties scaled by total net sales. We focus on these two types of RPTs because they are more likely to be used to transfer wealth within a business group and expropriate the wealth of minority shareholders to the benefit of the group's controlling shareholders (Black et al. 2015). Furthermore, these RPTs are recurring activities, where manipulation through the sales (purchases) of goods and services is less likely to be detected (Wang and Yuan 2012; Wong et al. 2015). We winsorize total RPTs, RP sales, and RP purchases at 1 and 99% to alleviate the problem of outliers. While the natural log of the cost born by the IAF is employed to operationalize investment in the IAF (IAFNV), the dummy variable, which takes the value of 1 if the IAF is outsourced and 0 if in-house, is used to measure IAF sourcing arrangements (IAFSOU). The interaction terms $RPTs * IAFNV$ and $RPTs * IAFSOU$ are computed to investigate the assumption that external auditors are more likely to reduce the effort required to complete specific audit works and subsequently charge lower fees when the audited firm has a high-quality IAF.

We also include a set of control variables that have been suggested in the audit fees literature (e.g. Simunic 1980; Francis and Simon 1987; B. Liu et al. 2003; Whisenant et al. 2003; Larcker and Richardson 2004; Xu 2005). We include SIZE

² As shown in Panel B of Table 1, financial firms account for 16% of the sample. We deliberately do not exclude financial firms as these firms may represent cases with RP sales and/or purchases of assets, goods, and services. If such cases are discarded, we may lose information on firms with RP sales and/or purchases. However, this study controls for financial firms to ensure that these firms do not affect our findings.

Table 1 Sample distribution

Year	Number of observations	%
<i>Panel A: Observations by year</i>		
2009	85	18.44
2010	88	19.09
2011	93	20.17
2012	96	20.82
2013	99	21.48
Total	461	100.00
Industry	Number of observations	%
<i>Panel B: Observations by industry</i>		
Trading and services	154	33.41
Finance	74	16.05
Industrial products	58	12.58
Plantation	50	10.85
Consumer products	41	8.89
Construction	35	7.59
Properties	34	7.38
Infrastructure project companies	15	3.25
Total	461	100.00

(i.e. the log of a firm's total assets) in our regression models to control for firm size. We include LEVERGE (i.e. debt to assets ratio), LIQUID (i.e., current assets to current liabilities ratio), and LOSS (i.e. a dummy variable that is coded 1 if net income is negative during the fiscal year) to control for auditee risk. We also include INVENT (i.e. total inventory to total assets ratio) and RECEIV (i.e. accounts receivable to total assets ratio) to reflect a firm's assets risk. Auditor size is measured by an indicator variable, BIG4, which is given the value of 1 if audited by a Big 4 firm, and 0 otherwise. Complexity is controlled for by using SEGMENT_P (i.e. the number of product segments) and SEGMENT_G (i.e. the number of geographical segments). We also include NAF (i.e. non-audit fees) to control for a possible relationship between audit and non-audit fees. In addition to these control variables, we include ROA (i.e. net income before extraordinary items divided by average of total assets), industry, and year dummy variables to represent a firm's profit capability, industry, and year effect, respectively. All continuous control variables are winsorized at 1 and 99%. Table 2 summarizes the measurements of the variables.

Additionally, we employ random effect estimations because industry variables are time-invariant. Prior research has found that industry is an important factor that influences audit fees (Simunic 1980; Pearson and Trompeter 1994). The random effect regressions allow us to include industry variables and estimate the effect of unobserved firm-level heterogeneity. In order to account for the possibility that error terms are correlated across firms and across time, we cluster standard errors by firm and include year fixed effects.

Table 2 Summary of the operationalization of the variables used in the study

Variable	Abbreviation	Operationalization
<i>Dependent variable</i>		
Audit fees	FEE	The natural log of audit fees paid to the external auditors
<i>Experimental variables</i>		
Related party transactions	RPTs	The total amount of related party transactions scaled by total assets
Related party sales	RP sales	The sum of sales of assets, goods, and services to related parties scaled by total net sales
Related party purchases	RP purchases	The sum of purchases of assets, goods, and services from related parties scaled by total net sales
Investment in internal audit function	IAFNV	The natural log of the cost born by the internal audit function
Internal audit sourcing arrangement	IAFSOU	A dummy variable that takes the value of 1 if the internal audit function is outsourced and 0 otherwise
<i>Control variables</i>		
Firm size	SIZE	The log of a firm's total assets
Leverage	LEVERGE	Total debts over total assets
Liquidity	LIQUID	Current assets over current liabilities
Loss	LOSS	A dummy variable that takes the value of 1 if net income is negative during the fiscal year
Inventory	INVENT	Total inventory over total assets
Accounts receivable	RECEIV	Total accounts receivable over total assets
Auditor size	BIG4	An indicator variable that takes the value of 1 if audited by a BIG 4 firm and 0 otherwise
Product segments	SEGMENT _P	The number of product segments
Geographical segments	SEGMENT _G	The number of geographical segments
Non-audit fees	NAF	Non-audit fees paid to external auditors
Firm profitability	ROA	Net income before extraordinary items divided by average of total assets

4 Results

4.1 Descriptive statistics

Panel A of Table 3 reports the summary statistics of the continuous variables, while Panel B shows the summary statistics of the dummy variables. Panel A of Table 3 shows (in thousands of Malaysian Ringgit (RM)) that the mean of audit fees (FEE) is RM1,076. It also shows that the mean RPTs amount to RM950,296, representing 12% of total assets. The mean RP sales over net sales is 5% and the mean RP purchases is 4%. The table also shows that about 75% of the total RPTs are those related to RP sales and RP purchases.

Panel B of Table 3 reveals that 26% of the firm-years have an outsourced IAF, 91% are audited by a Big4 auditor, and only 1% report a loss during the fiscal year.

Table 3 Descriptive statistics (N = 461)

Variable	Min	Max	Mean	SD		
<i>Panel A: Summary statistics of continuous variables</i>						
FEE (RM000s)	44	7197	1076	1341		
RPTs (RM000s)	70	35,800,000	950,296	3358,166		
RPTs	0	3.779	0.119	0.360		
RP sales (RM000s)	0	6487,193	150,708	583,063		
RP sales	0	0.747	0.046	0.121		
RP purchases (RM000s)	0	29,300,000	373,600	2327,395		
RP purchases	0	1.015	0.039	0.107		
IAFNV (RM000s)	25	39,700	2906	5679		
SEGMENT _P	1	9	3.453	1.960		
SEGMENT _G	1	12	2.655	2.118		
NAF (RM000s)	0	15,003	457	1138		
SIZE (RM000s)	53,810	371,000,000	21,400,000	49,000,000		
LEVERGE (%)	0	76.63	20.629	17.431		
ROA (%)	-16.58	60.24	8.906	8.476		
RECEIV	0.003	0.975	0.131	0.132		
INVENT	0	0.576	0.068	0.086		
LIQUID	0.143	13.162	2.396	2.108		
N (%)						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">0</td> <td style="width: 50%; text-align: center;">1</td> </tr> </table>					0	1
0	1					
<i>Panel B: Summary statistics of dummy variables</i>						
IAFSOU		340 (73.75)	121 (26.25)			
BIG4		42 (9.11)	419 (90.89)			
LOSS		455 (98.70)	6 (1.30)			
	Min (RM000s)	Max (RM000s)	Mean (RM000s)	SD (RM000s)		
<i>Panel C: Summary of RPTs by industry</i>						
Trading and services	879	35,800,000	1335,886	5156,140		
Finance	7747	18,700,000	1098,046	2482,744		
Industrial products	3310	12,200,000	1277,199	2828,698		
Plantation	3898	1350,599	307,973	312,143		
Consumer products	160,100	6408,838	1184,557	1581,584		
Construction	12,232	641,784	171,280	168,660		
Properties	70	678,494	124,523	175,967		
Infrastructure project companies	65,475	538,248	188,881.7	154,063		

Variable definitions: FEE is the natural log of audit fees; RPTs is total amount of related party transactions scaled by total assets; RP sales is the sum of sales of assets, goods, and services to related parties by total net sales; RP purchase is the sum of purchases of assets, goods, and services from related parties scaled by total net sales. IAFNV is the cost born by the IAF. IAFSOU is a dummy variable that takes the value of 1 if the IAF is outsourced and 0 otherwise. SEGMENT_P is the number of product segments. SEGMENT_G is the number of geographical segments; NAF is non-audit fees; SIZE is total assets; LEVERGE is total debts over total assets; ROA net income before extraordinary items divided by average of total assets; RECEIV is total accounts receivable over total assets; INVENT is total inventory over total assets; LIQUID is current assets over current liabilities; BIG4 is a dummy variable that takes the value of 1 for Big 4 auditors and 0 otherwise. LOSS is a dummy variable that takes the value of 1 if net income is negative during the fiscal year

The summary of RPTs by industry sector is shown in Panel C of Table 3. Trading and service firms have the highest amount of RPTs (RM35,800,000), followed by finance firms (RM18,700,000), and industrial products firms (RM12,200,000). The lowest amount of RPTs is transacted in IPC firms.

4.2 Correlations

Table 4 reports the correlations between RPTs and the other variables under investigation. The table illustrates that firms that invest less in an IAF are more likely to be involved in RP sales. Moreover, we find that firms that use RP sales have a high ROA and liquidity ratio. The results, to some extent, lend support to prior literature in that listed firms abnormally use RP sales to increase or manipulate their reported earnings. Firms with a high inventory level are more likely to use RP purchases, while firms that are highly leveraged are less likely to use RPTs. This could be because, unlike China, related lending is not prevalent in Malaysia. The absolute values of the Pearson coefficients are lower than 0.80, thereby alleviating any major concern regarding the existence of the multicollinearity problem.³

4.3 Regression results

In H1, we expected that RPTs would increase audit effort or risk and that this would result in increased audit fees. Model 1 of Table 5 reports the regression results for total RPTs, while Models 2 and 3 report the regression results for RP sales and RP purchases, respectively. We find that the estimated coefficient of RP sales is 1.24 (significant at the 0.05 level) and that the estimated coefficient of RP purchases is 2.53 (significant at the 0.01 level). The results support the assumption that RP sales and RP purchases are abusive, where they are used to benefit one party over others. Our study focuses on RP sales and RP purchases because they are considered to be transactions that are likely a priori to expropriate minority shareholders' wealth (Black et al. 2015). Moreover, they are recurring activities, where manipulation through the sales (purchases) of assets, goods, and services is less likely to be detected (Wang and Yuan 2012; Wong et al. 2015). Therefore, RP sales and RP purchase transactions expose auditors to significant audit risk and, therefore, firms that are involved in RP sales and/or RP purchases bear high audit fees to compensate for auditors' efforts and risks.

As presented in Model 1, the coefficient of RPTs is not statistically significant. One possible explanation for this result is that the majority of listed firms in Malaysia engage in transactions that involve the sale (purchase) of assets, goods, and services to (from) related parties. The amount of other types of RPTs is

³ We also perform the variance inflation factor (VIF) test to ascertain whether the multicollinearity problem exists in the regression analysis. The findings (not reported in the paper but available from the authors on request) show that the highest VIF is 8.69 and that the VIFs of all the other explanatory variables are below the critical value of 10. Again, the results suggest that the multicollinearity problem is not a major concern of the study.

Table 4 Pearson correlation (N = 461)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. RPTs	1															
2. RP sales	0.174	1														
3. RP purchases	0.698	0.186	1													
4. IAFNV	-0.068	-0.122	-0.062	1												
5. IAFSOU	-0.032	-0.060	0.010	-0.101	1											
6. BIG4	-0.020	0.052	0.005	0.097	-0.085	1										
7. SEGMENT _P	-0.097	-0.113	-0.102	0.334	-0.219	-0.054	1									
8. SEGMENT _G	-0.128	-0.015	-0.080	0.167	0.013	-0.276	0.380	1								
9. NAF	-0.054	-0.082	-0.034	0.417	0.093	0.092	0.128	0.130	1							
10. SIZE	-0.091	-0.122	-0.075	0.732	-0.083	0.062	0.326	0.066	0.241	1						
11. LOSS	-0.045	0.043	0.034	0.029	-0.149	-0.036	0.007	0.018	0.024	0.047	1					
12. LEVERAGE	-0.118	0.033	-0.081	-0.046	0.110	-0.039	0.000	-0.031	0.058	-0.052	-0.000	1				
13. ROA	0.122	0.125	0.043	-0.209	0.077	-0.132	-0.368	-0.018	-0.148	-0.280	0.156	0.084	1			
14. RECEIV	0.192	0.027	0.036	-0.005	-0.129	-0.024	-0.052	-0.085	-0.070	-0.004	-0.013	0.119	0.028	1		
15. INVENT	0.118	-0.031	0.184	-0.039	-0.055	-0.019	-0.021	0.171	-0.074	-0.185	0.032	0.044	0.119	0.020	1	
16. LIQUID	-0.072	0.223	0.011	-0.147	0.109	-0.057	-0.037	0.114	-0.066	-0.106	-0.035	-0.325	0.034	-0.110	-0.021	1

Boldface indicates statistical significance at the 5% level or better. RPTs is total amount of related party transactions scaled by total assets; RP sales is the sum of sales of assets, goods, and services to related parties by total net sales; RP purchase is the sum of purchases of assets, goods, and services from related parties scaled by total net sales. Please see Table 2 for other variable definitions

Table 5 Regression results (N = 461)

Variable	Predicted sign	Model 1 RPT = total RPTs	Model 2 RPT = RP sales	Model 3 RPT = RP purchases
Const	?	-131 (-2.29)**	-1.40 (-2.58)***	-1.51 (-2.77)***
RPT	+	0.08 (0.27)	1.24 (2.12)**	2.53 (2.55)***
IAFNV	-	0.06 (1.98)**	0.07 (2.38)**	0.07 (2.44)**
IAFSOU	-	-0.05 (-0.76)	-0.06 (-0.84)	-0.03 (-0.51)
RPT*IAFNV	-	-0.03 (-0.74)	-0.28 (-3.08)***	-0.36 (-2.70)***
RPT*IAFSOU	-	0.05 (1.00)	0.81 (1.64)	-0.13 (-0.47)
SEGMENT _P	+	0.06 (3.04)***	0.06 (3.00)***	0.06 (3.03)***
SEGMENT _G	+	0.02 (0.77)	0.02 (0.80)	0.02 (0.76)
NAF	+	0.00 (2.01)**	0.00 (2.01)**	0.00 (1.98)**
SIZE	+	0.46 (10.37)***	0.45 (10.29)***	0.46 (10.47)***
LEVERGE	+	-0.00 (-0.45)	0.00 (0.06)	-0.00 (-0.53)
ROA	-	0.01 (1.59)	0.01 (1.60)	0.01 (1.56)
RECEIV	+	0.21 (0.86)	0.16 (0.71)	0.18 (0.81)
INVENT	+	-0.23 (-0.40)	-0.36 (-0.65)	-0.25 (-0.45)
BIG	+	0.04 (0.53)	0.09 (0.95)	0.07 (0.76)
LOSS	+	-0.16 (-1.96)**	-0.09 (-1.57)	-0.11 (-1.80)*
LIQUID	-	-0.02 (-3.66)**	-0.02 (-3.31)***	-0.02 (-3.56)***
Industry	?	Yes	Yes	Yes
Year	?	Yes	Yes	Yes
Overall R ²		0.76	0.76	0.76
Within R ²		0.44	0.45	0.44
Between R ²		0.77	0.77	0.77

Dependent variable: logarithm of audit fees (FEE)

***, **, * Indicate a level of significance at the 1, 5, and 10% level, respectively. Standard Betas are outside parentheses, while T-values are within parentheses. The T-values are based on the robust standard errors clustered at the firm level for heteroscedasticity and autocorrelation. RPT denotes RPTs/total assets, RPT sales/net sales, RPT purchases/net sales in Model 1, 2, 3, respectively. SIZE is the logarithm of total assets. IAFNV is the logarithm of internal audit function cost. Please see Table 2 for other variable definitions

negligible.⁴ As such, auditors may not consider the other types of RPTs to pose a higher audit risk due to these transactions being less likely to represent a conflict of interest and information asymmetry. Gordon and Henry (2005) conclude that not all types of RPTs are conducive to earning management activities or result in the misstatement of financial statements. Chen et al. (2012) and Kohlbeck and Mayhew (2014) point out that transactions with related parties, if utilized properly, reduce transaction costs and enhance firm value. Another reason for the insignificance of the result might be that the value-enhancing effect and abusive effect offset each other causing the overall result to be insignificant. To conclude, our empirical

⁴ Here, RPTs represents the total amount of all related party transactions. Other types of RPTs include lending arrangements, provision of guarantees or collateral, and leases.

evidence demonstrates that the concern about RPTs as a factor leading to higher audit fees is warranted, but only for certain types of RPTs such as RP sales and RP purchases.

We conjectured in H2 that the IAF would serve as a credible detection and deterrent mechanism that would curb the use of detrimental RPTs, and thus that we would observe lower audit fees for firms with RPTs and a high-quality IAF because external auditors would rely on the IAF to reduce the time spent on evidence gathering and to minimize audit risk. The interactions of RPT with the cost of IAF ($RPT * IAFNV$) and with IAF sourcing arrangements ($RPT * IAFSOU$) were used to test our conjecture. We expected the estimated coefficient of these two interactive variables would be negative and significant. Consistent with our proposition, we find that the estimated coefficients of $RPT * IAFNV$ are -0.28 and -0.036 (both significant at the 0.01 level) in Models 2 and 3, respectively. The results suggest that cost of the IAF plays a critical role in constraining abusive RP sales and RP purchases, which would reduce audit efforts and risk, and thus audit fees. The estimated coefficients for $RPT * IAFSOU$ are, however, not significantly different from zero. One possible explanation for this insignificant result is that outsourced internal auditors are not familiar with the day-to-day operations of firms. This hampers their ability to detect problems and critical issues within a company. Our results are in line with those reported in prior studies that found external auditors make greater use of in-house internal auditors to assist them in the discovery of fraud and misstatement (Coram et al. 2008; Munro and Stewart 2010). To summarize, the empirical results shown in Table 4 reveal that external auditors charge higher audit fees when firms are involved in RP sales and/or RP purchases, and that a large investment in the IAF weakens the relationship.

As for the control variables, consistent with our predictions, audit fees in all three models are positively and significantly related to the number of product segments ($SEGMENT_p$), non-audit fees (NAF), and client size (SIZE). Audit fees are negatively and significantly associated with liquidity ratio (LIQUID). Complex and large firms require more audit effort as auditors need more time to verify RPTs. An accounting firm charges high audit fees to clients that require services other than the auditing of RPTs. Firms with a high liquidity ratio incur lower audit fees because auditors are less exposed to audit risk. Contrary to our predictions, we find that LOSS is significantly negative in Model 1, and marginally negative in Model 3. This is not in line with prior research that suggested that audit fees should be higher for firms that experience losses (e.g. Simunic 1980; Whisenant et al. 2003).

5 Additional analysis and sensitivity tests

5.1 Additional analysis

The main findings reveal that firms involved in RPTs experience high audit fees, and this effect is driven by RP sales and RP purchases. However, whether it is the 'abnormal' amount of RPTs that causes the increase in audit fees requires further exploration. Yeh et al. (2012) argue that RPTs are considered to be abusive and

exploitative only when firms have abnormal RPTs. Moreover, Gao and Kling (2008) and Lo and Wong (2011) suggest that earnings management activities are often reflected in abnormal RPTs. We explore this issue by adopting Jian and Wong's (2010) approach to estimate the normal level of RPTs:

$$RPT_t = \alpha_0 + \alpha_1 SIZE_t + \alpha_2 LEVERGE_t + \alpha_3 MTB_t + \alpha_{4-11} IND_t + error\ term$$

where MTB is the market value over book value of equity at year end and IND is the industry dummy. Other variables are as previously defined. We ran three sets of year-by-year regressions (i.e. for 2009–2013), one each for the total amount of RPTs, the sum of RP sales, and the sum of RP purchases. The residual (predicted) term is the measure of abnormal (normal) RPTs, abnormal (normal) RP sales, and abnormal (normal) RP purchases. If the increase in audit fees is driven by abnormal RPTs, then we should expect a positive and significant coefficient for *abnRPTs*, *abnRP sales*, and *abnRP purchases*. We also conjectured that IAF attributes moderate the relationship.

As shown in Table 6, abnormal RP sales is positively significant and the interactive variable *abnRPTsales * IAFNV* is negatively significant. The results indicate that audit fees are relatively high when sales of a listed parent to its related parties are abnormally high. The findings are in line with prior studies (Aharony et al. 2010; Jian and Wong 2010; Wang and Yuan 2012) that found that a large amount of RP sales take place within the corporate group when a listed firm in that group has the aim of issuing new shares or encountering a delisting problem. The results also lend support to our conjecture that external auditors view the investment in the IAF as a critical mechanism that attenuates audit efforts or risk, especially when there are incidences of abnormal RPTs. As such, audit fees are lower for firms that invest more in the IAF and have abnormal RP sales. We also find that *abnRPT purchases* and *abnRPT purchases * AIFNV* are not statistically different from zero. This insignificant result could be justified by the fact that most listed firms in emerging markets use the abnormal sales of goods and assets to related parties to manage earnings (Ge et al. 2010). Furthermore, studies on emerging markets show that senior executives make use of abnormal RP sales as a vehicle to inflate their corporate earnings in order to maximize their own compensation or to obscure their bad performance (Lo et al. 2010; Kim et al. 2011).

5.2 Sensitivity tests

We also conducted a robustness check using fixed effect regressions to ensure that all time-invariant differences between the firms were controlled for. The results are qualitatively similar to the main results except that the estimated coefficient for RPT sales becomes significant at 10 percent. As mentioned above, the descriptive statistics in Table 2 revealed that 91% of the sample firms are audited by the Big4 auditors and only 1% incur a loss during the fiscal year. We re-ran the regression tests after excluding BIG4 and LOSS from our models. The untabulated results of this additional test are qualitatively similar to those reported in the main findings. Finally, in the main analysis, we winsorized RPTs to alleviate outlier problems. As a

Table 6 Regression results (N = 461)

Variable	Predicted sign	Model 1 abnRPT = total abnormal RPTs	Model 2 abnRPT = abnormal RP sales	Model 3 abnRPT = abnormal RP purchase
Const	?	-1.39 (-2.45)***	-1.43 (-2.63)***	-1.41 (-2.55)***
abnRPT	+	-0.83 (-0.30)	1.33 (1.83)*	1.59 (1.28)
IAFNV	-	0.06 (1.99)**	0.06 (2.08)**	0.06 (2.12)**
IAFSOU	-	-0.03 (-0.46)	-0.02 (-0.29)	-0.03 (-0.59)
abnRPT*IAFNV	-	0.01 (0.17)	-0.27 (-2.63)***	-0.26 (-1.53)
abnRPT*IAFSOU	-	0.06 (1.11)	0.42 (0.99)	0.12 (0.34)
SEGMENT _P	+	0.06 (3.11)***	0.06 (3.09)***	0.06 (3.07)
SEGMENT _G	+	0.02 (0.84)	0.02 (0.85)	0.02 (0.83)
NAF	+	0.00 (2.04)**	0.00 (2.03)**	0.00 (1.96)**
SIZE	+	0.46 (10.53)***	0.46 (10.59)***	0.46 (10.49)***
LEVERGE	+	-0.00 (-0.43)	-0.09 (-1.52)	-0.25 (-0.45)
ROA	-	0.01 (1.56)	0.01 (1.60)	0.01 (1.53)
RECEIV	+	0.16 (0.69)	0.15 (0.66)	0.17 (0.78)
INVENT	+	-0.27 (-0.47)	-0.35 (-0.63)	-0.25 (-0.45)
BIG	+	0.05 (0.62)	0.08 (0.93)	0.08 (0.85)
LOSS	+	-0.12 (-1.42)	-0.09 (-1.52)	-0.12 (-1.91)*
LIQUID	-	-0.02 (-3.65)***	-0.02 (-3.64)***	-0.02 (-3.69)***
Industry	?	Yes	Yes	Yes
Year	?	Yes	Yes	Yes
Overall R^2		0.76	0.76	0.76
Within R^2		0.44	0.45	0.44
Between R^2		0.77	0.77	0.77

Dependent variable: logarithm of audit fees (FEE)

***, **, * Indicate a level of significance at the 1, 5, and 10% level, respectively. Standard Betas are outside parentheses, while T-values are within parentheses. The T-values are based on the robust standard errors clustered at the firm level for heteroscedasticity and autocorrelation. abnRPT denotes abnormal RPTs, abnormal RPT sales, abnormal RPT purchases in Model 1, 2, and 3, respectively. SIZE is the logarithm of total assets. IAFNV is the logarithm of internal audit function cost. Please see Table 2 for other variable definitions

further robustness check, we transformed RPTs using the logarithm and re-ran our regression. Generally, this alternative measurement of RPTs yields results that concur with those reported in the main analysis.

6 Conclusion and implications

Although the literature provides ample evidence on the impact of RPTs on firms' earnings management and earnings quality, to date studies on the association between RPTs and audit fees are very scarce. Therefore, we aimed to enhance our understanding of the possible reactions of auditors to RPTs in Malaysia, where

internal corporate governance mechanisms are relatively weak and the enforcement of the legal system is low. We also sought to address a hitherto unanswered question, that is, whether RPT firms with a high-quality IAF are likely to pay lower audit fees. Although Malaysian firms have been required to disclose more information on RPTs in their annual reports and to maintain an independent internal audit unit, recent scandals have highlighted the complexity of RPT information and raised the issue of whether external auditors include audit risk and efforts in their pricing decisions.

Our results suggest that audit fees are higher for RP sales and RP purchases. We also find that audit fees are lower for firms that engage in RP sales and RP purchases when those firms maintain a well-founded internal audit unit. Finally, our additional regression results show that audit fees are greater for firms with abnormal levels of RP sales and that more investment in the IAF attenuates audit fees for such firms. Our regression results are robust to several sensitivity tests.

Standard setters around the world generally, and in Malaysia particularly, may find our evidence useful when they develop standards concerning RPTs. Current Malaysian regulations that aim to ameliorate the distortion of earnings quality through requiring more reliable information on RPTs and to enhance the effectiveness of the IAF are seen as a step forward in the right direction. However, our evidence shows that in jurisdictions such as Malaysia where the enforcement of laws to protect minority shareholders' interests is relatively poor, disclosure of RPT information alone is not enough. These results imply that it would be beneficial for policymakers and regulators in Malaysia and other emerging markets to initiate legal, rather than extra legal, regulatory measures in order to protect minority shareholders' rights.

We would like to add that this study has several limitations, but these may open up avenues for further research. First, this study only focused on RP sales and RP purchases. There are other types of RPTs through which controlling shareholders can expropriate minority shareholders' wealth, such as related party loan guarantees, the leasing of tangible assets, and the exchanging of assets with different qualities. Future research could extend our work by exploring auditors' reactions to these types of RPTs. Second, this study did not cover other factors that may affect the IAF because Malaysian companies are only required to disclose information on the cost of and the sourcing arrangements for internal audit in their annual reports. These factors include, among others, the size of the internal audit department, the qualifications of the internal audit staff, the availability of internal audit staff, the organizational independence of the internal audit department, and the number of meetings between the internal audit department and the audit committee. Furthermore, because collecting data to explore the effect of such factors on the relationship between RPTs and audit fees would be time consuming (as they are not mandatory items), further research using primary data would be worthwhile.

Third, our study collected data only on the top 120 listed companies in Malaysia for a five-year period (2009–2013). Thus, the financial reports of the majority of the sampled firms are audited by Big4 audit firms. This limits our ability to conduct the Heckman two-stage test as a robustness check to control for possible auditor self-selection bias in our main regression analysis. It also limits our ability to generalize

the results to small firms. Finally, as we only investigated Malaysian companies, the question of whether our results are relevant to other countries with diffused ownership, good internal corporate governance mechanism, and a strong legal system and capital market is unknown. Future research, therefore, may wish to test the relationships hypothesized in our study in different countries using large sample data.

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