The diffusion of innovation theory and the effects of IFRS adoption by multinational corporations on capital market performance: a cross-country analysis

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Abstract

This paper seeks to contribute to IFRS literature by examining the effects of adopting international financial reporting standards (IFRS) on stock market performance worldwide from the diffusion of innovation theory perspective. Our study revealed several interesting findings after using combinations of unique panel data sets from 110 countries worldwide and conducting a robust empirical analysis spanning 1995-2014. First, we find a positive association between the late mandatory IFRS adoption and EU stock market integration. Second, our findings indicate a significant negative association between the early IFRS adoption and the following financial indicators: stock market trading volumes, stock market capitalization, market turnover, and market return. Third, our study reveals an insignificant association between early IFRS adoption and stock price volatility alongside stock market development. Our findings are robust and have significant practical and policy implications for regulators and policymakers of multinational corporations.

Keywords: International Financial Reporting Standards; Diffusion of Innovation Theory; Stock Market Indicators; Financial Market Consequences.

1. INTRODUCTION

Following the recent global financial crisis and the associated high-profile corporate scandals, many countries worldwide have mandated IFRS adoption by all listed multinational companies to ensure transparency and integrity in financial reporting. Although some studies argue that voluntary IFRS adoption enhances transparency and efficiency of stock markets (De George, Li, & Shivakumar, 2016; Palea, 2013), others provide a contrary view that mandatory IFRS adoption should be put forward because of their regulatory and legal embarkment (Florou & Pope, 2012; Daske, Hail, Leuz, & Verdi, 2008). Further, a significant number of studies that focused on the effects of IFRS on the stock market have yielded mixed findings, which are marred by some methodological limitations (e.g., limited data) and additionally by their concentration on a few countries. Our study uses combinations of innovation diffusion theory and unique panel datasets from 110 countries, sampled from emerging economies, developing economies, and developed economies for addresses this gap in the extant international business and critical accounting literature to investigate the effects of the different classification stages of IFRS adoption on several capital markets around the world.

Although achieving positive outcomes is not a guarantee of post-IFRS adoption, some countries would be hesitant to adopt IFRS if the positive consequences are not perceived to be achievable (Lasmin, 2011; Judge et al., 2010; Ben-Othman & Kossentini, 2015). In addition, El-Helaly et al. (2020) showed that institutional factors had influenced the adoption speed of IFRS, while others have suggested that listed firms tend to adopt IFRS earlier in the process to access capital markets resources (Hope et al. 2006). Yet, the time of IFRS adoption varies across countries. Some nations adopted IFRS in the earlier stages, while others adopted IFRS in the later periods for different reasons (Hwang, Hur, & Kang, 2018; Ramanna & Sletten, 2009). Although adopting IFRS has led to enhance the financial market integration (Horton, Serafeim, & Serafeim, 2013; Negi, Srivastava, & Bhasin, 2014), it may also adversely affect short-term performance and only lead to positive impacts in the distant future (Ball, 2016; Armstrong, Barth, Jagolinzer, & Riedl, 2010). Indeed, previous research has shown that the long-term benefits of IFRS adoption were unclear at its initial adoption time (Lin, Riccardi, Wang, Hopkins, & Kabureck, 2019). Therefore, the reactions of financial markets to IFRS adoption differ significantly among countries since not all countries have imposed IFRS as mandated/recommended by the International Accounting Standards Board (IASB) at the same time. For example, some countries voluntarily allow IFRS for specific firms and particular purposes. In contrast, others modified their Generally Accepted Accounting Principles (GAAP) in favour of IFRS requirements, negatively impacting their economic and financial performance (Horton, Serafeim, & Serafeim, 2013). As a result, we argue a causal relationship between IFRS adoption and financial market consequences, which may also vary among different countries.

In light of this, we attempt to explore the consequences of IFRS adoption on the financial market to address the two unanswered issues that motivated this study. First, does the time and speed of IFRS adoption lead to achieving either positive or negative financial market consequences?. Second, does the impact of IFRS adoption on the financial market vary between companies, including listed firms, unlisted firms, foreign firms, and SMEs?. We argue that the speed and status of IFRS adoption may negatively affect the financial consequences of adopting nations for three reasons. First, some studies show that IFRS adoption has negatively influenced a specific group of firms, especially companies applying U.S. GAAP (Atwood et al., 2011; Jeanjean & Stolowy, 2008). Hence, such adverse effects of IFRS adoption are likely to be restricted in countries with US GAAP, primarily multinational enterprises. Second, some scholars have revealed that IFRS adoption has a negative impact on information cost (De

George, Ferguson, & Spear, 2013). Third, other studies have reported that IFRS adoption has a negative effect on comparability for companies that adopted IFRS on a mandatory basis in 2005 (Gray et al., 2009). Therefore, we argue that the negative consequences of IFRS adoption on the financial market depend on the time and speed of adoption. Additionally, we argue that IFRS adoption status may also have some financial benefits for those financial markets. The IFRS status refers to the extent to which IFRS status (not required, required, permitted required/permitted for some companies) was used to prepare the financial reporting of certain groups of multinational corporations.

Theoretically, very few studies have employed the diffusion of innovation theory (DOI), popularised by Rogers in 1962, to explain the global diffusion of IFRS (e.g., Elmghaamez, 2019; El-Helaly et al., 2020; Dayyala et al., 2020). For instance, recent research conducted by El-Helaly et al. (2020) employed DOI theory to explain how the country-level control of corruption may hinder or expand IFRS adoption across non-EU countries. The findings suggest that corruption control is negatively associated with a country's speed of IFRS adoption. In contrast, it is positively associated with a country's mandatory adoption of IFRS. Furthermore, Dayyala et al. (2020) explicitly researched the innovation diffusion models by investigating the internal, external, and mixed diffusion of IFRS to identify the best communication channels using DOI theory. Results of the study suggest that IFRS diffusion occurs due to a combination of external (mass media) and internal (social interaction) communication channels. Hence, by comparison, the mixed diffusion model provides a better understanding of IFRS diffusion. This paper, therefore, contributes to the extant IFRS literature by making two new contributions: (i) examining the influence of IFRS speed on the financial consequences of IFRS using the diffusions of innovation theory (Rogers, 1962), and (ii) examining the status of IFRS adoption for several groups (i.e., IFRS for listed firms, IFRS for unlisted firms, IFRS for foreign firms, and IFRS adoption for SMEs) using a unique dataset sample linked to 110 countries over the period from 1995 to 2014.

Empirically, previous research has focused on individual financial market indicators to examine the financial consequences of IFRS adoption for the adopting nations (e.g., financial integration; market capitalization; stock market turnover; stock market returns; and stock market volatility) and reported mixed findings. For instance, some scholars found a positive association between IFRS adoption and financial market integration (e.g., Cai & Wong, 2010; De George, 2013; Dhaliwal et al., 2019), whereas others found an insignificant association between them (Alnodel, 2016; Naranjo et al., 2017). Similarly, while some previous studies

reported a positive relationship between IFRS and market capitalization (Lasmin, 2011; Judge et al., 2010; Klibi & Kossentini, 2014; Ben-Othman & Kossentini, 2015), other studies found a negative link between them (Shima & Yang, 2012; Hope et al., 2006; Brochet et al., 2013; Renders & Gaeremynck, 2007). Likewise, some previous research found a positive relationship between IFRS adoption stock market turnover (Leuz & Verrecchia, 2000; Loureiro & Taboada, 2012; Barth et al., 2018), whereas other studies show a negative relationship between them (Khurana & Michas, 2011; Burnett et al., 2015). Correspondingly, some scholars found a positive relationship between IFRS adoption and stock market returns (Escaffre & Sefsaf, 2011; Loureiro & Taboada, 2012; Yip & Young, 2012; Okafor et al., 2016), while others found a negative relationship between them (Patro & Gupta, 2016; Key & Kim, 2017; Klimczak, 2011). Again, in a similar vein, some prior research showed a positive relationship between the IFRS and stock market volatility (Gassen & Sellhorn, 2006; Landsman et al., 2012; Daske et al., 2008; Clarkson et al., 2011), while others found a negative relationship between the two variables (Chau et al., 2013; Patro & Gupta, 2016; Chalmers et al., 2011; Nulla, 2014).

This study, thus, seeks to make new contributions to the IFRS literature by examining the association between IFRS adoption and financial consequences by reviewing a range of financial market indicators for a large sample consisting of 110 countries between 1995 to 2014. We rely on the diffusion of innovation theory, developed by Rogers (1962), and the IFRS adoption status, provided by the IFRS Foundation, an international organization, to estimate the effect of the speed and status of IFRS adoption. To the best of our knowledge, this novel study uses the DOI theory to understand the financial consequences of IFRS adoption. Additionally, unlike the other previous IFRS studies that use ordinary linear regression models (e.g., Ramanna & Sletten, 2014; Shima & Yang, 2012; Judge, Li, & Pinsker, 2010), our study employs both fixed-effects models and 2SLS regression models to strengthen the robustness of our findings by controlling for fixed-year effects and the endogeneity problem. Finally, our results are based on unique panel datasets collected from 110 countries across different economic backgrounds, including emerging economies, developed economies, developing economies, and the G4 economies. Our findings, therefore, are based on more representative data across the world with more rigorous and robust analysis. Our study focuses on the following two related research questions: (i) To what extent does IFRS adoption speed and status influence the financial market indicators across countries? and (ii) How does early and late adoption of IFRS impact financially on capital markets?.

We test our theoretical framework in a multilevel analysis for seven financial market indicators from 110 countries from 1995 to 2014. We found a positive association between the late mandatory IFRS adoption and EU stock market integration. However, we discovered a significant negative association between the early IFRS adoption and the following financial indicators: stock market trading volumes, stock market capitalization, market turnover, and return. In addition to this, we found that IFRS adoption for unlisted firms has significantly affected the stock market turnover level for the adopting nations. Moreover, we found that financial integration and market capitalization both have positive and significant increases after IFRS adoption by SMEs. However, stock market turnover and return have negatively and significantly decreased post-IFRS adoption by SMEs.

The structure of this paper proceeds as follows. First, we discuss IFRS adoption and the global financial market. Second, we highlight the theoretical underpinnings of the DOI and use that as a springboard to show the development of our hypotheses. Third, we outline our regression model specifications and present our research design. Fourth, we conduct our analysis followed by a discussion and research implications. Last, we discuss the theoretical, practical, and policy implications, outline the conclusions and limitations, and recommend new avenues for future studies.

2. IFRS ADOPTION AND THE GLOBAL FINANCIAL MARKET

The International Accounting Standards (IAS) were introduced by the International Accounting Standards Committee (IASC). IASC was formed in 1973 to enhance the quality of financial reporting (Ben Othman & Kossentini, 2015). The IASC was replaced by the International Accounting Standards Board (IASB), whose role was to develop and approve International Financial Reporting Standards (IFRS) to enhance international comparability and transparency between countries, and therefore increase investors' trust and help financial market participants to make informed decisions (Tyrrall & Aggestam, 2011). After many countries around the world mandated international financial reporting standards (IFRS), the IASB began working closely with the Securities and Exchange Commission (SEC) to converge IFRS with the US Generally Accepted Accounting Principles (GAAP) (Ortega, 2017). As a result, foreign investors tend to invest in financial markets characterized by high-quality accounting information and transparent accounting standards, such as IFRS (Krishnan & Zhang, 2019). Hence, accounting innovations, such as IFRS, have been widely adopted globally to attract inward foreign direct investments (FDI) (Rudhani et al., 2017; Elmghaamez, 2020).

Accordingly, stock markets are primarily motivated by adopting IFRS to gain other types of financial benefits, such as lower cost of capital (Fraser, 2010). Following on from this, Comprix et al. (2003) identified 11 dates from 2000 to 2002 that signalled the timing of IFRS adoption in the EU and pointed out that stock markets reacting positively to news increased the likelihood of IFRS adoption. Notably, in countries with vigorous legal enforcement for investor protection, the development of stock markets is positively associated with high-quality accounting standards (Francis et al., 2003).

Since the IASB started to develop the International Accounting Standards and enhance the transparency of financial information, many countries have been encouraged to adopt IFRS (De George, 2013). Significantly, after the EU mandated IFRS adoption in 2005, there has been an exponential growth in IFRS adoption. To date, over 120 countries worldwide have adopted and implemented IFRS (VaseNak, 2015). Most previous studies investigating IFRS have applied a binary scheme for IFRS adoption status. However, this classification no longer works on the diffusion of innovation (DOI) theory in a vast and ever-changing environment (Trimble, 2017). In addition, IFRS adoption has been significantly affected by several macro-economic factors, such as the country's colonial history and financial system, among other factors (Pais & Bonito, 2018; Ramanna & Sletten, 2014).

3. LITERATURE REVIEW

This section discusses the theoretical framework and the empirical literature on the financial market effects of IFRS adoption.

3.1 Theoretical framework

Rogers developed the diffusion of innovation (DOI) theory in 1962. The DOI theory suggests that potential adopters might not adopt innovation directly until it gains momentum and then diffuses through the population over time. Previous literature applied different views. However, very few studies have used the DOI theory to illustrate the relevant benefits or effects of IFRS adoption (Elmghaamez, 2019; El-Helaly et al., 2020; Dayyala, Zaidi, & Bagchi, 2020). According to the diffusion of innovation DOI theory, adopters of innovations might experience desirable or undesirable outcomes, direct or indirect consequences, and expected or unexpected benefits due to the changes that may happen to a social system of adopters. This point could lead to either rejection or accepting such innovations (Rogers, 1995, Oliveira & Santos, 2019; El-Helaly, Ntim, & Al-Gazzar, 2020; Elmghaamez, Gerged, & Ntim, 2020). The financial consequences are one of the relative advantages whereby adopters can benefit from adopting

innovations that might have either desirable or undesirable effects (Rogers, 2003). Accordingly, the application of DOI theory in the accounting literature is significant because international accounting standards have been primarily designed to address accounting problems, such as improving transparency, enhancing international comparability, providing global integration markets, and increasing the efficiency of financial markets (Jorissen, 2015; Abata, 2015; Tweedie & Seidenstein, 2005).

According to the DOI theory, adopters on innovations can be classified into the following five groups based on their adoption time: experiments, early adopters, early majority, late majority, and laggards, and each group has similar characteristics. For example, early adopters are more risk-takers than the other adopter groups: early majority and late adopters (Rogers, 2003). Therefore, the DOI theory can complement our understanding of how the adoption time of IFRS can impact the financial efficiency of stock exchanges in the adopting countries (Jorissen, 2015; Abata, 2015). Nevertheless, previous international accounting literature has not set out sufficient evidence or explained the implications of using the DOI theoretical framework in studying the financial consequences of global IFRS adoption (El-Helaly, Ntim, & Al-Gazzar, 2020). This study closes this existing gap in the literature by employing the adoption classification scheme proposed by DOI theory to interpret the financial market consequences of global IFRS adoption.

Arguably, adopting a single set of high-quality IFRS innovations is desirable by most financial markets. However, because of the variety of perceived benefits of IFRS among nations, capital markets should decide whether to follow either IFRS or local GAAP to prepare financial reporting. (Sunder, 2011). Furthermore, the IFRS adoption rate can be measured by calculating the number of countries that adopted IFRS over a certain period (Botha & Atkins, 2005). Since the number of countries that adopted IFRS has significantly increased over time, the theoretical framework suggested by the DOI theory is valid. Therefore, it can be applied to explain how IFRS adoption impacts the financial market efficiency of adopting nations (Dayyala et al., 2020). Hence, the DOI theory is one of the most unified theories that can explain the dynamic diffusion of IFRS (e.g., Dayyala et al., 2020; Alon, 2010).

IFRS is considered an accounting innovation requiring regular improvement at the development and application stages. Hence, the gradual increase of the number of IFRS adopters can illustrate the economic and financial importance of adopting IFRS innovations and highlights the significance of IFRS innovation for listed firms (Iyoha & Jimoh, 2011). The

standard-setting bodies can use the adoption of IFRS to facilitate the diffusion of IFRS by implementing measures and highlighting the benefits of IFRS to enhance the spread of IFRS worldwide (Dayyala et al., 2020). In this regard, Elmghaamez et al. (2020) argued that financial market efficiency has significantly improved after the adoption of international standards on auditing, but only for listed firms that prepared their financial reports under IFRS and audited by ISAs. Therefore, we argue that financial market efficiency can also be influenced by IFRS adoption. Although the benefits of IFRS adoption perceived by external users are more significant than the benefits noticed by the internal users of financial information, internal users still believe that the benefits of IFRS adoption outweigh the costs of IFRS adoption (Pelucio-Grecco et al., 2016). This study, therefore, investigates the perceived financial market benefits from IFRS adoption. It is essential to highlight the importance of IFRS adoption for financial markets to facilitate wider adoption of IFRS globally.

Some scholars argue that IFRS adoption is primarily motivated by the isomorphic institutional pressures (coercive, mimetic, and normative) as suggested by institutional theory, rather than enhancing the perceived benefits of adopting innovations (DiMaggio & Powell 1983; Judge et al., 2010; Phan, 2014; Lasmin, 2011; Hassan et al., 2014). Specifically, coercive isomorphism pressures arise from foreign multinational corporations for efficiency gains through mandatory IFRS adoption (Lasmin, 2011; Irvine, 2008). Mimetic isomorphisms explain how organizations respond to pressures from imitating successful and legitimate social actors through IFRS adoption (Ben-Othman & Kossentini, 2015; Felski, 2015). Normative isomorphic is associated with the pressure placed, by securities regulators and international organizations, such as the World Bank and IMF, to encourage listed firms to voluntarily adopt IFRS for legitimacy reasons (Phan et al., 2016; Wu & Patel, 2013). Therefore, we argue that incorporating institutional theory could complement the insufficiency of diffusion of innovation theory to explain IFRS adoption. In particular, the DOI theory suggests that early adopters require a shorter time to adopt innovations than late adopters, and each group has different motivations. This point can also be influenced by normative institutional pressures associated with stock market authorities. DOI theory proposes that the early majority group tends to imitate successful organizations by adopting similar innovations. This situation can also be explained by the institutional mimetic pressures of imitating successful companies to achieve similar consequences. DOI theory indicates that the late majority group tends to adopt innovations only if they become mandatory by the country law. This situation can also be illustrated by coercive institutional pressures for efficiency reasons through compulsory IFRS

adoption. We also argue that adopting high-quality accounting standards will result in significant capital market benefits because of the high-quality disclosures, which attract foreign investments, thus enhancing financial market integration and capital market returns. In this way, this study combines the theoretical framework suggested by institutional theory and DOI theory since they provide a complementary lens to understand the perceived consequences of IFRS adoption.

3.2 Hypotheses Development:

Burgeoning empirical studies report mixed findings regarding the effects of IFRS adoption and capital market integration using country-specific samples or small sample sizes. For example, most scholars found a positive and significant association between IFRS adoption and financial market integration (e.g., Cai & Wong, 2010; De George, 2013; Dhaliwal et al., 2019). In contrast, few others reported an insignificant association between IFRS adoption and the global integration of capital markets (e.g., Alnodel, 2016; Naranjo et al., 2017). The empirical foundation is shaped by the diffusion of innovation (DOI) theoretical premise that implies that early adopters may experience desirable/beneficial outcomes due to favourable market consequences. This result indicates that countries with lower levels of financial integration and less market development are more likely to adopt IFRS early to increase their financial integration. Dhaliwal et al. (2019) argued that IFRS adoption is positively associated with risk sharing and stock market efficiency, which leads to a lowering of the barriers to financial market integration. This positive development reflects advantageously in stock prices. Similarly, Cai & Wong (2010) contended that having a single set of IFRS innovations would enhance transparency, accountability, and comparability between firms, thus facilitating the cross-border movement of capital and increasing the global financial markets integration. Likewise, Simpson (2008) suggested that capital markets should enhance the quality of their financial information by adopting IFRS, which would lead to reduced cost of capital and enhanced foreign investments inflow, thus creating more integrated capital markets. This discussion led us to hypothesize that:

H1*: There is a positive association between the early adoption of IFRS and stock market integration and development.*

An increase in the volume of trade in the stock market, post-IFRS adoption, leads to higher stock market returns (e.g., Escaffre & Sefsaf, 2011; Yip & Young, 2012; Bartov et al., 2005; Okafor, Anderson, & Warsame, 2016; Paglietti, 2009). In line with this, Pena et al. (2017)

contended that mandatory IFRS adoption positively impacts stock market returns since it can enhance the quality of financial information, thus reducing the risk of stock returns. Likewise, Negi et al. (2014) argued that stock market return is positively associated with good news, such as IFRS adoption. In addition, mandatory IFRS adoption can positively affect the stock market return since it provides superior information to market participants than voluntary IFRS adoption, resulting in significant differences from financial news. Similarly, Malaquias et al. (2016) reported that stock market returns had experienced a low level of volatility after IFRS adoption, valid for firms with good and bad news alike.

Regarding the effect of IFRS on market capitalization, the extant empirical studies that have examined the relationship between IFRS adoption and stock market capitalization has shown mixed results. Specifically, most previous studies found a significant positive association between IFRS and market capitalization (Judge et al., 2010; Lasmin, 2011; Klibi & Kossentini, 2014; Stainbank, 2014; Felski, 2015; Ben-Othman & Kossentini, 2015). In comparison, other studies found a negative link between IFRS adoption and market capitalization (Shima & Yang, 2012; Hope et al., 2006; Clements et al., 2010; Brochet et al., 2013; Renders & Gaeremynck, 2007). In contrast, only two other empirical studies did not find significant correlations (Riahi & Khoufi, 2015; Chebaane & Ben Othman, 2014). To add to this, Kimeli (2017) argued that IFRS adoption could indirectly improve stock market capitalization. It can also enhance the comparability of financial reporting among listed firms, thus attracting more foreign investors. Results from the above studies imply that countries with weak stock market returns and market capitalization tend to adopt IFRS early to improve their financial information quality and thus enhance their financial situation by attracting more foreign investors. To examine the integrity of these findings, we hypothesized that:

H2: There is a positive association between early IFRS adoption and stock market returns and market capitalization.

Very few studies have been conducted to examine the relationship between IFRS adoption and stock trading volume in terms of the stock trading volume. However, most previous research has shown a significant positive association between them (Okoye et al., 2014; Leuz & Verrecchia, 2000; Manyara & Benuto, 2014; Landsman et al., 2012). Only one empirical study found a negative association between IFRS adoption and stock trading volume (Figlioli et al., 2017). Additionally, Sanyaolu et al. (2017) reported an insignificant association between stock trading in the capital market and IFRS adoption. However, Abad et al. (2018) suggested a direct link between trading volume and stock price, which moves in response to the change

in a unit of trading volume, thus leading to higher stock illiquidity. Therefore, firms that adopt IFRS will experience lower information asymmetry and a high stock trading volume, thus achieving higher stock illiquidity.

Concerning stock turnover ratio, most empirical studies reported that IFRS adoption could lead to increased share turnover ratio because it reduces the information asymmetry between firms listed on different stock markets (Leuz & Verrecchia, 2000; Loureiro & Taboada, 2012; Drake et al., 2010; Barth et al., 2018). However, other studies have shown a negative association between IFRS adoption and stock turnover ratio (Burnett et al., 2015; Khurana & Michas, 2011). The remaining empirical studies found insignificant associations between IFRS adoption and share turnover ratio (Leuz, 2003; Gassen & Sellhorn, 2006). Contextually, Loureiro & Taboada (2012) argued that firms with higher stock turnover ratios experience a positive change in their stock prices following IFRS adoption. This situation could happen because IFRS adoption leads to increased comparability of financial reports. Thus, actively traded firms adopt IFRS to benefit from higher quality financial information, enhancing their stock turnover ratio. This result indicates that countries with lower stock trading and turnover ratio are more prone to adopt IFRS earlier to strengthen their financial situation and attract more foreign investors. Accordingly, this led us to our third hypothesis:

H3: *There is a positive association between early adoption of IFRS and stock market volume of trade and market turnover.*

In terms of the effect of IFRS on stock market volatility, Chau et al. (2013) argued that IFRS adoption could be considered an ideal pathway to reducing the noise trading level, thus enhancing the stock market stability and efficiency. Empirically, some scholars reported a positive and significant association between the IFRS and stock market volatility (e.g., Gassen & Sellhorn, 2006; Daske et al., 2008; Clarkson et al., 2011; Landsman et al., 2012). In contrast, other studies found a significant negative association between the level of stock market volatility and IFRS adoption (e.g., Patro & Gupta, 2016; Nulla, 2014; Chau et al., 2013). In line with this, Floros (2007) argued that good news for stock trading could lead to a lower stock market volatility level, while terrible news can increase the likelihood of facing higher financial risks, raising the stock market volatility level. Similarly, Ben Cheikh and Ben Rejeb (2021) studied the relationship between IFRS adoption and stock markets development in emerging economies. The study found that IFRS adoption has significantly led to improving the performance of emerging stock markets by reducing stock market volatility because of high

information efficiency. However, most previous IFRS studies found an insignificant relationship between stock market volatility and IFRS adoption (e.g., Auer, 1998; Leuz & Verrecchia, 2000; Cuijpers & Buijink, 2005; Daske, 2006; Floros, 2007). This result is in line with the view suggested by some prior studies. IFRS adoption does not necessarily achieve significant capital market benefits (Abad et al., 2018). Likewise, DeFond et al. (2015) argued that although volatility emerging from IFRS's fair value might increase crash risk, IFRS adoption does not impact crash risk for financial firms with solid regulations since it provides more transparent and credible information. Nevertheless, it can only lead to increased volatility and crash risk for financial firms with weak laws. Since we have included a sample from stock markets with solid regulations, this point, therefore, led us to suggest the following hypothesis:

H4: *IFRS adoption does not have a significant impact on stock market volatility.*

4. RESEARCH DESIGN

Our total sample size included 110 countries worldwide and covered the period from 1995 to 2014 with an overall 2200 country-year observation. Appendix 1 shows the classification of the sampled countries based on their IFRS adoption time as proposed by the DOI theory. The sample selected represents about 56% of the population (196 countries), enhancing the generalizability and reliability of findings (Vittinghoff & McCulloch, 2007). Table 1 shows definitions and measures of all variables included in this study (dependent, independent, and control variables). Specifically, we used a range of financial market indicators as dependent variables, and most of these variables are collected from the World Bank website. We included two main explanatory variables in our models: IFRS adoption categories based on first-time IFRS adoption as suggested by DOI theory. We also had IFRS adoption status for listed, unlisted, foreign, and SME firms, and we collected data about IFRS by jurisdiction from the Deloitte Touche Tohmatsu website. Finally, we collected data from the World Factbook website about three control variables (social factors), including geographical regions (*GERI*), official language (*OFLN*), and colonial history (*COHI*). We also drew from year dummies of 2008-09 (D08-09) to control for the effect of the most recent financial crisis of 2008-2009 on the financial performance of stock exchanges worldwide.

Insert table 1 about here

Our study used combinations of panel datasets from 110 countries across the world together with the four main diffusions of innovation theoretical classifications (experimenters, early adopters, late adopters, and laggards) in examining the effects of IFRS adoption on stock

14

market performance. This study examines the impact of IFRS adoption on the stock market from a multi-dimensional perspective by using social classifications as control variables, including the geographical background of the multinational corporations (MNCs), official language (either English, French, Spanish, Portugal, etc.), and colonial history. These social factors enable us to investigate further and analyze other background factors that may influence the IFRS adopters' behavior and how these attributes can affect the stock market performance.

Unlike previous IFRS studies that used an ordinary least squares regression model to explain the benefits of IFRS adoption (e.g., Ramanna & Sletten, 2014; Shima & Yang, 2012; Judge, Li, & Pinsker, 2010), our study employed two additional analysis techniques, namely the fixed-effects model and 2SLS regression models to strengthen the robustness of our findings by controlling for fixed year effects and the endogeneity problem. In addition, the results of our study are based on unique panel datasets collected from 110 countries worldwide and include different economic backgrounds, including emerging and developed economies. Our findings, therefore, are based on more representative global data with more robust analysis.

4.1 Model Specification

Following the DOI theoretical standpoint, our study assumes a linear relationship between the outcome variables (financial market indicators) and the independent variables (IFRS adoption categories and IFRS adoption status). Therefore, the study employs a multivariate linear regression analysis using the ordinary least squares estimator (OLS) to examine the cause-effect relationship between the financial market consequences and IFRS adoption. The multiple linear regression model is specified as shown in the equation below:

$$FCIFRS_{it} = \alpha_0 + \beta_1 \, IFRSAC_{it} + \beta_2 \, IFRSLF_{it} + \beta_3 \, IFRSUF_{it} + \beta_4 \, IFRSFF_{it} + \beta_5 \, IFRSME_{it} + \sum_{i=1}^{4} \beta_i \, CONTROLS_{it} + \varepsilon_{it}$$

Where $FCIFRS_{it}$ is the financial consequences of IFRS adoption for a country (i) in a year (t), including financial market integration (*IFNI*), market capitalization in current USD (*SMCP*), stock trading volume (*SMTD*), stock market turnover (*SMTO*), stock market return (*SMRT*), stock price volatility (*SPVO*), and financial market development (*FMKD*), α_0 is the constant term, and β_x are the coefficients on the independent variables. The explanatory variables used in the model of economic consequences of IFRS include the IFRS adoption categories (*IFRSAC*), the IFRS status for listed firms (*IFRSLF*), the IFRS status for unlisted firms (*IFRSUF*), the IFRS status for foreign firms (*IFRSFF*), and the IFRS adoption status for SMEs (*IFRSME*). $CONTROLS_{it}$ refers to three control variables identical to those used in models 1,

2, 3, 4, in addition to year dummies to control for the global financial crisis period (*D08-09*), ε_{it} refers to the error term for the country (i) in a year (t).

5. EMPIRICAL ANALYSIS

Our study adopts a multi-dimensional empirical approach by simultaneously combining a unique panel dataset from 110 countries worldwide with robust two-stage multiple regressions in examining the effects of both early and late adoption of IFRS on the global capital market. As a result, we contribute to the extant literature by examining the impact of both early and late adoption of IFRS on seven unique capital market attributes. Table 2 shows the descriptive statistics of the financial consequences of IFRS adoption for all 110 countries in our dataset from 1995 to 2014.

Insert table 2 here

Table 3 presents the descriptive statistics of the independent variables (IFRSs adoption categories and IFRS adoption status) and control variables (social characteristics of the sample) for 110 countries from 1995 to 2018. The results show a high level of variability in all variables. For instance, the data relevant to the *LTMJF* group ranges from a minimum of -341.61 to a maximum of 4,641.46, with a 90.47 mean value and a standard deviation of 358.40. Likewise, the data of *IFNI* relevant to the *ERMJF* group ranges from -24.24 to 768.59, with an average of 35.13 and a standard deviation of 106.84. The data of *SMCP* relevant to the *LGGRF and LTMJF* groups present the most considerable variability among the four adopter categories of IFRS. The results are in line with previous studies (e.g., Brochet, Jagolinzer, & Riedl, 2013; Cai & Wong, 2010; De George, 2013; Dhaliwal et al., 2019; Alnodel, 2016), which show that data related to IFRS adopters have high variability among different stock markets worldwide.

Insert table 3 here

Table 4 reports the correlation matrices of the dependent, explanatory, and control variables included in the analysis for 110 countries. Table 4 shows that the correlation coefficients of both the Pearson and Spearman matrices are relatively low, indicating that no multicollinearity problem could affect the results. For example, Table 4 reports positive and significant correlations between the *LTMJF* group and the financial market consequences, except for two financial effects (i.e., *SMCP* and *SMRT*) that show insignificant correlations. This result suggests that countries with higher levels of the financial indicators *IFNI, SMTD, SMTO, SPVO, & FMKD* are more likely to adopt IFRS during the later stages. Furthermore, Table 4

reports that the *LGGRF* group is positively and significantly correlated with the *SMCP*. This result means that countries with higher levels of *SMCP* tend to become non-adopters of IFRS. Additionally, Table 4 shows that the three early adopter groups of IFRS, the *EXPRF, ERADF,* and *ERMJF* groups, are either negatively and significantly or insignificantly correlated with the financial consequences of IFRS adoption. Remarkably, the coefficients' magnitude and direction on both Pearson and Spearman matrices are similar. This result implies that any residual non-normality issues are less likely to affect the reliability and robustness of the empirical analysis.

Insert table 4 here

5.1 Findings and analysis

This study employs a multivariate linear regression method to test the associations between IFRS adoption and a range of stock market indicators. In addition, some statistical tests were conducted to check for the violation of OLS assumptions, including heteroscedasticity, linearity, normality, serial correlation, and unit-roots. Specifically, we found that the p-values of the Shapiro-Wilk test were statistically significant at 1% across all the financial consequences of IFRS adoption, implying that the residuals of variables are not normally distributed. Therefore, we employed the two-step transformation method to mitigate the violation of a normality assumption. We also found that the p-value of Durbin's alternative test for detecting auto-correlation is statistically significant at the 1% level, indicating a considerable autocorrelation in the residuals across all models. Likewise, we found that the p-values of White's test for the heteroscedasticity of residuals were statistically significant at the 1% level, inferring that the spread of the residuals is heteroscedastic. Finally, we applied the cluster-robust models to handle the homoscedasticity and autocorrelation violations.

Table 5 reports the findings of estimating a multiple linear regression with cluster-robust standard errors to examine the effects of IFRS adoption on the financial consequences for the 110 countries in the sample. Specifically, column 1 of Table 5 shows an insignificant association between early IFRS adoption and the global integration of capital markets. This finding is in line with the results of previous IFRS studies (e.g., Alnodel, 2016), where there was an insignificant association between the financial market integration and IFRS adoption. However, we found a positive and significant association between financial market integration (*IFNI*) and mandatory IFRS adoption. This finding lends support to the suggestion proposed by DOI theory and institutional theory alike. The DOI theory indicates that the late majority

17

group adopts innovations only if they become mandatory by its laws and efficiency. These results support the coercive institutional pressures that emerge from foreign multinational corporations to embrace IFRS when mandated and adopted for efficiency purposes.

Similarly, as shown in column 7 of Table 5, there is an insignificant association between financial market development (*FMKD*) and the early adoption of IFRS. This result implies that hypothesis; H.1 is not supported. This finding contradicts the results of some studies (e.g., Ben-Othman & Kossentini, 2015; Klibi & Kossentini, 2014), which stated that countries characterized with early adoption of IFRS were expected to have higher *FMKD* as compared to those countries that had not yet embraced IFRS. This result is consistent with an institutional theory that assumes that countries may voluntarily adopt IFRS in earlier times as a response to the normative pressure placed by capital markets authority and international organizations for legitimacy reasons rather than achieving related financial benefits.

Column 2 of Table 5 shows a negative and significant association between stock market capitalization (*SMCP*) and early IFRS adoption. Empirically, this result supports evidence provided by (e.g., Shima & Yang, 2012; Hope, Jin, & Kang, 2006; Brochet, Jagolinzer, & Riedl, 2013), which revealed a significant negative association between financial market capitalization and IFRS adoption. Similarly, column 5 of Table 5 reports a significant negative association between the levels of stock market return (*SMRT)* and early adoption of IFRS. This result means that hypothesis; H.2 is rejected. This finding, however, is in line with the results of some previous studies (e.g., Patro & Gupta, 2016; Key & Kim, 2017; Klimczak, 2011) that suggested a significant negative connection between IFRS adoption and stock market returns. This result is in line with the expectation indicated by the institutional theory, which proposes that countries may voluntarily adopt IFRS earlier as a response to the mimetic pressure arising from their peers within the same industries. This situation causes organizations to imitate actions taken by other successful organizations to reduce uncertainty regardless of whether these actions are suitable for their economic status.

Insert table 5 about here

Column 3 of Table 5 shows a significant negative association between early IFRS adoption and stock trading volumes (*SMTD*). This finding implies that hypothesis; H.3 is not accepted. This finding is consistent with the results of Figlioli, Lemes, & Lima (2017), who reported that the adoption of IFRS reduces the price of stocks traded, which triggers a decrease in the volume of share trading in financial markets. Likewise, column 4 of Table 5 indicates that early

adoption of IFRS is negatively and significantly associated with stock market turnover (*SMTO*). This finding does not support hypothesis H.3. Nonetheless, it is tied to the results of some previous IFRS studies (e.g., Khurana & Michas, 2011; Burnett et al., 2015), which indicated that the ratio of stock market turnover was significantly decreased after mandatory adoption of IFRS due to the higher investment costs which ultimately led to a decrease in foreign investments. However, this finding supports the institutional theory, which assumes that countries may voluntarily adopt IFRS earlier as a response to the normative pressure arising from capital markets for legitimacy rather than efficiency reasons.

As hypothesized, column 6 of Table 5 reports an insignificant association between stock price volatility (*SPVO*) and early IFRS adoption, except for the experimenters' group (*EXPRF*), which was negatively and significantly associated with IFRS adoption. This result agrees with hypothesis H.4. This finding supports previous studies (e.g., Leuz & Verrecchia, 2000; Cuijpers & Buijink, 2005; Auer, 1998; Daske, 2006; Floros, 2007), which found an insignificant association between IFRS adoption and stock market volatility. However, our findings show that stock market volatility has significantly decreased in capital markets where IFRS is required for all unlisted domestic firms (RADF) and domestic unregistered financial institutions.

Regarding IFRS adoption for listed firms, we found a negative and significant association between IFRS adoption in countries where IFRS adoption is not required for listed firms and the following financial consequences; SMTO, SMRT, SPVO, FMKD. We also found that stock market turnover (SMTO) was significantly decreased in countries that adopted IFRS for unlisted firms. We also found that stock market capitalization and market development have considerably reduced in countries where IFRS was permitted for all foreign companies in the sampled countries. Additionally, our findings suggest that IFRS adoption for unlisted firms has a negative and significant effect on stock market turnover for the nations adopting IFRS regardless of whether required or permitted for unlisted firms operating in the country. Moreover, we found that financial integration has significantly improved for multinational companies post-IFRS adoption, especially for those stock markets where IFRS is required for all foreign companies (RAFC). We also found that financial integration and market capitalization positively and significantly influenced the financial indicators after IFRS adoption by SMEs. However, stock market turnover and return negatively and significantly decreased post-IFRS adoption by SMEs.

While not the emphasis of the current study, the country-specific social characteristics are used as control variables, which may have heterogeneous influences on the financial consequences of IFRS adoption. For example, adopters of IFRS in the *EURO* region tend to have higher levels of *SMTO*, whereas adopters in the *LNAM* region appeared to have higher levels of *SMCP*. Similarly, countries never colonized before *NEVC* are more likely to have higher *IFNI, SMCP, SMTD, SMTO,* and *FMKD*. In comparison, countries occupied by the British Empire *BRTC* tend to attain higher levels of *FMKD*. Likewise, those adopters that the French Empire FRNC colonized have a propensity for lower levels of the following financial market indicators: *SMCP, SMTD, SMTO,* and *SPVO*, although others occupied by the Spanish Empire *SPNC* seem to have higher levels of the *IFNI*, and lower levels of *SMCP, SMTD, SMTO,* and *SPVO* (refer to Table 5).

5.2 Discussion and implications

This section explains the main results and the potential implications of this study for theory, practice, and policy. Notably, our findings report a significant positive association between financial market integration and mandatory IFRS adoption. This finding provides tremendous implications for both DOI theory and institutional theory. The DOI theory suggests that adopters with better economic and financial situations will not adopt any innovations unless it becomes mandatory by law and for efficiency reasons. Similarly, the institutional theory assumes that stock markets in developed countries might be enforced by law to adopt innovations such as IFRS for legitimacy and efficiency purposes. It also provides implications for policymakers in stock markets to require all listed companies to adopt IFRS mandatorily. This point can improve the financial integration between listed firms and different stock markets because of high-quality information and disclosure of IFRS. Comparably, this study found a positive and significant association between IFRS adoption by SMEs and their financial integration and stock market capitalization. This result provides substantial implications for policymakers of SMEs to adopt IFRS to enhance their financial integration and stock market capitalization, which can be improved by adopting IFRS. This result can also offer practical policy implications for multinational companies to encourage them to invest only in stock markets that require mandatory IFRS adoption, which leads to enhanced financial integration among stock markets.

Moreover, our results show a significant negative association between stock market return and early adoption of IFRS. This result provides implication for the institutional theory, which

20

proposes that countries may imitate actions taken by their peers, such as early IFRS adoption, as a response to the mimetic pressure for legitimacy rather than efficiency reasons regardless of whether these actions will enhance their economic situation. Likewise, our findings show a significant negative association between stock market turnover and return and the mandatory IFRS adoption. This finding supports the institutional theory, which assumes that some countries may decide to adopt IFRS early as a response to the normative pressure arising from capital markets to attract more foreign investors and for legitimacy rather than efficiency reasons. In the same vein, this finding can also support the DOI theory, which assumes that adopters might experience some desirable or undesirable outcomes after adopting innovations. This result could happen because adopting innovations such as IFRS might not lead to achieving positive consequences in the short term since our findings report significant improvement in specific financial market indicators for the early adopters. At the same time, they were insignificant for the late adopters. Therefore, countries should search for the potential expected outcomes before adopting any innovation to achieve some positive economic and financial consequences in the long term. Finally, our results corroborate with the argument put forward in previous studies that mandatory adoption of IFRS by multinationals corporations around the world will ensure better allocation of capital resources and promote stakeholders' trust in business activities and the capital market.

5.3 Robustness Analysis

The country-level heterogeneities may not be solely addressed using multiple linear regression. Therefore, drawing on previous studies (e.g., Lima, Lima, & Gotti, 2018; Hong & Shim, 2019; Florou & Kosi, 2015), a country-level fixed-effects model was employed in the present study to control for the omitted variables bias. Table 7 shows the findings of estimating fixed-effects models. Table 6 shows that the magnitudes and directions of the vast majority of the employed stock market indicators in this model remained comparatively similar to the results of estimating multiple linear models in Table 5. For example, the coefficients on IFRS status for domestically listed firms (*IFRS*) remained negatively and insignificantly associated with international financial integration (*IFNI)*. Similarly, the coefficients on IFRS adoption status for foreign firms (*PAFC)* remained negatively and significantly correlated with the *SMCP* (see Table 6). Likewise, the coefficient on IFRS adoption status for unlisted firms (*NREQ)* remained negatively and significantly related to *SMTO* at a 1% significance level (refer to table 6). Therefore, this result is rigorous and reliable as it is not affected by the potential existence of country-level heterogeneities.

This study has applied two-stage least square regression models to address any concerns regarding the potential occurrence of endogeneity problems (2SLS). Table 7 presents the findings of estimating 2SLS models. The results support the earlier inferences attained from evaluating clustered OLS regression models and country-level fixed-effects models, with a small level of sensitivity.

Insert table 6 about here

Insert table 7 about here

The results related to the international financial integration (*IFNI)* model remained the same as the findings reported in column 1 of Table 5, with a few variations. In addition, the results of the 2SLS regression yielded comparable results to those obtained in the OLS regression models concerning the market capitalization (*MCPL)*, with only slight exceptions. This result means that the potential incidence of endogeneity problems is not a primary concern in this study.

6. CONCLUSION, LIMITATIONS, AND RECOMMENDATION

This section briefly summarizes the study objectives and findings, discusses the research limitations, and offers recommendations for future research. Although many countries have attracted foreign investors through the early IFRS adoption, other countries remain hesitant in adopting IFRS (Rudhani et al., 2017). This study, therefore, seeks to examine the impact of early IFRS adoption on the performance of stock markets around the world to deepen our knowledge and understanding of IFRS adoption on a global scale. Our study reports the following findings of how early IFRS adoption influenced global stock markets report performance. First, we find a positive relationship between the mandatory IFRS adoption and the financial market integration between EU countries. Second, we found a significant negative association between the early IFRS adoption and some financial market indicators: stock market volumes, stock market capitalization, stock market turnover, and stock market return. Third, our study reveals a significant positive association between the early IFRS adoption and stock market capitalization alongside stock market integration for SEMs that adopted IFRS.

Every study has some limitations that should be acknowledged to address the study's potential weaknesses and offer suggestions for future research. This study, therefore, has some limitations which might be taken into consideration for future research. Although this study has included only 110 stock markets worldwide, future studies may be conducted by including

a higher number of countries to examine the impact of IFRS adoption on the performance of their financial markets around the world. Moreover, this study has mainly relied on DOI theory as the leading theory alongside the institutional approach to explain the impact of IFRS adoption on the performance of stock markets. However, further studies might apply the other theoretical frameworks, such as stakeholder and legitimacy theories alongside the DOI theory, to explain the global IFRS adoption determinants and consequences. Furthermore, this study has merely included seven financial indicators as dependent variables. In contrast, future studies could also include the other financial market indicators as outcome variables such as foreign direct investment to seek how these financial factors have been affected by IFRS adoption. Additionally, this study has solely concentrated on the macro-country level factors. However, future studies could also include some micro-firm financial market indicators, such as stock price, to explore better the dynamics between IFRS adoption and effects on capital market and firm performance. Finally, this study has employed data from 1995 to 2014, including the available data collected at the time of this study. Future research could gather the most recent data about the financial market performance and examine any changes in the findings reported in this study.

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Appendix 1: The classification of a sample of 110 countries based on their first-time IFRS adoption

Experimenters	Early adopters	Early majority	Late majority		Laggards
(1991-1995)	(1996-2000)	(2001-2004)	(2005-2014)		up to 2014
Bangladesh	Bahrain	Armenia	Argentina	Malaysia	Colombia
Barbados	Bolivia	Botswana	Australia	Malta	Cote d'Ivoire
	El Salvador	Costa Rica	Austria	Mexico	Indonesia
	Georgia	Kazakhstan	Belgium	Moldova	Iran
	Guyana	Kyrgyzstan	Brazil	Montenegro	Thailand
	Jamaica	Malawi	Bulgaria	Morocco	Tunisia
	Jordan	Mauritius	Canada	Namibia	USA
	Kenya	Saint Kitts & Nevis	Chile	Netherlands	Vietnam
	Kuwait	Saudi Arabia	China	New Zealand	
	Lebanon	Singapore	Croatia	Nigeria	
	Macedonia	Sri Lanka	Cyprus	Norway	
	Mongolia	Tanzania	Czech Republic	Pakistan	
	Nepal	Turkey	Denmark	Paraguay	
	Oman		Ecuador	Philippines	
	Panama		Egypt	Poland	
	Papua New Guinea		Estonia	Portugal	
	Peru		Fiji	Romania	
	Qatar		Finland	Russia	
	Trinidad and Tobago		France	Serbia	
	Uganda		Germany	Slovakia	
	United Arab Emirates		Ghana	Slovenia	
	Zimbabwe		Greece	South Africa	
			Hong Kong	South Korea	
			Hungary	Spain	
			Iceland	Swaziland	
			India	Sweden	
			Ireland	Switzerland	
			Israel	Ukraine	
			Italy	UK	
			Japan	Uruguay	
			Latvia	Venezuela	
			Lithuania	Zambia	
			Luxembourg		

Table 1: Definition and measures of all variables included in this study (dependent, independent, and control variables)

Variables	Definitions and measures	Data sources
Dependent variables		
IFNI ($)	International financial integration is measured through multiplying the net foreign assets in the current local currencies by the annual official exchange rates provided by the International Monetary Fund (IMF) to convert the value of international financial integration from the local currency to current U.S. dollars.	The World Development Indicators-World Bank Data.
SMCP ($)	The data of market capitalization of listed domestic companies are measured by multiplying the number of outstanding stocks by the current market price of one share.	The World Development Indicators-World Bank Data.
SMTD (%)	The data of stocks traded to GDP ratio are measured by using the total number of all shares traded in a stock market at the end of the year, multiplied by their respective matching prices and divided by GDP, then multiplied by 100 to convert the value of stocks traded to GDP to a percentage of GDP.	The World Development Indicators-World Bank Data.
SMTO (%)	The data of stock market turnover ratio are measured by using the total value of shares traded in a stock market at the end of the year divided by the average market capitalization for the period, then multiplied by 100 to convert the value of the stock market turnover to a percentage.	The World Development Indicators-World Bank Data.
SMRT (%)	The stock market return might be in the form of profit through trading, or in the form of dividends paid by a company to its shareholders from time to time.	The Global Financial Development Database (GFDD)
SPVO	The data of stock price volatility is measured by deducting the average from the daily stock prices to compute the difference. Then, by squaring the differences and dividing them by 360 days to extract the variance and calculate the square root of the variance to compute the standard deviation which represents the stock-price volatility.	The Global Financial Development Database (GFDD)
FMKD	The data score of financial market development ranges from 1-7, where '1'= indicates that a country has not offered any financial services to shareholders, whereas '7'= denotes that a country has provided a higher level of financial services to shareholders.	The Global Competitiveness Index is provided by the World Economic Forum.
Independent variables	*Definitions and measures*	
Independent variables (adopter categories and status of IFRS adoption)		
IFRSAC	The IFRS adopter categories are based on the first-time adoption by a country, and the classification is derived from DOI theory and involves five groups:	Use of IFRS by jurisdiction from Deloitte Touche Tohmatsu website, IAS plus, 2015
EXPRF	"1" = Experiments refers to countries that adopted the IFRS before 1995	
ERADF	"2" = Early adopters refers to countries that adopted the IFRS 1995-2000	
ERMJF	"3" = Early majority refers to countries that adopted the IFRS 2001-2004	
LTMJF	"4" = Late majority refers to countries that adopted the IFRS 2005-2014	
LGGRF	"5" = Laggards refers to countries that haven't adopted the IFRS till 2014	

Continued Table 1	Definitions and measures	Data sources
Independent variables (adopter categories and status of the IFRS)		
Independent variables	**Definitions and measures**	
IFRSLF	The IFRS adoption status for domestic listed firms	Use of IFRS by jurisdiction from Deloitte Touche Tohmatsu website, IAS plus, 2015
NOSE	"0" = There is no local stock exchange in the country	
NREQ	"1" = IFRS is not required for domestic listed companies	
NPER	"2" = IFRS is not permitted for domestic listed companies	
RFAL	"3" = IFRS is required for all domestic listed firms	
PFAL	"4" = IFRS is permitted for all domestic listed companies	
RFBI	"5" = IFRS is required only for domestic banks and insurance firms	
EXBI	"6" =IFRS is required for all firms except banks and insurance firms	
IFRSUF	The IFRS status for unlisted domestic firms	Use of IFRS by jurisdiction from Deloitte Touche Tohmatsu website, IAS plus, 2015 Use of IFRS Standards by jurisdiction provided by the IFRS Foundation (IFRS.org)
NORQ	"0" = IFRS is not required for unlisted domestic firms	
NOTP	"1" = IFRS is not permitted for unlisted domestic firms	
RADF	"2" = IFRS is required for all unlisted domestic firms	
RBIP	"3" = IFRS is required for unlisted domestic banks & insurance firms	
PADF	"4" = IFRS is permitted for all unlisted domestic firms	
RFFI	"5" = IFRS is required for domestic unlisted financial institutions	
RPAF	"6" = IFRS is required for publicly accountable firms	
PEBI	"7" = IFRS is permitted for all unlisted firms except banks and insurance companies	
IFRSFF	The IFRS adoption status for foreign firms	Use of IFRS Standards by jurisdiction provided by the IFRS Foundation (IFRS.org)
NOTA	"0" = IFRS is not applicable	
NOTR	"1" = IFRS is not required for foreign firms	
RAFC	"2" = IFRS is required for all foreign companies	
PAFC	"3" = IFRS is permitted for all foreign companies	
RSPO	"4" = IFRS is required for some foreign firms, permitted for others	
IFRSME	The IFRS adoption status for SMEs	Use of IFRS Standards by jurisdiction provided by the IFRS Foundation (IFRS.org)
NSME	"0" = IFRS is not adopted by SMEs	
ASME	"1" = IFRS is adopted by SMEs	

Continued Table 1	Definitions and measures	Data sources
Control variables (Social factors)		
GERI	The geographical regions	The classification of all countries by the continental regions presented at the World Bank website
EURO	"1" = The country is in Europe	
NLSA	"2" = The country is in North, Latin, and South America	
CSAS	"3" = The country is in Central & South Asia	
EASP	"4" = The country is in East Asia & the Pacific	
MENA	"5" = The country is in the Middle East & North Africa	
AFRC	"6" = The country is in Sub-Saharan Africa	
OFLN	The official language per group	The World Factbook website established by the Central Intelligence Agency (CIA)
ENGL	"1" = English is an official language in the country	
FRNL	"2" = French is an official language in the country	
SPNL	"3" = Spanish is an official language in the country	
ARBL	"4" = Arabic is an official language in the country	
GRML	"5" = German is an official language in the country	
RUSL	"6" = Russian is an official language in the country	
OTLN	"7" = Other languages are official languages in the country	
COHI	The colonial history	The World Factbook website established by the Central Intelligence Agency (CIA)
NEVC	"0" = Never colonized countries	
BRTC	"1" = Countries colonized by the British Empire	
FRNC	"2" = Countries colonized by the French Empire	
SPNC	"3" = Countries colonized by the Spanish Empire	
PORC	"4" = Countries colonized by the Portuguese Empire	
DUTC	"5" = Countries colonized by the Dutch Empire	
GRMC	"6" = Countries colonized by the German Empire	
RUSC	"7" = Countries colonized by the Russian Empire	
OTCO	"8" = Countries colonized by other colonists	
D08-09	Year dummy for the crisis period, where 1= 2008-09, 0 = otherwise	Year dummies to control for the financial crisis period of 2008-2009.

Table 2: Summary descriptive statistics of dependent variables in a panel of 110 countries

Dep Var	IFRSAC	N	%	Mean	Std. D	Variance	Min	Max
IFNI *($)*	*EXPRF*	40	1.8%	3.02	4.43	0.20	0.77	20.62
	ERADF	440	20.0%	6.46	13.61	1.85	-112.57	78.50
	ERMJF	260	11.8%	35.13	106.84	114.16	-24.24	768.59
	LTMJF	1300	59.1%	90.47	358.40	1,284.5	-341.61	4,641.46
	LGGRF	160	7.3%	19.86	76.37	58.33	-535.68	266.35
SMCP *($)*	*EXPRF*	40	1.8%	5.17	5.44	0.00	0.49	23.55
	ERADF	440	20.0%	15.80	31.05	0.10	0.01	201.11
	ERMJF	260	11.8%	51.59	112.23	1.26	0.00	646.10
	LTMJF	1300	59.1%	346.25	739.77	54.73	0.01	6,226.31
	LGGRF	160	7.3%	2,010.67	5,415.33	2,932.58	0.15	26,368.33
SMTD *(%)*	*EXPRF*	40	1.8%	4.37	5.13	0.26	0.15	15.83
	ERADF	440	20.0%	7.58	19.58	3.83	0.00	163.32
	ERMJF	260	11.8%	16.55	40.96	16.78	0.01	331.26
	LTMJF	1300	59.1%	33.84	61.86	38.27	0.00	723.59
	LGGRF	160	7.3%	34.25	72.42	52.44	0.08	387.54
SMTO *(%)*	*EXPRF*	40	1.8%	35.99	47.19	2.23	0.34	212.56
	ERADF	440	20.0%	20.06	96.56	9.32	0.00	1,612.94
	ERMJF	260	11.8%	41.78	76.94	5.92	0.17	580.60
	LTMJF	1300	59.1%	51.15	57.63	3.32	0.00	497.40
	LGGRF	160	7.3%	46.62	61.29	3.76	0.71	404.07
SMRT *(%)*	*EXPRF*	40	1.8%	1.00	0.00	0.00	1.00	1.00
	ERADF	440	20.0%	8.48	28.89	8.35	-54.47	402.46
	ERMJF	260	11.8%	12.10	35.09	12.31	-44.15	378.83
	LTMJF	1300	59.1%	10.71	31.98	10.23	-63.16	386.44
	LGGRF	160	7.3%	11.44	24.13	5.82	-50.89	122.49
SPVO *(%)*	*EXPRF*	40	1.8%	1.00	0.00	0.00	1.00	1.00
	ERADF	440	20.0%	11.41	15.58	2.43	1.00	141.58
	ERMJF	260	11.8%	13.04	15.35	2.36	1.00	81.55
	LTMJF	1300	59.1%	19.18	12.06	1.45	1.00	95.46
	LGGRF	160	7.3%	15.11	10.67	1.14	1.00	44.58
FMKD *(Scale)*	*EXPRF*	40	1.8%	4.38	0.41	0.16	3.68	5.27
	ERADF	440	20.0%	4.17	0.54	0.29	3.07	5.65
	ERMJF	260	11.8%	4.15	0.71	0.50	3.00	6.04
	LTMJF	1300	59.1%	4.47	0.70	0.49	2.85	6.40
	LGGRF	160	7.3%	4.09	0.60	0.36	3.05	5.84

Note: The research variables have been entirely defined in Table 1.

Table 3: Summary descriptive statistics of independent and control variables included in this study

Variables	Observations	Countries	Percent	Cumulative	Tolerance	VIF
Independent Variables						
Panel A: (IFRSAC)						
EXPRF	40	2	1.8%	1.8%	0.66	1.52
ERADF	440	22	20.0%	21.8%	0.45	2.24
ERMJF	260	13	11.8%	33.6%	0.51	1.95
LTMJF	1300	65	59.1%	92.7%	0.30	3.38
LGGRF	160	8	7.3%	100%	0.29	3.36
Total	2200	110	100%			
Panel B: (IFRSLF)						
NOSE	3	1	0.1%	0.1%	0.98	1.03
NREQ	666	81	30.3%	30.4%	0.10	10.02
NPER	392	27	17.8%	48.2%	0.21	4.71
RFAL	929	86	42.2%	90.5%	0.12	9.52
PFAL	156	21	7.1%	97.5%	0.14	6.94
RFBI	40	6	1.8%	99.4%	0.35	2.89
EXBI	14	3	0.6%	100%	0.52	1.93
Total	2200		100%			
Panel C: (IFRSUF)						
NORQ	738	83	33.5%	33.5%	0.16	6.28
NOTP	414	25	18.8%	52.4%	0.12	8.10
RADF	359	27	16.3%	68.7%	0.14	7.24
RBIP	195	20	8.9%	77.5%	0.22	4.49
PADF	312	33	14.2%	91.7%	0.19	5.27
RFFI	62	7	2.8%	94.5%	0.42	2.37
RPAF	91	11	4.1%	98.7%	0.36	2.77
PEBI	29	3	1.3%	100%	0.58	1.73
Total	2200		100%			
Panel D: (IFRSFF)						
NOTA	180	10	8.2%	8.2%	0.47	2.13
NOTR	928	98	42.2%	50.4%	0.11	9.40
RAFC	601	52	27.3%	77.7%	0.12	8.90
PAFC	199	22	9.0%	86.7%	0.15	6.92
RSPO	292	30	13.3%	100.0%	0.37	2.68
Total	2200		100.0%			
Panel E: (IFRSME)						
NSME	1974	110	89.7%	89.7%	0.71	1.41
ASME	226	47	10.3%	100%	0.70	1.43
Total	2200		100%			

Continued Table 3

Control Variables

Panel F: (GERE)

EURO	720	36	32.7%	32.7%	0.11	8.95
LNAM	420	21	19.1%	51.8%	0.16	6.28
CSAS	220	11	10.0%	61.8%	0.36	2.77
EASP	300	15	13.6%	75.5%	0.37	2.69
MENA	260	13	11.8%	87.3%	0.12	8.68
AFRC	280	14	12.7%	100%	0.29	3.44
Total	2200	110	100%			

Panel G: (OFLN)

ENGL	620	31	28.2%	28.2%	0.27	3.73
FRNL	60	3	2.7%	30.9%	0.58	1.72
SPNL	280	14	12.7%	43.6%	0.08	11.43
ARBL	220	11	10.0%	53.6%	0.09	10.79
GRML	140	7	6.4%	60.0%	0.47	2.12
RUSL	60	3	2.7%	62.7%	0.48	2.10
OTHL	820	41	37.3%	100%	0.23	4.31
Total	2200	110	100%			

Panel H: (COHS)

NEVC	340	17	15.5%	9.20%	0.33	3.06
BRTC	740	37	33.6%	41.60%	0.17	5.89
FRNC	100	5	4.5%	55.70%	0.53	1.89
SPNC	260	13	11.8%	65.40%	0.09	10.96
PORC	40	2	1.8%	69.70%	0.68	1.47
DUTC	60	3	2.7%	71.90%	0.56	1.80
GRMC	40	2	1.8%	75.70%	0.77	1.29
RUSC	200	10	9.1%	84.30%	0.35	2.87
OTHC	420	21	19.1%	100%	0.25	4.07
Total	2200	110	100%			

Table 4: correlation matrices show the correlation coefficients between all variables included in this study for a panel of 110 countries

Variables	IFNI	MCPL	SMCP	SMTD	SMTO	SMRT	SPVO	FMKD	EXPRF	ERADF	ERMJF	LTMJF	LGGRF	IFRSLF	IFRSUF	IFRSFF	IFRSME	GERE	OFLN	COHS
IFNI		.361***	.562***	.412***	.303***	.091***	.281***	.230***	-.058***	-.113***	-.075***	.122***	.066***	.173***	.167***	.032	.045**	.020	.036*	-.177***
MCPL	.143***		.745***	.749***	.389***	.096***	.160***	.609***	.008	-.018	-.132***	.116***	-.031	.111***	.057***	.112***	-.050**	-.051**	-.200***	-.382***
SMCP	.195***	.176***		.861***	.659***	.125***	.473***	.510***	-.081***	-.256***	-.212***	.330***	.075***	.073***	.108***	.071***	-.081***	-.151***	.021	-.332***
SMTD	.237***	.741***	.444***		.836***	.081***	.456***	.582***	-.043**	-.242***	-.142***	.288***	.026	.003	.015	.015	-.192***	-.151***	.081***	-.339***
SMTO	.195***	.158***	.259***	.458***		.122***	.490***	.375***	-0.027	-.327***	-.093***	.305***	.056***	-.108***	-.048**	-.069***	-.251***	-.232***	.279***	-.190***
SMRT	-.018	.024	.001	-.034	.042**		.128***	.064***	-.070***	-.050**	-.013	.043**	.049**	-.097***	-.056***	-.092***	-.082***	.007	.033	-.013
SPVO	.094***	.058***	.061***	.201***	.228***	.135***		.155***	-.179***	-.249***	-.133***	.338***	.002	-.152***	-.053**	-.120***	-.181***	-.217***	.340***	.056***
FMKD	.087***	.489***	.211***	.468***	.200***	-.044**	.063***		.018	-.120***	-.105***	.219***	-.108***	-.042**	-.008	.071***	-.085***	-.125***	-.115***	-.269***
EXPRF	-.028	-.002	-.030	-.053**	-.014	-.041*	-.153***	.007		-.068***	-.050**	-.164***	-.038*	.097***	.051**	.115***	.088***	-.002	-.011	-.086***
ERADF	-.096***	-.055**	-.105***	-.167***	-.164***	-.029	-.179***	-.127***	-.068***		-.183***	-.601***	-.140***	.266***	.128***	.103***	.112***	.253***	-.153***	.024
ERMJF	-.033	-.062***	-.069***	-.063***	-.007	.021	-.087***	-.103***	-.050**	-.183***		-.440***	-.103***	.062***	.057***	.002	.150***	.243***	-.046**	-.120***
LTMJF	.129***	.109***	-.010	.170***	.135***	.016	.257***	.225***	-.164***	-.601***	-.440***		-.337***	-.225***	-.118***	.032	-.163***	-.462***	.121***	.074***
LGGRF	-.040*	-.043**	.282***	.042*	.013	.010	-.024	-.105***	-.038*	-.140***	-.103***	-.337***		-.110***	-.070***	-.281***	-.095***	.183***	.069***	.016
IFRSLF	.163***	.075***	.011	.067***	-.001	-.050**	-.122***	-.043**	.083***	.238***	.059***	-.208***	-.088***		.823***	.727***	.286***	.152***	-.071***	-.082***
IFRSUF	.053**	.053**	-.026	.070***	.025	-.022	-.038*	.009	.013	.089***	.056***	-.046**	-.126***	.723***		.735***	.278***	.030	-.018	-.007
IFRSFF	.019	.105***	.035	.101***	.001	-.065***	-.091***	.087***	.106***	.090***	-.008	.043**	-.264***	.696***	.746***		.207***	-.202***	-.032	.038*
IFRSME	-.030	.031	-.054**	-.055***	-.126***	-.027	-.162***	-.087***	.088***	.112***	.150***	-.163***	-.095***	.284***	.268***	.191***		.165***	-.127***	-.028
GERE	-.009	.026	-.070***	-.060***	-.145***	-.007	-.164***	-.076***	-.031	.227***	.222***	-.411***	.170***	.149***	-.005	-.199***	.149***		-.349***	-.323***
OFLN	.086***	-.187***	-.107***	-.067***	.149***	.053**	.330***	-.135***	-.011	-.160***	-.031	.121***	.061***	-.066***	-.007	-.011	-.124***	-.325***		.390***
COHS	-.069***	-.235***	-.147***	-.243***	-.051**	.023	.148***	-.232***	-.101***	-.043**	-.106***	.151***	-.036*	-.121***	.004	.055**	-.056***	-.388***	.518***	

Note: The bottom left side of the table represents the Pearson matrix for parametric correlations while the top right side of the table represents the Spearman matrix for non-parametric correlations. The stars refer to the significant level of the correlation coefficient which denotes *** p< 0.01 level (2-tailed), ** p< 0.05 level (2-tailed), * p< 0.1 level (2-tailed). The variables have been operationally defined in Table 1.

Table 5: The results of multiple linear regression with cluster-robust standard errors in a panel of 110 countries

Dependent variables	IFNI	SMCP	SMTD	SMTO	SMRT	SPVO	FMKD
Independent variables	**Coef.**	**Coef.**	**Coef.**	**Coef.**	**Coef.**	**Coef.**	**Coef.**
EXPRF	3.45	-28.96***	-58.79*	-39.54	-26.82***	-16.66***	-0.33
	(0.796)	(0.008)	(0.070)	(0.411)	(0.000)	(0.003)	(0.290)
ERADF	0.98	-18.86**	-48.96**	-47.34*	-15.48**	-3.78	-0.09
	(0.904)	(0.010)	(0.023)	(0.090)	(0.020)	(0.479)	(0.758)
ERMJF	4.37	-18.47**	-32.55	-26.85	-13.61**	-3.64	-0.06
	(0.619)	(0.012)	(0.125)	(0.344)	(0.032)	(0.505)	(0.865)
LTMJF	10.55*	-5.86	-16.42	-14.04	-8.88	3.94	0.10
	(0.082)	(0.336)	(0.339)	(0.553)	(0.105)	(0.357)	(0.993)
The IFRS for listed firms							
NREQ	-31.26*	4.73	-50.50	-64.90***	-27.66***	-21.33***	-2.69***
	(0.059)	(0.923)	(0.197)	(0.000)	(0.002)	(0.007)	(0.000)
NPER	-25.85*	7.31	8.12	-4.71	0.10	11.54	-0.32
	(0.097)	(0.219)	(0.834)	(0.899)	(0.991)	(0.134)	(0.497)
RFAL	-16.96	9.65	29.16	9.54	-4.15	9.01	-0.17
	(0.225)	(0.196)	(0.373)	(0.753)	(0.535)	(0.128)	(0.667)
PFAL	-6.98	9.25	20.22	2.91	-2.15	0.22	-0.46
	(0.569)	(0.240)	(0.483)	(0.898)	(0.694)	(0.964)	(0.219)
RFBI	-3.38	14.35	15.86	-3.62	-6.37	-2.11	-0.74**
	(0.799)	(0.316)	(0.598)	(0.896)	(0.256)	(0.697)	(0.046)
EXBI	5.36	15.56	30.29	19.62	0.87	4.63	-0.35
	(0.724)	(0.144)	(0.324)	(0.520)	(0.916)	(0.487)	(0.402)
The IFRS for unlisted firms							
NOTP	-5.87	0.76	-16.15	-62.22**	-5.08	-9.99**	-0.38
	(0.730)	(0.891)	(0.594)	(0.018)	(0.360)	(0.013)	(0.555)
RADF	-0.22	1.17	-26.93	-44.93**	-4.13	-7.75*	-0.65
	(0.990)	(0.840)	(0.318)	(0.042)	(0.515)	(0.067)	(0.335)
RBIP	-6.70	0.31	-22.98	-61.48***	2.20	-2.29	0.18
	(0.683)	(0.950)	(0.359)	(0.000)	(0.682)	(0.517)	(0.977)
PADF	-5.98	-3.03	-29.94	-66.59***	-0.45	-2.50	-0.24
	(0.698)	(0.469)	(0.199)	(0.000)	(0.926)	(0.424)	(0.719)
RFFI	-1.95	-6.30*	-38.86*	-63.35***	1.94	-5.46*	-0.13
	(0.901)	(0.091)	(0.086)	(0.000)	(0.687)	(0.054)	(0.834)
RLPF	-2.79	-1.63	-38.14*	-50.76***	7.81	-1.85	-0.31
	(0.902)	(0.750)	(0.097)	(0.001)	(0.348)	(0.593)	(0.653)
PEBI	-4.63	-0.68	-43.02*	-87.66***	4.62	-2.34	-0.33
	(0.789)	(0.883)	(0.070)	(0.000)	(0.441)	(0.516)	(0.612)
The IFRS for foreign firms							
NOTR	16.75	-9.15*	-24.50	-8.32	4.35	0.92	-0.17
	(0.134)	(0.091)	(0.192)	(0.742)	(0.505)	(0.816)	(0.454)
RAFC	15.59*	-6.92	-14.69	9.21	3.22	-1.78	0.14
	(0.088)	(0.267)	(0.484)	(0.746)	(0.621)	(0.694)	(0.937)
PAFC	5.28	-7.27***	-12.37	0.24	1.01	0.27	-0.31**
	(0.393)	(0.009)	(0.197)	(0.985)	(0.719)	(0.899)	(0.030)
RSPO	8.38	3.72	17.03	12.02	4.61	5.65**	0.32
	(0.424)	(0.286)	(0.203)	(0.508)	(0.143)	(0.041)	(0.114)
IFRS adoption for SMEs							
ASME	8.61***	4.15***	-4.95	-21.10***	-8.71***	-1.44	0.04
	(0.001)	(0.001)	(0.335)	(0.005)	(0.003)	(0.140)	(0.478)
Dummy 08-09							
D08-09	2.84**	1.28***	15.05***	8.47***	-36.22***	6.29***	-0.12***
	(0.044)	(0.008)	(0.000)	(0.003)	(0.000)	(0.000)	(0.000)

Control Variables	IFNI	SMCP	SMTD	SMTO	SMRT	SPVO	FMKD
Geographical regions							
EURO	3.09	5.33	29.82	44.59**	-7.49	-2.40	0.29
	(0.740)	(0.352)	(0.108)	(0.049)	(0.116)	(0.624)	(0.235)
LNAM	2.78	13.08**	28.15	17.58	-5.39	1.84	-0.11
	(0.674)	(0.043)	(0.194)	(0.487)	(0.146)	(0.531)	(0.749)
CSAS	4.92	11.09**	32.57**	62.94***	0.10	0.95	0.04
	(0.590)	(0.012)	(0.024)	(0.004)	(0.987)	(0.857)	(0.819)
EASP	13.33	9.84*	43.68**	51.59**	-8.28**	2.16	0.36
	(0.268)	(0.077)	(0.020)	(0.012)	(0.029)	(0.586)	(0.199)
MENA	11.49	1.33	-3.76	-17.38	-12.30	-14.34*	-0.21
	(0.353)	(0.842)	(0.855)	(0.508)	(0.228)	(0.081)	(0.704)
Official language							
ENGL	0.10	3.03	10.32	-6.38	-2.91	-8.47***	0.14
	(0.989)	(0.358)	(0.301)	(0.598)	(0.287)	(0.003)	(0.390)
FRNL	17.17	12.69***	29.30*	20.61	-4.80	-2.74	0.15
	(0.222)	(0.000)	(0.058)	(0.396)	(0.131)	(0.439)	(0.370)
SPNL	-32.22***	7.04**	30.67***	52.59***	-3.77	-0.08	-0.43**
	(0.000)	(0.016)	(0.001)	(0.000)	(0.147)	(0.974)	(0.010)
ARBL	11.32	17.01**	76.25***	77.14***	9.74	14.50*	0.42
	(0.363)	(0.019)	(0.001)	(0.008)	(0.340)	(0.078)	(0.435)
GRML	18.04	5.45	24.37**	9.19	-2.71	-7.52**	0.52***
	(0.123)	(0.283)	(0.038)	(0.582)	(0.363)	(0.049)	(0.004)
RUSL	12.51*	-1.82	-6.97	18.82	-1.69	5.99	-0.65**
	(0.094)	(0.785)	(0.730)	(0.681)	(0.838)	(0.543)	(0.012)
Colonial history							
NEVC	14.40*	15.87***	46.05***	38.27***	2.35	1.64	0.50***
	(0.058)	(0.000)	(0.000)	(0.003)	(0.416)	(0.547)	(0.007)
BRTC	-4.50	0.09	0.55	-6.21	1.53	-4.87	0.47**
	(0.620)	(0.982)	(0.967)	(0.705)	(0.660)	(0.200)	(0.023)
FRNC	-8.55	-16.20***	-59.02***	-61.98**	-5.72	-11.39**	-0.16
	(0.387)	(0.008)	(0.002)	(0.020)	(0.272)	(0.034)	(0.518)
SPNC	37.39***	-15.03*	-67.91***	-93.01***	7.95	-11.08*	0.58
	(0.005)	(0.076)	(0.009)	(0.005)	(0.184)	(0.067)	(0.171)
PORC	-9.86	4.91	14.80	20.69	5.29	-0.23	0.59**
	(0.337)	(0.446)	(0.434)	(0.332)	(0.277)	(0.968)	(0.024)
DUTC	19.88	2.08	-24.19	-66.95*	-1.01	-6.12	0.41**
	(0.106)	(0.608)	(0.148)	(0.060)	(0.833)	(0.249)	(0.042)
GRMC	-20.97*	-7.61	-55.63***	-84.19**	2.85	-2.15	-0.36
	(0.095)	(0.261)	(0.001)	(0.011)	(0.604)	(0.806)	(0.417)
RUSC	-13.12**	-14.35***	-37.23***	-34.23**	1.02	-7.28	-0.02
	(0.032)	(0.000)	(0.001)	(0.033)	(0.818)	(0.110)	(0.897)
Constant	-1.83	0.50	34.73	92.43**	31.45***	23.82***	4.65***
	(0.924)	(0.968)	(0.341)	(0.022)	(0.000)	(0.004)	(0.000)
Observations	2200	2200	2200	2200	2200	2200	2200
F value	22.80***	67.07***	56.73***	50.01***	8.85***	31.59***	35.29***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Adjusted R-squared	0.294	0.558	0.516	0.484	0.130	0.367	0.396
Polynomials contrasts	4.56**	9.77***	4.65**	6.42***	17.49***	11.01***	5.36***
	(0.034)	(0.002)	(0.033)	(0.001)	(0.000)	(0.001)	(0.001)
Jarque-Bera LM test	0.146	0.704	0.268	0.484	0.219	0.563	0.393
	(0.930)	(0.703)	(0.874)	(0.785)	(0.989)	(0.581)	(0.821)
Levin-Lin-Chu test	-22.6***	-11.1***	-15.02***	-8.93***	-7.77***	-7.07***	-15.16***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Breitung test	-17.7***	-3.64	-11.28***	-5.48***	-16.26***	-5.45***	-13.16***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)

Note: The variables have been operationally defined in Table 1. The last independent categorical variables have been chosen as base categories for each group of nominal data included in the model. The p-value in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 6: Fixed effects results to control for a country fixed effects for a panel of 110 countries

Dependent variables	IFNI	SMCP	SMTD	SMTO	SMRT	SPVO	FMKD
Independent variables	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.
The IFRS Adopters							
EXPRF	18.69	-21.04*	-46.27	-35.62	-25.82***	-16.83***	-0.45
	(0.169)	(0.059)	(0.164)	(0.464)	(0.001)	(0.004)	(0.161)
ERADF	11.28	-13.47*	-40.21*	-44.43*	-14.48**	-3.94	-0.16
	(0.184)	(0.081)	(0.069)	(0.079)	(0.045)	(0.467)	(0.575)
ERMJF	12.88	-14.12*	-26.48	-25.32	-13.85**	-3.76	-0.13
	(0.150)	(0.065)	(0.229)	(0.380)	(0.048)	(0.495)	(0.685)
LTMJF	15.19**	-3.50	13.40	-13.44	-9.37	3.89	-0.04
	(0.023)	(0.580)	(0.447)	(0.577)	(0.105)	(0.367)	(0.837)
The IFRS for listed firms							
NREQ	-19.24	7.99	-31.70	-57.53***	-31.25***	-18.70**	-2.73***
	(0.202)	(0.510)	(0.427)	(0.000)	(0.000)	(0.022)	(0.000)
NPER	-14.58	11.91	18.85	-1.62	-0.27	12.22	-0.41
	(0.317)	(0.329)	(0.634)	(0.966)	(0.973)	(0.122)	(0.389)
RFAL	-7.67	13.32	36.40	10.65	-6.83	9.79	-0.27
	(0.537)	(0.203)	(0.273)	(0.729)	(0.296)	(0.115)	(0.494)
PFAL	-9.51	9.48	17.29	0.89	-4.60	0.92	-0.46
	(0.397)	(0.326)	(0.563)	(0.970)	(0.396)	(0.858)	(0.202)
RFBI	-5.02	9.50	13.04	-5.97	-9.93*	-1.45	-0.76**
	(0.683)	(0.339)	(0.674)	(0.835)	(0.071)	(0.796)	(0.033)
EXBI	2.39	13.93	26.95	17.62	-1.55	5.34	-0.35
	(0.868)	(0.171)	(0.397)	(0.576)	(0.838)	(0.441)	(0.383)
The IFRS for unlisted firms							
NOTP	-6.86	0.52	-13.27	-59.39**	-0.72	-10.03**	-0.32
	(0.690)	(0.925)	(0.662)	(0.026)	(0.888)	(0.013)	(0.628)
RADF	-1.02	1.02	-24.12	-42.28*	-0.04	-7.87*	-0.58
	(0.954)	(0.857)	(0.372)	(0.059)	(0.995)	(0.097)	(0.384)
RBIP	-7.50	0.01	-22.36	-60.53***	3.50	-2.37	0.05
	(0.651)	(0.998)	(0.375)	(0.001)	(0.488)	(0.508)	(0.942)
PADF	-6.72	-3.26	-28.75	-65.26***	-1.51	-2.58	-0.20
	(0.666)	(0.434)	(0.219)	(0.000)	(0.735)	(0.413)	(0.760)
RFFI	-2.34	-6.38	-37.67*	-62.19***	3.42	-5.48*	-0.11
	(0.882)	(0.110)	(0.097)	(0.000)	(0.433)	(0.056)	(0.870)
RLPF	-2.64	-1.52	-37.86	-50.53***	8.14	-1.99	-0.30
	(0.908)	(0.767)	(0.111)	(0.001)	(0.285)	(0.573)	(0.658)
PEBI	-5.94	-1.22	-41.76*	-86.14***	6.13	-2.26	-0.29
	(0.733)	(0.789)	(0.081)	(0.000)	(0.298)	(0.541)	(0.659)
The IFRS for foreign firms							
NOTR	18.33	-8.51	-25.67	-8.94	4.33	0.48	-0.20
	(0.109)	(0.120)	(0.166)	(0.728)	(0.499)	(0.906)	(0.375)
RAFC	17.72*	-5.99	-15.46	8.83	3.54	-2.39	0.02
	(0.064)	(0.311)	(0.450)	(0.757)	(0.572)	(0.608)	(0.948)
PAFC	8.28	-5.94**	-12.71	0.47	0.04	0.02	-0.36**
	(0.191)	(0.036)	(0.189)	(0.972)	(0.987)	(0.997)	(0.013)
RSPO	9.27	4.09	16.29	11.82	5.12*	5.29*	0.30
	(0.381)	(0.237)	(0.225)	(0.521)	(0.095)	(0.061)	(0.138)
IFRS adoption for SMEs							
ASME	-1.12	0.87	3.66	-17.27*	1.60	-1.49	-0.21***
	(0.755)	(0.576)	(0.561)	(0.058)	(0.636)	(0.242)	(0.007)
Dummy 08-09							
D08-09	18.35***	10.89***	44.87***	25.53***	-19.59***	3.89***	-0.17***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)

Control Variables	IFNI	SMCP	SMTD	SMTO	SMRT	SPVO	FMKD
Geographical regions							
EURO	3.50	5.57	30.56	45.28**	-6.45	-2.52	0.30
	(0.702)	(0.330)	(0.102)	(0.048)	(0.173)	(0.609)	(0.222)
LNAM	2.11	12.74**	27.79	17.56	-5.34	1.87	-0.10
	(0.737)	(0.044)	(0.197)	(0.487)	(0.138)	(0.528)	(0.769)
CSAS	3.30	10.33**	32.37**	63.41***	1.12	0.97	0.07
	(0.713)	(0.018)	(0.025)	(0.004)	(0.862)	(0.855)	(0.693)
EASP	12.94	9.70*	44.22**	52.17**	-7.40*	2.17	0.38
	(0.278)	(0.080)	(0.019)	(0.011)	(0.051)	(0.588)	(0.181)
MENA	12.21	1.69	-3.20	-17.16	-12.06	-14.30*	-0.21
	(0.308)	(0.797)	(0.877)	(0.516)	(0.239)	(0.083)	(0.694)
Official language							
ENGL	0.90	3.43	10.77	-6.33	-2.93	-8.49***	0.14
	(0.898)	(0.285)	(0.277)	(0.602)	(0.312)	(0.003)	(0.413)
FRNL	17.08	12.69***	29.80*	20.97	-4.35	-2.74	0.16
	(0.232)	(0.000)	(0.057)	(0.390)	(0.170)	(0.442)	(0.352)
SPNL	-31.93***	7.17**	30.52***	52.42***	-3.93	-0.13	-0.44***
	(0.000)	(0.013)	(0.001)	(0.000)	(0.141)	(0.958)	(0.009)
ARBL	10.74	16.84**	77.43***	78.13***	10.98	14.49*	0.46
	(0.379)	(0.019)	(0.001)	(0.008)	(0.288)	(0.079)	(0.401)
GRML	18.35	5.62	24.67**	9.29	-2.63	-7.52*	0.52***
	(0.119)	(0.268)	(0.036)	(0.579)	(0.378)	(0.052)	(0.005)
RUSL	13.93*	-1.12	-6.32	18.79	-2.03	5.96	-0.67**
	(0.062)	(0.867)	(0.756)	(0.684)	(0.809)	(0.547)	(0.010)
Colonial history							
NEVC	14.56*	15.95***	46.14***	38.34***	2.38	1.63	0.50***
	(0.057)	(0.000)	(0.000)	(0.003)	(0.419)	(0.552)	(0.007)
BRTC	-5.13	-0.26	-0.18	-6.49	1.33	-4.88	0.48**
	(0.571)	(0.947)	(0.989)	(0.693)	(0.707)	(0.201)	(0.022)
FRNC	-8.47	-16.22***	-59.74***	-62.40**	-6.12	-11.45**	-0.17
	(0.398)	(0.008)	(0.002)	(0.020)	(0.247)	(0.034)	(0.493)
SPNC	37.56***	-14.93*	-67.55***	-92.8***	8.08	-11.03*	0.58
	(0.005)	(0.074)	(0.009)	(0.005)	(0.178)	(0.069)	(0.173)
PORC	-9.32	5.18	15.33	20.89	5.36	-0.18	0.59**
	(0.370)	(0.434)	(0.420)	(0.328)	(0.280)	(0.975)	(0.025)
DUTC	19.67*	1.94	-24.62	-67.23*	-1.38	-6.08	0.41**
	(0.063)	(0.633)	(0.143)	(0.060)	(0.769)	(0.257)	(0.045)
GRMC	-21.61*	-7.97	-56.45***	-84.56**	2.45	-2.15	-0.36
	(0.078)	(0.217)	(0.001)	(0.011)	(0.659)	(0.807)	(0.407)
RUSC	-13.43**	-14.57***	-38.19***	-34.91**	0.17	-7.24	-0.03
	(0.029)	(0.000)	(0.000)	(0.032)	(0.970)	(0.113)	(0.856)
Constant	-23.52	-11.78	-0.76	-58.7	18.63*	21.41**	4.95***
	(0.196)	(0.345)	(0.984)	(0.171)	(0.088)	(0.014)	(0.000)
Observations	2200	2200	2200	2200	2200	2200	2200
F value	18.47***	52.90***	42.68***	35.61***	13.51***	24.53***	26.08***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
R-squared	0.341	0.597	0.545	0.499	0.275	0.408	0.423
Adjusted R-squared	0.323	0.586	0.532	0.485	0.255	0.391	0.406
Cox & Snell R Square	0.341	0.597	0.545	0.499	0.275	0.408	0.423
Nagelkerke R-Square	0.341	0.597	0.545	0.499	0.275	0.408	0.423
Sargan-Hansen Statistic	31.83**	43.89***	71.19***	60.39***	41.14***	27.16***	86.07***
	(0.023)	(0.000)	(0.000)	(0.000)	(0.001)	(0.009)	(0.000)

Note: The variables have been fully defined in Table 1. The last independent categorical variables have been chosen as base categories for each group of nominal data included in the model. The p-value in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 7: The 2SLS results to examine the link between IFRS adoption and capital market performance

Dependent variables	IFNI	SMCP	SMTD	SMTO	SMRT	SPVO	FMKD
Independent variables	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.
The IFRS Adopters							
EXPRF	12.98	-16.44**	-27.20	-3.18	-25.10***	-13.39**	-0.04
	(0.228)	(0.011)	(0.233)	(0.928)	(0.001)	(0.022)	(0.894)
ERADF	8.71	-10.49**	-31.62*	-22.19	-13.71**	-0.55	-0.02
	(0.295)	(0.021)	(0.050)	(0.271)	(0.049)	(0.920)	(0.951)
ERMJF	10.78	-9.45**	-15.45	-2.05	-11.52*	-0.35	-0.06
	(0.172)	(0.036)	(0.311)	(0.923)	(0.086)	(0.949)	(0.803)
LTMJF	14.73**	-1.86	-9.61	-3.08	-7.77	5.11	0.07
	(0.046)	(0.580)	(0.411)	(0.842)	(0.170)	(0.231)	(0.743)
The IFRS for listed firms							
NREQ	-13.59	7.01	-38.08	-68.64***	-24.87***	-18.32**	-2.42***
	(0.298)	(0.532)	(0.279)	(0.000)	(0.006)	(0.018)	(0.000)
NPER	-13.14	13.88	27.53	9.89	2.12	15.63**	-0.17
	(0.269)	(0.217)	(0.422)	(0.766)	(0.802)	(0.039)	(0.702)
RFAL	-3.91	18.40*	52.99*	32.22	-1.90	14.22**	-0.06
	(0.717)	(0.054)	(0.054)	(0.185)	(0.788)	(0.016)	(0.881)
PFAL	-6.35	9.60	15.50	-3.52	-1.84	0.20	-0.50
	(0.487)	(0.280)	(0.507)	(0.819)	(0.739)	(0.964)	(0.122)
RFBI	-1.23	10.50	16.33	-7.31	-6.14	-2.11	-0.69**
	(0.904)	(0.247)	(0.511)	(0.734)	(0.281)	(0.677)	(0.034)
EXBI	5.89	13.89	27.72	13.73	0.47	4.46	-0.36
	(0.623)	(0.151)	(0.324)	(0.628)	(0.953)	(0.648)	(0.326)
The IFRS for unlisted firms							
NOTP	-13.75	0.13	-19.21	-68.17***	-4.75	-11.5***	-0.33
	(0.379)	(0.988)	(0.445)	(0.005)	(0.403)	(0.007)	(0.540)
RADF	-6.50	1.24	-34.97	-61.65***	-3.51	-10.15**	-0.53
	(0.701)	(0.787)	(0.106)	(0.002)	(0.595)	(0.029)	(0.343)
RBIP	-11.43	0.06	-22.55	-62.24***	1.87	-3.23	0.06
	(0.454)	(0.987)	(0.216)	(0.000)	(0.730)	(0.367)	(0.911)
PADF	-11.94	-1.39	-24.77	-61.12***	-0.52	-3.58	-0.13
	(0.415)	(0.622)	(0.128)	(0.000)	(0.917)	(0.250)	(0.820)
RFFI	-10.31	-5.09*	-40.11***	-59.60***	2.85	-5.45*	-0.19
	(0.479)	(0.060)	(0.009)	(0.000)	(0.565)	(0.068)	(0.711)
RLPF	-11.27	-1.95	-38.28**	-49.46***	7.40	-3.61	-0.25
	(0.577)	(0.585)	(0.036)	(0.000)	(0.364)	(0.283)	(0.656)
PEBI	-9.22	-0.60	-36.94**	-87.03***	3.52	-4.30	-0.14
	(0.558)	(0.853)	(0.030)	(0.000)	(0.564)	(0.199)	(0.797)
The IFRS for foreign firms							
NOTR	2.04	-11.62***	-25.31*	-1.69	1.80	-3.30	-0.10
	(0.820)	(0.005)	(0.091)	(0.942)	(0.775)	(0.428)	(0.642)
RAFC	5.30	-8.76*	-15.58	13.52	1.37	-5.33	0.11
	(0.503)	(0.065)	(0.389)	(0.588)	(0.833)	(0.260)	(0.693)
PAFC	5.00	-1.14	-1.94	14.94	2.20	0.63	-0.09
	(0.384)	(0.595)	(0.812)	(0.165)	(0.444)	(0.748)	(0461)
RSPO	3.82	4.94*	18.82*	17.98	4.74	5.01*	0.34**
	(0.688)	(0.076)	(0.092)	(0.251)	(0.137)	(0.057)	(0.045)
IFRS adoption for SMEs							
ASME	8.61***	3.68***	-8.87*	-23.21***	-8.26***	-1.29	-0.02
	(0.001)	(0.003)	(0.078)	(0.002)	(0.006)	(0.204)	(0.766)
Dummy 08-09							
D08-09	4.33***	1.42***	14.20***	7.41**	-35.87***	6.70***	0.12***
	(0.005)	(0.007)	(0.000)	(0.016)	(0.000)	(0.000)	(0.000)

Control Variables	IFNI	SMCP	SMTD	SMTO	SMRT	SPVO	FMKD
Geographical regions							
EURO	0.56	2.98	15.91	44.20*	-6.73	0.03	0.15
	(0.949)	(0.517)	(0.375)	(0.067)	(0.176)	(0.995)	(0.560)
LNAM	0.95	6.91	5.98	4.91	-4.69	1.88	-0.40
	(0.872)	(0.104)	(0.728)	(0.812)	(0.239)	(0.549)	(0.181)
CSAS	3.63	6.58*	20.19	48.11**	-0.27	-0.35	0.04
	(0.635)	(0.066)	(0.163)	(0.032)	(0.966)	(0.943)	(0.807)
EASP	5.24	7.44	29.49*	54.33**	-7.86**	3.11	0.07
	(0.627)	(0.109)	(0.088)	(0.011)	(0.048)	(0.435)	(0.885)
MENA	8.90	0.67	-7.71	-8.13	-12.73	-12.95	-0.48
	(0.418)	(0.886)	(0.650)	(0.719)	(0.238)	(0.142)	(0.367)
Official language							
ENGL	-1.85	2.89	6.30	-6.88	-2.25	-7.80***	0.04
	(0.738)	(0.271)	(0.440)	(0.541)	(0.420)	(0.008)	(0.801)
FRNL	18.03	8.20***	19.77	9.61	-5.78*	-2.69	-0.03
	(0.276)	(0.009)	(0.148)	(0.642)	(0.093)	(0.456)	(0.951)
SPNL	-26.1***	8.51***	40.33***	54.20***	-4.38*	-0.03	-0.25*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.095)	(0.995)	(0.086)
ARBL	9.91	11.57**	61.52***	56.55***	9.54	13.46	0.33
	(0.379)	(0.014)	(0.000)	(0.006)	(0.380)	(0.132)	(0.534)
GRML	20.79*	-1.01	4.22	-3.27	-3.30	-6.50	0.11
	(0.094)	(0.836)	(0.697)	(0.821)	(0.321)	(0.101)	(0.557)
RUSL	3.12	-4.66	-14.43	19.83	-2.75	4.62	-0.80***
	(0.567)	(0.370)	(0.497)	(0.671)	(0.712)	(0.597)	(0.002)
Colonial history							
NEVC	9.47	9.31***	26.24***	18.54*	2.03	0.21	0.29*
	(0.205)	(0.000)	(0.001)	(0.078)	(0.501)	(0.935)	(0.066)
BRTC	-7.84	-1.87	-4.47	-3.99	0.74	-4.64	0.28
	(0.292)	(0.555)	(0.703)	(0.790)	(0.827)	(0.210)	(0.126)
FRNC	-6.33	-8.48**	-46.43***	-39.79**	-3.46	-8.76	-0.13
	(0.555)	(0.030)	(0.001)	(0.034)	(0.523)	(0.112)	(0.555)
SPNC	26.73**	-14.69**	-67.66***	-75.62***	6.85	-11.48**	0.39
	(0.035)	(0.011)	(0.001)	(0.003)	(0.245)	(0.048)	(0.293)
PORC	-18.44**	2.22	10.77	19.58	3.87	-2.43	0.57**
	(0.036)	(0.553)	(0.418)	(0.277)	(0.389)	(0.588)	(0.011)
DUTC	9.91	-1.89	-41.22**	-66.94**	-1.18	-6.17	0.01
	(0.289)	(0.579)	(0.032)	(0.019)	(0.806)	(0.196)	(0.972)
GRMC	-27.99***	-5.10	-43.31***	-69.89*	1.66	-2.88	-0.24
	(0.009)	(0.255)	(0.009)	(0.060)	(0.808)	(0.780)	(0.579)
RUSC	-11.77**	-9.74***	-30.78***	-23.18	2.79	-5.19	-0.05
	(0.038)	(0.001)	(0.003)	(0.151)	(0.522)	(0.199)	(0.833)
Constant	1.43	-4.00	20.76	77.09***	31.52***	24.33***	4.45***
	(0.936)	(0.643)	(0.444)	(0.005)	(0.001)	(0.002)	(0.000)
Observations	2200	2200	2200	2200	2200	2200	2200
F value	146.3***	297.2***	723.1***	790.5***	426.2***	103.5***	516.4***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Adjusted R-squared	0.382	0.688	0.596	0.554	0.132	0.398	0.493
The SW Chi2 test for underid							
EXPRA	11.39***	11.39***	11.39***	11.39***	11.39***	11.39***	11.39***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
ERADA	13.44***	13.44***	13.44***	13.44***	13.44***	13.44***	13.44***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
ERMJA	13.19***	13.19***	13.19***	13.19***	13.19***	13.19***	13.19***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
LTMJA	42.89***	42.89***	42.89***	42.89***	42.89***	42.89***	42.89***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
The LM test of IV redundancy	280.4***	280.4***	280.4***	280.4***	280.4***	280.4***	280.4***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
The Sargan-Hansen of overid	0.78	0.78	0.74	3.93	5.09**	4.33	5.13
	(0.377)	(0.378)	(0.389)	(0.284)	(0.024)	(0.137)	(0.474)
The C statistic of endogeneity	174.3***	642.4***	367.6***	269.1***	3.28	93.37***	354.9***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.512)	(0.000)	(0.000)
Reset test of omitted variables	0.35	4.64	0.70	6.70	5.85	3.08	1.11
	(0.553)	(0.152)	(0.403)	(0.143)	(0.156)	(0.179)	(0.293)

Note: The variables have been operationally defined in Table 1. The last independent categorical variables have been chosen as base categories for each group of nominal data included in the model. The p-value in parentheses *** p<0.01, ** p<0.05, * p<0.1