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The Effects of Mandatory IFRS Adoption on Accounting Information Quality: Empirical Evidence from Jordan

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Abstract: *- This study examines the differences between the accounting quality (value relevance, timely loss recognition, earnings persistence and earnings management) during pre and post-mandatory IFRS adoption periods in Jordan. Data covering fifteen years (2001-2003) as pre-IFRS adoption and 2004-2015 as post-IFRS adoption) was collected via annual reports of the listed industrial and service sector firms on the Amman Stock Exchange (ASE). The findings show that there is no change in the value relevance of earnings pre and post-IFRS adoption based on the price model, whereas value relevance of book value of equity has reduced after the IFRS adoption. The earnings are more value relevant as per the return model after the IFRS adoption. Timely loss recognition is significantly lower after the adoption of IFRS. Earning persistence is increased after the IFRS adoption and finally, earnings management is lower for the Jordanian firms after the adoption of IFRS. In addition, these findings signify that IFRS adoption have not improved accounting quality in Jordan. This study contributes to the body of knowledge regarding IFRS and accounting information quality in the developing country's context i.e. Jordan and provides a specific guidance for Jordanian regulators to make the IFRS adoption helpful for firms and investors.*

Keywords*: - IFRS adoption in Jordan, Value relevance, Timely loss recognition, Earnings persistence, Earnings management*

1. Introduction

The listed firms under Amman Stock Exchange (ASE) are required to publish their consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) since 2004 after the introduction of Company Law 1997 and the Securities Law 2002 (ASE, 2007). Although it is believed that the adoption of IFRS will facilitate growth in countries' equity markets by providing high accounting information quality and thereby serving the needs of investors and companies. The expected benefits from the implementation of IFRS have become a subject of debate among academisation and practitioners (Zeghal, Chtourou, & Fourati, 2012), and the existing literature provides inconsistent evidence on whether or not the adoption of IFRS

enhances accounting information quality. (Capkun, Collins & Jeanjean, 2016).

The empirical evidences from post-IFRS adoption studies (Aharony et al., 2010; Barth et al., 2008; Horton et al., 2010; Landsman et al., 2012; Liu et

al., 2011; Marquez-Ramos, 2011) indicate that IFRS adoption would enhance the accounting information quality by the improvement in the comparability and the transparency of financial reporting. Aharony et al. (2010) and Horton et al. (2010) stated that the IFRS would enhance the value relevance (a proxy for accounting information quality) of accounting numbers for investors in equity valuation. On the other hand, some researchers such as Ball et al. (2003), Christensen et al. (2007), and Paananen and Lin (2009) believe that adoption of IFRS is not necessarily the determinant of accounting information quality. According to Ball et al. (2003), adopting high quality accounting standards might be a necessary action but not a sufficient one, but other factors such as the country's institutional setting and the firms' incentives may also play an important role in determining accounting information quality (Ball

et al., 2003; Christensen et al., 2015; Paananen & Lin 2009).

It has been argued by some researchers that voluntary IFRS adoption is proved to have a positive effect on accounting information quality (Barth et al., 2008; Gassen & Sellhorn, 2006). According to Ahmed et al. (2013) that, this argument is valid for the early adopters, because these firms had incentives to upsurge the transparency of their reporting in order to attract outside capital, and, therefore, earnings management went down after voluntary IFRS adoption, Whereas, the firms that waited until IFRS reporting became mandatory in EU countries lacked incentives for transparent reporting that led to an increase in earnings management for example, in the European Union (EU) (Ahmed et al., 2013; Christensen et al., 2015). In the context of the Jordan, IFRS adoption increases the quality of disclosure and consequently affects the equity market value (Al-Khadash & Abdullatif, 2010). On the other hand, Abu-Risheh and Alsaeed (2014) claimed that the IFRS adoption in Jordan has increased the complexity of financial reporting and there are the chances for misreporting if those accountable for preparing the financial reports and the auditors do not possess the required expertise and skills for IFRS application.

Few studies have examined the influence of IFRS on the accounting information quality in Jordan (see, for example, Daas, 2014; Saaydah, 2012). Due to the lack of existing literature on this issue in the Jordan and fill this literature gap, this study examines if there are differences between the accounting information quality during the mandatory adoption of IFRS period and pre-IFRS period in Jordan. This study is considered imperative, given the fact that prior studies regarding IFRSs and accounting information quality are largely conducted in developed countries and in some developing countries with mixed findings. While the studies in Jordan focused mostly on banking and industry sectors. However, the present study extends the existing knowledge by examining the effect of IFRS adoption on accounting information quality in the service as well including industry sectors. This is the first study according to the best knowledge of the researcher by examining the influence of pre and post-IFRS adoption on the value relevance, earnings persistence, timely loss recognition, and earnings management in Jordan's context. This research is structured into the following sections; literature review, hypotheses development, research method, result and discussion and conclusion.

2.0 Literature Review

The literature on the effect of IFRS adoption on accounting information quality provides mixed findings. In the study by Bartov et al. (2005), which examined the value relevance of accounting information of listed firms on the German Stock Exchanges, results of the study found that companies reporting on the basis of US GAAP's provide more value relevant accounting information as compared to firm reporting on the basis of IAS. Moreover, US GAAP is more value relevant than German GAAP. Hung and Subramanyam (2007) found an insignificant influence on timely loss recognition between voluntary IAS adopters and German GAAP compliant companies. Gassen & Sellhorn (2006) documented the significant differences regarding earnings quality: IFRS firms have more persistent, less predictable and more conditionally conservative earnings in the publicly traded German firms.

Adoption of IFRS might not ensure equal consequence for firms as mandatory adoption since managers can decide to use selective compliance based on the IFRS, drifting towards contradictory proof even in the equivalent economy (Brüggemann, Hitz & Sellhorn, 2013). In line with this view, Soderstrom and Sun (2007) confirmed that voluntary adoption of IFRS may not generalized on the European Union (EU) as compared to the mandatory adoption era. In the study by Chen et al. (2010) argued that earnings management mostly decreases in the IFRS reporting period, also there is a decrease in the timely loss recognition, however, there was an increase in the earnings smoothing. Zeghal et al. (2011) examined the French company's data from 2003-2006 and discovered that earnings management decreased during the compulsory IFRS adoption. Likewise, Devalle (2010) found increased value relevance of accounting information after the

compulsory IFRS adoption in France, Germany, and the United Kingdom. The significant increase in the value relevance of accounting information after the compulsory IFRS adoption is a sign of an increase in the reliability of accounting information due to IFRS adoption. Lin et al. (2012) found that accounting numbers under IFRS generally show more earnings management, less timely loss recognition, and less value relevance in comparison under U.S. GAAP based on the German firms that shifted from U.S. GAAP to IFRS. sun et al. 2011 investigated the influence of IFRS adoption on the earnings quality of foreign firms cross-listed in the U.S. The study found that there remains no difference in earnings quality from the pre- to post-IFRS as measured by absolute discretionary accruals, timely loss recognition. However, results further revealed that U.S. GAAP is generally viewed as high-quality standards with no significant room for improvement.

Using Spanish listed firm's data, Cutillas-Gomariz, Sánchez-Ballesta and Yagüe (2016) found that there is a significant change in value relevance of net income and operating income while no significant change is found in net income and operating income persistence in the IFRS period. The findings also indicate a significant change in the value relevance of other consolidated income and corporation tax and a significant decrease in the persistence of net profit/loss from discontinued operations in relation to extraordinary items. El-Gazzar and El-Sadek (2001) confirmed that the value relevance of accounting information in the emerging market of Middle-East, the content of accounting information has been pre-empted prior to being made available for public use. Though, the Abu Dhabi Stock Exchange (ADX) being a potential and emerging market, made it mandatory for the domestic firm and listed companies to report under the IFRS in accordance with their law. Furthermore, auditors are also required to be registered by firms to ensure if stipulated regulations were followed with regards to the listed companies.

Khanagha (2013) found that there was an improvement in the value relevance of accounting information in the IFRS period for Bahrain and Saudi Arabia listed firms whereas, there was a decrease in the value relevance in the United Arab Emirates firms. Al and Abulaila (2016), used the data of 20 Saudi Arabia insurance firms for the period 2007-2010 to investigate the impact of IFRS adoption on asymmetric information as a measurement of accounting information quality and found that after adoption of IFRS in 2009, IFRS significantly influenced asymmetric information and there was a lack of relationship before mandatory IFRS adoption.

In Jordan, Saaydah (2012) examined the influence of IFRS adoption's influence on value relevance of accounting information in the industry and banking sectors and concluded that discretionary accruals predict that the market value of banks is increased after the adoption of IFRS, whereas earnings and book value of equity are better predictors in the industrial firm's value after IFRS adoption. Likewise, Dass (2014) investigated the quality of accounting information pre and post-IFRS mandatory adoption on the banking and industry sectors and found that IFRS adoption resulted in the high earnings management and however, less timely loss recognition, and similarly, value relevance is low in IFRS period.

Overall, the findings of the existing literature on the effects of IFRS adoption are inconsistent. This could be associated with poor compliance with IFRS among adopters (Street & Gray, 2001), lack of reporting incentives in some countries (Ball et al., 2003), and studies' adoption of different accounting information quality proxies, different time periods, and different variables to control firms' incentives and economic environments. This study has adopted a longer period, a larger sample, and broaden accounting information quality proxies because this will extend the scope of literature. Accounting quality in the current research is based on the value relevance (Barth et al., 2008); timely of loss recognition (Ball & Shivakumar, 2005; 2006; Barth et al., 2008; Chen et al., 2010; Chua et al., 2012); earnings persistence (Atwood et al., 2011; Basu, 1997; Dechow et al., 2010) and earnings management (Barth et al., 2008; Chen et al., 2010; Chua et al., 2012; Lang et al., 2003).

2.1 Hypotheses Development

Value relevance is a supreme proxy for accounting information quality to measure the usefulness of accounting information in decision making (Ball & Brown, 1968; Scott, 2009). Value relevance can be defined as the statistical association among earning's information and share price/ stock returns as the investors use this information for equity valuation (Francis & Schipper, 1999, Mirza, Malek, & Abdul Hamid, 2019a, 2019b). In a study by Van der Meulen et al. (2007), that investigated the value relevance of earnings in German listed firms based on US GAAP and IFRS during economic crunch, findings revealed that the value relevance of earnings under US GAAP and IFRS are similar. Whereas, earnings based on the US GAAP has a better predictive ability as compared to earnings based on the IFRS. Nevertheless, the investors don't give appropriate value the change in predictive value because there is not a significant difference in the value-relevance of earnings based on different fundamentals. So, it was suggested by Van der Meulen et al. (2007) that public investors don't properly understand the technical issues behind the differences among US GAAP and IFRS. Likewise, Lin et al. (2012) stated that companies switched from US GAAP to IFRS showed no significant improvement in the value relevance of accounting information than US GAAP reporting, whereas, the US GAAP provides more value relevance accounting information as compared to the accounting information based on IFRS. Rather change from US GAAP to IFRS reduces the accounting information quality. Saaydah (2012) found that discretionary accruals have better ability to forecast banks share price whereas earnings and book value of equity have better capability to forecast industrial equity market value post-IFRS adoption in 2004.

Additionally, IFRS may foster timely loss recognition because of two main reasons; first, the IFRS requires more impairment tests and forced to recognise an impairment loss in the income statement immediately especially where the asset is revalued (IASB, 2009). Secondly, fair value accounting stress that IFRS fundamentals incorporate the market-based economic profit and loss information into annual reports in a timely manner, that results in more informative earnings and providing useful information for contracting and investment purpose (Ball, 2006). On this issue, Dechow and Ge (2006) state that assets such as inventory, goodwill, property, plant, and equipment (PPE) of firms having a problem for going concern, their market values are likely to be less than their book values. Because of this decline in the financial condition of the firms and downsizing result in a build-up of large negative accruals (Dechow & Ge, 2006) that are normally charged in the income statement instantly under IFRS except in certain circumstances.

Prior research findings have documented the influence of accounting standards especially IFRS on the timely loss recognition (Barth et al., 2008; Christensen et al., 2015; Chua et al., 2012). Chua et al. (2012) found a significant increase in timely loss recognition during the compulsory adoption of IFRS in Australia. A study by Paananen and Lin's (2009) find that the adoption of IFRS in Sweden significantly decreased timely loss recognition, whereas, Ahmed et al. (2013) using a sample of 20 countries also claimed that there is a significant reduction in the timeliness of loss recognition, for the countries with strong governance. These studies collectively suggest that different standards influence unequally on timely loss recognition. Daas (2014) investigated timely loss recognition in the banking and industries sectors pre and post-IFRS mandatory adoption in 2004. The results revealed that timely loss recognition significantly decreased after adoption IFRS. Moreover, a decline in timely loss recognition is considered a factor that drives the change in observed smoothness properties of earnings around mandatory IFRS adoption (Capkun & Collins, 2018).

As well, earnings persistence is partly associated with the applicable accounting standards (Scott, 2009) meanwhile the standards affect the principle for separating recurring items from non-recurring (Ewert & Wagenhofer, 2011). Earnings persistence is generally different, when based on IFRS as the shocks to earnings are known in earnings with

different momentum. For example, negative shocks to the earnings process exposed by impairment loss is instantly provided in the gain and loss by the provisions of IAS 36 and 16, that leads to a one-time decrease in earnings, excluding where a revaluation surplus for the same asset is already recognised in the statement of changes in equity (IASB, 2009). According to Basu (1997), Earnings persistence is likely to be equally higher in the case of good news under IFRS. This is because of that, the good news value is incorporated by constant fractional reflection in earnings across future periods through depreciation, that may change due to the positive news on the useful life of the asset. Though, these adjustments, do not affect the persistence of cash flow earnings (Dechow & Ge, 2006), but brings accrual earnings closer to cash flow earnings. The adjustments also provide more trustworthy information to investors to predict future earnings of the firm through the present earnings information.

In the literature, research findings indicate mixed results, recommending that earnings persistence is dependent on the accounting standards and may be affected unequally by different accounting standards. Doukakis (2010) stated that IFRS adoption does not significantly enhance earnings persistence. In addition, Kabir et al. (2010) recommended on the basis of New Zealand data from 2002 to 2009, there is no indication that IFRS earnings are more persistent than earnings reported under New Zealand GAAP. However, Gordon et al. (2010), who employed three years' data using 26 countries to compare with other accounting information quality measures, earnings persistence between the US GAAP and IFRS-compliant firms listing on US Stock Exchanges, revealed the evidence of a higher but insignificant difference in earnings persistence under US GAAP relative to IFRS.

Moreover, firms may manipulate earrings through working capital accruals or depreciation by an adjustment in the useful lives of the assets (Dechow & Dichev, 2002; Roberts et al., 2008). This exercise might be related with capital market perception of the company prospects (Roberts et al., 2008); earnings management to increase management compensation (Bergstresser & Philippon, 2006), earnings management to circumvent political and regulatory interference (Van Tendeloo & Vanstraelen, 2005). Though, earnings management may likely to be reduced when firms adopt IFRS, follows rules of the IFRS.

Prior researchers have related adoption of accounting standards with earnings management. Varying accounting policies may result in different earning figures, managers may favour policies that given them incentive without violating the rules (Watts & Zimmerman, 1986; Roberts et al., 2005; 2008; Barth et al., 2008). This theoretical assumption is examined in the plenty of research, that compares the impact of IFRS and national DAS on accounting quality; resulting in mixed findings. For example, Van Tendeloo and Vanstraelen (2005) used a sample of 636 firm-years observations of German companies from the period 1999 to 2001 to examine the earnings management practice of IFRS voluntary adopters. The study finds no significant difference between IFRS voluntary adopters and German GAAP compliant firm regarding earning management practices. A study by Capkun, Collins, and Jeanjean (2016) based on countries that implemented early IFRS adoption found a rise in earnings management from pre-2005 to post-2005. Similarly, in countries that did not allow early IFRS adoption, there is a rise in earnings management from pre-2005 to post-2005 (Capkun et al., 2016). Dass's (2014) examined earnings management practice in Jordanian banks and industrials companies before and after IFRS adoption in 2004, it is found that earnings management increased significantly in IFRS period.

Given the above discussions, this study proposes the following major hypothesis:

H1: Mandatory adoption of IFRS in Jordan will lead to higher value relevance of book value of equity in the post-IFRS period.

H2: Mandatory adoption of IFRS in Jordan will lead to higher value relevance of earnings per share in the post-IFRS period.

H3: Mandatory adoption of IFRS in Jordan will lead to higher timely loss recognition in the post-IFRS period.

H4: Mandatory adoption of IFRS in Jordan will lead to higher earnings persistence in the post-IFRS period.

H5: Mandatory adoption of IFRS in Jordan will lead to fewer earnings' management in the post-IFRS period.

3.0 Research Design

3.1 Accounting Information Quality Metrics

The quality of accounting information is a subject that is receiving more attention recently and the centre of debate for inventors and regulators including accounting researchers. The quality of accounting information is a concept of multi-dimensional views and no specific definition is available in the literature. Numerous metrics for assessing quality accounting information were developed. According to the attributes of earnings by Francis et al. (2004), can be disunited and separated by classifying them into two categories: market-based (value relevance and timely loss recognition) and accounting-based measures (earnings management and earnings persistence). According to Francis et al. (2004), Gaio (2010) Devalle et al. (2010) market-based measurements are based on the correlation among the elements of financial reports such as book value of equity and earnings with market price as well as returns, whereas, the accounting-based measures are only based on the information from the financial reports.

This research examines four qualities of accounting information quality constructs that are commonly used in the literature; value relevance, timely loss recognition, earnings persistence and earnings management. Based on these categories of accounting information quality attributes, this study evaluates whether the adoption of IFRS is really presented in earnings and the associated market values (Van der Meulen et al., 2007). The data is analyzed for pre- and post-IFRS adoption periods by comparing the same companies' quality metrics.

3.1.1 Value Relevance

The first measurement of accounting information quality employed in this study is value relevance. Value relevance is an association between accounting numbers and share prices or returns. The assumption of value relevance proxy is that accounting information is more relevant and reliable for the investors if there is a strong statistical relationship between accounting information and share prices/returns (Lang et al., 2006).

The price model as suggested by Ohlson (1995) to operationalise value relevance and employed by others such as Barth et al. (2008), Karampinis and Hevas (2009), and Lin et al (2012) where earnings per share and the book value of equity are regressed on share prices. The formal model is given below for performing a multivariate regression analysis:

$$P_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 BVPS_{it} + \beta_3 IFRS + \beta_4 EPS_{it} * IFRS + \beta_5 BVPS_{it} * IFRS + \beta_6 FSIZE_{it} + \beta_7 DEBT_{it} + \beta_8 GROWTH_{it} + \beta_9 DISSUE_{it} + \beta_{10} ATURN_{it} + e_{it} \quad (1)$$

Where P = The firm's share price three months after the end of year t, EPS= Earnings per share for firm i in year t, BVPS= Book value of equity per share for firm i at the end of year t, IFRS= Dummy variable measured as "1" for the period of IFRS adoption and "0" otherwise; FSIZE= Natural logarithm of total assets for firm i at the end of year t, DEBT= Long-term debt dividing by total assets for firm i at the end of year t, GROWTH= Percentage change in sales revenue for firm i from time t-1 to t, DISSUE= Percentage change in total liabilities for firm i from time t-1 to t, AUTRN= Ratio of sales revenue divided by total assets at year-end for firm i in year t, e=Error term. A positive and significant β_4 and β_5 demonstrate higher value relevance of earnings and book value after the mandatory IFRS adoption.

The second measure of value relevance is based on return model as suggested by Easton and Harris, (1991). In this model, share return is regressed on both earnings per share and change in earnings per share. The reason of applying return model for examining the value relevance of earnings is the

extensive use in the literature such as Barth et al. (2008), Loftus and Sin (1997), Warfield and Wild (1992), Warfield et al. (1995) The formal model is given below for performing a multivariate regression analysis based on the return model:

$$R_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 \Delta EPS_{it} + \beta_3 IFRS + \beta_4 EPS_{it} * IFRS + \beta_5 \Delta EPS_{it} * IRFS + \beta_6 FSIZE_{it} + \beta_7 DEBT_{it} + \beta_8 GROWTH_{it} + \beta_9 DISSUE_{it} + \beta_{10} ATURN_{it} + e_{it} \quad (2)$$

Where R= returns three months after the end of year t for firm i, EPS= earnings per share for firm i in year t, ΔEPS=change earnings per share for firm i in year t-1to t, IFRS= dummy variable and measure as "1" for the period of IFRS adoption and "0" otherwise, FSIZE= natural logarithm of total assets for firm i at the end of year t, DEBT= long-term debt dividing by total assets for firm i at the end of year t, GROWTH= percentage change in sales revenue for firm i from time t-1 to t, DISSUE= percentage change in total liabilities for firm i from time t-1 to t, AUTRN= ratio of sales revenue divided by total assets at year-end for firm i in year t, e= error term. The both coefficients of β_4 and $\beta_5$capture the influence of IFRS adoption on the value relevance of earnings.

3.1.2 Timely Loss Recognition

The second measurement of accounting information quality used in this study is timely loss recognition. Timely loss recognition is the practice of identification of losses timelier as compared to the gains in financial statements, and renowned as conservatism (Basu, 1997; Ball et al., 2000; 2003). Timely recognition of losses is measured using the model given by Basu (1997). To test the influence of the IFRS, a formal model is given below for performing a multivariate a regression analysis:

$$E_{it}/Pit = \beta_0 + \beta_1 R_{it} + \beta_2 D_{it} + \beta_3 R_{it} * D_{it} + \beta_4 IFRS + \beta_5 R_{it} * IFRS + \beta_6 D_{it} * IFRS + \beta_7 R_{it} * D_{it} * IFRS + \beta_8 FSIZE_{it} + \beta_9 DEBT_{it} + \beta_{10} GROWTH_{it} + \beta_{11} DISSUE_{it} + \beta_{12} ATURN_{it} + e_{it} \quad (3)$$

Where, E=earnings per share scaled by the beginning of period share price, R= return rate (return three months after financial year end), D= dummy variable equal "1" for negative return and "0" otherwise, R*D= interaction between return and dummy variable, IFRS= dummy variable "1" for the period of IFRS adoption and "0" otherwise, FSIZE= natural logarithm of total assets for firm i at the end of year t, DEBT= long-term debt dividing by total assets for firm i at the end of year t, GROWTH= percentage change in sales revenue for firm i from time t to t-1-, DISSUE= percentage change in total liabilities for firm i from time t-1 to t, AUTRN= ratio of sales revenue divided by total assets at year-end for firm i in year t, e= error term. To capture more timely loss recognition in IFRS period β_7 should be positive and significant.

3.1.3 Earnings Persistence

The third measure is earnings persistence. This study used earnings persistence because more persistent earnings show more sustainable earnings or cash flow, that will result in better input for the valuation models (Dechow et al., 2010). Like previous research (e.g., Sloan, 1996; Francis, LaFond, Olsson, and Schipper, 2004), earnings persistence is measured by regressing year-ahead earnings on current year earnings. To investigate the influence of the IFRS adoption, we include IFRS a formal model is given below for performing a multivariate a regression analysis:

$$EBIT_{it+1} = \beta_0 + \beta_1 EBIT_{it} + \beta_2 IFRS + \beta_3 EBIT_{it} * IFRS + \beta_4 FSIZE_{it} + \beta_5 DEBT_{it} + \beta_6 GROWTH_{it} + \beta_7 DISSUE_{it} + \beta_8 ATURN_{it} + e_{it} \quad (4)$$

Where $EBIT_{it+1}$= earnings before interest and tax for firm i in year $t+1$ scaled by total assets, $EBIT_{it}$= earnings before interest and tax for firm i in year t scaled by total assets, IFRS= dummy variable and measure as "1" for the period of IFRS adoption and "0" otherwise, FSIZE= natural logarithm of total assets for firm i at the end of year t, DEBT= long-term debt dividing by total assets for firm i at the end of year t, GROWTH= percentage change in sales revenue for firm i from time t-1 to t, DISSUE= percentage change in total liabilities for firm i from

time t-1 to t, AUTRN= ratio of sales revenue divided by total assets at year-end for firm i in year t, e= error term. We are interested in β_3 which is the impact IFRS adoption on earnings persistence, we expect β_3 to be significantly positive.

3.1.4 Earnings Management

The final accounting information quality measure of the study is earnings management. Earnings management can be measured as accruals quality and earnings smoothing, the present study adopted accruals quality that is measured as earnings before extraordinary items minus cash flows from operating activities (Barth et al., 2008; Dechow & Dichev, 2002) or from present accruals in the statement of financial position (Ball & Shivakumar, 2006; Dechow & Dichev, 2002; Francis et al., 2004;). Therefore, earnings management in the present study is measured through Dechow and Dichev's (2002) model due to the non-uniformity of measures of working capital as reported under both IFRS and U.S GAAP (ISAB, 2008). Accruals quality is quantified as the standard deviations of residuals from the following time series estimation (Dechow & Dichev, 2002):

$$\Delta WC_{it} = \beta_0 + \beta_1 CFO_{it-1} + \beta_2 CFO_{it} + \beta_3 CFO_{it+1} + e_{it} \quad (5)$$

Where ΔWC= change in working capital of firm i at year t scaled by average total assets, CFO_{it-1}= cash flow from operations of firm i in year t-1 scaled by average total assets, CFO_{it}=cash flow from operations of firm i in year scaled by average total assets t, CFO_{it+1}= cash flow from operations of firm i in year t+1 scaled by average total assets. A higher standard deviation of residuals from time series estimation equation 5 suggests lower accruals quality.

$$AQ_{it} = \beta_0 + \beta_1 IFRS + \beta_2 FSIZE_{it} + \beta_3 DEBT_{it} + \beta_4 GROWTH_{it} + \beta_5 DISSUE_{it} + \beta_6 ATURN_{it} + e_{it} \quad (6)$$

Where AQ: Accruals quality for firm i at year t, IFRS= dummy variable and measure as "1" for the period of IFRS adoption and "0" otherwise, FSIZE= natural logarithm of total assets for firm i at the end of year t, DEBT= long-term debt dividing by total assets for firm i at the end of year t, GROWTH= percentage change in sales revenue for firm i from time t-1 to t, DISSUE= percentage change in total liabilities for firm i from time t-1 to t, AUTRN= ratio of sales revenue divided by total assets at year-end for firm i in year t; e= error term. A negative and significant β_1 in equation 6 indicates lower earnings management after mandatory IFRS adoption.

3.2 Sample Selection

The sample of the study is based on fifteen years (2001-2015), that was collected via annual reports of the listed industrial and service sector companies on the Amman Stock Exchange (ASE). Given the limitation of gathering data, this study examined three years from 2001-2003 as pre-adoption and eleven years (2004-2015) as post-adoption of IFRS period. Ernstberger, Stichand and Vogler, 2012 suggest that a large number of years to be analyzed under the IFRS regime is important because companies need more times to understand and implement IFRS. Unbalanced panel data is used due to the non-availability of data for some companies. The sample consists of 180 companies listed in first, second and third markets in ASE making 1941 firms years' observations. As this study used unbalance panel data, therefore, the number of observations will be different for each regression model.

3.3 Multivariate Regression Analysis

In performing ordinary least square (OLS), the researcher should ensure that OLS assumptions are not violated to devoid OLS estimators of bias. The assumptions underlying the application of OLS as explicated by Wooldridge (2013), that are normality, multicollinearity, autocorrelation or serial correlation and heteroskedasticity. The series of diagnostic tests are performed signified that there is non-violation of all assumption of OLS except heteroskedasticity while the assumption regarding autocorrelation or serial correlation is partially violated. The result of the Hausman test for accounting information quality models is significant ($p<0.05$) for all models. The result suggests that there is a significant difference between the coefficients of the random effects and the fixed

effects models. Thus, the fixed effects regressions were adopted for the accounting information quality models. Due to the presence of group-wise heteroskedasticity, Driscoll and Kraay's SEs with fixed effects regressions is finally used, that is robust to group-wise heteroscedasticity and autocorrelation because fixed effects regression model alone cannot deal with group-wise heteroskedasticity (Hoechle 2007).

3.3.1 Descriptive Analysis

Table 1 below provides the classification of the sample by sector. The industry sector is based on 106 firms representing 59%. Meanwhile, the service sector is based on 74 firms which represent 41% of the sample of the study. This signified that the industry sector is the dominating sector of the study sample. Table 2 shows the univariate comparison between variables, pre and post-IFRS reporting samples. The sample is categorized into the subsamples for univariate analysis, where pre-IFRS represents (n=368) and post-IFRS (n=1573). The value of T-test statistics for the mean and the Wilcoxon-Mann Whitney statistics for the median is used to determine the decision on the significant statistical difference between the pre and post-IFRS observations.

Table1: Industry Classification for Sample by Sectors

Sector	Number	%
Industry	106	59
Service	74	41%
Total	180	100

Table 2 shows a comparison between pre and post-IFRS. The mean (median) share price (P) before adoption IFRS is 1.6144 (1.0000) while after IFRS adoption are 2.2751(1.6700). Both mean, and median were significantly different as showed by T-test and Wilcoxon Mann Whitney test between pre and post-samples (p- values<0.01). The results for the mean(median) earnings per share (EPS) were before IFRS adoption 0.0550 (0.0100) while after IFRS the mean(median) were 0.0573(0.0400). The results show the mean and median are not significant according to T-test and Wilcoxon Mann Whitney test. Similarly, the mean (median) of book value of equity (BVPS) before IFRS were 1.3685(1.1150) while after IFRS were 1.4084(1.2000). While the mean (BVPS) is insignificantly different according to T-test, the median was significant as shown by Wilcoxon Mann Whitney test (p-values<0.05). Furthermore, the mean (median) of return (R) in pre-IFRS period are 0.1920 (0.0747) and post-IFRS are 0.0112 (-0.0254). The results for the mean (median) are significant as per T-test and Wilcoxon Mann Whitney test (p-values<0.01). The mean (median) of change in earning per share(ΔEPS) is 0.0025 (0.0100) in the pre-IFRS period while after IFRS are -0.0010 (0.0000). The mean (median) is not significant as per T-test and Wilcoxon Mann Whitney test. Meanwhile, the mean (median) of earnings per share scaled by the share price at beginning the period (EPS/P) was -0.0012 (0.0434) before IFRS period while after IFRS are -.0112 (0.0250). The result of the mean is insignificant as revealed by T-test, but in the case of the median, the results are significantly different (p-value<0.01). The mean (median) of the interaction between return and dummy variable (RD) are -0.0387(0.0000) in pre-IFRS and in post-IFRS are -0.1047(0.0000). According to T-test and Wilcoxon Mann Whitney test, there is a significant difference between per and post-IFRS for the mean (median). The mean (median) of one year ahead earnings before interest and taxes were (EBITt+1) 0.0430 (0.0278) in IFRS and post-IFRS are 0.0334 (0.0317). The results suggest that the mean is significantly different (p-values<0.10) but the median is not significant. The mean(median) current earnings before interest and taxes (EBIT) were 0.0287(0.0225) in pre-IFRS and 0.0309(0.0351). Both mean, and median are insignificant as per T-test and Wilcoxon Mann Whitney test. Similarly, the mean (median) of Accruals quality (AQ) before IFRS were 0.0085 (0.0263) and post-IFRS 0.0170 (0.0119). The results for mean and median are not significant as shown by T-test and Wilcoxon Mann Whitney test. With respect to control variables, the mean (median) of firm size (Fsize) in pre-IFRS are 7.0018 (6.9502)

and post-IFRS are 7.2776 (7.2727). The results show there is a significant difference between per and post-IFRS according to T-test and Wilcoxon Mann Whitney test. Contrary to (Fsize), the mean (median) of DEBT are 0.0580 (0.0000) in pre-IFRS adoption period and 0.0510(0.0000) in post IFRS. The T-test and Wilcoxon Mann Whitney test showed that there is an insignificant difference between mean and median. Similarly, the mean (median) of GROWTH are 0.0794 (0.0250) in pre-IFRS and 0.0658 (0.0459) in post-IFRS. The results revealed that there is no significant difference between per and post-IFRS as per T-test and Wilcoxon Mann Whitney test. The mean (median) of DISSUE before-IFRS are 0.1135 (0.0148) and 0.1521(0.0423) after- IFRS adoption. The results show that there is a significant difference in median (p-values<0.10) but in case of mean there is the insignificant difference between per and post- IFRS as per T-test and Wilcoxon Mann Whitney test. Lastly, the mean (median) of ATURN are 0.4359 (0.3871) in pre-IFRS and 0.4843 (0.4491) in the post-IFRS. The results show that there is a significant difference between per and post-IFRS according to T-test and Wilcoxon Mann Whitney test.

Table 2: Descriptive Univariate Comparison Between Pre and Post-IFRS

	Pre IFRS (n = 368)			**Post IFRS (n=1573)**			**Wilcoxon/Mann-Whitney test p-value**
	Mean	**Median**		**Mean**	**Median**	**t-test P-value**	
P	1.6144	1.0000		2.2751	1.6700	0.0000	0.0000
EPS	0.0550	0.0100		0.0573	0.0400	0.8428	0.2375
BVPS	1.3685	1.1150		1.4084	1.2000	0.4189	0.0299
R	0.1920	0.0747		0.0112	-0.0254	0.0000	0.0000
ΔEPS	0.0025	0.0100		-0.0010	0.0000	0.6771	0.3326
EPS/P	-0.0012	0.0434		-0.0112	0.0250	0.2699	0.0058
RD	-0.0387	0.0000		-0.1047	0.0000	0.0000	0.0000
$EBIT_{t+1}$	0.0430	0.0278		0.0334	0.0317	0.0662	0.2629
EBIT	0.0287	0.0225		0.0309	0.0351	0.6613	0.2429
AQ	0.0085	0.0263		0.0170	0.0119	0.7242	0.7987
Fsize	7.0018	6.9502		7.2776	7.2727	0.0000	0.0000
DEBT	0.0580	0.0000		0.0510	0.0000	0.1438	0.5177
GROWTH	0.0794	0.0250		0.0658	0.0459	0.5351	0.7274
DISSUE	0.1135	0.0148		0.1521	0.0423	0.1793	0.0878
ATURN	0.4359	0.3871		0.4843	0.4491	0.0157	0.0194
D	0.2993	0.0000		0.5293	1.0000	0.0000	0.0000
IFRS	0.0000	0.0000		1.0000	1.0000	0.0000	0.0000

Note: P:share price three months after financial year end, EPS: earnings per share, BVPS: book value of equity per Share, R: return three months after financial year end, EPS/P: earnings per share scaled by share price at the beginning of year, RD: the interaction between return three month after financial year end and dummy variable equal 1 in negative return case and 0 otherwise, ΔEPS: change in earnings per share from time t to time t-1, EBIT: current year earnings before interest and taxes scaled by average total assets, $EBIT_{t+1}$: one-year-ahead earnings before interest and taxes scaled by average total assets, AQ: Accruals quality for firm i at year t and measure as standards deviation of residuals, Fsize: firms size measure as natural logarithm of total assets, DEBT: long-term debt to total assets ratio, GROWTH: represents growth in sales revenue and is calculated as percentage change in sales revenues from time t to time t-1, DISSUE represents debt issue calculated as percentage change in total liabilities, ATURN: Represents assets turnover and is calculated as sales revenue divided by total assets. Excluded Size and dummy variables, this study winsor the rest of variables at a

5% level (Barth et al., 2006; Atwood et al.,2011). T-Test shows the significant change in the meanwhile Wilcoxon/Mann-Whitney test shows the significant change in the median.

4.0 Result and Discussion

Table 3: Regression Results for Value Relevance (Price Model)

		Coeff.	t-test	p-value
EPS		0.798	1.16	0.265
BVPS		0.785	4.97	0.000
IFRS		0.478	4.59	0.000
EPSIFRS		0.761	0.89	0.391
BVPSIFRS		0.124	1.53	0.149
Fsize		0.035	0.12	0.906
Debt		-1.412	-3.74	0.002
Growth		-0.233	-1.85	0.085
Dissue		0.290	4.01	0.001
Aturn		0.498	2.64	0.019
Cons		-0.016	-0.01	0.994
R^2	0.297			
Number of observations	1551			

Note: EPS: earnings per share, BVPS: book value of equity per share, IFRS: dummy variable and measured as "1" for the period of IFRS adoption and "0" otherwise, Fsize: Natural logarithm of total assets, DEBT: long-term debt to total assets ratio, GROWTH: represents growth in sales revenue and is calculated as percentage change in sales revenues from time t to time t-1, DISSUE represents debt issue calculated as percentage change in total liabilities, ATURN: Represents assets turnover and is calculated as sales revenue divided by total assets at year-end.

The result in Table 3 shows that the relationship between EPS and share price is positive but insignificant ($\beta = 0.798$; $P>0.10$) and BVPS is positive and significant ($\beta = 0.785$; $P< 0.01$). The interaction effect between IFRS adoption and EPS is positive and insignificant EPSIFRS ($\beta=0.761$; $P> 0.10$), IFRS adoption and BVPS is also positive and insignificant BVPSIFRS ($\beta=0.124$; $P>0.10$). The results indicate that there is no difference between the value relevance of earnings pre and post-adoption of IFRS. Whereas, the value relevance of book value has reduced after the mandatory adoption of IFRS in Jordanian firms. Therefore, these results fail to support hypothesis 1. These results are in line with the findings of studies in developing and developed countries. For, example, Devalle (2010) claimed that the adoption of IFRS in the European countries doesn't improve the value relevance of book value of equity. The author attributed this to the adoption of fair value accounting as compared to the historical cost accounting that resulted in the loss of the value relevance of the book value. Dass (2014) stated that, in the context of Jordan, accounting information quality has deteriorated over time after the IFRS adoption. The author attributed this to the strong institutional framework in Jordan is compensating for higher-quality accounting standards and IFRS are not better than to domestic accounting regulations. Similar findings were reported by Khanagha (2013), who found that there was a decrease in the value relevance of accounting information in the United Arab Emirates firms after the IFRS adoption

Table 4: Regression Results for Value Relevance (Return Model)

		Coeff.	t-test	p-value
EPS		0.692	5.10	0.000
ΔEPS		0.168	2.24	0.042
IFRS		-0.096	-1.56	0.141

EPSIFRS		-0.126	-0.84	0.417
ΔEPSIFRS		0.269	1.87	0.083
Fsize		-0.304	-5.33	0.000
Debt		0.202	1.11	0.284
Growth		0.089	3.05	0.009
Dissue		-0.006	-0.55	0.590
Aturn		-0.064	-0.97	0.347
Cons		2.317	4.85	0.000
R^2	0.174			
Number of observations	1534			

Note: EPS: earnings per share, ΔEPS: change in earnings per share from time t to time t-1, IFRS: dummy variable and measured as "1" for the period of IFRS adoption and "0" otherwise, Fsize: firms size measure as natural logarithm of total assets, DEBT: long-term debt to total assets ratio, GROWTH: represents growth in sales revenue and is calculated as percentage change in sales revenues from time t to time t-1, DISSUE: represents debt issue calculated as percentage change in total liabilities, ATURN: Represents assets turnover and is calculated as sales revenue divided by total assets at year-end.

Value relevance (return model) in Table 4 shows that EPS is positive and significant (β = 0.692; P<0.01), whereas, the interaction between IFRS adoption and EPS is negative but insignificant (EPSIFRS=β = -0.126; P 0>.10). ΔEPS is positive and significant (β = 0.168; P<0.05) and whereas, the interaction between IFRS adoption and ΔEPS is also positive and significant (β = 0.269; P<.10). These results indicate that value relevance of earnings based on return model is not significantly lower after the adoption of IFRS in Jordanian firms. Whereas, earnings change is significant in the pre and post-adoption of IFRS. Therefore, hypothesis 2 is accepted. This result is consistent with many studies. For example, Khanagha (2013) found that there was an improvement in the value relevance of accounting information in the IFRS period for Bahrain and Saudi Arabia listed firms. Devalle (2010) claimed that IFRS resulted in improved value relevance of earnings in many European countries. In Jordan, Saaydah (2012) claimed that earnings are a better predictor in industrial firm's value after IFRS adoption. The results are different from the value relevance price model because EPS is insignificant pre and post-IFRS adoption in the price model. Devalle (2010) argued that the difference between the two models is because the return model does not consider the influence of book value on stock returns but only considers the effect of earnings and earnings change.

Table 5: Regression Results for Timely Loss Recognition

		Coeff.	**t-test**	**p-value**
R		0.024	2.36	0.033
D		-0.014	-2.05	0.059
RD		0.155	4.14	0.001
IFRS		-0.070	-5.09	0.000
RIFRS		0.039	1.99	0.066
DIFRS		0.026	2.94	0.011
RDIFRS		-0.115	-2.23	0.042
Fsize		0.123	6.99	0.000
Debt		-0.424	-6.90	0.000
Growth		0.047	4.73	0.000
Dissue		0.008	1.60	0.132
Aturn		0.073	4.16	0.001
Cons		-0.868	-7.40	0.000

R^2	0.226			
Number of observations	1534			
Note: R: Return three months after financial year end, D: dummy variable equal "1" in negative return case and "0" otherwise, RD: the interaction between return three month after financial year end and dummy variable equal "1" in negative return case and "0" otherwise, IFRS: dummy variable and measured as "1" for the period of IFRS adoption and "0" otherwise; Fsize: firms size measure as natural logarithm of total assets, DEBT: long-term debt to total assets ratio, GROWTH: represents growth in sales revenue and is calculated as percentage change in sales revenues from time t to time t-1, DISSUE represents debt issue calculated as percentage change in total liabilities, ATURN: Represents assets turnover and is calculated as sales revenue divided by total assets at year-end.				

Table 5 shows the results for timely loss recognition. The interaction between returns and dummy variable found to be positively significant (RD, β=0.155; P<0.01), while after IFRS adoption the interaction between RD and IFRS is negative and significant (RDIFRS, β=-0.115; P<0.05). This negative moderation indicates that timely loss recognition is lower after-IFRS adoption in Jordan. The results fail to support the hypothesis 3. This result is in line with a study in Jordan, Daas (2014), who found that timely loss recognition is significantly lower in IFRS period. This finding is also consistent with other studies (e.g., sun et al., 2011; Chen et al., 2010; Lin, 2012, Hung and Subramanyam, 2007). However, the negative and significant impact of IFRS adoption could be driven by the fact that several industrial companies in Jordan now adopted IFRS and, low compliance and expertise in implementing the IFRS could result to the negative impact of the adoption of IFRS on the timely loss recognition.

Table 6: Regression Results for Earnings Persistence

		Coeff.	**t-test**	**p-value**
EBIT		0.064	0.60	0.555
IFRS		-0.009	-0.77	0.457
EBITIFRS		0.390	4.16	0.001
Fsize		-0.155	-3.41	0.004
Debt		0.035	0.77	0.454
Growth		0.006	0.56	0.584
Dissue		0.018	3.03	0.009
Aturn		0.039	1.34	0.202
Cons		1.140	3.54	0.003
R^2	0.070			
Number of observations	1754			
Note: EBIT: current year earnings before interest and taxes scaled by average total assets, IFRS: dummy variable and measured as "1" for the period of IFRS adoption and "0" otherwise, Fsize: firms size measure as natural logarithm of total assets, DEBT: long-term debt to total assets ratio, GROWTH: represents growth in sales revenue and is calculated as percentage change in sales revenues from time t to time t-1, DISSUE represents debt issue calculated as percentage change in total liabilities, ATURN: Represents assets turnover and is calculated as sales revenue divided by total assets at year-end.				

Table 6 above shows the results for earnings persistence. Earnings before interest and tax (EBIT) was found to be positive and insignificant (β=0.064; P>0.10), while after the adoption of IFRS, the interaction between EBIT and IFRS is found positive and significant (EBITIFRS, β = 0.390; P<0.01). The results indicate that earnings persistence is higher after IFRS adoption in Jordan. The results support for hypothesis 4. This result is in line with a previous study (Gassen & Sellhorn, 2006).

Table 7: Regression Results for Earnings Management				
		Coeff.	**t-test**	**p-value**
IFRS		-0.027	-1.21	0.245
Fsize		0.035	0.82	0.427
Debt		0.552	3.69	0.002
Growth		0.234	9.01	0.000
Dissue		-0.073	-2.96	0.010
Aturn		-0.023	-0.37	0.716
Cons		-0.247	-0.78	0.449
R^2	0.043			
Number of observations	1753			
Note: IFRS: dummy variable and measured as "1" for the period of IFRS adoption and "0" otherwise, Fsize: firms size measure as natural logarithm of total assets, DEBT: long-term debt to total assets ratio, GROWTH: represents growth in sales revenue and is calculated as percentage change in sales revenues from time t to time t-1, DISSUE represents debt issue calculated as percentage change in total liabilities, ATURN: Represents assets turnover and is calculated as sales revenue divided by total assets at year-end.				

Table 7 above shows the results for earnings management. The results show that influence of IFRS on the earning management is found to be negative and insignificant (β=-0.027; P>0.10) which indicate that earnings management is not lower after adoption IFRS in Jordanian firms. This result is in line with Dass (2014) in Jordan who found that earnings management is increased under the IFRS regime. Another reason is that some researchers such as Ball et al. (2003), Christensen et al. (2007), and Paananen and Lin (2009) believe that adoption of IFRS is might be a necessary action but not a sufficient one to improve accounting information quality, but other factors such as the country's institutional setting and the firms' incentives may also play an important role in determining accounting information quality (Ball et al., 2003; Christensen et al., 2015). Moreover, managers may use the accounting policies that favours them under IFRS to report financial result that ultimately results in the higher earning management practices as compared to pre-IFRS period.

4.1 Robustness Check

This section provides the robustness check for the main findings. The Breuch-Pagan/ Cook-Weisberg test for heteroskedasticity is used to test the presence of heteroskedasticity for all models. In addition, Wooldridge test for autocorrelation shows that models 1,3 and 4 have autocorrelation. Also, the Hausman test suggests that the fixed effect method is more suitable for multivariate regression for all models. This study adopts the cluster standards errors method to deal with the serial correlation and heteroskedasticity issue in the fixed effect regression on the panel data. The results are presented below in Tables 8-12. As shown in Tables 8-12, the results are statistically same that provide robust evidence for the main results based on the Discroll- Kaary fixed effect regression.

Table 8: Regression Results for Value Relevance (Price Model)				
		Coeff.	**t-test**	**p-value**
EPS		0.798	1.01	0.315
BVPS		0.785	2.65	0.009
IFRS		0.478	1.93	0.055
EPSIFRS		0.761	0.97	0.333
BVPSIFRS		0.124	0.59	0.558
Fsize		0.035	0.10	0.919
Debt		-1.412	-1.54	0.126
Growth		-0.233	-1.98	0.050

Dissue		0.290	3.71	0.000
Aturn		0.498	1.96	0.052
Cons		-0.016	-0.01	0.994
R^2	0.297			
Number of observations	1551			

Note: EPS: earnings per share, BVPS: book value of equity per share, IFRS: dummy variable and measured as "1" for the period of IFRS adoption and "0" otherwise, Fsize: firms size measure as natural logarithm of total assets, DEBT: long-term debt to total assets ratio, GROWTH: represents growth in sales revenue and is calculated as percentage change in sales revenues from time t to time t-1, DISSUE represents debt issue calculated as percentage change in total liabilities, ATURN: Represents assets turnover and is calculated as sales revenue divided by total assets at year-end.

Table 9: Regression Results for Value Relevance (Return Model)

		Coeff.	**t-test**	**p-value**
EPS		0.692	5.65	0.000
ΔEPS		0.168	1.92	0.040
IFRS		-0.096	-3.10	0.002
EPSIFRS		-0.126	-1.00	0.316
ΔEPSIFRS		0.257	1.73	0.090
Fsize		-0.304	-4.99	0.000
Debt		0.202	1.11	0.268
Growth		0.089	2.15	0.034
Dissue		-0.006	-0.35	0.728
Aturn		-0.064	-1.09	0.277
Cons		2.317	5.24	0.000
R^2	0.174			
Number of observations	1534			

Note: EPS: earnings per share, ΔEPS: change in earnings per share from time t to time t-1, IFRS: dummy variable and measured as "1" for the period of IFRS adoption and "0" otherwise, Fsize: firms size measure as natural logarithm of total assets, DEBT: long-term debt to total assets ratio, GROWTH: represents growth in sales revenue and is calculated as percentage change in sales revenues from time t to time t-1, DISSUE: represents debt issue calculated as percentage change in total liabilities, ATURN: Represents assets turnover and is calculated as sales revenue divided by total assets at year-end.

Table 10: Regression Results for Timely Loss Recognition

		Coeff.	**t-tes**	**p-value**
R		0.024	0.75	0.455
D		-0.014	-0.66	0.508
RD		0.155	3.89	0.001
IFRS		-0.070	-3.92	0.000
RIFRS		0.039	1.05	0.294
DIFRS		0.026	1.07	0.285
RDIFRS		-0.028	-2.21	0.032
Fsize		0.123	4.63	0.000
Debt		-0.424	-5.28	0.000
Growth		0.047	3.87	0.000
Dissue		0.008	1.51	0.133

Aturn		0.073	2.17	0.031
Cons		-0.868	-4.47	0.000
R^2	0.226			
Number of observations	1534			

Note: R: Return three months after financial year end, D: dummy variable equal "1" in negative return case and "0" otherwise, RD: the interaction between return three months after financial year end and dummy variable equal "1" in negative return case and "0" otherwise, IFRS: dummy variable and measured as "1" for the period of IFRS adoption and "0" otherwise; Fsize: firms size measure as natural logarithm of total assets, DEBT: long-term debt to total assets ratio, GROWTH: represents growth in sales revenue and is calculated as percentage change in sales revenues from time t to time t-1, DISSUE represents debt issue calculated as percentage change in total liabilities, ATURN: Represents assets turnover and is calculated as sales revenue divided by total assets at year-end.

Table 11: Regression Results for Earnings Persistence

		Coeff.	**t-test**	**p-value**
EBIT		0.064	0.60	0.365
IFRS		-0.009	-0.76	0.447
EBITIFRS		0.390	4.41	0.000
Fsize		-0.155	-3.42	0.001
Debt		0.035	0.66	0.508
Growth		0.006	0.46	0.649
Dissue		0.018	1.85	0.066
Aturn		0.039	1.33	0.187
Cons		1.140	3.62	0.000
R^2	0.070			
Number of observations	1754			

Note: EBIT: current year earnings before interest and taxes scaled by average total assets, IFRS: dummy variable and measured as "1" for the period of IFRS adoption and "0" otherwise, Fsize: firms size measure as natural logarithm of total assets, DEBT: long-term debt to total assets ratio, GROWTH: represents growth in sales revenue and is calculated as percentage change in sales revenues from time t to time t-1, DISSUE represents debt issue calculated as percentage change in total liabilities, ATURN: Represents assets turnover and is calculated as sales revenue divided by total assets at year-end.

Table 12: Regression Results for Earnings Management

		Coeff	**t-t**	**p-value**
IFRS		-0.027	-1.15	0.251
Fsize		0.035	0.55	0.582
Debt		0.552	3.13	0.002
Growth		0.234	6.28	0.000
Dissue		-0.073	-2.27	0.025
Aturn		-0.023	-0.37	0.712
Cons		-0.247	-0.53	0.596
R^2	0.043			
Number of observations	1753			

Note: IFRS: dummy variable and measured as "1" for the period of IFRS adoption and "0" otherwise, Fsize: firms size measure as natural logarithm of total assets, DEBT: long-term debt to total assets ratio, GROWTH: represents growth in sales revenue and is calculated as percentage change in sales revenues from time t to time t-1, DISSUE represents debt issue calculated as percentage change in total liabilities, ATURN: Represents assets turnover and is calculated as sales revenue divided by total assets at year-end.

5.0 Conclusion

This study examines the effects of mandatory IFRS adoption on accounting information quality in Jordanian industrial and service listed firms pre and post-IFRS adoption. The study used several proxies for accounting information quality (value relevance, timely loss recognition, earnings persistence and earnings management). The findings show that there is no change in the value relevance of earnings pre and post-IFRS adoption based on the price model, whereas value relevance of book value of equity has reduced after the IFRS adoption. The earnings are more value relevant as per the return model after the IFRS adoption. Timely loss recognition is significantly lower after the adoption of IFRS. Earning persistence is increased after the IFRS adoption and finally, earnings management is also higher for the Jordanian firms after the adoption of IFRS.

Overall, it can be concluded that the accounting information quality is reduced in most of the respect after the adoption IFRS in Jordan. These findings imply that IFRSs may not be optimal because it caused a decrease in the quality of financial reporting in Jordanian companies because maybe it is still difficult for the manages to understand the application of IFRS and lacking the required expertise to implement it properly. Therefore, investors also perceive that the adoption of IFRS is a negative step and resulting in the decreased quality of accounting information of market-based measure such as value relevance.

This study has several practical implications, limitations and directions for future research. First, the Jordanian regulators should provide training to managers in the firms to understand and implement the IFRS properly. Awareness should be created for the investor regarding the understanding the financial reports under IFRS. Implementation guidance for standard setting needs to establish for companies and investors. The results may be generalised to other countries with similar economic, institutional, and accounting environments but may not generalised to all developing countries. The future researches may extend their research into other developing countries to see whether these results hold in practise in other countries. Future studies may also focus on comparative studies between developing and developed countries with respect to the application of IFRS.

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