Adopting IFRS as a Moderating Variable on the Relationship Between Accounting Information and Market Responses: An Empirical Evidence from The Saudi Capital Market

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ABSTRACT

This paper examines the impact of adopting the International Financial Reporting Standards (IFRS) on the relationship between accounting information and market responses. This study investigates the impact of the IFRS adoption on financial statements and quality of disclosures and whether this positively impacts the capital market (especially, market liquidity and equity value). We collected data from 147 non-financial firms listed on the Saudi exchange from 2015 to 2019. The findings show that disclosure quality has increased due to adopting IFRS. The results also find that adopting IFRS improves market liquidity and results in an abnormal return for firms listed on the Saudi exchange. Moreover, our findings show that adopting IFRS has positive economic implications for the Saudi business environment.

KEYWORDS
Disclosure Quality, IFRS, Information Asymmetry, Market Responses, Value Relevance

INTRODUCTION

Financial reporting is an essential resource of confirmed information about the firm’s performance that helps investors and other stakeholders make financial decisions (Habib et al., 2019; IASB, 2108). As a result, disclosure quality is a fundamental contributor to stock market performance. The disclosure quality depends on the value relevance of information that meets stakeholders’ needs. In this context, accounting standards are the major factor that improves the quality of reporting. The International Accounting Standards Board (IASB) aims to achieve global convergence of accounting standards, through issuing and implementing international accounting standards that improve disclosure quality. Therefore, one of the central goals of adopting IFRS is to increase the quality of financial statements (Callao et al., 2007).

The expectation is that adopting IFRS provides higher quality accounting information by employing more accepted accounting and market-oriented principles (Tristão & Sonza, 2020). The IFRS builds on principles-based approach. Therefore, adopting IFRS allows the firm’s management to benefit from greater flexibility in financial reporting and improve disclosure quality. This flexibility
has led to the extension of accounting information disclosed in financial reports, which increases market liquidity by decreasing information asymmetry among stakeholders. Conversely, IFRS’s flexibility may increase the uncertainty of accounting information, which increases the investor’s disclosure risk and reduces market liquidity (Khan et al., 2021).

In recent decades, several studies investigated the impact of adopting IFRS on the value relevance as a proxy of disclosure quality. We can categorize evidence from previous research into three directions. The first direction concludes a significant and positive correlation between IFRS adoption and value relevance (Kwon, 2018; Avwokeni, 2018; Cormier & Magnan, 2016). The second direction identified a significant and negative (or no improvement) effect of IFRS adoption on the value relevance (Roca, 2021; Flores & Alexsandro, 2019). Finally, the third direction consists of studies that have shown an enhancement in the value relevance of specific variables, instantaneously with a worsening in the value relevance of others (Eng et al., 2019; Elbakry et al., 2017; Cascino & Gassen, 2015; Kargin, 2013). It is clear that there are mixed results regarding the impact of adopting IFRS on value-relevant accounting information. Therefore, additional research is required to understand the economic implications of adopting IFRS on disclosure quality. On the other hand, several investigations of the economic implications of IFRS adoption on the stock market demonstrated positive effects on both cost of equity and capital market liquidity (Li et al., 2021; Khan et al., 2021; Nejad et al., 2020; Abad et al., 2017; Armitage et al., 2014).

The main purpose of this paper is to empirically examine the impact of adopting IFRS as a moderator variable on the relationship between the quality of disclosure and market responses. This study used the value relevance as a proxy of disclosure quality, while market liquidity and share prices are proxies for market reactions. Furthermore, this study used earnings per share and the book value of equity per share as indicators of value relevance.

We developed three hypotheses to study the impact of adopting IFRS as a moderator variable on the relationship between disclosure quality and market responses. The adoption of IFRS in the Kingdom of Saudi Arabia became effective from January 2017. We used a selected sample of non-financial firms listed on the Saudi exchange over the five-year period from 2015 to 2019, giving a two-year period prior to adoption and three years after. The study resulted in two key results. First, we found a significant and positive relationship between IFRS adoption and value relevance of accounting information for firms listed on the Saudi exchange. Second, the conclusion shows that the adoption of IFRS leads to improved market liquidity and higher stock prices for firms listed on the Saudi exchange.

This study contributes to literature related to the economic implications of adopting IFRS in four ways. Firstly, the previous studies have been applied in countries with advanced financial markets with efficient and effective corporate governance mechanisms. By contrast, this study explores the economic implications of IFRS in less developed countries, such as the Kingdom of Saudi Arabia. Secondly, there is a scarcity of studies that examined the impact of IFRS adoption on the disclosure quality, share prices, and market liquidity simultaneously. Thirdly, most previous studies that examined economic implications for adopting IFRS on disclosure quality, to the best of our knowledge, have used either the price or return model, while this study used both the price model and the return model to examine the economic implications of adopting IFRS. Finally, to our knowledge, few studies have focused on examining the economic effects of IFRS adoption in the Saudi business environment.

The rest of this article is structured as follows. The following section of this study presents the relevant literature, and the research hypotheses of the study. The research design and methodology are then explained. Reports and discussions regarding the statistical results of the research are presented. Finally, we present our conclusions and areas for future research.
THEORY AND HYPOTHESES DEVELOPMENT

This study used agency theory to develop a framework that examines the impact of IFRS adoption on the relationship between accounting information and market responses, based on Figure 1.

Figure 1. The impact of IFRS adoption on the relationship between accounting information and market responses

Financial statements provide valuable information which can be used in decision-making processes by stakeholders and elevate the market’s response (Ball and Brown, 1968). The broad application of IFRS globally aims to improve the quality of disclosure, mitigate information asymmetry, and reduce agency costs (Nejad et al., 2020; Deef et al., 2021). Over the last few decades, many studies examined the economic impact of adopting IFRS with a major focus on how adoption influences disclosure quality and financial markets. In contrast, this study used earnings per share and book value of equity per share as indicators of value relevance to examine the impact of IFRS adoption on disclosure quality empirically. Furthermore, our study used both information asymmetry and equity prices as proxies of market reactions. Based on the study’s purpose, we categorized previous literature into two primary groups. The first included investigations of the relationship between IFRS adoption and value relevance. The second examined market reactions to adopting IFRS.

Value Relevance and IFRS Adoption

Accounting information takes been of interest to accounting and finance researchers for over 50 years, in a field of research known as “value relevance.” Value relevance is an expression normally employed to indicate the extent to which stakeholders reflect accounting information in the decision-making process (Eid, 2015; Istrate et al., 2015; Mousa & Desoky, 2014; Ahmed et al., 2013a). Therefore, value relevance has been used as a proxy of disclosure quality (Istrate et al., 2015; Mousa & Desoky, 2014; Ahmed et al., 2013a).

Previous studies on the IFRS adoption and value relevance reported mixed results and fall into three categories. First are those asserting that IFRS adoption has a significant and positive effect on the value relevance (Kwon, 2018; Avwokeni, 2018; Outa et al., 2017; Cormier & Magnan, 2016; Rodríguez García et al., 2016; Okafor et al., 2016). Second are those reporting a significant and negative (or no improvement) relationship between adopting IFRS and value relevance (Roca, 2022; Salah & Abdallah, 2019; Flores & Alexsandro, 2019). Third are studies confirming an enhancement in the value relevance of specific variables, instantaneously with a worsening in the value relevance of others (Cordazzo & Paola, 2020; Eng et al., 2019; Elbakry et al., 2017; Cascino & Gassen, 2015; Kargin, 2013; Tsoligkas & Tsalavoutas, 2011; Khanagha, 2011).

In summary, previous research focused on the effects of adopting IFRS on the relevance of financial reporting has yielded mixed results.
Market Reactions and IFRS Adoption

A firm is a set of contracts that has produced agency problems caused by the separation of ownership and control. As a result, information asymmetry between management and investors becomes a problem. The relationship between management and investors is problematic for at least two reasons (Nejad et al., 2020). First, management usually has more information about the firm’s value than investors and has motives to overestimate that value. There phenomenon therefore relates to the uncertainty of firm value. Second, investors and management are selfish agents, changing the uncertainty of firm value for their benefit and causing agency problems. Investment decisions are made in an environment characterized by both uncertainty and inadequate information. The uncertainty may arise because of inadequacy information between stakeholders. In an environment where the value of a firm is uncertain, some investors collect personal information about the firm’s value before investing. Therefore, they cause information asymmetry and market liquidity problems.

One of the most important ways to reduce information costs is to reduce the asymmetry of information phenomena between stakeholders. The IFRS adoption is essential in improving the quality of disclosure, mitigating agency costs, and reducing information asymmetry. After adopting IFRS, there are two reasons why information asymmetry may be alleviated. First, IFRS improves transparency by expanding the footnotes of financial statements. Second, IFRS reduces management’s discretion in financial reporting decisions and enhances disclosure quality. Therefore, IFRS adoption is a crucial tool to reduce information asymmetry, by increasing transparency about the firm’s value, and improve market liquidity (Nejad et al., 2020).

Numerous studies have examined market responses to the adoption of IFRS and fall into two streams of research. First are those that explored the impact of adopting IFRS on information asymmetry. Some found that adopting IFRS mitigates information asymmetry and increases investor confidence in financial statements (Li et al., 2021; Abad et al., 2017; Turki et al., 2016; Kao & Wei, 2014; Armstrong et al., 2010). However, contrary to this finding, other studies concluded that adoption of IFRS increases information asymmetry (Khan et al., 2021; Abad et al., 2017; Rathke et al., 2016; Ahmed et al., 2013a; Jeanjean & Stolowy, 2008). The second group examined the effect of the adoption of IFRS on market liquidity. Most of the previous studies on market reactions to adopting IFRS have revealed positive effects in terms of increasing market liquidity (Tristão & Sonza, 2020; Santos et al., 2016; Armstrong et al., 2010; Daske et al., 2008).

Theoretically, information asymmetry exists among stakeholders and causes problems with moral hazards and undesired choices. Therefore, financial reporting plays a fundamental role in mitigating these problems (Houqe, 2017). Adopting IFRS offers at least five advantages (Habib et al., 2019; van Tendeloo & Vanstraelen, 2005) as it:

- Enhances the ability of investors and other stakeholders to make rational decisions;
- Reduces the costs associated with preparing financial reports;
- Enhances global investment incentives;
- Improves the quality of financial reports; and
- Achieves economic effectiveness.

Greater flexibility in financial reporting under IFRS improves disclosure quality, reduces information asymmetry, and enhances the stock market quality. Applying IFRS increases the transparency of financial reporting and decreases information asymmetry. De George et al., (2016) assert that insufficient evidence of enhancing market liquidity can be credited to IFRS. A few studies indicate that the improved liquidity resulting from adopting IFRS can vary from country to country (Tristão & Sonza, 2020; Santos et al., 2016; Armstrong et al., 2010; Daske et al., 2008).

For these reasons, we suggest that adopting IFRS enhances the quality of disclosure and increases the Saudi exchange’s liquidity. Furthermore, we expect that there will be a positive impact on the
interrelationship between IFRS adoption and market liquidity on the value of equity. On that basis, we present the following hypotheses for empirical testing:

**H1:** The adoption of IFRS has a significant and positive impact on the quality of disclosure for publicly traded firms on the Saudi capital market.

**H2:** Adopting IFRS has a significant and positive impact on the liquidity of the Saudi capital market.

**H3:** There is a significant and positive impact for interactivity between the adoption of IFRS and market liquidity on the valuation of firms listed on the Saudi capital market.

**RESEARCH DESIGN**

**Models and Variables**

There are four approaches for investigating the value relevant (Muhibudeen, 2015). First, the essential analytical approach that focuses on the accounting information role in valuing and adjusting share price. Second, the measurement approach that focus on using relevant information to examine its influences on stock prices. Third, the content-based approach which assumes that the accounting information should be relevant if it adjusts investors’ estimates of the firm’s future cash flows and share price. Fourth, the forecasting approach relies on using appropriate information where this information should be relevant if it can be used to forecast each of the firm’s profits, dividends, or cash flows. We used the first and second approaches to investigate the implications of adopting IFRS for the quality of disclosure and market responses.

Despite differences between the above four approaches, two models are used to measure the value relevance as a proxy of disclosure quality. First is the price model, where researchers use this model rely on its explanatory power, by calculating and interpreting the (adjusted) $R^2$ as measure of value relevance. Furthermore, the correlation factors between the dependent variable and the independent variables are used to determine the nature of the relationship between these variables. Second, the return model reflects how accounting information has a valuation influence if market participations use it in valuing and adjusting share price. Researchers using this model rely on its the explanatory power, by calculating and interpreting $R^2$, or the combined earnings response coefficient, as a measure of the average change in share prices as profits change. Both models have been heavily used in accounting studies (Bhatia & Mwila, 2019). Our study used both the price model and the return model to study the impact of adopting IFRS on the quality of disclosure and its reflection on the Saudi exchange.

The first hypothesis aims to provide empirical evidence on adopting IFRS on the value relevance as a proxy of the disclosure quality. To verify the first hypothesis, we used two measurements of value relevance. The first measure of value relevance will be based on the adjusted $R^2$ (Marques, 2021; Eng et al., 2019; Alnodel, 2018; Umoren & Ekwere, 2015), under model (1):

$$SP_{it} = \alpha_0 + \alpha_1 BV_{it} + \alpha_2 ES_{it} + \varepsilon_{it} \quad (1)$$

The second measure of value relevance will determine if IFRS-prepared financial reporting is essential for enhancing or reducing the value relevance. We test the incremental of value relevance after adopting IFRS using model (2):

$$SP_{it} = \alpha_0 + \alpha_1 BV_{it} + \alpha_2 ES_{it} + \alpha_3 P + \alpha_4 P \times BV_{it} + \alpha_5 P \times ES_{it} + \varepsilon_{it} \quad (2)$$

where the variables are specified as follows:

\begin{align*}
SP_{it} & = \text{Price of a share of firm } i \text{ in the end period } t \\
BV & = \text{Book value of assets} \\
ES & = \text{Earnings per share} \\
P & = \text{Price to earnings ratio}
\end{align*}
BVit = Book value of equity per share of firm i in the end period t
ESit = Earnings per share of firm i in the end period t
P = Dummy variable equal to 1 for the period after IFRS and 0 for the remainder
P x BVit = The interaction variable between P and BV
P x ESit = The interaction variable between P and ES
\( \varepsilon_{it} \) = Error

To evaluate whether the BV and ES are more informative after IFRS adoption periods, coefficients \( \alpha_4 \) and \( \alpha_5 \) must be positive and significant. This means that the value of a firm’s equity is more sensitive to net income reported under IFRS than to Saudi accounting standards. This indicates that reported earnings have become more enlightened for investors when assessing firms’ value after adopting IFRS.

The second hypothesis aims to provide empirical evidence of the effect of the adoption of IFRS on information asymmetry as a proxy for the liquidity of the Saudi exchange. The empirical measurement of information asymmetry is difficult since it is indirectly perceptible (Abad et al., 2018). Consistent with prior studies (Khan, 2021; Abad et al., 2018; Armitage et al., 2014), model (3) measures the effect IFRS adoption on mitigating information asymmetry problem. The model (4) measures the interaction effect between IFRS adoption and information asymmetry on the firm’s equity valuation. Therefore, we use models (3) and (4) to test H2 and H3, respectively:

\[
IA_{it} = \alpha_0 + \alpha_1 P + \alpha_2 AUDIT_{it} + \varepsilon_{it} \tag{3}
\]

\[
SP_{it} = \alpha_0 + \alpha_1 P + \alpha_2 IA_{it} + \alpha_3 P \times IA_{it} + \alpha_4 LEV_{it} + \alpha_5 Sector1-18 + \alpha_6 Size_{it} + \alpha_7 AUDIT_{it} + \varepsilon_{it} \tag{4}
\]

where the variables are defined as follows:

\( IA_{it} \) = BID-ASK SPREAD of the firm i in the end period t, as a measure for information asymmetry
\( P \times IA_{it} \) = The interaction variable between adoption IFRS and information asymmetry
\( LEV_{it} \) = Leverage of firm i in the end period t
\( Sector1-18 \) = Industry sectors from 1 to 18
\( Size_{it} \) = Natural logarithm of total assets of firm i in the end period t
\( AUDIT_{it} \) = Dummy variable equal to 1 for financial statements that audit by a Big-4 firm and 0 otherwise

**Table 1. Model variables**

| Variable symbol | Variable type | Description / Calculation | Previous literature |
|-----------------|---------------|----------------------------|---------------------|
| SPit            | Dependent     | The closing price of the firm at the date of publication of the financial statements. | (Odoemelam et al., 2019; Outa et al., 2017; Cormier and Magnan, 2016; Ahmed et al., 2013a, 2013b) |
| IAit            | Dependent     | Asymmetry of information measured with BID-ASK SPREAD. BID-ASK SPREAD is the monthly average of the daily quoted bid-ask price. | (Khan, 2021; Nejad et al., 2020; Abad et al., 2018; Armitage et al., 2014) |

*Table 1 continued on next page*
Sample Selection and Data Collection

We have chosen our sample from non-financial firms listed on the Saudi exchange from 2015 to 2019. We chose the sampling period for three reasons. First, the Kingdom of Saudi Arabia is a critically important economy and has gained significant international economic standing as a component of the G20 (Al-Filali & Gallarotti, 2012). Second, the sample is composed of two years prior to the IFRS adoption and three years following the adoption. Third, this sample makes it possible to compare the relevance of accounting information according to Saudi accounting standards and IFRS. Finally, this period avoids the coronavirus pandemic’s effects on the chosen sample’s financial statements.

As of December 31, 2019, 177 non-financial firms were listed on the Saudi market (Tadawul), after excluding 30 firms for which no annual data were available. Financial firms were excluded for two reasons. First, financial firms prepare financial statements according to IFRS and other requirements issued by competent authorities (such as the Saudi Central Bank). Second, IFRS was adopted in 2017 for non-financial firms, whereas IFRS is adopted in 2015 for financial firms. A summary of the study sample is presented in Table 2.

| Variable symbol | Variable type | Description / Calculation | Previous literature |
|-----------------|---------------|---------------------------|---------------------|
| P               | Independent   | Dummy variable equal to 1 for the period after IFRS adoption and 0 otherwise. | (Habib et al., 2019; Odoemelam et al., 2019; Isaboke & Yan, 2018; Eng et al., 2019.) |
| BVit            | Independent   | Total book value of equity for the end period, divided by the number of shares outstanding. | (Roca, 2021; Eng et al., 2019; Odoemelam et al., 2019; Kwon, 2018; Outa et al., 2017; Elbakry et al., 2017; Cormier & Magnan, 2016) |
| ESit            | Independent   | Net income or loss of the firm for the end period divided by the number of shares outstanding. | |
| P x BVit        | Independent   | The interaction variable between P and BV. | (Habib et al., 2019; Odoemelam et al., 2019; Eng et al., 2019) |
| P x ESit        | Independent   | The interaction variable between P and ES. | |
| P x IAit        | Independent   | The interaction variable between P and IA. | (Khan, 2021) |
| Sizeit          | Control       | Natural logarithm of total assets. | (Kamouche, 2020; Alnodel, 2018; Abad et al., 2018) |
| LEVit           | Control       | Leverage calculated by total debt divided by total assets. | (Roca, 2021; Abad et al., 2018) |
| Sector1-18      | Control       | Industry sectors from 1 to 18 | (Kamouche, 2020) |
| AUDITit         | Control       | Audit quality as a proxy for the quality of application of IFRS. Audit quality, measurement as a dummy variable equal to 1 for financial statements audited by a Big-4 firm and 0 otherwise. | (Kamouche, 2020) |
The chosen sample represents 65.3% (147 firms) of non-financial firms listed on the Saudi exchange. As a result, there were 735 observations in the selected sample. The materials industry and real estate industry represent 27% and 15% of the final sample, respectively. However, other industries make up approximately 58% of the final sample selected.

Table 2. Sample summary

| Industrial sectors                          | Number of firms per sector | Percentage per sector |
|---------------------------------------------|---------------------------|-----------------------|
| Materials                                   | 40                        | 27%                   |
| Real Estate management and development      | 22                        | 15%                   |
| Energy                                      | 5                         | 3%                    |
| Capital Goods                               | 8                         | 5%                    |
| Commercial and Professional service         | 3                         | 2%                    |
| Transportation                             | 5                         | 3%                    |
| Long-term goods                             | 5                         | 3%                    |
| Consumer Services                           | 9                         | 6%                    |
| Media and Entertainment                     | 3                         | 2%                    |
| Retailing                                   | 8                         | 5%                    |
| Food and Staples Retailing                  | 8                         | 5%                    |
| Food and Beverages                          | 10                        | 7%                    |
| healthcare                                  | 9                         | 6%                    |
| Software                                    | 2                         | 1%                    |
| Telecommunication Services                  | 3                         | 2%                    |
| Utilities                                   | 2                         | 1%                    |
| Equity Rights                               | 5                         | 3%                    |
| Total                                       | 147                       | 100%                  |

Table 3. Descriptive statistics of variables

| Variables | N  | Minimum | Maximum | Mean     | Std. Deviation |
|-----------|----|---------|---------|----------|----------------|
| IA        | 735| .0107   | .8281   | .105676  | .1022040       |
| ES        | 735| -34.300 | 851.94  | 2.65083  | 32.5898        |
| SP        | 735| 7.3100  | 196.39  | 3.10915  | 26.5422        |
| BV        | 735| 2.0829  | 1.0945  | 1.90778  | 56.0053        |
| Size      | 735| 19.0844 | 507263.08 | 26355.8  | 74553.8        |
| LEV       | 735| .0000   | 76.25   | 2.0067   | 19.2616        |
EMPIRICAL RESULTS

Descriptive Statistics

The descriptive statistics for the variables are illustrated in Table 3, which shows the IA’s mean value is 0.105676. The mean values of ES, SP, and BV are 2.65083, 3.10915, and 1.90778, respectively, while Size is 26355.8 and LEV is 2.0067.

Correlation Analysis

We presented the results from the linearity test for the study variables in Table 4. The variance inflation factor (VIF) values between all study variables are less than two, implying that we have no concerns about multicollinearity in the study (Neter et al., 1996).

Table 5 provides the Pearson’s correlation matrix. The results in Table 5 indicate that the correlation between the study variables is low, indicating no multicollinearity problems exist between the study variables. Furthermore, IA, SP, and BV, are negatively correlated with adopting IFRS. There is a positive correlation between IFRS adoption and ES. However, there is no significant correlation between adopting IFRS and the control variables (Size, LEV, Sector, and AUDIT). In addition, AI positively correlates with LEV, ES, BV, and Sector. On the other hand, AI is in negative correlation with SP. In addition, there are non-significant relationships between Size, AUDIT and AI.

Table 4. Collinearity test results

| Variable | Tolerance | VIF  |
|----------|-----------|------|
| P        | .880      | 1.136|
| Size     | .929      | 1.076|
| LEV      | .942      | 1.061|
| ES       | .908      | 1.102|
| AUDIT    | .937      | 1.067|
| Sector   | .932      | 1.073|
| BV       | .917      | 1.091|
| IA       | .830      | 1.204|

Table 5. Correlation analysis of the variables

| Variable | P | IA | Size | LEV | ES | AUDIT | Sector | SP | BV |
|----------|---|----|------|-----|----|-------|--------|----|----|
| P        |   | -.292** | .010 | .008 | .011 | -.026 | .008  | -.026 | -.070 |
|          |   | .000 | .779 | .820 | .042 | .480  | .830  | .033 | .049 |
| IA       |   | -.041 | .162** | .136** | -.004 | .153** | -.755** | .077* |
|          |   | .273 | .000 | .000 | .911 | .000  | .000  | .037 |
| Size     |   | -.058 | -.004 | .170** | -.128** | .101  | .000  | .582 |
|          |   | .117 | .909 | .000 | .001 | .011  | .582  |
| LEV      |   | -.042 | -.041 | -.034 | -.197** | .044  |
|          |   | .260 | .268 | .355 | .000 | .232  |
| ES       |   | .031 | .074* | .234** | .251** |
|          |   | .398 | .046 | .000 | .000 |

Table 5 continued on next page
Model (1) and (2) were developed to test the first hypothesis. Model (1) has been executed twice, for periods preceding and following IFRS. For that, we subdivided the first model into two models, model (1a) for the regression of the share price on the net profit or loss and the carrying amount of the share for the periods preceding the adoption of IFRS. Whereas model (1b) was used for the regression of the share price on the net profit or loss and the carrying amount of the share for the periods following the adoption of IFRS. Examining the model’s results (1) is essential to answer the main research question: what are the impacts of adopting IFRS on the relevance of accounting information?

Adopting IFRS has a significant and positive impact on the value relevance of accounting information if the explanatory power of the model (1b) exceeds the explanatory power of the model (1a) (Ohlson, 1995; Feltham & Ohlson, 1995). Table 6 presents that model (1a) and (1b) show an increase of adjusted R2 between the period before and after IFRS adoption from -0.4% to 44.2%. In addition, significance (p-value) of the models (1a) and (1b) is 0.553 and 0.000, respectively. Furthermore, Table 6 shows that before adopting IFRS, the ES and BV coefficients were not significant, while both variables’ coefficients were significant after adopting IFRS. The coefficients of ES risen from 0.167 to 0.175 and BV increased from -0.019 to 2.06. This means that ES and BV have greater explanatory power for periods after IFRS. Thus, one can deduce that the BV and ES reported under IFRS explain the price of the shares more than the amounts reported under Saudi accounting standards. This result means that IFRS accounting information is significantly more relevant than Saudi accounting standards.

Model (2) examined whether financial reports prepared before or after adopting IFRS are more or less relevant. Table 6 shows the adjusted R2 of model (2) is 30.2%. In addition, the significance of model (2) is 0.000. The coefficients of the ES and BV are 0.154 and -0.018, respectively. The coefficients of the ES and BV are not significant. This indicates that ES and BV were irrelevant prior to adopting IFRS. The coefficients for P x ES and P x BV are 0.263 and -2.003 respectively and are significant at the 5% level. The coefficient of the P x BV is negative, and the coefficient of the P x ES is positive. These findings suggest that ES and BV were relevant after adoption of IFRS. As noted above, the results for Model (1) are consistent with those for Model (2).

In summary, a general result of the first hypothesis test is the adoption of IFRS enhances value relevance. This means that adopting IFRS significantly impacts the quality of disclosure by firms listed on the Saudi exchange. This is comparable to results from previous studies such as Kwon (2018), Avwokeni (2018), Outa et al. (2017), Cormier and Magnan (2016), and Okafor et al. (2016).
As a result, we have accepted H1, which implies that adopting IFRS significantly positively affects the relevance of accounting disclosures.

Model (3) was developed to examine the impact of adopting IFRS on information asymmetry as an indicator of liquidity in the Saudi capital market. Table 6 shows adjusted R² of model (3) is 8.3%. In addition, significance of model (3) is 0.000 (at the 5% level). The coefficients of the P and AUDIT are -0.061 and -0.002, respectively and they are significant, at the 5% level. This suggests a reduction in information asymmetry after IFRS adoption. Consistent with H2, the results presented in Table 6 show a significant negative relationship between adopting IFRS and information asymmetry. The application of IFRS enhances the transparency of financial statements and liquidity in the Saudi exchange. The finding is comparable to earlier studies including Abad et al. (2017), Turki et al. (2016), Kao and Wei (2014), and Armstrong et al. (2010). Therefore, we accept H2, which shows that adopting IFRS has a significant and positive impact on the liquidity of the Saudi capital market.

But is a rise in the quality of disclosure after the application of IFRS reflected in the value of firms listed on the Saudi exchange? To answer this question empirically, we must examine the interactivity between the adoption of IFRS and the information asymmetry on share prices. Therefore, model (4) was developed to examine the relationship between share prices and information asymmetry in IFRS adoption. Table 6 presents the adjusted R² of model (4) as 69.6%. This means that the explanatory variables explain 69.6% of the stock price changes. The coefficients for the IA and P x IA are 156.321 and 148.84 respectively and they are significant at the 5% level. This result asserts a significant positive correlation between information asymmetry and share prices. In addition, there is a significant positive correlation between P x IA and SP. In summary, models (3) and (4) provided empirical evidence that adopting IFRS reduces information asymmetry. Consequently, IFRS financial statements have become more informative for investors and other stakeholders and provide greater insight into the firm valuation. These results are similar to results of previous studies such as Abad et al. (2017), Turki et al. (2016), and Naranjo et al. (2013).

### Table 6. Summary of model results

| Model (1a) Before IFRS | Model (1b) After IFRS | Model (2) | Model (3) | Model (4) |
|------------------------|-----------------------|-----------|-----------|-----------|
| Observations           | 735                   | 735       | 735       | 735       | 735       |
| Significance (p-value) | 0.285                 | 0.000     | 0.000     | 0.000     | 0.000     |
| Adjusted R²            | 0.083                 | 0.442     | 0.302     | 0.083     | 0.494     |
| R²                     | 0.096                 | 0.449     | 0.301     | 0.085     | 0.499     |
| R                      | 0.079                 | 0.607     | 0.585     | 0.202     | 0.838     |
| F statistic            | 197.178               | 197.178   | 141.186   | 205.05    |
| Coefficients           | 32.175                | 1.924     | 32.159    | 1.144     | 5.604     |

| Variables | Model (2) | Model (3) | Model (4) |
|-----------|-----------|-----------|-----------|
| BS        | 0.167     | 0.167     | 0.167     |
| BV        | -0.009    | -0.009    | -0.009    |
| P x ES    | *         | *         | *         |
| P x BV    | *         | *         | *         |
| P         | *         | *         | *         |
| AUDIT     | *         | *         | *         |
| IA        | *         | *         | *         |
| LEV       | *         | *         | *         |
| Sector    | *         | *         | *         |
| Size      | *         | *         | *         |
Therefore, we accepted H3, which implies a significant and positive impact of adopting IFRS and information asymmetry on the value of firms listed on the Saudi exchange. This study empirically demonstrates that adopting IFRS positively impacts the quality of accounting information and the reactions of the Saudi capital market.

**CONCLUSION**

This study aimed to examine the economic implications of adopting IFRS. First, our study investigated the impact of adopting IFRS on the relationship between accounting disclosure and market responses. Based on a sample of firms listed on the Saudi exchange, empirical evidence reveals that the value of accounting information under IFRS is more relevant than Saudi accounting standards. Adopting IFRS results in improved quality of disclosure. Furthermore, our findings show that applying IFRS mitigates the information asymmetry issue and increases the liquidity of the Saudi stock market. In addition, our empirical results show that the interaction between IFRS adoption and information asymmetry positively affects share prices. Overall, these results confirm that applying IFRS has reduced information asymmetry, improved the quality of disclosure, increased share prices, and improved market liquidity.

Our research makes three contributions to the literature on the economic implications of IFRS adoption on financial markets. First, we expanded the previous literature on the effect of IFRS adoption on the value relevance of accounting information in emerging capital markets. Second, we provided empirical evidence of the adoption of IFRS on market liquidity. Third, the interaction between adoption of IFRS and information asymmetry on share prices was examined. The study also has practical contributions because it should inform policymakers in the Kingdom of Saudi Arabia considering adopting IFRS.

There are several limitations associated with the present study. First, the results concentrate on only one country. We avoid the heterogeneousness of low adoption countries, but results obtained from a single country’s environment need to be generalized prudently as results may not be appropriate for other countries. Therefore, there is a need for a comparative study among different countries that gives us more in-depth information about the primary research question. Second, the selected sample comprises 735 firm-year observations, which lead to data limitations.

This study used information asymmetry as a proxy for market liquidity. Therefore, we suggest that future research on the impact of adopting IFRS on market liquidity should use various proxies in future research. Furthermore, future research could investigate the relationship between IFRS adoption and the cost of equity.
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