



International financial reporting standards and real earnings management

Ooi Chee Keong^a

^a † School of Accounting & Finance, Faculty of Business & Law, Taylors University, Malaysia

Shafi Mohamad^a †

^b Tunku Puteri Intan Safinaz School of Accountancy, University of Utara, Malaysia

Syed Ehsanullah^b

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ABSTRACT

We have attempted to investigate the impact of adopting the International Financial Reporting Standards (IFRS) on real earnings management (REM) in this study, along with a thorough examination to determine the relationship between IFRS and REM. The study is primarily based on 178 listed firms from different industrial sectors in Malaysia, wherein IFRS had finally been implemented in 2008. For more adequate estimations and requisite results, we have included data of eight years i.e., 4 years before the implementation of IFRS and 4 years after its implementation, in our sample. Our results showed positive association between IFRS and REM, accordingly, precisely suggesting that after the implementation of IFRS, these firms were found to be engaged more in less detectable REM, and also exhibiting quite a poor financial reporting quality apparently below international standards.

Contribution/ Originality

This study deals with internationally accepted premise that the adoption and implementation of IFRS leads to better earnings quality through real earnings management. For the analysis purpose the data of 178 Malaysian listed firms is used.

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1. INTRODUCTION

Since we intended to investigate the changes which occur in real earnings management (REM), following the convergence of accounting standards with the implementation of International Financial Reporting Standards (IFRS) in Malaysia in 2008, an attempt has been made through this study. With the passage of time, many researchers were inclined to have suggested that convergence with IFRS improves the quality of earnings. It was also argued that the implementation of strict accounting standards curtails the management's ability to appropriately use accruals-based earnings management activities. Consequently, management substitutes the accruals-based earnings management with less perceptible and hardly detectable real earnings management (Zandi *et al.*, 2019). The case presented by Soderstrom *et al.* (2016) attempted to show that management generally used different REM methods to achieve the required objectives, apparently to be found in case of any discrepancies. The REM includes the price discounts so as to temporarily boost the sales, increase the production and/or reduce the production cost per unit, along with a reduction in discretionary expenditure. Again, Sakaki *et al.* (2017) indicated that managers were not much interested in accruals-based earnings management, just because it was not easy to manipulate the accounts after the implementation of IFRS. Hence, they found it easier to shift towards the real earnings management. Moreover, some of the studies which attempted to explore the adoption of IFRS, could not find much viable support for state-owned enterprises (SOEs), since the real earnings manipulation had not been practiced by the management. Surprisingly SOEs are more dependent on and inclined towards state-support rather than looking for dependence on the external sources.

This study is a part of the on-going research undertaken in the area of earnings quality. Previously also, much of the research work had been conducted to determine and check the significant relationship between IFRS and REM. More specifically, this study may be the first of its kind to explore the relationship between IFRS and REM, since all previous studies were more prevalent to accrual-based earnings management.

Although previously many surveys were conducted in Malaysia to investigate the extent of real earnings management, following the implementation of IFRS, still feasible results could not be attained. More than 250 interviews were conducted with financial executives to identify those factors which derive proper results and adequate decisions about voluntary disclosures and reported earnings. The authors found that about 63% of the executives interviewed during the survey, indicated that real earnings management is the only way out for the management following the adoption of IFRS, in order to meet their earnings target. It was found that 43% of financial executives were of the opinion that companies should make accurate and viable decisions so as to comply with IFRS to report and declare their earnings and should obviously avoid real earnings management, since it tends to affect their shareholders' wealth (Saidi and Mbarek, 2017).

Since the real earnings management could not be considered as some fraudulent activity, it can be used as a source to meet the performance benchmarks during the current period. However its impact will surely place an effect on the future performance of firms (Parte-Esteban and Alberca-Oliver 2016). Moreover, the real earnings management can be used in a positive manner to enhance the credibility and reputation of firms among their stakeholders. Its usage depends on individual management so as to determine whether it is adopted for the good of their respective firm or for their own personal benefits (Noe *et al.*, 2017). It has been suggested by most experts that it is the discretion of individual management to use the REM method as long as their activities lead towards the benefit of their firm and if necessarily required, may also use it for their own personal benefits. The adoption of REM method is made to some extent, as long as it will not harm the reputation of their companies and wealth of their shareholders, both in current times as well as, in times to come in future.

As mentioned earlier, IFRS is adopted and implemented for listed companies and firms around the world, with very comprehensive objectives to smoothly harmonize the accounting practices

worldwide. More than 100 different countries worldwide have shifted their reporting regime to IFRS system, since most regulators claimed that using IFRS will increase the comparability and also enhance the transparency of financial statements. The United States of America encouraged its listed companies to prepare their financial statements in accordance with IFRS. At the beginning of 1992, China strengthened its regulatory bodies and tried to implement a series of accounting policies in order to provide better quality of publicly acceptable financial statements. Since 2007, all listed 'A-share firms' in China are bound to follow accounting standards prepared in accordance with International Financial Reporting Standards (IFRS). This critical revolution in accounting practices led to 48 new auditing standards, planned and produced by the Chinese authorities, which are apparently similar to international auditing standards, issued by the 'International Auditing Standards Board' (IAASB). Again in 2008, new set of internal control rules were executed by Chinese authorities, which had to be followed strictly by all A-share companies, listed in China. In 2011, Japan also took the decision of converging their financial reporting practices towards IFRS.

In Malaysia, which is our country of study and intend to focus on its adoption of International Financial Reporting Standards (IFRS), which were introduced in 2008. The Chairman of the Malaysian Accounting Standards Board (MASB) announced that henceforth, Malaysia will set its financial reporting standards to be in alignment with IFRS. From that point onwards, many initiatives were adopted and implemented by MASB to converge their accounting standards in line with IFRS. Consequently, the Malaysian Institute of Accountants started various trainings so as to appropriately educate all the relevant stakeholders towards this objective, and provide adequate information for their fullest comprehension. Furthermore, regulatory bodies also announced the deadlines for the adoption of IFRS with effect from the end of financial year reporting date, fixed as of December 31, 2012. Previously in November 2011, MASB had also introduced the third accounting framework, which was in close compliance with IFRS, commonly known as the Malaysian Financial Reporting Standards Framework (MFRSF).

It is interesting to note that the ambiguity of investors towards financial markets rising due to transparency issues with financial statements was overcome, following the adoption and implementation of IFRS. Previously, individuals had to face difficult situations to invest in stocks, but with the adoption and implementation of IFRS, now individuals showed initiatives towards investment in stocks. They invested without hesitation, large amount of money in stocks through the medium of pensions and mutual funds (Muthamia and Muturi, 2015). Therefore, it is a clear indication that IFRS played an important role to increase the transparency and comparability trends of financial statements and provided adequate and ample reasons for individuals, as well as institutional investors, to evaluate stocks and markets at both national and international levels.

The main idea and objective strategy of adopting and implementing IFRS was to bring international markets onto one single platform and simplify the comparability trends, besides enhancing the transparency of accounting information for both local and international investors. As stated above, more than 100 countries had agreed to adopt IFRS and on its implementation accordingly. Some of these countries, including Canada, Brazil, India and some European Union countries had also established their deadlines for the adoption of IFRS.

2. LITERATURE REVIEW

The main objectives of MASB to converge Malaysian accounting standards with IFRS were to improve the transparency of financial statements and to enable Malaysian firms to compete in international markets. Most of the developed countries had already shifted to IFRS from GAAP or other accounting standards. In earnings management, the agency problem also exists between managers and shareholders. Usually, managers are motivated to manipulate the accounting earnings for their personal interests rather than shareholder's interest. This agency conflict can induce management to opportunistically use the maximum flexibility available in accounting standards to pursue their personal agenda.

2.1. Adoption of IFRS & real earnings management

It has been mentioned in various studies that accounting earnings management is more harmful to the firm if derived through real earnings methods (Merigó and Yang, 2017). In general, the academic literature draws attention to the fact that management can intervene in the reporting process using accounting methods and by making real time decisions. Previous studies have shown that managers are willing to manipulate real time activities rather than accruals to provide deliberately misleading reports (Baker *et al.*, 2019). Zandi *et al.* (2019); Sadiq *et al.* (2019); Sadiq and Othman (2017) opine that accrual earnings management is easily detectable, which may draw the attention of auditors and regulatory bodies to scrutinize the firm's accounting activities. In addition, market rivals are always ready to pounce on these types of mistakes to tarnish the reputation of the firm, since market rumors can have a very heavy negative impact on the stock price. On the other hand, the use of real time earnings strategy can be both useful to gain market share and help when competing with rivals. Zandi *et al.* (2019) argued that it is not easy to distinguish between optimal decision management and real earnings management. It depends on the intentions of the management whether they are doing it for the good of the firm or for their personal benefits.

This study is contributing by examining the direct impact of adopting IFRS on real earnings management. Limited studies have discussed the issue of increase in real earnings of management following the implementation of strict accounting standards like IFRS and effective regulation (Khanh and Nguyen, 2018). Flexible accounting standards provide an opportunity for management to adopt accruals earnings management to manipulate the accounts (Sadiq *et al.*, 2019). Furthermore, if regulators are ineffective then no one is going to question the management about their financial reporting practices.

On the other hand, several studies have reported that the adoption of IFRS improves the earnings quality. IFRS restrict management from getting involved in earnings management activities. In the presence of IFRS, earnings management cannot be driven by discretionary accruals. So, management adopts the alternative approach which is real earnings management. Usually, there are three types of practices through which real earnings management happens.

2.1.1. Gain on assets

It is entirely the manager's choice of when and where to sell their assets. The difference between fair value and book value, if positive is recorded as a gain in the statement of comprehensive income. Management uses their discretion to find the most opportune moment when the gain should be reported in financial statements such that it will benefit them the most and accordingly, they will arrange to sell the asset. Lanier *et al.* (2019) reported evidence that is in line with the argument that management makes the decision to sell the fixed asset in order to manage their earnings. It is argued that managers either increase or decrease the earnings from the selling of fixed assets in order to achieve their targeted forecast profits. IFRS restricts the firm such that the selling the fixed asset should be reported but it does not restrict the firm about the timing when it should be disposed-off.

2.1.2. Extra production

Andreas (2017) indicates that production costs per unit can be decreased by increasing production to a certain level which is known as the optimum production level. Management uses this sale manipulation technique by offering a sales discount in order to maximize sales. On the other hand, COGS expense decreases due to overproduction. In this way, management overstates the current period profits by using real earnings management. Sometimes firms offer extended credit terms to expedite the sale. In this case, the sale has been recorded in the same period and profits will have been driven by the recorded sale, but the payment will be made in the succeeding period or when the credit terms are met. Usually, these kinds of activities happen near the year-end in order to raise the reported earnings. These kinds of acts can harm the future sales of the firm when the old price and credit terms of the product are restored.

Overproduction can be justified by saying that the fixed cost per unit is reduced by increasing production but if the unit produced cannot be sold on time than the inventory holding cost incurred would be a burden on the firm. One further issue is that if the unit produced cannot be sold in the same period then the fixed cost that was absorbed in the inventory will not be accounted for in the COGS of the current period. These issues are strategic issues and may not be covered by the IFRS.

2.1.3. R&D and SG&A expenditure

R&D, research and development expenditure are the discretionary expenses incurred in the period, but the benefits usually accrue in the future or in subsequent periods. According to accounting standards, expenses must be recorded in the period in which it was incurred. Management may reduce the R&D expense to increase the current period profits, but the outcome of R&D cost is associated with the future sales of the firm and it will affect the future performance of the firm.

SG&A, sales general and administrative expenses are also discretionary expenses and make a major contribution to the head of expense. SG&A cost is more than 25% of the sales revenue. Prior studies have provided evidence that managers cut the SG&A expenses to meet their earnings targets. SG&A includes employee training, sales promotion expense, legal expense, corporate office overhead expense, accounting expense, marketing, and sales expense, etc. if management tries to cut these expenses, it will affect the future performance of the firm and is not covered in the existing framework of IFRS.

Many studies have shown that management used to cut discretionary expenses when they need to manage the earnings. [Cheng and Liu \(2019\)](#) finds evidence that SG&A expense is significantly low in periods when management needs to highlight their bad performance. [Chan et al., \(2019\)](#) provide evidence which shows that the firm may be involved in real earnings management during the final year of the CEO. In his last year, the CEO will not bother about the future of the firm, so he just tries to increase the profits to maximize his incentives tied to the firm's profits.

It has been suggested that mandatory adoption of IFRS improves the earnings quality. [Gras-Gil et al. \(2016\)](#) suggest that earnings quality could improve if the standards are laid down in such a way that will not permit management to manipulate the accounting figures. There is a role for regulatory bodies to ensure that the accounting standards are strictly followed. [Razzaque et al. \(2016\)](#) examined the data of European countries and found that adoption of IFRS decreases the earnings management from discretionary accruals but increased the earnings management by discretionary expenses.

Real earnings management can be defined as the departure from the normal operational activity with the intention of misleading the stockholders. Real earnings management can reduce the firm value because the action taken in the current period to manage the income will affect future periods with a negative impact. In practice, real earnings management imposes more cost on the firm in the long term and sometimes these activities damage the firm so badly that its survival is at risk. Both goodwill and brand loyalty are also damaged by real time earnings activities.

Prior studies have found that accounting standards enhance accounting information in the developed economies ([Pereira and Alves, 2017](#)). Since this study is conducted in Malaysia, it is uncertain whether such benefits can be expected since the country is an emerging economy. Even though the problem of earnings management is rapidly growing in emerging economies, including Malaysia, there is no empirical evidence which shows that the adoption of IFRS has led Malaysian firms to become involved in real earnings management activities. Initially, IFRS had a very positive impact on earnings quality but with the passage of time, managers gradually found ways to manipulate earnings according to their need. Before the adoption of IFRS they used discretionary accruals to manipulate earnings, now however they use discretionary expenses to manipulate earnings which damage the firms even more badly.

2.2. Agency conflict

A conflict of interest arises where the principal-agent relationship exists. This theory (also known as the agency problem) is defined as the relationship of two people in which one is the entity (The Principal) and the other is a person or entity (the agent) who takes actions or decides on behalf of the Principal. In this case, the agency problem will arise when managers try to manipulate earnings through real time activities for their personal benefits instead of the firm's growth.

Sadiq and Othman (2017) explained the principal-agent theory as the conflict that exists between managers and the shareholders for their own benefits. Sometimes the benefits fall in a different direction for both and the managers have the authority to make decisions on behalf of the firm. Moreover, negligence can also arise due to mismanagement by the managers as they are unaware of the operation and have no idea how to run the business. IFRS can be considered as an accounting standard that enhances the visibility and transparency of business transactions to protect the firm from earnings management. It is also the factor which has a positive influence on the principal-agent problem (Chandren *et al.*, 2018).

In the business environment, agency conflict arises primarily between equity holders and managers and between debt holders and equity holders. Such conflicts always create problems for both the principal and the agent. This kind of conflict affects corporate governance and becomes a reason to tarnish the company's image in the marketplace.

Organizations where agency conflicts exist must bear the agency cost in order to minimize the conflict. Bonuses and incentives are some of the types of agency costs used to minimize conflict between the principal and agent. Extra incentives and bonuses will motivate the management to work in a direction that is favorable to the firm. Some other studies also suggest a remedy to the principal and agent problem by linking the CEO's pay, such as bonuses, restricted stock and stock options with the performance of the firm (Amin *et al.*, 2019). It is mentioned in prior studies that CEOs try to be involved in real earnings management in the latter period of their tenure to enhance their profit-based incentives.

To make sure that managers are not involved in real earnings management and pulling in the same direction, the firm must establish some monitoring mechanisms that would be independent but incur some costs. This independent body should provide performance reports annually that provides a comparison with prior years and management should be held liable to justify every real time activity whether related to sales or production or discretionary expenses.

Mugableh (2018) explained that there are two main stakeholders, namely the lenders and shareholders that cannot be compromised by weak corporate governance. Corporate governance is all about maintaining the shareholders' interest and protecting the financier's money. The ideal condition would be, when debt over equity ratio stands at a good position and shows an increasing trend, the shareholders are satisfied with the efficiency and effectiveness of managers and the excess cash flows after paying off all realized debts are distributed to shareholders with all current and future projects in a positive NPV position.

2.3. Hypothesis

A study analyzing the impact of adopting IFRS on real earnings management has not been carried out before in Malaysia. However, there are many studies in other jurisdictions looking at the relationship between the adoption of IFRS and earnings management. IFRS and earnings quality, IFRS with accruals-based earnings management but none looking at real earnings management with IFRS. It's generally understood that real earnings management cannot be easily identified since the intention of managers is not clear, whether they are making optimal decisions or manipulating the earnings (Trejo *et al.*, 2016). Therefore, based on prior arguments and results, it will not be wrong to say that accounting standards like IFRS close the doors for earnings management through accruals because this form of earnings management is based on accounting manipulation and it will be

identified by auditors and the regulatory bodies. However, at present we have no standard that limits real earnings manipulation because it has less visibility and discretion as well. So, our study proposes the following hypothesis:

H1: Real earnings management grew after the adoption of IFRS in Malaysian listed companies.

3. METHODOLOGY

3.1. Data and sample

The real earnings management measures are calculated by using the data extracted from listed companies' financial statements. H1 suggests that real earnings manipulation has in fact increased after the adoption of IFRS in common with other emerging economies. Our study however covers only Malaysian listed companies.

In this study, we collected data from non-financial companies listed on Bursa Malaysia during the period from 2004 to 2012. The sample chosen represents six non-financial business sectors, listed on Bursa Malaysia namely, the Construction sector, the Health care sector, Hotel sector, Properties sector, Utilities sector, and Plantation sector. This data does not contain the information of financial institutions because it does not fulfill the criteria for empirical analysis. Bursa Malaysia consists of more than 900 companies. We took 178 listed companies making a total of 1428 observations belonging to the different business sectors. Financial institutions, firms who do not provide a complete annual report and those firms whose data is missing in respect of the study variables are not included in our study in accordance with prior practice. In 2008 IFRS adoptions became mandatory in Malaysia. Therefore, we took eight years of data i.e. 4 years before and 4 years after the mandatory adoption of IFRS. This should be an acceptable sample size to examine the impact on real earnings management following the mandatory implementation of IFRS in 2008.

3.2. Real earnings management

Prior researchers have noted the difficulty of detecting real earnings management (Chee *et al.*, 2016). In practice the difference between real earnings management and optimal decision management is quite difficult to trace. According to Eilifsen and Knivsflå (2016) it is not easy to distinguish between strategic decisions and earnings manipulation. Likewise, it is not easy to develop suitable measures for real earnings management. Soderstrom and Zeyun (2016) attempted to refute this statement by introducing metrics consisting of three different variables associated with real earnings management. These measures are widely associated with the uneven movement of cash from business operations, discretionary expenses and COGS. Roychowdhury (2006) argued that these three variables are different in nature, so they employed a more comprehensive measure which combined all three individual variables of earnings management into a single variable as real earnings management metrics. In our study, we measure real earnings management using two steps:

Step 1

The following model was used by Roychowdhury (2006) and was earlier introduced by Dechow *et al.* (1998). We estimate the real activities as the linear function of sales and variation in sales. To calculate the regular cash flow level, we run cross-sectional cash flow regression below for each business sector for every period.

$$\frac{CFW_{ip}}{ASST_{ip-1}} = \alpha_0 + \alpha_1 \left(\frac{1}{ASST_{ip-1}} \right) + \beta_1 \left(\frac{SAL_{ip}}{ASST_{ip-1}} \right) + \beta_2 \left(\frac{\Delta SAL_{ip}}{ASST_{ip-1}} \right) + \varepsilon_{ip_1} \dots \dots \dots (1)$$

Where CFW is cash generated from operations for the company i for the period p. SAL is the revenue generated from sales for company i for period t. ΔSAL is the change in sale revenue for company i for period p. ΔSAL must be the differential figure of the two period's revenue. ASST is the total asset of the company i in period p-1.

COGS and change in inventory (ΔINT) for company i and period p .

$$\frac{COGS_{ip}}{ASST_{ip-1}} = \alpha_0 + \alpha_1 \left(\frac{1}{ASST_{ip-1}} \right) + \beta_1 \left(\frac{SAL_{ip}}{ASST_{ip-1}} \right) + \beta_2 \left(\frac{\Delta SAL_{ip}}{ASST_{ip-1}} \right) + \epsilon_{ip} \dots\dots\dots (2)$$

$$\frac{INT_{ip}}{ASST_{ip-1}} = \alpha_0 + \alpha_1 \left(\frac{1}{ASST_{ip-1}} \right) + \beta_1 \left(\frac{SAL_{ip}}{ASST_{ip-1}} \right) + \beta_2 \left(\frac{\Delta SAL_{ip}}{ASST_{ip-1}} \right) + \epsilon_{ip} \dots\dots\dots (3)$$

By using previous equation 2 and 3 we can find the average production cost in normal scenario as:

$$PRD_{ip} = \alpha_0 + \alpha_1 \left(\frac{1}{ASST_{ip-1}} \right) + \beta_1 \left(\frac{SAL_{ip}}{ASST_{ip-1}} \right) + \beta_2 \left(\frac{\Delta SAL_{ip}}{ASST_{ip-1}} \right) + \beta_3 \left(\frac{\Delta SAL_{ip}}{ASST_{ip-1}} \right) + \epsilon_{ip_2} \dots\dots (4)$$

Where PRD is the production cost for the company i for the period p . Rest of the variables are defined above.

$$DECX_{ip} = \alpha_0 + \alpha_1 \left(\frac{1}{ASST_{ip-1}} \right) + \beta_1 \left(\frac{SAL_{ip}}{ASST_{ip-1}} \right) + \beta_2 \left(\frac{\Delta SAL_{ip}}{ASST_{ip-1}} \right) + \beta_3 \left(\frac{\Delta SAL_{ip}}{ASST_{ip-1}} \right) + \epsilon_{ip_3} \dots\dots\dots (5)$$

Where DECX is the discretionary expense for company i for the period p . Again, the rest of the variables are same.

Step 2

In step two we compare the normal activities which we estimated in step one with the abnormal real activities. Likewise, if we find anything abnormal in real activities then we compare the activity with the standard and try to find the reasons for it, whether it is earnings management or optimal decision management. We define the abnormal variable AB-CFW as abnormal cash flows, AB-COGS as abnormal cost of goods sold and AB-DECX as an abnormal discretionary expense.

3.3. Control variables

According to prior research, there are other factors that play a role in the occurrence of earnings management. These variables should be controlled in order to validate our descriptive results. The following are the control variables in this study:

- 1) SIZE known as the company size considered as the total assets of the company.
- 2) GRWTH known as the growth opportunities of the company.
- 3) DEBT known as the increase in debt of the company.
- 4) BIG4 known as the auditor of the company and is a dummy variable denoted as 1 if the company's auditor is one of the big 4 otherwise 0.

4. RESULTS

4.1. Descriptive analysis

Table 1 comprises descriptive statistics. The results are consistent with the earlier study of Roychowdhury (2006). The means (median) of the dependent variables i.e. cash flow from operation, COGS and discretionary expense are -5.5% (-5.3%), 57.2% (44%) and -1.9% (-0.3%) respectively in the pre IFRS period. Post IFRS values of mean (median) are -7.7% (-7.3%), 43.6% (33.5%) and -4.7% (-1.7%). These values suggest that managers are less involved in real earnings management after the implementation of IFRS in 2008. Based on our results, we can say that Malaysian managers are not involved in real earnings management in the four years following the adoption of IFRS. The results for the control variables show that there is an increase in firm size and debt of the firm after the adoption of IFRS and a decrease in growth opportunities.

Table 1: Descriptive analysis

Variables	Pre IFRS					Post IFRS				
	Min.	Max.	Mean	Median	Std. Dev	Min.	Max.	Mean	Median	Std. Dev
AB-CFW	-0.728	0.415	-0.055	-0.053	0.101	-0.469	0.175	-0.077	-0.073	0.072
AB-PRD	-3.496	14.340	0.572	0.440	0.877	-0.572	2.942	0.436	0.335	0.457
AB-DECX	-1.911	1.615	-0.019	-0.003	0.271	-1.069	0.478	-0.047	-0.017	0.160
SIZE	2.483	11.759	7.302	7.225	2.181	2.483	11.75	7.863	7.594	1.967
GRWTH	-0.881	46.778	0.192	0.074	1.767	-0.829	5.946	0.093	0.069	0.300
DEBT	-0.860	12.063	0.189	0.064	0.695	-0.537	4.762	0.889	0.035	0.330
BIG4	0.000	1.000	0.622	1.000	0.487	0.000	1.000	0.622	1.000	0.000

4.2. Correlation analysis

Table 2 below containing the results of the Pearson correlation analysis. In this study we used the Pearson correlation analysis to find the correlation between the control variable and the independent variable. In our study IFRS is the independent variable and the rest are control variables. We found that IFRS and firm size have a significant positive relationship with a value of 0.136 but that this relationship is very weak. The strongest relationship in the analysis below is an audit firm and firm size with a value of 0.265 which is also significant. Firm's growth and firm's debt also has a positive and significant relationship with a value of 0.233 which shows that the firm's liability will increase as the firm grows. However, this relationship is also weak. Following correlation does not show any strong relationship of these variables.

Table 2: Correlation analysis

Variables	IFRS	SIZE	GRWTH	DEBT	BIG4
IFRS	1.000				
SIZE	0.136***	1.000			
GRWTH	-0.041	-0.058**	1.000		
DEBT	-0.094***	-0.028	0.233***	1.000	
BIG4	0.000	0.265***	0.241	0.000	1.000

* Significant at the 5% level, ** significant at the 1% level

4.3. Regression analysis

The following tables 3, 4, and 5 shows the regression results of three variables of real earnings management after the adoption of IFRS that is abnormal cash flows, abnormal production cost and abnormal discretionary expenses. Roychowdhury (2006) found that after the adoption of IFRS, only abnormal discretionary expenses have a significant impact. We don't find any negative impact in abnormal cash flows and abnormal production. Therefore, this study found that Malaysian companies are not affected by real earnings management through the use of abnormal cash flows or abnormal production, however, they are using abnormal discretionary expense.

Table 3: Regression results AB-CFW

Variables	coefficient	t-statistic	p value
Intercept	-0.059	-1.47	0.15
IFRS	-0.011	-0.652	0.516
SIZE	0.004	0.52	0.622
GRWTH	-0.005	-0.39	0.39
DEBT	-0.014	-1.26	0.158
BIG4	0.013	0.68	0.68

Table 4: Regression results AB-PRD

Variables	coefficient	t-statistic	p value
Intercept	0.0011	0.0003	0.997
IFRS	0.0287	0.484	0.586
SIZE	0.0143	0.413	0.492
GRWTH	-0.1295	-0.252	0.11
DEBT	-0.084	-1.97	0.048
BIG4	0.061	1.65	0.10

Table 5: Regression results AB-DECX

Variables	coefficient	t-statistic	p value
Intercept	0.019	0.37	0.656
IFRS	0.0614	2.56	0.010
SIZE	0.0038	0.54	0.658
GRWTH	-0.0117	-1.57	0.0989
DEBT	-0.143	-2.58	0.0089
BIG4	0.089	1.99	0.045

5. CONCLUSION

This study is based completely on the internationally accepted premise that the adoption and implementation of IFRS leads to better earnings quality through real earnings management. We had taken only one component of earnings aspects, i.e., the real earnings management, in order to identify the significant relationship between IFRS and real earnings management. In this study, IFRS is taken as an independent variable, whereas cash flow from sales, production costs, and discretionary expenses represent the dependent variables. We had also included some control variables, such as firm's size, its growth and liabilities, and audit's quality to examine more appropriately the relationship between IFRS and real earnings management.

Our study had been based on empirical data acquired from 178 Malaysian listed companies and accordingly used 1424 observations, spanned over a period of 8 years, i.e. from 2004 to 2012. As mentioned earlier that in Malaysia, IFRS had become mandatory in 2008, and hence, for more clarity and better results we explored the data for eight years. To be more specific, we worked on the data obtained from 4 years before and 4 years after the implementation of IFRS.

Our results are consistent with prior researches undertaken in other jurisdictions, which found that the adoption of IFRS obviously increases the real earnings management. From among the three dependent variables, two showed no impact on real earnings management, when IFRS became mandatory in Malaysia. However, the third dependent variable (discretionary expenses) showed positive and significant results on real earnings management, following the adoption of IFRS in 2008.

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