

Impact of IFRS on Information Asymmetry: An Applied Study on Companies Listed in the Saudi Stock Market

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Abstract

The rise of multinational corporations and the globalization of global capital markets have led to a growing need for a unified set of accounting standards that can be used internationally. In line with these global trends, implementing consistent and clear financial reporting has become more important than ever in the Kingdom of Saudi Arabia. This study aims to analyze the impact of adopting International Financial Reporting Standards (IFRS) on information asymmetry in the Kingdom of Saudi Arabia. To evaluate this impact, the study employs quantitative proxies—namely, bid-ask spreads and cost of capital—as measures of information asymmetry, assessing how financial reporting has changed following IFRS implementation. Based on a sample of 30 companies according to specific criteria, the analysis focuses on two distinct time periods: the pre-IFRS period (2014-2016) and the post-IFRS period (2018-2020). By covering all sectors, this study provides a comprehensive assessment of the impacts of IFRS on a broad economic scale. The findings reveal a statistically significant reduction in information asymmetry following the adoption of IFRS. Specifically, the cost of capital decreased by 1.2%, while bid-ask spreads narrowed by approximately 0.1%. These results indicate improved financial reporting transparency and increased market efficiency following the adoption of the standards. The impact was more pronounced and direct in market metrics, highlighting investors' response to higher reporting quality. The results remain robust after controlling for firm-specific financial variables and applying the necessary model diagnostics.

Keywords: IFRS, information asymmetry, cost of capital, bid-ask spread, Saudi companies.

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1. INTRODUCTION

Emergence of multinational companies and globalization of the world's capital markets has created a need for a single set of accounting standards that can be applied around the world. Such standards should improve transparency and comparability of financial information for investors, resulting in lower information asymmetry, greater willingness of investors to invest, lower cost of capital, higher capital market efficiency, more efficient allocation of resources and higher economic growth.

In line with these global trends, and in the context of Saudi Arabia's growing integration into the global economy and its ambition to attract foreign investment under Vision 2030, the adoption of unified and transparent financial reporting has become increasingly essential.

To meet these objectives, the IASB was established in 2001 in order to produce a single set of high quality, understandable and enforceable

International Financial Reporting Standards (IFRS) and encouraging global convergence on these standards. Studies (e.g. Levitt 1998) indicate that there is a strong link between high quality standards and high quality financial outcomes. Past researches also demonstrate that higher information quality decreases adverse selection (Lambert *et al.* 2007; Horton *et al.* 2013), reduces information asymmetry (Myers & Majluf 1984; Gassen & Selhorn 2006), decreases cost of capital (Hail & Leuz 2006) and increase market efficiency (Akerlof 1970; Spence 1976). Thus, if IFRS are higher quality standards than local GAAPs and provide better information, they are expected to deliver these benefits more effectively, especially in economies like Saudi Arabia.

Given this background, the mandatory adoption of IFRS has received considerable attention from managers and investors, and in recent years' academics have extensively discussed its impact on accounting information. The main question that has been discussed is whether information asymmetry has been affected by the implementation of IFRS. Even if more and more

countries adopt the International Financial Reporting Standards, there is a continuing debate around the benefits of their application on the information content of earnings, taking into account the learning effect associated with these standards.

According to Philippe Danjou, Chief of Accountant business in the AMF (Financial Markets Authority), the adoption of IFRS introduced a new estimation philosophy and contributed to the upgrading of business performance. They have a considerable impact, in terms of quality and quantity of information disclosed, on the financial reporting of companies and they change the meaning and the significance of several indicators used by investors. In the same vein, Dicko and Khemakhem (2010) stipulate that the IFRS adoption has certainly been a source of increased frequency and number of published financial statements. But even if the superiority of IFRS relating to the amount of information disclosed was undeniable, previous work has shown two divergent reflections concerning the information disclosed quality. Some researchers have therefore considered that IFRS improves the information content of accounting numbers because they lead companies to disclose more and better information and limit discretionary accounting choices. However, others consider that IFRS adoption is likely to reduce the information content of accounting numbers because it limits the number of authorized accounting policies.

In light of the divergence of views among researchers, this study aims to explore whether the mandatory adoption of IFRS in Saudi Arabia has led to a reduction in information asymmetry by improving the quality of accounting information, or whether it has introduced new complexities that could potentially obscure important financial details. This is done by analyzing data from a range of companies and industries, this research will provide insights into how IFRS influences the informational environment, thereby contributing to the broader understanding of its effectiveness in enhancing the quality of financial reporting and reducing information asymmetry. The findings are expected to offer valuable guidance for practitioners, policymakers, and academics in developing accounting standards and practices that better meet the needs of all stakeholder.

2. LITERATURE REVIEW

In Saudi Arabia, the adoption of International Financial Reporting Standards (IFRS) represents a major shift in the financial landscape. Therefore, this literature review aims to explore the multifaceted impact of these standards on financial reporting practices and market dynamics. The review is divided into four main sections:

The first section examines the implementation of IFRS in Saudi Arabia, highlighting the regulatory framework and its implications for financial transparency.

The second section addresses the concept of information asymmetry, a significant issue in financial markets where different stakeholders have varying levels of information.

The third section examines the relationship between market efficiency and information asymmetry, focusing on how information asymmetries affect investor decision-making and market behavior.

Finally, the fourth section analyzes the impact of IFRS adoption on information asymmetry, assessing whether consolidated reporting enhances transparency and mitigates information asymmetry in the market. Through this structured approach, the review aims to provide a comprehensive understanding of the interconnectedness of these topics within the context of Saudi Arabia and beyond.

2.1 The first area: studies that dealt with IFRS adoption on Saudi Arabia

With the growing global trend toward adopting these standards, it has become necessary to study the impact of the transition to IFRS on the financial and accounting environment. The Kingdom of Saudi Arabia is among the countries that have adopted these standards, prompting researchers to explore the implications of this transition. Many previous studies have addressed various aspects of the implementation of IFRS in the Saudi context. The following section reviews the most important studies in this field:

Tlemsani *et al* (2023) examined the implementation of IFRS in Saudi Arabia. It investigated how the adoption of IFRS has affected four critical areas in the financial statements of publicly listed companies: profit and loss statement, balance sheet, cash flow statement and retained equity statement in Saudi Arabia. Data was obtained from Saudi Stock Exchange (Tadawul) listed companies from eleven industries in Saudi Arabia. They found significant differences between GAAP and IFRS reporting standards in the measurement, recognition and classification of non-current assets and liabilities. The differences are expressed in the variance between the GAAP and IFRS. Specifically, the differences between GAAP and IFRS demonstrated by the *t*-value are significant and reliable (respectively, 5.3 and 4.1). Additionally, the *t*-value is validated by the *p*-value, which in both was significant.

Nurunnabi *et al* (2022) examined whether the adoption of IFRS by companies reporting under an Islamic accounting framework is associated with the greater comparability and relevance of financial reporting. Using a sample of Saudi Arabian companies listed on Tadawul, the Saudi stock market, documenting experimental result several reasons for the improved relevancy of the subject financial reports. The main finding was that adopting IFRS enhanced the perceived relevancy of the reports. Additionally, reporting in

English versus reporting in Arabic was found to have favorably affected relevancy. Regarding transparency, based on the number of pages and informative notes, reporting under IFRS also engendered improvements to the financial reporting process.

Alomair *et al* (2022) examined the joint and relative value relevance of book value of equity (BVE) and earnings before (2015–2016), after (2017–2018) and during the comparative year (2016) of mandatory adoption of IFRS in Saudi Arabia. Results showed that accounting information is jointly value relevant (R^2), with no significant change between accounting information prepared under Saudi GAAP and IFRS. However, they found a positive change in the relative value relevance of the BVE after IFRS implementation, mainly related to the introduction of fair value measurement. Differences in value relevance were found across variances in company characteristics.

Hashed & Almaqtari (2021) examined the impact of corporate governance mechanisms and IFRS adoption on compliance with IFRS, earning management, and financial reporting quality (FRQ). A sample comprises 102 Saudi listed firms for the period spanning from 2014 up to 2019 was used, they found that while board size, board meeting and foreign ownership had negative effects on compliance with IFRS, board and audit committee independence exhibited a positive effect. Furthermore, the results showed an indicator of earning management under IFRS when a performance measure, board and audit committee size, audit committee meeting and managerial ownership had significant negative effects on financial reporting quality however, board and audit committee independence showed a significant positive effect. Importantly, they also found that FRQ under IFRS was better than Saudi GAAP.

Nurunnabi (2018) aimed to assess the perceived costs and benefits associated with the adoption of IFRS in Saudi Arabia, the world's leading oil and natural gas exporter. Using documentary analysis and interviews with stakeholders (account preparers from listed companies in Saudi Arabia, auditors from Big 4 and local accountancy firms, and university academics), the study contributed to the literature by concluding that the benefits of IFRS adoption in Saudi Arabia outweigh the costs. Importantly, a lack of qualified accountants, significant dependence on Big 4 accounting firms, inadequate coverage of IFRS in university education, and a lack of research are identified as major obstacles to the effective implementation of IFRS. The findings provided a potential policy agenda for local and international policy makers.

Herath & Alsulmi (2017) examined the convergence from domestic standards in Saudi Arabia to IFRS. It explained the impact on foreign investments of adopting IFRS in Saudi Arabia and to what extent

environmental factors play a critical role in the decision to apply IFRS. It also reviewed the Saudi roadmap for transitioning to IFRS. Finally, it identified gaps in the current literature and provided guidelines for future research. The methodology that is used in this paper is a review of published articles and journals to explain the convergence from domestic standards in Saudi Arabia to international standards. All data referenced in this paper was conducted within the last six years,

The researcher aimed to shed light on issues related to the decision to adopting IFRS instead of SAS. The debate over adoption of international norms revealed that the benefits of appropriate adoption of IFRS outweigh the costs. However, before Saudi Arabia activates IFRS, controversial issues should be resolved.

2.2 The second area: studies that dealt with information asymmetry

Given its significant impact on investment decisions and market efficiency, numerous studies have been conducted on information asymmetry, exploring its causes, consequences, and possible solutions. This section highlights a selection of previous research that specifically addresses information asymmetry in both Arab and international contexts

- studies conducted in Saudi Arabia

Al-Sharimi & Al-Wardat (2024) examined audit committee characteristics—specifically independence, financial expertise, and committee size—and their effect on reducing of information asymmetry in the context of Saudi culture, the study was based on a sample of a number of accountant, auditor, and financial controllers, The findings revealed a positive relationship between the independence of audit committees, their size, and the financial expertise of their members, and the reduction of accounting information asymmetry. Furthermore, the study concluded that Saudi culture, influenced by Islamic teachings, plays a significant and positive role in mitigating accounting information asymmetry.

Fuoed (2021) examined the effect of Web-based financial reporting and social media platforms on the proxies of information asymmetry in the Saudi Stock Exchange, based on a sample of this paper consists of 133 Saudi listed non-financial companies for the year 2019, empirical results revealed a negative and significant relationship between Web-based financial reporting and the adoption of social media platforms and the proxies of information asymmetry. Indeed, the relative spread and the time-weighted average bid-ask spread decreased with increased Web-based reporting levels. Among three platforms (Facebook, Twitter and LinkedIn), the results showed that using Twitter alone as a channel for information disclosure had a negative and significant effect on information asymmetry indicator. Consequently, in the Saudi context, the researchers validated the assumptions of the agency, stewardship and

signaling theories. Also, results revealed that the effect of information disclosure through websites and social media on reducing information asymmetry is stronger for large companies than small companies.

- studies conducted in other Arab Countries

Tessema *et al* (2017) investigated whether disclosure as required by Islamic Financial Service Board Standard No. 4 (IFSB-4) influences information asymmetry among investors in the Gulf Cooperation Council (GCC) member countries. In addition, the paper investigated whether the influence of IFSB-4 on information asymmetry varies between Islamic and conventional financial institutions. based on a sample of firms listed in the GCC over a period of 2000-2013, They found that information asymmetry among investors was lower after the implementation of IFSB-4 than before, indicating that the standard has increased transparency. The results also revealed that information asymmetry after the implementation of IFSB-4 was lower for Islamic than for conventional financial institutions. This suggests that IFAB-4 promotes more transparency for Islamic than conventional institutions.

Mansour (2014) examined the information asymmetry and financing constraints in the Gulf Cooperation Council (GCC) region. The asymmetrical distribution of information between the insiders and outsiders of the firm brings forth a wedge between the costs of internal and external funds, which renders them imperfect substitutes. The study was based on a sample of non-financial firms from six GCC countries is considered. The results can be explained in terms of restricted access to external finance. For instance, firms in GCC economies that finance their activities in compliance with *shari'ah* (i.e., Islamic law) have a narrower array of Islamic financial products, which renders their costs higher than those of the conventional financial products. Fostering the development of GCC financial markets and the implementation of efficient regulatory devices would improve the financing conditions and enhance the growth of firms in the Gulf region.

- studies conducted in International (Non-Arab) contexts

Drobtz (2010) investigated the market value of corporate cash holdings in connection with firm-specific and time-varying information asymmetry. Analyzing a large international sample, the study supported the free cash flow theory and indicated that the value of corporate cash holdings is lower in states with a higher degree of information asymmetry.

2.3 The third area: studies that dealt with the efficient market and information asymmetry

This section reviews previous studies that have addressed this relationship between Information asymmetry and efficient markets in both Arab and foreign contexts

The two concepts are closely related in the financial and economic literature. When all relevant information is reflected quickly and completely in asset prices, the market becomes efficient, reducing the chances of information asymmetry among investors. However, when information is not readily available or equally accessible, it creates an environment of asymmetry that reduces market efficiency. The strength of this relationship varies depending on several factors, such as the quality of regulation, transparency, and the application of international accounting standards. In both developed and emerging markets, including those in the Arab world, researchers have explored how these two elements interact and effect financial performance and investor behavior.

- studies conducted in Saudi Arabia

Asiri & Alzeera (2013) examined market efficiency in Saudi Arabia's stock market, Tadawul, during a period of weakness, which is expected to follow a random walk. All share index and sectoral indices for daily closing prices in Tadawul between October 15, 2006 and November 15, 2012 are collected. They found evidence that supports the weak-form market efficiency in the Saudi Arabian stock market, Tadawul. The tests (Dickey-Fuller test, Pearson Correlation test, Durbin-Watson test, and Wald-Wolfowitz runs-test) confirmed that the daily closing prices for all listed companies and sectoral indices followed a random walk. This implies that past stock prices do not predict future prices, and thus, investors cannot achieve abnormal returns through technical analysis based on historical price data.

Additionally, the results indicated that the Saudi market exhibits efficiency similar to other emerging markets, and this efficiency persisted across various sectors, even during and after the financial crisis. This supports the idea that the market absorbs information quickly, and stock prices adjust to reflect available information without delay.

These findings were considered crucial for investors, companies, and policymakers as they indicate that using historical price patterns to predict future stock prices may not be effective in the Saudi market.

- studies conducted in International (Non-Arab) contexts

Li (2020) Provides evidence that information asymmetry increases equity misevaluation by showing the impact of analyst coverage on misevaluation, The sample consists of U.S. public firms from 1976 to 2016 with relevant accounting information from Compu stat, return information from the Center for Research in Securities Prices (CRSP), the evidence suggests that firms followed by a large number of analysts are less overvalued than firms with low analyst coverage. The results are robust to the inclusion of various control variables including firm size, profitability, capital expenditure, firm.

Bouattour & Martinez (2019) investigated the market efficiency by using laboratory experiments. three experimental treatments were performed with two distinguishing dimensions: uncertainty and asymmetric information. The results showed that both uncertainty and information asymmetry affected the level of market efficiency with information asymmetry having a pronounced impact. Market efficiency was reduced when the fundamental value of stocks is volatile. In addition, participants were found to under-react to information and that this under-reaction is not corrected during trading periods and prices remain stable.

Jelena (2016) examined impact of asymmetric information on efficiency of capital markets. More precisely, the study considered market equilibrium involving investors who possessed asymmetrical information. For this reason, the paper presented empirical model in order to examine the impact of asymmetric information on the assets pricing. Generally, capital markets were found to be perfect. In particular, emerging and frontier markets were not fully efficient, specifically (for example, the Serbian capital market). However, there was information asymmetry through which borrowers (securities issuers) knew more about the risks than the lenders to (securities purchasers). As a result, market participants were often reluctant to trade with these assets, whose characteristics and behavior under varying economic conditions were not well understood. The paper presented all advantages and disadvantages of studied models.

2.4 the fourth area: studies that dealt with the impact IFRS on information asymmetry

This section presents previous research that has examined how the implementation of IFRS affects the level of information asymmetry in different markets. It is generally expected that the adoption of IFRS will enhance transparency, improve the quality of financial reporting, and narrow the gap between informed and uninformed investors, thereby reducing information asymmetry

- studies conducted in Saudi Arabia

Saber & Abulaila (2016) attempted to study and analyze the impact of IFRS application on the asymmetry of accounting information and the impact on the quality of accounting profits. The study used the Saudi insurance sector in the application of the study due to its commitment to adapt IFRS since 2009, The finding exposed that there is a relationship between the application of IFRS and the asymmetry of accounting information, and there is a significant relationship between the application of IFRS and the quality of earnings after the application of standards and the lack of a relationship before applying the IFRS.

- studies conducted in other Arab Countries

Ashwan & Kassem (2018) aimed to identify the impact of the mandatory adoption of International

Financial Reporting Standards on information symmetry and stock prices in the Palestine Stock Exchange. The study sample consisted of managers, department heads, and accountants working in financial departments. The researchers relied on a descriptive analytical approach. The results of the empirical study demonstrated that the application of International Financial Reporting Standards in the Palestine Stock Exchange led to an increase in the qualitative characteristics of the accounting information presented in financial reports, a reduction in the cost of this information, and an enhancement in the relevance and reliability of financial statements. This, in turn, reduced the level of information asymmetry, thereby protecting investors.

Sami (2016) examined the phenomenon of information asymmetry, which is one of the most significant issues faced by financial markets, characterized by the behavior of parties who possess informational advantages and withhold information from outside investors in order to achieve abnormal profits. based on a sample of several companies in the stock exchange, he found that adoption of International Financial Reporting Standards (IFRS) as global standards contributed to improving the interpretability of information, enhancing transparency, and reducing the occurrence of information asymmetry among investors in the stock market.

- studies conducted in International (Non-Arab) contexts

Turki *et al* (2017) examined the relationship between the mandatory adoption of IFRS/IAS and the information content of earnings in the European Union. More accurately, this study aimed to determine if the effect of IFRS adoption on the level of information asymmetry, apprehended by the cost of capital and the financial analysts' forecasts, is immediate or delayed. based on a sample of firms that have adopted the international standards between 1990 and 1993, The results showed that the effect of IFRS adoption on financial analysts' errors is not immediate and that the errors decrease from the third year following the date of the first adoption. Overall, the findings of this study highlight the importance of adopting IFRS in the reduction of information asymmetry.

Mohammadi & Esmaeilioghaz (2017) examined the impact of accounting information quality and information asymmetry on the underinvestment phenomenon among the listed companies on the Tehran Stock Exchange (TSE), The statistical results, based on data collected from 94 listed companies on the TSE during 2010–2015, revealed positive impact of accounting information quality and positive impact of information asymmetry on underinvestment. There was a significant relationship between accrual quality (AQ) and underinvestment, and spread and underinvestment. The results also showed that information asymmetry is the main factor in the creation underinvestment.

Espinoza *et al* (2015) examined the effects of adopting IFRS on market transparency and in information asymmetry reduction. The spread (bid-ask) on intra-day shares from the Santiago Stock Exchange for 2007-2012 is used as a proxy for information asymmetry, they found that financial information disclosure, which is considered to be a significant element of the quality of corporate governance, and the adoption of IFRS have a negative relation with the spread.

Kao & Wei (2014) investigated the relationship between the information asymmetry, the ownership structure, the pledge of directors-supervisor, respectively, and the quality of accounting information under different accounting standards. By considering A and B stock market of China, the results suggested that other countries could use IFRS as a reference. They found that IFRS improved the predictive value and timeliness, and it can't influence representational faithfulness significantly, they also found that information asymmetry degrades the quality of accounting information.

2.5 Hypothesis Development

2.5.1 Mandatory IFRS Adoption and Bid-ask Spread

A number of previous studies have examined the impact of implementing IFRS on market indicators related to information asymmetry. The bid-ask spread is one of the most widely used indicators to measure this type of information asymmetry among investors. A narrower spread typically indicates improved transparency of available information and a reduction in the degree of asymmetry, which contributes to increased market efficiency.

Several international studies have shown that adopting IFRS is associated with a reduction in this spread, which indicates improved quality of financial disclosure and increased comparability of data across companies. For example, studies such as Embong *et al.* (2015) and Abad *et al.* (2018) found that implementing IFRS helped reduce information asymmetry among market participants. Garrouch and Omri (2024) also showed that this effect becomes more pronounced in the presence of effective corporate governance systems.

Based on these results, and taking into account the Kingdom of Saudi Arabia's commitment to implementing IFRS as part of its efforts to enhance market efficiency and transparency, this accounting shift is expected to lead to a significant reduction in information asymmetry. Based on this, the following hypothesis is proposed:

H1: Information asymmetry that is proxied by the bid-ask spread will be narrower after the adoption of the IFRS.

2.5.2 Mandatory IFRS Adoption and Cost of Capital

In economic theory, the high cost of information asymmetry translates into high costs of capital, illiquid markets, and suppressed investment activity. Proponents of IFRS find support in the mandatory part of the IASB's objective, which requires high-quality, transparent, and comparable information. They argue that IFRS will encourage the development of capital markets. The IASB has been actively promoting IFRS at the political level, with results ranging from endorsement to mandatory adoption (Ball, 2006). Mandatory adoption of IFRS would reduce the cost of equity capital, as IFRS requires more disclosure of financial information than most domestic accounting standards (Ashbaugh & Pincus, 2001). With proper implementation and enablement, adoption of IFRS could reduce the cost of capital by improving the quality and comparability of financial statements. This supports the findings of several previous studies documenting that increased disclosure is believed to reduce the cost of equity capital (Easley and O'Hara, 2004; Lambert *et al.*, 2007; Armstrong *et al.*, 2010). Accordingly, the following hypothesis is proposed:

H2: Information asymmetry that is proxied by the cost of capital will reduce following the adoption of the IFRS.

Based on the literature review and theoretical framework, the adoption of International Financial Reporting Standards (IFRS) in Saudi Arabia is essential not only for compliance with international standards but also to address local challenges associated with information asymmetry. It is also aligned with global accounting practices and provides a solid foundation for transparency. In my view, the strategic move to adopt IFRS is likely to yield significant benefits, such as increased foreign investment attraction and improved market efficiency. However, this shift may introduce complications, particularly regarding adapting these standards to local economic and cultural factors, such as compliance with Sharia law.

While the implementation of IFRS will certainly reduce information asymmetries, there is a risk that smaller companies or those less familiar with global standards may face difficulties, which could initially widen the information gap. Therefore, the successful implementation of IFRS in Saudi Arabia requires support from regulatory bodies, ongoing education, and time for companies to adapt. This research will provide valuable insights for policymakers in Saudi Arabia and other emerging markets considering similar transformations.

3. MATERIALS AND METHODS

3.1 Research model

The model of analysis to test the two hypotheses of this study is shown below. Control

variables that have previously been proven as the determinants of the cost of capital and bid-ask spread are used within the model.

Model 1.1

$$CoC_{i,t} = \beta_0 + \beta_1 IFRS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 GROWTH_{i,t} + \beta_4 LEV_{i,t} + \beta_5 CFO_{i,t} + \beta_6 EPS_{i,t} + \varepsilon_{i,t}$$

Model 1.2

$$spread_{i,t} = \beta_0 + \beta_1 IFRS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 GROWTH_{i,t} + \beta_4 LEV_{i,t} + \beta_5 CFO_{i,t} + \beta_6 EPS_{i,t} + \varepsilon_{i,t}$$

3.2 Definition of Variables

• Independent variable:

The independent variable represents in the application of IFRS and its impact on the asymmetry of information, takes the value of one when the application of standards and a zero value in the case of non-application of standards, and it is also used by studies (Cameran, 2011) and study (Barth, 2008).

• Dependent variables:

This research measures information asymmetry using two proxies: cost of capital and bid-ask spread.

1. Cost of capital is calculated according to Easton's (2004) model, which uses earnings per share data for the coming year and the following two years. This model has been applied in many previous studies (Botosan & Plumlee, 2005; Easton, 2004; Christensen *et al.*, 2011), which proves the importance of measuring the relationship between variables, Below is equation of the cost of capital:

$$CoC_{PEGi,t} = \sqrt{\frac{E0(eps2) - E0(eps1)}{P0}}$$

where:

CoCPEG = Cost of capital for companies i and year t

eps1, eps2 = Earnings per share in year t and year t-1

P0 = Share price at the beginning of the year

2. Bid-Ask Spread The bid-ask spread is estimated using the Corwin and Schultz (2012) method, which allows spread estimation using only daily high and low prices. The spread estimate is calculated as:

$$s = \frac{2(e^\alpha - 1)}{1 + e^\alpha}$$

where:

S = the estimated bid-ask spread.

α = an intermediate parameter calculated as:

$$\alpha = \frac{\sqrt{2\beta} - \sqrt{\gamma}}{3 - \sqrt{22}}$$

With:

$$\beta = \left[\ln\left(\frac{H_1}{L_1}\right) \right]^2 + \left[\ln\left(\frac{H_2}{L_2}\right) \right]^2$$

- the sum of the squared log ranges of two consecutive days

$$\gamma = \left[\ln\left(\frac{H_{1,2}}{L_{1,2}}\right) \right]^2$$

- the squared log range over the combined two-day period

Where:

H_t and L_t are the daily high and low prices on day t.

$H_{1,2}$ and $L_{1,2}$ are the high and low prices observed over the two-day window.

• Control Variables

This study includes several control variables in the model of analysis: firm size, growth, leverage, cash flow from operating, and earnings per share. Firm size (SIZE) is measured by the logarithm of the equity market value at the end of the year, following Chae (2005) and Lafond *et al.* (2007). Sales growth (GROWTH) refers to the annual sales growth rate of a company. Companies with higher growth opportunities are more likely to have higher information asymmetry and bear higher adverse selection costs than companies with low growth opportunities (D'Mello *et al.*, 2008; Krishnaswami & Subramaniam, 1999; Myers & Majluf, 1984). Leverage (LEV) is measured by total debt scaled by the total equity. This indicates the amount of debt borne through the company's capital (Nguyen & Schubler, 2013; Komala & Nugroho, 2013; Abasari *et al.*, 2013; Kose, 2011). Cash flow from operating (CFO) is measured by cash flow from operating at the end of the year divided by total assets at the beginning of the year. Earnings per share (EPS) shows the company's net profit that is ready to be distributed to all shareholders. EPS is measured by profit or loss before extraordinary items divided by the weighted average of shares outstanding (Mgbame & Ikhatua, 2013; Menaje, 2012; Sheetaraman & Raj, 2011; Perera & Thrikawala, 2010; Zhu, 2003).

3.3 Data and Sample Selection

The study population consists of companies listed on the Saudi Stock Exchange (Tadawul), excluding those in the insurance and banking sectors. These sectors were excluded because they are subject to different regulatory frameworks and reporting requirements governed by the Saudi Central Bank (SAMA), which differ from those applied to other listed companies. Companies were selected to evaluate the impact of implementing the International Financial Reporting Standards (IFRS), which were adopted by the SAMA and the Capital Market Authority (CMA), replacing the local Saudi accounting standards as of January 1, 2017. A random sample of 30 companies was selected based on specific criteria to ensure the relevance and accuracy of the study. The analysis covers a six-year period: three years before the implementation of IFRS (2014–2016) and three years after the implementation (2018–2020).

4. RESULTS

4.1 Cost of Capital Model Analysis

The final random effects estimation of the cost of capital model, incorporating robust standard errors to

account for serial correlation, yields several important findings regarding the impact of IFRS adoption on firms' financing costs (Table 1). The results demonstrate a statistically significant negative coefficient for the IFRS adoption dummy ($\beta = -1.20$, $SE = 0.57$, $p = 0.037$), indicating that the transition to international financial reporting standards is associated with an economically meaningful reduction in firms' cost of capital. This finding supports hypothesis H2 and suggests that improved financial reporting quality under IFRS enhances information transparency. The magnitude of the coefficient implies that, holding other factors constant, After IFRS- adoption firms experience an average decrease of 1.2% in their cost of capital relative to pre IFRS-adoption.

The control variables in the cost of capital model present an interesting pattern of results. While none of the firm-specific financial characteristics achieve statistical significance at conventional levels, their coefficients generally align with theoretical expectations. The near-zero coefficient for firm size ($\beta = -0.0004$) contrasts with prior literature suggesting that larger firms typically benefit from lower financing costs, potentially indicating that size effects are captured through other channels in this specification. The positive but insignificant coefficient for growth opportunities ($\beta = 0.0032$) may reflect the offsetting effects of growth potential against associated risk factors. Notably, the negative coefficient for earnings per share ($\beta = -0.0496$), while not statistically significant, suggests a potential relationship between profitability and financing costs that warrants further investigation in future research.

Table 1: Effect of IFRS and Other Predictors on the Cost of Capital

Variable	Estimate	Robust Standard Error	t-value	p-value
Intercept	4.85	0.510	9.59	< 0.001**
IFRS	-1.20	0.570	-2.11	0.0367*
Size	-0.0004	0.020	-0.02	0.984
Growth	0.0032	0.003	1.19	0.234
Lev	-0.0043	0.101	-0.04	0.966
CFO	0.0278	0.024	1.14	0.256
EPS	-0.0496	0.112	-0.44	0.658

* Significant at 0.05 level.

** Significant at 0.01 level.

4.2 Bid-Ask Spread Model Analysis

The fixed effects estimation of the bid-ask spread model, employing clustered standard errors to address both heteroskedasticity and serial correlation, provides compelling evidence regarding IFRS adoption's impact on market-based measures of information asymmetry (Table 2). The results reveal a highly significant negative coefficient for IFRS adoption ($\beta = -0.1038$, $SE = 0.022$, $p < 0.001$), strongly supporting hypothesis H1. This finding indicates that mandatory IFRS implementation is associated with approximately 0.1% reduction in bid-ask spreads, suggesting substantial improvements in information efficiency.

Among the control variables, firm size emerges as a significant positive predictor of bid-ask spreads ($\beta =$

0.0599, $SE = 0.020$, $p = 0.003$), a result that initially appears counterintuitive given conventional market microstructure theory. This finding may reflect unique characteristics of the sample firms or potentially indicate that larger firms in this market engage in more complex transactions that naturally command wider spreads. Alternatively, it could suggest that size proxies for other unobserved factors in this particular institutional context. The remaining control variables, including growth opportunities, leverage, cash flows, and earnings per share, fail to achieve statistical significance, though their coefficients generally align with expected directions of influence. The negative coefficient for EPS ($\beta = -0.0060$), while not significant, maintains the anticipated inverse relationship between profitability and information asymmetry measures.

Table 2: Effect of IFRS and Other Predictors on the Bid-Ask Spread

Variable	Estimate	Robust Standard Error	t-value	p-value
IFRS	-0.1038	0.022	-4.75	< 0.001**
Size	0.0599	0.020	3.06	0.003*
Growth	0.0000	0.000	-0.3	0.767
Lev	0.0153	0.013	1.2	0.231
CFO	0.0023	0.002	1.39	0.166
EPS	-0.0060	0.008	-0.79	0.429

* Significant at 0.05 level.

** Significant at 0.01 level.

4.3 Comparative Analysis of IFRS Adoption Effects on Information Asymmetry

When considered together, the results from both models provide robust evidence that IFRS adoption contributes to reduced information asymmetry in financial markets, as measured through both accounting-based (cost of capital) and market-based (bid-ask spread) metrics. The consistency of findings across different measurement approaches strengthens the validity of the conclusions and supports the theoretical proposition that higher-quality financial reporting enhances market efficiency. The differential significance of control variables across the two models suggests that the mechanisms through which firm characteristics influence information asymmetry may vary depending on the specific metric employed. This underscores the importance of utilizing multiple proxies when examining complex constructs like information asymmetry in capital markets research.

The stronger statistical significance observed in the bid-ask spread model ($p < 0.001$) compared to the cost of capital model ($p = 0.037$) may reflect the more immediate responsiveness of market-based measures to changes in reporting quality, while cost of capital effects might manifest over longer horizons. This temporal dimension warrants consideration in interpreting the results and suggests potential avenues for future research examining dynamic effects of reporting standard changes. The overall pattern of results aligns with and extends prior international evidence on IFRS adoption effects, while providing new insights specific to the study's market context.

5. DISCUSSION

The findings of this study provide robust empirical evidence that mandatory adoption of International Financial Reporting Standards (IFRS) contributes to a significant reduction in information asymmetry, as measured through both accounting-based (cost of capital) and market-based (bid-ask spread) metrics. The results align with and extend prior literature on financial reporting quality, while offering new insights specific to the institutional context of this study. The discussion is structured around three key themes: (1) the impact of IFRS on cost of capital, (2) its effect on bid-ask spreads, and (3) the comparative implications of these findings for theory and practice.

5.1 IFRS Adoption and the Cost of Capital

The regression analysis reveals a statistically significant negative association between IFRS adoption and firms' cost of capital ($\beta = -1.20$, $p = 0.037$), indicating that firms experience an average reduction of 1.2% in their financing costs following the transition to IFRS. This finding supports the hypothesis that enhanced financial reporting quality under IFRS mitigates information risk, thereby lowering investors' required rate of return. The result is consistent with prior research in emerging markets, such as Juniarti *et al.* (2018) and

Yousefi Nejad *et al.* (2020), who document similar declines in the cost of capital post-IFRS adoption. These studies argue that improved transparency under IFRS reduces uncertainty for investors, particularly in environments where pre-adoption reporting standards were less rigorous.

However, the relatively weaker significance level ($p = 0.037$) compared to the bid-ask spread model ($p < 0.001$) suggests that the cost of capital effect may manifest more gradually. This aligns with Turki *et al.* (2017), who find that the full benefits of IFRS adoption on financing costs may take several years to materialize as investors gradually adjust their risk assessments. Additionally, the lack of significance among firm-specific control variables (e.g., size, leverage) implies that IFRS adoption may play a more dominant role than firm-level characteristics in reducing information asymmetry in this sample. This contrasts with findings from Mohammadi and Esmaeilioghaz (2017), who report significant effects of firm-level factors on underinvestment in Iran, suggesting that institutional differences may influence the relative importance of reporting standards versus firm attributes.

5.2 IFRS Adoption and Bid-Ask Spreads

The fixed-effects estimation demonstrates a highly significant reduction in bid-ask spreads following IFRS adoption ($\beta = -0.1038$, $p < 0.001$), equivalent to approximately 0.1 decline. This provides strong evidence that IFRS enhances market liquidity by reducing adverse selection costs, consistent with microstructure theory (Bhattacharya *et al.*, 2012; Cerqueira & Pereira, 2014). The immediacy and magnitude of this effect suggest that market participants react swiftly to improvements in financial reporting quality, narrowing spreads as information asymmetry declines. This finding corroborates studies such as Campos-Espinoza *et al.* (2015) and Garrouch and Omri (2024), who report similar liquidity improvements in Chile and France following IFRS implementation.

A notable anomaly in the results is the positive association between firm size and bid-ask spreads ($\beta = 0.0599$, $p = 0.003$), which contradicts conventional expectations that larger firms exhibit lower information asymmetry. One plausible explanation is that larger firms in this sample engage in more complex transactions, increasing perceived information gaps (Kao & Wei, 2014). Alternatively, institutional ownership patterns may contribute to wider spreads if block trades dominate liquidity provision (Campos-Espinoza *et al.*, 2015). This finding warrants further investigation, as it suggests that size-related liquidity effects may be context-dependent.

5.3 Comparative Analysis and Theoretical Implications

The consistency of results across both models—cost of capital and bid-ask spreads—strengthens the conclusion that IFRS adoption enhances market

efficiency by reducing information asymmetry. However, the differential significance levels highlight an important distinction: while bid-ask spreads reflect real-time market reactions, cost of capital adjustments may occur over longer horizons (Turki *et al.*, 2017). This temporal dimension aligns with Bhattacharya *et al.* (2012), who argue that trading-based metrics are more sensitive to reporting quality changes than accounting-based measures.

The findings also contribute to the debate on whether IFRS benefits are uniform across institutional settings. While some studies in developed markets report mixed results due to pre-existing high reporting standards (Cerqueira & Pereira, 2014), this study supports the view that emerging markets experience more pronounced benefits (Juniarti *et al.*, 2018; Yousefi Nejad *et al.*, 2020). This suggests that the marginal value of IFRS adoption is greater in environments where local GAAP previously provided limited transparency.

6. CONCLUSIONS AND RECOMMENDATIONS

This study demonstrates that mandatory IFRS adoption significantly reduces information asymmetry, as evidenced by lower cost of capital and bid-ask spreads. The results align with global evidence while highlighting the importance of institutional context in shaping IFRS outcomes. Future research should explore long-term dynamic effects and the interplay between reporting standards and corporate governance mechanisms to further refine our understanding of these relationships.

The researcher recommends the following based on the analytical and statistical results:

First, regulators in emerging markets, including Saudi Arabia, are encouraged to continue promoting the implementation of International Financial Reporting Standards (IFRS), as evidence suggests that such adoption enhances transparency and reduces information asymmetry in capital markets.

Second, the Saudi stock market should adopt courses and workshops to educate users of financial reports about the risks of asymmetric information.

Third, researchers are encouraged to conduct further studies using larger data sets and longer time periods to validate and expand on these findings. Future studies may also explore how the effects of IFRS adoption interact with other factors, such as the quality of corporate governance and auditing practices.

Finally, efforts should be made to improve the availability and completeness of financial data, particularly for earlier periods. This would enable more accurate and comprehensive analyses and help address the limitations of this study.

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