HAS IFRSs IMPROVES PREDICTIONS OF FUTURE CASH FLOWS? EVIDENCE FROM MALAYSIA

Asna Abdullah Atqa*
Universiti Putra Malaysia

Kok-Hwa Lee
Universiti Putra Malaysia

Norman Mohd-Saleh
Universiti Kebangsaan Malaysia

ABSTRACT

The International Financial Reporting Standard (IFRS)’s conceptual framework and the Financial Accounting Standards Board (FASB)’s conceptual framework state that future cash flows prediction is one of the key objectives of financial reporting. Given the use of cash flows as a performance measure besides earnings, the effectiveness of IFRS in satisfying this financial reporting objective, increases in its importance. Hence, this study seeks to investigate whether the adoption of IFRS (or locally known as the Malaysian Financial Reporting Standard (MFRS)) in Malaysia since the year 2006 improves the predictability of future cash flows of Malaysian public listed firms. 4,068 firm-year data of Malaysian public listed companies in year 2004 to 2012 is analysed. The results show that current cash flows under IFRS regime significantly predict future operating cash flows. Despite the non-significance of net income and current accruals under the IFRS regime, the Malaysian companies show relatively high acceptance of the convergence of accounting standards towards IFRS. Other control variables show mixed results. This study provides insights into the benefits of regulation such as the IFRS, with policy implication on standard setters and financial reporting regulators.

Keywords: IFRS convergence; Malaysia; Predictability of future cash flows

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1. INTRODUCTION

Prediction of firm’s future cash flows becomes a fundamental issue in accounting and finance given the established linkages between cash flows and security price valuation (Beaver, Griffin & Landsman, 1982; Rayburn, 1986). For this reason, the Financial Accounting Standards Board (FASB) has stated in its Statement of Financial Accounting Concepts No.1 that the primary objective of financial reporting is to provide information that help investors, creditors and other users in assessing the amount and timing of future cash flows (paragraph 37-39, FASB 1978). Along this line, the International Accounting Standards Board (IASB) in its Conceptual Framework has also made clear that financial information which is relevant depend in parts on the predictive ability of such information (QC8 Conceptual Framework, MASB 2011).

* Corresponding author: Asna Abdullah Atqa, Department of Accounting and Finance, Faculty of Economics and Management, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia, 006-03-97697872, asnaatqa@upm.edu.my
As with earnings\(^1\), information on future cash flows helps in measuring performance in contracts for compensation and borrowing, valuation and investment decision models and capital misallocations (Dechow, 1994; Dichev & Tang, 2009). However, cash flow suffers from timing and matching problems. One way to overcome this is by introducing accruals to alter the timing of cash flows recognition in earnings (Dechow, 1994). The accrual concept requires that the income and expenses must be recognised in the accounting period to which it relates rather than based on cash flows. Although accruals are regulated by the accounting standards, the discretion over accruals recognition could lead to manipulation of earnings.

Given the contention that cash flow predictability becomes part of the desirable characteristics of financial statements and its relationship with earnings and accruals, quality of cash flow information needs to be assessed especially in the period of changing regulatory requirements. Accounting standards, as mentioned earlier, do regulates the way accruals are measured and reported, and hence affect the timing of cash flow recognition in earnings. With the convergence of financial reporting practice into a single set of International Financial Reporting Standards (IFRS) globally, the need to examine their effectiveness in satisfying the overall objectives of financial reporting including cash flow predictability has certainly increased (Daske, Leuz & Verdi, 2008; Badertscher, Collins, & Lys 2012; Palea & Scagnelli, 2017; Gordon, Henry, Jorgensen, & Linthicum 2017). It is never too late to examine the issue since more and more new IFRSs take place since then (and finally being adopted in Malaysia as MFRSs). In addition, many researchers have regularly questioned the economic rationale in justifying more and more regulations and the effectiveness of these regulations (Healy & Palepu, 2001; Leuz & Wysocki, 2008; Hajah, & Singh, 2012; Morni, Jaafer & Rahizah 2012; Phang, & Nurmazilah, 2013; Palea & Scagnelli, 2017).

Studies on impact of IFRSs mostly examine issues of value relevance and effects of IFRS on market-based earnings quality (Bartov, Goldberg & Kim, 2005; Mohd Halim, Rozainun, & Muhd Kamil, 2009; Horton & Serafeim, 2009; Clarkson, Hanna, Richardson & Thompson, 2011). However, not many studies are done examining impact of IFRS on predictability of future cash flows which is one of the main quality attributes of earnings (Dechow, Ge & Schrand 2010). Besides, extant research in IFRSs have focused more on the advanced economies and considerably less attention is given to IFRS convergence in developing countries like Malaysia.

The convergence to IFRS (or MFRS) is expected to result in different quality of financial reporting and different earnings quality. As explained in the next section, convergence to IFRS has resulted in tightening up of the accounting treatments, which witnesses less diversification of accounting practices allowed as compared to the previous reporting regime. This is anticipated to result in different composition of earnings (and accruals) which then leads towards different prediction of future cash flow. As mentioned earlier, it is the accruals which is a component of earnings (besides another component which is cash flow) that is very much affected by the changes in accounting standards.

This study, therefore, fulfils the gap by examining the impact of IFRS convergence on predictability of future cash flows of public listed firms in Malaysia. It specifically answers the research question of what are the impacts of transition from MASB standards (the previously

\(^1\) Earnings have been regarded as the most important outcome indicator of a financial reporting process (Lev, 1989; Graham, Harvey & Rajgopal, 2005).
applied accounting standards issued by the Malaysian Accounting Standards Board) to IFRSs (or known as MFRSs in Malaysia) on future cash flow predictability of Malaysian public listed firms.

2. LITERATURE REVIEW

2.1. Convergence to IFRSs

The move to converge local accounting standards with the IFRS issued by the IASB has started as early as 2005 with the first adoption done by the European Union countries. Since then, more than one hundred countries all over the world have either adopted or intended to adopt IFRS to facilitate the need for a global financial reporting language (IASPlus, 2009). According to IASB, the change towards IFRS lies centrally in the tightening of the accrual discretion in accordance with the principles and measurements that better reflects firms’ economic positions and performance (Shortridge & Smith, 2009). With the diverse input from different jurisdictions, IFRS have always been considered superior standards compared to other locally produced standards (Leuz & Verrecchia, 2000; Barth, Landsman & Lang, 2008).

In Malaysia, convergence to IFRSs is done in stages starting from the year 2006. As seen from Figure 1, prior to 2006, the Malaysian reporting regulations started with the Companies Act 1965, which formally established the reporting requirements, rules and regulations of accounting. Nonetheless, the development and growth of financial accounting and reporting were left mostly to the accounting profession, which are the private bodies known as the Malaysian Association of Chartered Public Accountants (MACPA) and the Malaysian Institute of Accountants (MIA). They could only regulate their members as they have no legal rights to enforce compliance. When the Financial Reporting Act 1997 was gazetted on 6 March 1997, the standard setting process shifted from the private sector accounting bodies to the public sector statutory bodies.

The Act established the Financial Reporting Foundation (FRF) as a trustee body of the Malaysian Accounting Standards Board (MASB). It empowers the MASB to issue approved accounting standards for use by entities in Malaysia which are benchmarked against the accounting standards issued by the International Accounting Standards Board. International Accounting Standards (IASs) were adapted to suit the local needs. On top of these IASs, MASB had also issued few local standards, such as MASB 32 Property Development Activities and MASBi-1 Presentation of Financial Statements for Islamic Financial Institutions, in an attempt to provide guidance where there is no equivalent guiding standard by the IASB. It is also important to note that not all issued IASs standards were adapted in Malaysia due to cost and operational concerns surrounding such issuance.

The transitional status of Malaysian convergence plan was completed after a decision to fully converge to IFRS has been announced in August 2008. Malaysian public listed firms have to comply will full IFRSs by 1 January 2012. In November 2011, MASB has finally issued the Malaysian Financial Reporting Standards (MFRS Framework) which applies to all entities other

\(^2\) Later known as the Malaysian Institute of Chartered Public Accountants (MICPA).

\(^3\) It was later renamed as FRS 201 Property Development Activities during the FRS period after 2006.

\(^4\) It was later revised and reclassified as MASB TR i-3 Presentation of Financial Statements of Islamic Financial Institutions during the FRS period after 2006, and thereafter remained as TR i-3.
than private entities for annual periods beginning on or after 1 January 2012 (MASB, 2011). This event marks the starting point of a full convergence process. This means that there are no more delays to the application of any standards including the most controversial standard MFRS 139 *Financial instruments: Recognition and Measurement*, which was adopted from IAS 39. Nevertheless, despite Malaysian’s late decision to full convergence, as compared to other countries in the region such as Singapore and Hong Kong (Taylor, 2009), the first major transition from local MASB standards to IFRS standards had occurred on 1 January 2006. All public listed companies in Malaysia had to comply with 40 Financial Reporting Standards (known as FRSs at that time) based on IFRSs that were issued by IASB and adopted locally to replace prior MASB standards. Out of 40 standards, 18 are new financial reporting standards (with more standards were revised since then) that are materially different from the MASB standards that originated from the adapted IASs.

**Figure 1: Development of Financial Reporting Framework in Malaysia**

- **Establish MACPA**
- **Companies Act 1965**
- **Creation of IASC**
- **MFRS adoption in EU**
- **Additional FRSs**
- **Full compliance with IFRSs by 2012**

**Figure Caption:**

IAS: International Accounting Standards issued by the International Accounting Standards Boards (IASB), previously known as the International Accounting Standards Committee (IASC)

MAS: Malaysian Accounting Standards issued by the Malaysian professional accounting body i.e. Malaysian Institute of Certified Public Accountants (MICPA), previously known as the Malaysian Association of Certified Public Accountants (MACPA)

FRS: Financial Reporting Standards issued by the MASB

MFRS: Malaysian Financial Reporting Standards issued by the MASB that is effective for
The full convergence brings with it the implications that firms have a commitment to increase disclosure and to tighten up accounting treatments of financial information. The reporting and disclosure based on international financial reporting standards have always been assumed to bear higher accounting and disclosure requirement compared to other accounting standards such as the locally produced standards (Leuz & Verrecchia, 2000). In relation to the Malaysian financial reporting transition from MASBs to IFRSs regime, similar assumption applies. Anecdotal evidence showed that the new IFRS promulgated by the IASB require more accounting and disclosure requirements than the previous IASs. IFRSs are explicitly considered as principles-based standards unlike the previous IASs (Iasplus, 2009).

2.2. Institutional Theory and IFRS Convergence

Institutional theory has been widely applied in the economics, sociology and political science field. The sociological perspective of institutional theory in the organisations field is considered to be relevant and sufficient in the context of IFRSs studies. According to Meyer and Rowan (1977), institutional environment will influence the organisations and ultimately organisations becoming isomorphic with the institutional environment which influence it, in order to ensure the success and survival of the organisations. Isomorphism created by institutional theory can push organizations towards legitimacy patterns within the organizational field by adopting similar practices. In contrast, DiMaggio and Powell (1983), state that in a society that is increasingly organised and inter-connected, it is hard for an organisation to survive and obtain the resources without the legitimacy and social acceptance from other organisations given that they are in the same environmental conditions. Similar explanations apply to why countries move towards IFRSs convergence (Deloitte Touche Tohmatsu, 2011) and why in certain aspects, organisations from the same environment are so similar to each other. The variety and diversity in the environment can be reduced through institutionalization.

The institutional pressures can arise from various sources such as the regulations forces, the stakeholders’ demand forces and the ability to obtain resource forces. In terms of the regulation forces, many of the European Union countries adopt the IFRS due to the promoting effort and roles played by the regulatory oversight and enforcement bodies (Brown & Tarca, 2005). This argument can be further supported when previous study shows that most of the public listed companies in European Union are not willing to converge to IFRS if it is not mandated by the European Union Regulation (Jermakowicz & Gornik-Tomaszewski, 2006). In Malaysia, it was the Financial Reporting Foundation (FRF enacted under the Financial Reporting Act 1997) together with the

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5 The term increased level of disclosure can be interpreted to have both or either quantity or quality aspects (Leuz & Wysocki, 2008).
6 IAS’s were issued by the International Accounting Standards Committee (IASC) from 1973 to 2001, while the IFRS’s were issued by the International Accounting Standards Board (IASB) from 2001 onwards. The IASB is basically the successor for IASC. For the purpose of this research, IFRS regime refers to the era where there is removal of MASB Standards to standards issued by IASB starting from 1 January 2006. During the transition to full convergence from 1 January 2006 to 31 December 2011, the standards are known as FRSs. However, since 1 January 2012 until today, the approved standards for entities other than private entities in Malaysia are called the MFRSs. It is worth noting that since 1 January 2006, Malaysia has adopted a two-tier financial reporting framework which distinguishes requirements of private entities from those that are not private entities. From 2016 onwards, all private entities are allowed to apply MPERS as an alternative framework besides MFRSs.
7 Most of the previous studies that on accounting standards harmonization and IFRS adoption and convergence use the institutional theory as their theoretical framework (Al-Omari, 2010; Barbu & Baker, 2010; Hassan, 2008; Irvine, 2008; Judge, Li & Pinsker, 2010; Mir & Rahaman, 2005; Touron, 2005; Phang & Nuramazalah, 2013).
Malaysian Accounting Standard Board (MASB) that required public listed companies in Malaysia to adopt IFRS mandatorily by the year 2012.

Apart from the regulation forces, the stakeholders’ demand forces and the ability to gain resources also play an important role in the process of convergence towards IFRSs in Malaysia. Stakeholders such as suppliers, shareholders, and creditors, may demand financial statements that bear higher quality of accounting standards which can enhance its value relevance and the predictive power of future cash flows. Furthermore, in order to obtain resources from the world institutions such as the International Monetary Fund (IMF) and World Bank, countries have to adopt IFRSs (Mir & Rahman, 2005). Since Malaysia is a developing country and has continuous growth in capital market, the stakeholders will demand financial statements that are prepared based on high quality and well developed accounting standards that are internationally recognised such as the IFRS. Thus, for these purposes, organizations are forced to move towards the IFRS platform.

2.3. IFRS & Cash Flow Prediction

Differences in earnings calculation caused by different accounting policies embedded in accruals may affect the earnings predictability of future cash flows. Previous studies show that there are significant differences between earnings reported under IFRS and earnings reported under other domestic accounting standards (Ding, Hope, Jeanjean, & Stolowy, 2007; Hopkins et al., 2008; O’Connell & Sullivan, 2008). It is further contended that IFRS is a principle-based standards unlike some domestic accounting standards which are rules-based (Bennett, Bradbury, & Prangnell, 2006; Reilly, 2007).

A survey of the extant literature shows few studies examining the impact of IFRSs on future cash flow prediction. A notable one is the study by Atwood, Drake, Myers and Myers (2011) and Palea and Scagnelli (2017). Using a sample of 58,832 firms across 33 countries for the year 2002 to 2008, Atwood, et al. (2011) found that current earnings and losses that are reported under U.S. GAAP have a higher predictability power of future cash flows than current earnings and losses reported under IFRS. Besides, losses reported under the non-U.S. GAAP have less predictive power over the future cash flows than earnings. This result can be further supported by Hail et al. (2010a, 2010b) that suggested that the impact of IFRS adoption on United States is relatively small as the U.S. GAAP is already a high quality accounting standard. However, there is no conclusive evidence that shows financial reports prepared under U.S. GAAP are of better quality as compared to IFRS (Jamal et al., 2010).

On the other hand, Palea and Scagnelli (2017) found that IFRS improves earnings predictability of future cash flows. Using a sample of European banks in France, Germany, Italy and Spain from 1998 to 2012, they found that net income and comprehensive income under IFRS have higher predictive ability of future cash flows. At this juncture, it could be suggested that given the general inferiority of IFRS predictive ability of future cash flows against non-IFRS in prior studies, the benefits from IFRS may only materialize in longer term.

Most of the previous studies related to IFRS in Malaysia focus more on the factors such as benefits, challenges, issues, opportunities, the impact of the IFRS on Malaysian public listed companies and the response rate of public listed companies towards IFRS convergence (Leng, Lazar, & Othman, 2007; Hajah, & Singh, 2012; Morni, Jaafar & Rahizah 2012; Phang, & Nurmasizah, 2013). One of

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the prior studies that has been carried out in Malaysia is aimed to examine the value relevance of
the book value and earnings prior to and after IFRS adoption (Mohd Halim, Rozainun, & Muhd
Kamil, 2009). Mohd Halim et al. (2009) found that both the book value and earnings are value-
relevant during MASB period. However, after the IFRS implementation, only the book value is
value-relevant while the value-relevant of earnings has declined.

This argument can be further supported when a study by Kwong (2010) shows the value-relevant
of financial reporting and accounting information in Malaysia has slightly declined after the
convergence to IFRS compared to MASB reporting period. This result was obtained after
examining three different financial reporting periods, which are the pre-MASB period, post-MASB
period and IFRS convergence period. Kwong (2010) found similar results like Mohd Halim et al.
(2009). However, both studies suggested that the decline in value-relevance during the IFRS
period was because of the transitional years covered by the studies (year 1993 to 2007) where
benefits of IFRS convergence was yet to be fully realized. Nevertheless, there is evidence of
positive impact of IFRS when a study by Othman, Pok Wee, and Arshad (2011) shows that IFRS
provides a higher level of information content of the reported earnings. The study was based on
2,521 Malaysian firms during the year 2004 to 2008. This shows that Malaysia is moving towards
a convincing trend of increasing in the value-relevant and information content of reported earnings,
a move that is in line with the spirit of IFRS convergence.

3. METHODOLOGY

3.1. Cash Flow Prediction Model

Extant literature on cash flow prediction has put forward two main arguments (Ebaid, 2011). The
first one states that earnings is a better reflection of cash flows (Dechow, et al., 1998; Barth, Cram
& Nelson, 2001; Kim & Kross, 2005) while the second opinion argues that past operating cash
flows are a better prediction of future operating cash flows (Finger, 1994; Bowen et al., 1986;
Lorek & Willinger, 2009). This debate has continued with the examination of the models that use,
in general, either aggregated earnings or past cash flows as the explanatory variable(s) of future
cash flows.

Kim and Kross (2005) shows that the predictive power of earnings over future cash flows have
been increasing over years. Using U.S. sample firm years from three decades (1972-2001) as well
as analyzing various firms’ size and characteristics, they also discover that current earnings is a
better predictor of one year ahead future operating cash flows in the short-term unlike current
operating cash flows. Their results are similar to studies by Dechow, Kothari and Watts (1998) of
US firms and Ebaid (2011) of Egypt firms, which argue that earnings are more preferable to current
operating cash flows in predicting future operating cash flows.

In contrast, Finger (1994) and Lorek & Willinger (2009) argue that current operating cash flows
have a better predictive ability towards future operating cash flows in the short-term than earnings.
Finger (1994) further argues that in the long-term, however, both the earnings and operating cash
flows will have nearly the same predictive ability over the future cash flows. Moreover, the results
also show that earnings or operating cash flows alone already have an excellent predictive power
towards future cash flows.
With mixed results between the two arguments, researchers have started examining the components of earnings which are the accruals and past cash flow in an attempt to find better answers. Following Dechow et al. (1998), Barth, Cram and Nelson (2001) found that disaggregating earnings into current period cash flows and components of main accruals enhances the predictive ability of future cash flows. This is in line with the FASB (1984)’s assertions that accruals earnings should provide better basis for assessment of firms future cash flows than information contained in past cash flows alone (SFAC No 5, para 24). Similar findings are obtained by Clinch, Sidhu and Sin (2002), when operating cash flows are disaggregated into their cash and accrual components under both direct and indirect cash flow methods.

Based on the above discussions, the following models are adopted for this study. Despite their simplicity, these models which are originated from Dechow et al. (1998), and Barth, et al. (2001)’s studies, prove important for the subject matter and research questions which examine impact of IFRS on prediction of future cash flows. By following modified versions of Barth et al. (2001)’s model such as those by Clinch, et al. (2002) and Khansalar and Namazi (2017) would not be suitable for this study since the components of accruals would undergo different accounting treatments throughout the different reporting regime.

3.2. Model 1

Model 1 is used to test the predictability of aggregated earnings towards future cash flows. Dechow, et al. (1998) and Barth, et al. (2001) explain that current earnings are a better predictor of future operating cash flows than current operating cash flows. To test whether IFRS adoption has an impact of predictability of future operating cash flows, an interaction variable of FRRit*NIit which indicates earnings in different financial reporting regime is incorporated into the model. The other independent variables are control variables which are proven in prior studies to influence future operating cash flows.

\[
CFO_{it+1} = \alpha_0 + \alpha_1 NI_{it} + \alpha_2 FRR_{it} + \alpha_3 SIZE_{it} + \alpha_4 DEBT_{it} + \alpha_5 LOSS_{it} + \sum \alpha_6 IND_{it} + \epsilon_{it}
\]

where,

- CFO_{it+1} = the cash flow from operations (scaled by total assets) at the end of year_{t+1};
- NI_{it} = the net income before discontinued operations scaled by total assets;
- FRR_{it} = the dichotomous variable set equal to one if the financial reporting regime is IFRS, zero for MASB regime;
- SIZE_{it} = the logarithm of average total assets for the past three years;
- DEBT_{it} = the total debt (scaled by total assets) at the end of year_{t};
- LOSS_{it} = the dichotomous variable set equal to one if the reported a loss; else zero;
- IND_{it} = the industry dummies.

3.3. Model 2

Model 2 is used to test the predictability of disaggregated earnings towards future cash flows. Dechow, et al. (1998) and Barth, et al. (2001) further develop a model of earnings, cash flows and accruals. Operating accruals is calculated from earnings less operating cash flows since earnings is made up of cash flows and accruals. To test whether IFRS adoption has an impact of
predictability of future operating cash flows, two interaction variables of $FRR_{it}^*CFO_{it}$ and $FRR_{it}^*ACC_{it}$ which indicate current cash flows and current accruals in different financial reporting regime are incorporated into the model. Similar to Model 1, control variables are incorporated into Model 2.

$$CFO_{it+1} = \alpha_0 + \alpha_1 CFO_{it} + \alpha_2 FRR_{it} * CFO_{it} + \alpha_3 ACC_{it} + \alpha_4 FRR_{it} * ACC_{it} + \alpha_5 SIZE_{it} + \alpha_6 DEBT_{it} + \alpha_7 LOSS_{it} + \sum \alpha_8 IND_{it} + \epsilon_{it}$$

where,

$CFO_{it+1}$ = the cash flow from operations (scaled by total assets) at the end of year $t+1$;

$CFO_{it}$ = the cash flow from operations (scaled by total assets) at the end of year $t$;

$ACC_{it}$ = the total accruals (scaled by total assets) at the end of year $t$;

$FRR_{it}$ = the dichotomous variable set equal to one if the financial reporting regime is IFRS, zero for MASB regime;

$SIZE_{it}$ = the logarithm of average total assets for the past three years;

$DEBT_{it}$ = the total debt (scaled by total assets) at the end of year $t$;

$LOSS_{it}$ = the dichotomous variable set equal to one if the reported a loss; else zero;

$IND_{it}$ = the industry dummies.

### 3.4. Research Hypotheses

Based on the above discussions and the models, the following hypotheses are formulated:

H1: There is a significant relationship between earnings under IFRS regime and future operating cash flow.

H2: There is a significant relationship between current cash flows under IFRS regime and future operating cash flow.

H3: There is a significant relationship between current accruals under IFRS regime and future operating cash flow

### 3.5. Sample

The sample for this study is the public companies listed on the Bursa Malaysia stock exchange from various sectors except for companies in finance and real-estate investment trust industries (REIT) as well as the transition entities. Out of 822 total companies with complete data, only 452 companies with financial year end 31 December were analysed. The selection of 31 December year-end firm years is to ensure consistency in the sample’s starting year of IFRS convergence. The timeframe of this study is from 2004 to 2012. The reason for choosing this timeframe is because these periods cover at least two different accounting standards regimes, which are the MASB regime (2004-2005), partial IFRS convergence regime (2006-2011) and full IFRS convergence regime (2012).

For the purpose of this study, the last two IFRS regimes (partial and full IFRS regimes) are regarded as one single IFRS regime. In total, there are 4,068 firm-year observations. Hence, comparison can be made to the results that are obtained from these two different regimes to fill the gap of previous studies on whether the IFRSs adoption improves the predictability of the future cash flow of the
Malaysian public listed firms. This study uses a single-country research approach to control for the institutional and political factors, known to affect companies’ reporting and stock market participants’ investing behaviours, which are present in international comparative study.

4. RESULTS AND DISCUSSION

Table 1 presents the distribution of the samples according to 16 different sectors listed on the Main Board of Bursa Malaysia with the financial year ends 31 December. Technology industry forms the highest composition with 675 firm-year observations (16.6% of the total sample). Other industries with high number of firm-year observations are construction and materials (14.2%), food and beverage (11.2%), consumer industry (8.9%), industrial product (8.2%), and industrial engineering (7.5%). Meanwhile, the lowest observations are from the aerospace industry with just 9 frequencies and 0.2% composition out of the total sample.

Table 1: Sample by Industries

<table>
<thead>
<tr>
<th>Industry</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace</td>
<td>9</td>
<td>0.2</td>
</tr>
<tr>
<td>Automobiles</td>
<td>90</td>
<td>2.2</td>
</tr>
<tr>
<td>Food and beverage</td>
<td>459</td>
<td>11.2</td>
</tr>
<tr>
<td>Chemicals</td>
<td>144</td>
<td>3.5</td>
</tr>
<tr>
<td>Construction and materials</td>
<td>576</td>
<td>14.2</td>
</tr>
<tr>
<td>Consumer</td>
<td>360</td>
<td>8.9</td>
</tr>
<tr>
<td>Industrial product</td>
<td>333</td>
<td>8.2</td>
</tr>
<tr>
<td>Healthcare</td>
<td>108</td>
<td>2.7</td>
</tr>
<tr>
<td>Industrial engineering</td>
<td>306</td>
<td>7.5</td>
</tr>
<tr>
<td>Multimedia and telecommunication</td>
<td>144</td>
<td>3.5</td>
</tr>
<tr>
<td>Oil and gas</td>
<td>162</td>
<td>4.0</td>
</tr>
<tr>
<td>Technology</td>
<td>675</td>
<td>16.6</td>
</tr>
<tr>
<td>Support services</td>
<td>243</td>
<td>6.0</td>
</tr>
<tr>
<td>Hotel</td>
<td>171</td>
<td>4.2</td>
</tr>
<tr>
<td>Tobacco</td>
<td>18</td>
<td>0.5</td>
</tr>
<tr>
<td>Trading and service</td>
<td>270</td>
<td>6.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,068</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 2 presents the descriptive statistic of the variables examined in the study. The mean values of all variables are positive. Positive values such as the NI and CFO imply that Malaysian public listed companies selected for this study are profitable and have net cash inflows from business operation. This finding is consistent with Dechow et al. (1998), Barth et al. (2001) and Chotkunakitti (2005). The lower mean of NI (0.0329) compared to CFO (0.0589) is expected since NI is derived at after the deduction of depreciation and amortization (Dechow et al., 1998). SIZE scored highest mean (5.4458), followed by CFO (0.0589), and NI (0.0329) while the mean of ACC is the lowest (0.0043). In contrast, the standard deviation of FRR*NI is the lowest (0.0651), followed by FRR*ACC (0.0672), FRR*CFO (0.0795), CFO (0.1027), NI (0.1272) and ACC (0.1281). The low standard deviation of interaction variables is expected because they represent a
single reporting regime. Before further tests are conducted, these variables have met the assumptions of normality, homoscedasticity, no significant outliers, and linearity.

Table 2: Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFOit+1</td>
<td>0.0610</td>
<td>0.1033</td>
<td>-0.4939</td>
<td>0.5766</td>
</tr>
<tr>
<td>NIit</td>
<td>0.0329</td>
<td>0.1272</td>
<td>-1.6776</td>
<td>0.5599</td>
</tr>
<tr>
<td>FRRit*NIit</td>
<td>0.0462</td>
<td>0.0651</td>
<td>0</td>
<td>0.5599</td>
</tr>
<tr>
<td>CFOit</td>
<td>0.0589</td>
<td>0.1027</td>
<td>-0.4939</td>
<td>0.5766</td>
</tr>
<tr>
<td>FRRit*CFOit</td>
<td>0.0609</td>
<td>0.0795</td>
<td>0</td>
<td>0.5766</td>
</tr>
<tr>
<td>ACCit</td>
<td>0.0043</td>
<td>0.1281</td>
<td>-0.9887</td>
<td>0.7272</td>
</tr>
<tr>
<td>FRRit*ACCit</td>
<td>0.0338</td>
<td>0.0672</td>
<td>0</td>
<td>0.7272</td>
</tr>
<tr>
<td>SIZEit</td>
<td>5.4458</td>
<td>0.6762</td>
<td>3.4352</td>
<td>7.6886</td>
</tr>
<tr>
<td>DEBTit</td>
<td>0.1969</td>
<td>0.1803</td>
<td>0</td>
<td>1.3917</td>
</tr>
<tr>
<td>LOSSit</td>
<td>0.1974</td>
<td>0.3981</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Notes: CFOit+1 = the cash flow from operations (scaled by total assets) at the end of year it+1; NIit = the net income before discontinued operations scaled by total assets; FRRit = the dichotomous variable set equal to one if the financial reporting regime is the IFRS regime; else zero; CFOit = the cash flow from operations (scaled by total assets) at the end of year it; ACCit = the total accruals (scaled by total assets) at the end of year it; SIZEit = the logarithm of average total assets for the past three years; DEBTit = the total debt (scaled by total assets) at the end of year it; and LOSSit = the dichotomous variable set equal to one if the reported income is a loss; else zero. n=4,068.

Table 3: Pearson Correlation

<table>
<thead>
<tr>
<th></th>
<th>CFOit+1</th>
<th>NIit</th>
<th>FRRit*NIit</th>
<th>CFOit</th>
<th>FRRit*CFOit</th>
<th>ACCit</th>
<th>FRRit*ACCit</th>
<th>SIZEit</th>
<th>DEBTit</th>
<th>LOSSit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFOit+1</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIit</td>
<td>0.2504</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRRit*NIit</td>
<td>0.2072</td>
<td>0.5998</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CFOit</td>
<td>0.4186</td>
<td>0.2363</td>
<td>0.2499</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRRit*CFOit</td>
<td>0.3976</td>
<td>0.1980</td>
<td>0.4054</td>
<td>0.7837</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCit</td>
<td>0.4037</td>
<td>0.4432</td>
<td>0.2398</td>
<td>0.3954</td>
<td>0.2907</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRRit*ACCit</td>
<td>0.3888</td>
<td>0.2485</td>
<td>0.4443</td>
<td>0.4212</td>
<td>0.5811</td>
<td>0.6383</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZEit</td>
<td>0.1508</td>
<td>0.0703</td>
<td>0.0170</td>
<td>0.1856</td>
<td>0.1465</td>
<td>0.2172</td>
<td>0.1487</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEBTit</td>
<td>-0.1554</td>
<td>-0.1894</td>
<td>-0.2061</td>
<td>-0.2513</td>
<td>-0.2369</td>
<td>-0.1464</td>
<td>-0.1732</td>
<td>0.1170</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>LOSSit</td>
<td>-0.2448</td>
<td>-0.3829</td>
<td>-0.2169</td>
<td>-0.2980</td>
<td>-0.2343</td>
<td>-0.5221</td>
<td>-0.2702</td>
<td>-0.2382</td>
<td>0.2273</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Table 3 illustrates Pearson Correlation Coefficient scores among the variables. Overall, it shows that all the variables are not highly correlated with each other with only a small or medium strength correlation between them. The slightly stronger positive correlations between FRR*NI with NI, FRR*CFO with CFO, and FRR*ACC with ACC are expected since they are interaction variables. Meanwhile, the coefficient between LOSS and ACC is -0.5221. This indicates that there is a slightly stronger negative correlation between them. It means that whenever a firm report a loss,
the accruals would be 0.5221 lower than for a firm reporting a profit. It makes sense since accruals are calculated from the product of earnings minus cash.

4.1. Sample Estimations

This section discusses the results obtained for the sample estimation of Model 1 and Model 2 using OLS regression and panel data analysis. Table 4 and 5 show the pooled and panel regression results of total sample firms for the 9 year period. First, all sample firm data is run on a pooled regression basis. Secondly, the random effect panel is used to compare the results between pooled and random effect regressions. The LM-Breusch Pagan test reveals that random effect is preferred to pooled-OLS model with a 0.000 p-value, thus rejecting the null hypothesis that there is no variance of the error term. In other words, the test reveals that there is heterogeneity (difference) across individual firms in the sample which warrants the use of panel data analysis instead of pooled regression analysis.

The next step is to test this random effect model against fixed effect model by performing the Hausman-test. The results shows a 0.000 p-value (significant at 5% level), leading to the rejection of the null hypothesis that there is no correlation between the firm-specific error component and the right hand side (independent) variables of the regression model. Thus, fixed effect estimation is preferred for this analysis as shown in the third column. Besides, the fixed effects estimation uses within variation in the data that allows for endogeneity of the regressors, and it is more appropriate when focusing on specific set of individual samples.

Pooled regression results for Model 1 show that all variables are statistically significant at 1% and 5% significance level. This result supports hypothesis 1 which states that there is a significant relationship between earnings under IFRS regime and future operating cash flow. In other words, earnings calculated based on IFRS brings the effect of better quality financial information through better predictive cash flow information. These results appear to be consistent with Palea and Scagnelli (2017) but inconsistent with Dechow et al. (1998), Bartov et al. (2005), Ndubizu & Sanchez (2006), and Barth, et al. (2008) on the inferiority of IFRS earnings compared to non-IFRS. It could be due to different time frame of research sample.

SIZE also plays an important role in predicting a firm’s future cash flows where larger firms have better predictability of future cash flows. The significantly negative coefficient of DEBT is as expected because the higher the leverage the lower the future cash flows would be due to the high financing costs. However, this finding is inconsistent with positive coefficient found in Velury and Jenkins (2006). The adjusted $R^2$ value that obtained for Model 1 is 0.1065, which means that about 10% of the variance of the $CFO_{it+1}$ are explained by the model.
Table 4: Estimation Result Model 1

Model 1: Dependent variable is CFO_{it+1}

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Pooled OLS (Robust standard errors)</th>
<th>Panel-Random Effects</th>
<th>Panel-Fixed Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>t-stats</td>
<td>Coef.</td>
</tr>
<tr>
<td>C</td>
<td>-0.23</td>
<td>-0.37</td>
<td>-0.024</td>
</tr>
<tr>
<td>NI_{it}</td>
<td>0.076</td>
<td>3.50***</td>
<td>0.044</td>
</tr>
<tr>
<td>FRR_{it} * NI_{it}</td>
<td>0.131</td>
<td>2.40**</td>
<td>0.076</td>
</tr>
<tr>
<td>SIZE_{it}</td>
<td>0.014</td>
<td>4.72***</td>
<td>0.015</td>
</tr>
<tr>
<td>DEBT_{it}</td>
<td>-0.045</td>
<td>-3.84***</td>
<td>0.011</td>
</tr>
<tr>
<td>LOSS_{it}</td>
<td>-0.038</td>
<td>-7.60***</td>
<td>-0.023</td>
</tr>
<tr>
<td>Adjusted Rsq</td>
<td>0.1065</td>
<td>-</td>
<td>0.0780</td>
</tr>
<tr>
<td>Breush Pagan LM test (p-value)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hausman test (p-value)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VIF</td>
<td>1.38</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Modified Wald Test for: Heteroskedasticity (p-value)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Serial Correlation (F-value)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes: *, **, *** indicate significantly different from zero at the 0.10, 0.05 and 0.01 level (two-tailed), respectively.

Nonetheless, while the results are consistent under random effects panel analysis with those of pooled regression analysis, the results using fixed effect panel analysis do not show significant relationship of all independent variables except for DEBT. This could be contributed by different dimensions in panel data analysis. It appears that the insignificance of IFRS adoption in predicting future cash flows is similar to the result by Atwood, et al. (2011).

Results of Model 2 in Table 5 show that all variables except FRR*ACC, DEBT and LOSS are statistically significant at 1% and 5% significance levels. The significance of FRR*CFO and insufficiency of FRR*ACC show that IFRS regime results in better predictive abilities of future cash flows of current cash flows but not current accruals. In essence, IFRS do not result in better prediction of future cash flows when the accruals variable under IFRS regime is not statistically significant. This confirms the hypothesis 2 but not hypothesis 3. Result of SIZE is consistent with prior studies. Kim and Kross (2005) and Farshadfar, Ng and Brimble (2008) suggest that the forecasting ability of future cash flows in large firms is notably greater than medium and small firms.
### Table 5: Estimation Result Model 2

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Pooled OLS (Robust standard errors)</th>
<th>Panel-Random Effects</th>
<th>Panel-Fixed Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>t-stats</td>
<td>Coef.</td>
</tr>
<tr>
<td>C</td>
<td>0.013</td>
<td>0.76**</td>
<td>0.004</td>
</tr>
<tr>
<td>CFO_{it}</td>
<td>0.134</td>
<td>2.01***</td>
<td>0.171</td>
</tr>
<tr>
<td>FRR_{it}*CFO_{it}</td>
<td>0.236</td>
<td>2.59***</td>
<td>0.168</td>
</tr>
<tr>
<td>ACC_{it}</td>
<td>0.180</td>
<td>4.61***</td>
<td>0.191</td>
</tr>
<tr>
<td>FRR_{it}*ACC_{it}</td>
<td>0.142</td>
<td>1.52</td>
<td>0.129</td>
</tr>
<tr>
<td>SIZE_{it}</td>
<td>0.007</td>
<td>2.35***</td>
<td>0.006</td>
</tr>
<tr>
<td>DEBT_{it}</td>
<td>-0.022</td>
<td>-1.71*</td>
<td>-0.020</td>
</tr>
<tr>
<td>LOSS_{it}</td>
<td>-0.002</td>
<td>-0.27</td>
<td>-0.000</td>
</tr>
<tr>
<td>Adjusted Rsq</td>
<td>0.2604</td>
<td>-</td>
<td>0.2523</td>
</tr>
<tr>
<td>Breusch Pagan LM test (p-value)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hausman test (p-value)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VIF</td>
<td>2.33</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Modified Wald Test for:**
- Heteroskedasticity (p-value) | - | - | - | - | 0.0000 |

**Serial Correlation (F-value)** | - | - | - | - | 0.0000 |

**Notes:** *, **, *** indicate significantly different from zero at the 0.10, 0.05 and 0.01 level (two-tailed), respectively.

Unlike Model 1, DEBT has proven to be significant variable of CFO_{it+1} although at various confidence level due to similar explanation as applied in Model 1 above. The adjusted R² value for Model 2 is 0.2604, which means that about 25% of the variance of the CFO_{it+1} are explained by the model. This study also found that LOSS is not statistically significant variable of future cash flow prediction in Model 2. This finding is inconsistent with Velury and Jenkins (2006). The increase in Adjusted R² from 0.1065 (Model 1) to 0.2604 (Model 2) suggest that the results are in line with prior studies which state that the predictive power of earnings towards future cash flows will increase when the earnings is disaggregated into cash flows and main accrual components (Dechow, at al. 1998; Barth et al., 2001).

Similar to Model 1, the pooled regression results are consistent when random effect panel analysis is used. However, for Model 2, the results of fixed effects panel data analysis show a stronger association of the variables with future cash flow prediction. All independent variables are significant except for FRR*ACC, SIZE and LOSS. The insignificance of FRR*ACC points to the fact that accruals under IFRS regime may not be a good predictor of future cash flows. As mentioned earlier, accruals have different components that are subject to different accounting treatments’ changes throughout the sample period. Therefore, future research is recommended to...
examine the various components of total accruals and map them against significant changes in accounting policies as a result of IFRS adoption.

5. CONCLUSION

Many countries have moved towards IFRS convergence since 2005 as IFRS plays a major role in providing single global accounting standards that can enhance the accounting practices transparency, understandability and comparability of financial information across nations. Malaysia cannot afford to be left behind and has made such move by 2012 to ensure improvements in financial reporting quality by providing useful financial information regarding the financial position, financial performance and cash flows of an entity to the current and potential users in assisting them in making economic decisions. Therefore, the question of whether convergence to IFRS improves the predictability of future cash flows which is one of the desirable objectives of financial statements becomes a very important issue, given the expectedly high quality accounting standards such as IFRS are in place.

Given the gap in prior studies, this study has shown that there is a significant relationship between current cash flows under IFRS regime and future operating cash flows. Despite the non-significant relationship between current accruals under IFRS regime and future operating cash flows, Malaysian companies have shown their well acceptance of IFRS adoption through relatively better future cash flows predictability of the current cash flows. The insignificant result of current accruals under IFRS regime explains the insignificant result of net income under the IFRS regime on the cash flow predictability. Accruals which are embedded in net income have different characteristics that are subject to different accounting treatments. In fact, changes in accounting rules that are made mandatory within the revisions of IFRS throughout the sample years are believed to have an effect on the insignificant cash flow prediction of the current accruals derived based on IFRS standards. It is hoped that future studies could expand the research into analysing other components of total accruals as well as other earnings quality attributes not yet studied in order to examine the overall effect of IFRS adoption in Malaysia. In addition, the sample could also be expanded to include non-31 December financial year end firm-year observations.

REFERENCES


