**Financial Market Consequences of Early Adoption of International Standards on Auditing: International Evidence**

Ibrahim Elmghaamez, Ali M. Gerged and Collins G. Ntim

Ibrahim Elmghaamez (Corresponding Author).

School of Economics, Finance and Accounting  
Coventry University, UK

Ali M. Gerged

Faculty of Business and Law

Leicester Castle Business School

DE MONTFORT UNIVERSITY

Leicester, UK

Collins G. Ntim

Department of Accounting

Southampton Business School

University of Southampton, UK

**Financial Market Consequences of Early Adoption of International Standards on Auditing: International Evidence**

**Abstract:**

**Purpose:** This paper investigates the effects of the early adoption of International Standards on Auditing (ISAs) on Financial Market Indicators (FMIs) from a Diffusion of Innovation (DOI) theory perspective.

**Design/methodology/approach:** Using panel data from 110 countries in a period that spans from 1995 to 2014, this study applies an ordinary least squares (OLS) regression model to investigate the financial consequences of adopting ISAs. This analysis was supplemented with estimating a fixed-effects and two-stage least squares (2SLS) regression models in order to address any concerns regarding the possible existence of endogeneity problems.

**Findings:** This study reports three key findings. First, we find that early ISAs adoption has a negative effect on several financial market consequences, namely stock market integration, market capitalisation, market turnover, market return, market development, stock price volatility, and stock trading volume. Second, using an alternative measure to the one that is proposed by DOI theory, we found that some financial indicators have been significantly improved after ISAs adoption, but only for listed firms that prepared their financial statements under International Financial Reporting Standards (IFRS) and audited by ISAs simultaneously. Finally, the financial indicators of European stock markets, however, have insignificantly shrank post the mandatory adoption of ISAs in 2006.

**Practical implications:** Our empirical evidence raises questions about how ISAs were enforced and implemented. For example, countries that adopted ISAs at early stages may have been dominated mostly by recently established stock exchanges. This implies a crucial need to determine and apply the best type of auditing regime that can increase investors trust and enhance the credibility of stock markets information, which might ultimately advance the FMIs over time significantly.

**Originality/value:** To-date, studies investigating the impact of the adoption of ISAs on FMI from a DOI theory perspective are virtually non-existent. Our study, therefore, seeks to contribute to the extant literature by examining the influence of ISAs adoption on a wide range of financial market indicators.

**Keywords**: International Standards on Auditing, Financial Market Indicators, Financial Consequences, Diffusion of Innovation Theory, Stock Market.

**Research Classification**: Research paper

**Introduction**

Foreign investors tend to invest in those stock markets characterised by a higher level of transparent auditing standards and high-quality accounting information (Boolaky & Omoteso, 2016; Boolaky & Soobaroyen, 2017). International standards on auditing (ISAs), therefore, have been adopted by many countries to attract more inward foreign direct investments (FDI) to their financial markets (Al-Awaqleh, 2010; Rudhani et al., 2017). Stock markets, on the other hand, expect to obtain some financial benefits from adopting ISAs, such as lower cost of capital (Fraser. 2010; Wong, 2004). In this regard, Francis et al. (2003) argue that the development of financial markets is positively linked to a higher quality of auditing standards mainly in those countries characterised by vigorous legal enforcement for investor protection.

Although previous studies have examined the influence of stock market development on the strength of auditing and reporting standards (e.g., Boolaky, 2011; Boolaky & Cooper, 2015; Boolaky & O’Leary, 2011; Boolaky & O’Leary, 2012; Boolaky et al., 2013), a very limited attention has been paid to examining the relationship between the adoption of ISAs and stock market indicators, such as market capitalisation (e.g., Boolaky & Soobaroyen, 2017; Boolaky & Omoteso, 2016). For example, to date, studies investigating the impact of the adoption of ISAs on financial market indicators (FMIs) are virtually non-existent. Our research, therefore, seeks to contribute to the extant literature by examining the influence of ISAs adoption on a range of financial market consequences at the macro-country level.

At the macro-country level, prior studies have examined the influence of adopting accounting innovation practices, such as International Financial Reporting Standards (IFRS) on a few financial consequences (i.e., stock market capitalisation), either from the perspective of institutional theory (e.g., Boolaky & Soobaroyen, 2017) or Hofstede-Gray framework perspective (e.g., Boolaky & Omoteso, 2016). However, we distinctively employ the Diffusion of Innovation (DOI) theory to explain the financial consequences of adopting ISAs. According to DOI theory, a group of adopters might tend to adopt innovations rapidly at the initial stages, or it may prefer to delay its adoption to late stages based on their characteristics. As a result, the DOI theory suggests that adopters of innovations can be classified into five main groups based on their first-time adoption. These groups are experimenters, early adopters, early majority, late majority, and non-adopters (Rogers, 1976; Rogers, 2002; Robertson, 1967).

Consequently, and employing a DOI theoretical framework, we examine the extent to which early ISAs adoption impact on a wide range of FMIs. A *priori*,the higher level of transparency, reliability and credibility regarding auditing standards and high-quality accounting information that is often associated with the adoption of ISAs is expected to result in observable improvement in FMIs. Thus, we specifically examine how ISAs adoption affect seven FMIs, including financial/stock market: (i) capitalisation; (ii) development; (iii) integration; (iv) liquidity (v) returns; (vi) trading volume; and (vii) volatility. Our findings suggest that early adoption of ISAs has a negative effect on seven financial market consequences, namely financial integration, market capitalisation as a percentage of GDP, market capitalisation in USD, stock market traded to GDP, stock market turnover, stock market return, stock price volatility and financial market development. By contrast, we find that mandatory ISAs adoption by most EU countries in 2006 has no significant effect on financial market consequences. Our findings, therefore, extend the existing literature by offering new evidence on the effect of early ISAs adoption on FMIs.

The remainder of this study is organised as follows. Section 2 presents the background to the adoption of ISAs. Section 3 discusses the theoretical framework applied in this study. Section 4 reviews the empirical literature and develops hypotheses. Section 5 explains the research methodology. Section 6 presents the descriptive statistics. Section 7 reports the empirical results and discussion. Section 8 discusses the robustness analyses, whilst Section 9 outlines the conclusions of the study.

### International Auditing Standards and Financial Market Indicators

Since the 1960s, the need for issuing one single set of international auditing standards has significantly increased in order to meet the requirements of multinational corporations (Needles et al., 2002). After the 2008 global financial crisis, many countries have adopted ISAs, intending their adoption to improve the quality of their auditing standards (Humphrey et al., 2009; Mennicken, 2008). In 1991, the International Auditing and Assurance Standards Board (IAASB) released 29 International Auditing Guidelines, which are now known as ISAs (Roussey, 1996; Humphrey & Loft, 2008). Furthermore, in 2006, the European Commission released the audit directive of 2006/43/EC to encourage European countries to adopt ISAs (Merkt, 2009).

Accordingly, several international bodies, such as the European Federation of Financial Analysts Societies (EFFAS), World Trade Organization (WTO), International Organization of Securities Commissions (IOSCO), World Federation of Exchanges (WFE), Securities and Exchange Commission (SEC), and Financial Stability Board (FSB) have encouraged standards-setters to adopt ISAs in order to improve the quality of their auditing standards (Kelly, 1998; Needles et al., 2002; Fraser, 2010).

Even though the adoption of ISAs can trigger financial and non-financial benefits (Wang et al., 2015), yet, some associated challenges should be considered by audit firms and stock markets adopting, implementing and enforcing ISAs usage among their companies and organizations (Kohler et al., 2010). Among other things, these challenges might include a lack of human resources, a scarcity of financial resources, shortage of technical skills, inconsistency between ISAs requirements and the legal system of a country, and the lack of accuracy in translating ISAs into native languages (Hegarty et al., 2004). Therefore, adopters need to weigh the opportunities and challenges of applying ISAs before adopting and implementing them within a given country (Obaidat, 2007). In this regard, Harahap et al. (2018) conclude that the adoption of ISAs has been challenging for some stock markets, although it has led to increasing markets profitability and attracting more inward FDIs.

Arguably, ISAs adoption can be more challenging for small and new stock exchanges, where they usually lack some vital resources, such as finance, technical expertise, organisational infrastructure and human resources (Yong & Mahzan, 2013). Additionally, the legal origin of a country can be a major factor that could hinder the adoption of ISAs. For example, civil law countries tend to experience lower levels of law enforcement in terms of protecting the rights of foreign investors in addition to a shortage in the quality of auditing standards compared with their common-law counterparts (Ball et al., 2003; Al-Awaqleh, 2010).

Against this background and given that we know very little about the effect that the adoption of ISAs has on FMIs around the world, we seek to investigate the financial market consequences for countries that adopt ISAs.

#### **Theoretical Framework**

This paper uses the perspective of diffusion of innovation (DOI) theory developed by Everett Rogers in 1962 primarily to explain the adoption of ISAs internationally. According to DOI theory, there are four main factors that can impact the adoption rate of international accounting innovations, namely adopter characteristics, attributes of the innovations, communication channels, and adoption time (Rogers, 2003). Therefore, flexible changes with relative advantages (e.g., enhanced FMIs) are more likely to be adopted at the initial stages than complicated innovations, since they are more difficult to be applied within a short period (Rogers, 1995). Gaining desirable financial consequences is, also, one of the relative advantages that can encourage countries to adopt international accounting innovations, such as ISAs, at the early stages (Rogers, 2003). Moreover, interpersonal networks tend to also serve as a communication channel, which can promote peers to adopt the same innovations rapidly (Rogers & Kincaid, 1981).

As stated by DOI theory, adopters of international accounting innovations are categorised based on their adoption-times into four groups: (i) innovators; (ii) early adopters; (iii) early majority; and (iv) late majority and laggards (Rogers, 1962; El-Helaly et al., 2020; Elmghaamez, 2019). Adopters of innovations have different purposes for adopting the same innovations in order to satisfy their desires (Botha & Atkins, 2005). For example, the number of countries that adopted international accounting standards (IASs) has significantly increased over time, reflecting the desire of different countries to attract more FDIs into their economies (Alon, ‎2010). Arguably, adopting ISAs can lead to meeting various needs and provide many relative advantages, such as enhancing international comparability, increasing the efficiency of financial markets and improving global integration to financial markets (Wong, 2004; Mourik & Walton, 2014).

DOI theory has been applied by prior studies to explain the diffusion of management accounting innovations (e.g., Leftesi, 2008; Askarany, 2016; Epstein, 2012; Tucker & Parker, 2014). Accordingly, we uniquely employed DOI theory to explain the diffusion of ISAs as the adoption rate has been gradually increasing over time.

To date, there is no single theoretical framework that has been appropriately applied to examine the expected financial market consequences of ISAs adoption (Kohler, 2009). Consistent with previous IFRS research, we also build on positive accounting theory that was developed by Watts and Zimmerman (1986) to complement our understanding of the expected financial market consequences of ISAs adoption. According to positive accounting theory, financial markets are mostly enforced to adopt global accounting and auditing standards as a response to various stakeholders’ pressures, who seek to maximise their utility, which can often lead to unintended financial market consequences due to the inherent conflict of interests the exist between different stakeholders (Sayumwe & Francoeur, 2017; Senyiit, 2014; Samaha & Khlif, 2016; Ali et al., 2016; Ball, 2016; Kimeli, 2017; Kabir, 2010). The adoption of international accounting and auditing standards has both intended and unintended financial market consequences, which might either result in positive or negative effects on capital markets at the macro-economic level (Brüggemann et al., 2013). Daske et al. (2013) argue that voluntary adopters may only adopt the label of international accounting and auditing standards without fully adhering to the requirements of these global standards. Similarly, some scholars believe that adopters of ISAs are primarily required in order to have sufficient knowledge, skills and training for their audit staff in order to ensure proper application of ISAs (Ali et al., 2016; Ball, 2016; Samaha & Khlif, 2016; Kimeli, 2017; Sayumwe & Francoeur, 2017). By doing so, listed firms may be able to demonstrate to various stakeholders that they have enhanced the quality of their financial statements, and thus achieve potential expected financial market consequences from adopting ISAs (Ball, 2001; Elmghaamez & Ntim 2016; Burns & Fogarty, 2010).

Although adoption of a single set of global accounting and auditing standards can improve the efficiency of stock markets and increase the international integration among capital markets, nevertheless, the absence of needed mechanisms for uniform application and the differences across countries in national legal enforcement regimes, investor protection, auditing practices, tax regulation and corporate governance practices can lead to a reduction in the benefits that stock markets could achieve by adopting these global standards (Palea, 2013).

***Empirical Literature Review and Hypotheses Development***

Two fundamental mechanisms have been proposed in the current IFRS literature to examine the causal relationships between ISAs adoption on FMIs involving environmental impacts and economic indicators. However, market mechanisms have not sufficiently been covered in the extant ISAs literature (Boolaky & Omoteso, 2016; Boolaky & Soobaroyen, 2017). Hence, it is essential to expand these mechanisms to include an additional mechanism, namely, FMIs. This is because the practical application of ISAs adoption requires the integration of various mechanisms, including environmental, economic and market mechanisms. Hence, in this study, a comprehensive range of financial indicators have been included as proxies for market mechanisms to test the impact of ISAs adoption on the FMIs. Additionally, financial market mechanisms are important because they can consider causality effects of environmental factors in addition to the financial consequences of ISAs adoption at the macro or country level. For instance, ISAs adoption may affect stock prices, market capitalisation, stock market returns, and the other FMIs relevant to the auditing environment of stock exchanges.

Furthermore, regulatory enforcement and compliance are one of the primary mechanisms that may explain the effect of ISAs adoption on FMIs. Therefore, regulatory authorities of stock markets further to accounting and audit standard-setting bodies should establish more rigorous audit legislation and robust set of regulations to protect shareholder rights, as well as to increase the transparency of financial statements, and thus able to attract more foreign investors (Boolaky & Soobaroyen, 2017).

Our study focuses on the theoretical assumptions and classifications suggested by DOI theory. In particular, it relies on the current IFRS literature (e.g., El-Helaly et al., 2020; Elmghaamez, 2019) as a background to propose its hypotheses, since there is no previous empirical research that has been done so far to examine the impact of ISAs adoption on the FMIs of the adopting nations. Accordingly, it is possible to compare our results with the findings of IFRS studies to examine whether these two accounting innovations have the same influence on the various FMIs examined in this study.

Most previous studies have examined the influence of adopting IFRS on few FMIs, whereas there is no attention being paid to study the financial consequences of adopting of ISAs for adopting countries. Therefore and drawing on prior ISAs literature (e.g., Boolaky & Omoteso, 2016; Boolaky & Soobaroyen, 2017; El-Helaly et al., 2020), we develop our hypotheses to examine the relationships between ISAs adoption and a comprehensive set of seven FMIs, including (i) financial market integration, (ii) stock market capitalisation, (iii) stock trading volume, (iv) stock market turnover, (v) stock market returns, (vi) stock market volatility, and (vii) stock market development. By doing so, we contribute to the existing literature by responding to the recent call to examine the macro-level consequences of adopting ISAs for adopting countries (See Boolaky & Soobaroyen, 2017).

*ISAs adoption and financial market integration*

Our first hypothesis focuses on examining the effect of ISAs adoption on the level of financial market integration. In this case, the majority of prior studies reported that IFRS adoption enhances the financial market integration by improving comparability, and thus attracting more foreign investors (Li et al., 2013; Jayaraman & Verdi, 2014; De George, 2013; Cai & Wong, 2010). However, a few studies show that there is an insignificant relationship between the adoption of IFRS and the financial market integration across countries (Naranjo et al., 2017; Alnodel, 2016). Therefore, we set the first hypothesis to test the relationship between ISAs adoption and financial market integration as follows:

**H1:** *Countries categorised with early adoption of international auditing standards are more likely to have higher levels of financial market integration.*

*ISAs adoption and stock market capitalisation*

Prior literature is primarily suggestive of a positive and significant association between IFRS adoption and the financial market capitalisation (Judge et al., 2010; Ben-Othman & Kossentini, 2015; Felski, 2015; Lasmin, 2011; Beuselinck et al., 2009; Yurekli, 2016; Klibi & Kossentini, 2014; Beneish et al., 2012; Stainbank, 2014). A few others, nevertheless, indicate a negative association between IFRS adoption and the financial market capitalisation (Shima & Yang, 2012; Hope et al., 2006; Akman, 2011; Clements et al., 2010; Renders & Gaeremynck, 2007; Brochet et al., 2013). On the other hand, only two studies found an insignificant relationship between the adoption of IFRS and market capitalisation (Chebaane & Ben Othman, 2014; Riahi & Khoufi, 2015). Therefore, we propose our next hypothesis to test the association between ISAs adoption and stock market capitalisation as follows:

**H2:** *Countries have adopted international standards on auditing early are more likely to have higher levels of stock market capitalisation.*

*ISAs adoption and stock market trading volume*

With respect to stock trading volume, there have been very few empirical studies that examined the relationship between stock trading volume and the adoption of IFRS. Most previous studies are indicative of a positive and significant correlation between the volume of shares traded and IFRS adoption (Okoye et al., 2014; Brüggemann et al., 2012; Elbakry, 2010; Alsaqqa, 2012; Leuz & Verrecchia, 2000; Manyara & Benuto, 2014; Landsman et al., 2012). Other scholars concluded that IFRS adoption has led to a reduction in the volume of stocks trading on financial markets (Figlioli et al., 2017). Therefore, we suggest the following hypothesis to test the relationship between ISAs adoption and stock trading volumes:

**H3:** *Countries that adopted the international standards on auditing early are more likely to have higher levels of stocks trading volumes.*

*ISAs adoption and stock market turnover*

With reference to stock market turnover, most previous studies have revealed that IFRS adoption has significantly resulted in increasing the ratio of share turnover, since it leads to reductions in information asymmetry between firms listed on different stock markets (Leuz & Verrecchia, 2000; Loureiro & Taboada, 2012; Bova & Pereira, 2012; Drake et al., 2010; Barth et al., 2018). Further empirical studies, however, are supportive of a negative association between IFRS adoption and the ratio of stock turnover (Khurana & Michas, 2011; Burnett et al., 2015). Accordingly, this study assumes the following hypothesis to assess the relationship between ISAs adoption and stock market turnover as follows:

**H4:** *Countries characterised with early adoption of international standards on auditing are more likely to have a higher stock market turnover.*

*ISAs adoption and stock market returns*

The vast majority of previous studies indicated a positive and significant association between IFRS adoption and stock market returns (Escaffre & Sefsaf, 2011; Loureiro & Taboada, 2012; Yip & Young, 2012; Adereti & Sanni, 2016; Erin et al., 2017; Bartov et al., 2005; Okafor et al., 2016; Kang, 2013; Paglietti, 2009). On the contrary, a few studies have suggested a negative and significant impact of the adoption of IFRS on stock market returns (Patro & Gupta, 2016; Key & Kim, 2017; Klimczak, 2011). Furthermore, a limited number of other studies have reported an insignificant relationship between IFRS adoption and stock market returns (Alnodel, 2016; Barth et al. 2008). Hence, this study posits the following hypothesis to test the association between ISAs adoption and stock market returns as follows:

**H5:** *Countries categorised with early adoption of international standards on auditing are highly likely to have higher stock market returns.*

*ISAs adoption and stock market volatility*

Stock market volatility is mostly expected to be remarkably decreased post the adoption of IFRS (Chau et al., 2013; Patro & Gupta, 2016; Chalmers et al., 2011; Nulla, 2014). In contrast, others believed that stock market volatility is positively attributed to IFRS adoption (Gassen & Sellhorn, 2006; Landsman et al., 2012; Daske et al., 2008), whereas only a minimal number of studies found mixed results between the adoption of IFRS and stock market volatility (Lambertides & Mazouz, 2013; Negi et al., 2014). In return, a few previous studies are supportive of an insignificant relationship between stock market volatility and IFRS adoption (Leuz & Verrecchia, 2000; Cuijpers & Buijink, 2005; Auer, 1998; Daske, 2006; Floros, 2007). Therefore, we propose the following hypothesis to test the relationship between ISAs adoption and stock market volatility:

**H6:** *Countries categorised with early adoption of international standards on auditing are more likely to have lower levels of stock market volatility.*

*ISAs adoption and stock market development*

With specific focus on stock market development index, most prior studies found a positive and significant association between the adoption of IFRS and the level of stock market development (Klibi & Kossentini, 2014; Ben-Othman & Kossentini, 2015; Ndagijimana & Barayandema, 2017). Similarly, prior auditing studies reported a positive and significant association between the strength of auditing and reporting standards and the development of the stock market (Boolaky, 2011; Boolaky & Cooper, 2015; Boolaky & O’Leary, 2011; Boolaky & O’Leary, 2012; Boolaky et al., 2013). Accordingly, we propose the following hypothesis to check the association between ISAs adoption and financial market development:

**H7:** *Countries categorised with early adoption of international standards on auditing are more likely to have better development of the stock market.*

**Research Design**

*Sample Selection*

By 2016, almost 50 countries around the world have not established their stock markets yet (De Sousa et al., 2016). Accordingly, due to the limited availability of data related to these financial markets, our sample consists of 110 countries from 1995 to 2014, resulting in 2200 observations. Specifically, countries that have adopted the ISAs within five years after they were issued in 1991 are classified as experimenters, and only 6 out of 110 countries adopted ISAs by 1995, including Jordan, Malta, Netherland, Peru, Slovenia, and Sri Lanka. Countries that adopted ISAs during the Asian crisis of 1997, precisely between 1996-2000 are classified as early adopters, and 19 out of 110 nations are included in this group. Countries that have adopted ISAs after the Enron scandal of 2001 up to 2004 were classified as early majority adopters, which encompass 38 out of 110 nations. Countries that have adopted ISAs after the Directive 2006/43/EC on statutory audits were classified as late majority adopters, which involved 42 out of 110 countries. We found that only 5 out of 110 countries have not adopted ISAs by 2014, and they are classified as laggards of ISAs, including Colombia, Germany Oman, Qatar and the USA.

Crucially, we have classified the USA as a laggards group based on its adoption status, and not based on whether this country has developed auditing or most developed market or not. Therefore, including the USA in laggards’ group will not lead to obtaining biased results for many reasons. Firstly, we used laggards’ group as a base category, so only the first four groups have appeared in our results tables. Secondly, it is true to say that the inclusion of one unique country in a group that consists of several other countries share the same characteristics will not lead to obtaining biased results since the effect of these countries will be higher than the influence of that unique country. Finally, we have analysed our data without including the USA into the non-adoption group of ISAs, but the results remained unchanged. Consequently, we included the USA in our selected sample, such that it will not lead to the generation of biased results.

Table 1 shows the classification of our sampled countries, which are categorised by the DOI theory based on their ISAs adoption date. In this sense, Harrell (2001) argues that a study should include a minimum of 10 cases per independent variable in order to acquire more rigorous empirical results. Therefore, we ended up including 110 cases for two independent variables, namely ISAs adoption categories (*ISAAC*) and ISA adoption status (*ISAAS*), further to three control variables (social factors). Additionally, our sample is representative of 56% of the total population (196 countries), which arguably enhances the generalizability of our results.

There is no consensus among researchers regarding how many subjects and observations should a researcher include in order to obtain valid and reliable findings for running multiple linear regression. For example, Green (1991) and Schneider et al. (2010) suggest that a minimum of 15 observations per independent variable must be included in order to obtain valid results. Therefore, our study has included 1,100 observations for an extended period from 1995-2014 to examine the causal associations between ISAs adoption and financial indicators of stock exchanges. To avoid the impact of 2007/2008 financial crisis on our findings, we have applied dummy variables to control for the effect of the 2007 financial crisis on the financial indicators of stock exchanges.

Additionally, the optimal sample size for running multiple linear regression can be achieved by using the rule-of-thumb equation suggested by Green (1991) that *N* ≥ 50 + 8 *m*, where *m* is the number of predictors included in a study. Accordingly, this study has five predictors, including ISAs adopter groups, ISAs adoption status in addition to three control variables: geographical location, official language and colonial history, so *M*=5. By applying the rule-of-thumb equation, our optimal sample size = 110 ≥ 50 + 8 *m*, so our sample size was 110 ≥ 90, which is higher than the minimum representative sample size proposed by Green. This implies that our results could be of a high level of reliability and validity.

**Insert table 1 about here**

*Variables Definitions*

Table 2 shows how our research variables have been operationally defined. In examining our hypotheses, we classified the variables into three types. First, our dependent variables are the financial consequences of adopting countries. These financial consequences include a wide range of FMIs, such as financial market integration (*IFNI*), the market capitalisation percentage of GDP (*MCPL*), market capitalisation in U.S.D (*SMCP*), stocks traded (*SMTD*), stock market turnover (*SMTO*), stock market return (*SMRT*), stock price volatility (*SPVO*), and financial market development (*FMKD*).

Second, we employ two main independent variables. Firstly, the adoption of ISAs categories (*ISAAC*), which includes five ISAs adopter groups suggested by DOI theory (i.e., experimenters, early adopters, early majority, late majority and laggards). The classification of these five groups has been constructed based on both the Global Financial Crisis and the auditing reforms released by some international bodies, such as the Directive 2006/43/EC that issued by the European Commission. Secondly, the adoption of ISAs status (*ISAAS*), which contains nine groups. These ISAs status are ISAs adopted with amendments, ISAs adopted without amendments, ISAs adopted with translations, ISAs adopted without translations, ISAs adopted with amendments and translations, ISAs adopted by the country law, ISAs adopted in gap matters, ISAs adopted for financial statements prepared in accordance to IFRS, and the non-adopters’ group of ISAs (Boolaky et al., 2017).

Third, we include three variables to control for the financial consequences of ISAs adoption. Our control variables include three social factors, namely geographical regions, the official language, and colonial history, in addition to year dummies of 2008-09 (D08-09) to control for the effect of the most recent Financial Crisis of 2008-2009 on FMIs internationally.

**Insert table 2 here**

*Model Specification*

This study employs a multivariate linear regression analysis based on balanced panel data to examine the cause-effect relationship between the FMIs and the adoption of ISAs. This study assumes a linear relationship between the dependent variables (FMI) and the independent variables. This is because all our dependent variables are naturally continuous. Therefore, the multiple linear regression model can be specified as follows:

***=+++*** (1)

Where, is the financial consequences of adopting ISAs for a country (i) in a year (t) which involves a wide range of FMI including financial market integration (*IFNI*), market capitalisation (*MCPL*), market capitalisation (*SMCP*), stocks traded (*SMTD*), stock market turnover (*SMTO*), stock market return (*SMRT*), stock price volatility (*SPVO*), and financial market development (*FMKD*), is the constant term, are the coefficients on the independent variables, the first independent variable is ISAs adoption categories (), which includes five adopter categories of ISAs, namely experiments (*EXPRA*), early adopters (*ERADA*), early majority (*ERMJA*), late majority (*LTMJA*), and laggards (*LGGRA*). The second independent variable is ISAs adoption status (), including non-adopters of ISAs (*NOAD*), ISAs adopted with modifications (*WIAM*), ISAs adopted without amendments (*WOAM*), ISAs adopted with translation (*WITR*), ISAs adopted without translation (*WOTR*), ISAs adopted with modifications and translation (*WAMT*), ISAs required by the country law (*BLAW*), ISAs only apply in matters not regulated by the local standards (*GMAT*), and financial statements issued under the IFRS must be audited by ISAs (*IFRSS*). Refers to three control variables, including geographical regions (*GERE*), official languages (*OFLN*), and colonial history (*COHS*), in addition to year dummies to control for the global Financial Crisis period (*D08-09*). Refers to the error term for the country (*i*) in a year (*t*).

**Empirical Results**

*Descriptive Statistics*

Table 3 presents the descriptive statistics of the dependent variables (i.e., FMIs). It reports that only six countries are included in the experimenter's group, 19 in the early adopter's group, 38 in the initial majoritygroup, and 42 countries in the late majority group, while only five nations are classified as laggards.

Table 3 also shows that the data relating to the financial integration (*IFNI*) variable that is relevant to the *LGGRA* and *ERMJA* groups exhibit the highest and second highest variable values among the four adopter categories of ISAs. The data relevant to the *LGGRA* group ranges from -535.68 to 2,288.37, with a higher average of 230.28, and a standard deviation of 607.95, whereas the data relevant to the *ERMJA* group ranges from -149.39 to 4,641.46, with an average of 75.72, and a standard deviation of 381.17, revealing that there is a considerable variation in the data of *IFNI* relevant to countries included in the *LGGRA* and *ERMJA* groups. This result is in line with those of prior studies (e.g., Jayaraman & Verdi, 2014; Cai & Wong, 2010; De George, 2013).

Table 3 also indicates that market capitalisation to GDP (*MCPL)* variable data that relates to the *ERMJA* group exhibits the highest variable scores among the four adopter categories of ISAs. The data of *MCPL* that is relevant to the *ERMJA* group ranges from 0.02 to 1,254.47, with a higher average of 64.53, and a significant standard deviation of 126.65, indicating a considerable variation in the *ERMJA* group, which is consistent with the results of previous studies (e.g., Lasmin, 2011; Judge et al., 2010; Felski, 2015; Klibi & Kossentini, 2014).

The data of market capitalisation of listed firms (*SMCP)* that is relevant to the *LGGRA* group presents the highest dispersion scores of *SMCP* among the four adopter categories of ISAs. The pertinent data to the *LGGRA* group ranges from 2.38 to 26,330.59, with an average of 3,379.3 and a standard deviation of 6,454.04, suggesting that there is a substantial variation in the data of *SMCP* relating to the *LGGRA* group, which is in line with the findings reported by previous studies (Beneish et al., 2012; Klibi & Kossentini, 2014; Stainbank, 2014; Ben-Othman & Kossentini, 2015).

**Insert table 3 here**

Similarly, total stock traded (*SMTD)* data that is relevant to the *LGGRA* and *ERMJA* groups exhibits the highest and second-highest dispersed data among the four adopter groups of the ISAs. This is consistent with the findings of existing studies (Okoye et al., 2014; Brüggemann et al., 2012; Elbakry, 2010; Alsaqqa, 2012). Likewise, stock market turnover *(SMTO)* data that is related to the *ERADA* group exhibits the most significant variable values among the four adopter categories of ISAs with a mean of 42.59, a standard deviation of 113.33, indicating a wide variation in *SMTO* variable that is relevant to the countries included in the *ERADA* group. This result is in line with the findings of previous studies (e.g., Leuz & Verrecchia, 2000; Loureiro & Taboada, 2012; Bova & Pereira, 2012).

By presenting the most substantial variability among the four adopter categories of ISAs, stock market return (*SMRT*) data that is relevant to the *LTMJA* group is consistent with the findings of previous studies (e.g., Alnodel, 2016; Key & Kim, 2017; Klimczak, 2011; Escaffre & Sefsaf, 2011; Loureiro & Taboada, 2012).

Additionally, stock price volatility (*SPVO*) data that relates to the *ERADA* group exhibits the highest variable values among the four adopter categories of ISAs with 13.15 mean value and 18.23 standard deviation. This result is tied to prior studies (e.g., Leuz & Verrecchia, 2000; Cuijpers & Buijink, 2005; Auer, 1998; Daske, 2006; Floros, 2007).

While, the financial market development (*FMKD*) variable data that is relevant to the *ERMJA* and *LTMJA* groups exhibits the highest and second highest variable values among the other four adopter categories of ISAs with an average of 4.39, and a standard deviation of 0.77, the *FMKD* data that is relevant to the *LTMJA* group ranges from 2.86 to 5.87, with an average of 4.35, and a standard deviation of 0.67. Our findings in this regard are in line with the findings of prior studies (e.g., Boolaky & O’Leary, 2011; Ndagijimana & Barayandema, 2017).

Table 4 provides descriptive statistics for all categorical independent and control variables. Specifically, Panel (A) of Table 4 shows that the experimenter's group (*EXPRA*) includes only six countries that adopted ISAs by 1995. The early adopter's group (*ERADA*) involves 19 nations that adopted ISAs over the period from 1996-2000. The early majority adopters (*ERMJA*) comprises 38 nations that adopted ISAs over the period 2001-2006. The late majority adopters’ group (*LTMJA*) consists of 42 countries that adopted ISAs late – between 2007 and 2014. The laggards’ group (*LGGRA*) includes only five countries that had not yet adopted ISAs by 2014.

Panel (B) of Table 4 displays the frequency of ISAs adoption status (*ISAST*) across countries up to 2014. Panel B of Table 4 presents a different independent variable namely the ISAs adoption status (ISAST), which is different from the ISAs categories suggested by DOI theory appear in Panel A of Table 4, which involves five main adopter categories. For example, if a country adopted ISAs in 2014, then, such a country will be considered to be a non-adopter over the 19 years up to 2013, and it will be classified as adopter only in the final year 2014. Therefore, Panel (B) of Table 4 displays that the non-adopters’ group of the ISAs (NOAD) includes 1093 observations from 102 countries over the whole period from 1995 up to 2014. This is done by gathering the number of non-adopters for each country on the entire period until they have adopted ISAs in a specific year.. Specifically, there are 28 countries that adopted ISAs with some amendments (*WIAM*), while only ten countries adopted ISAs without any amendments (*WOAM*). Whereas 34 countries embraced ISAs with translation to local languages (*WITR*), only one country (Armenia) adopted ISAs without any translation to its local language (*WOTR)*. On the other hand, 16 countries adopted ISAs with amendments and translation alike (*WAMT*), and 14 countries embraced ISAs to comply with their local laws (*BLAW*). Additionally, only two countries (Austria and Japan) adopted ISAs in order to fill in areas where local audit standards do not exist (*GMAT*), while, only one country (Argentina) adopted ISAs just for financial statements that were prepared in accordance with IFRS (*IFRS*).

Regarding the control variables, Panel (C) of Table 4 shows six geographical regions (*GERE)* for 110 destinations around the world as follows: (i) 36 countries in the European (*EURO*) region; (ii) 21 countries from the Latin, North, and South America (*LNAM*) region; (iii) 11 countries from America, the Central and South Asia (*CSAS*) region; (iv) 15 countries from Asia, the East Asia and Pacific (*EASP*) region; (v) 13 countries from the Middle East and North African (*MENA*) region; and (vi) 14 countries from the sub-Saharan African (*AFRC*) region.

**Insert table 4 here**

Panel (D) of Table 4 represents the official languages (*OFLN*), which include seven common spoken languages. Panel (D) of Table 4 also shows that the English language (*ENGL*) is a commonly spoken language in 31 countries, three nations use French (*FRNL*), the Spanish language (*SPNL*) is an official language in 14 countries, the Arabic language (*ARBL*) is commonly spoken in 11 states, the German language (*GRML*) is an official language in 7 countries, the Russian language (*RUSL*) is an official language in 3 nations, and other languages are spread among 41 countries.

Panel (E) of Table 4 describes the frequency of colonial history (*COHS*) for 110 destinations that consist of 9 common groups. Panel (E) of Table 4 reports that the sample covered 17 never colonised countries (*NEVC*), where all of them adopted ISAs, but at varying periods. The sample also includes 37 countries that were colonised by the British Empire (*BRTC*), five by the French Empire (*FRNC*), 13 by the Spanish Empire (*SPNC),* two countries colonised by the Portuguese Empire (*PORC*), three by the Dutch Empire (*DUTC*), two countries by the German Empire (*GRMC*), ten colonised by the Russian Empire (*RUSC*), and finally, 21 countries were colonised by others (*OTCO*).

Table 5 shows the correlation coefficients of Pearson and Spearman matrices. Our results suggest that the presence of multicollinearity issues is not a severe statistical problem in our study. Crucially, Table 5 shows that the *ERADA* group is negatively and significantly correlated with all the financial market indicators. It also indicates that there are positive and significant correlations between the *ERMJA* group and *IFNI, MCPL* and *FMKD*, suggesting that countries that have adopted ISAs at the initial stages are more likely to obtain higher levels of *IFNI, MCPL* and *FMKD*. Likewise, Table 5 shows positive and significant correlations between *LTMJA* and *SMTD, SMTO, SMRT* and *SPVO*, indicating that countries that have adopted ISAs during the late stages are more likely to have higher levels of *SMTD, SMTO, SMRT,* and *SPVO*. Additionally, Table 5 reports positive and significant correlations between the *LGGRA* group and all financial indicators, except for *MCPL* and *SMRT* that show insignificant correlations with ISAs.

**Insert table 5 here**

### Regression Analyses and Discussion

This study employs a multivariate linear regression method to test the hypothesised relationships between the adoption of ISAs and a range of FMIs. Table 6 shows the results of using several statistical tests to check the potential violations of the assumptions of multiple linear regression that is used to examine the effects of ISAs adoption on FMIs, including heteroscedasticity, linearity, normality, serial-correlation and unit-roots. Accurately, Shapiro-Wilk and Jarque-Bera tests report that the normality assumption has been violated. Hence, according Palea (2013), a two-step transformation is the most appropriate method to mitigate the normality violation. Similarly, Durbin's alternative and Breusch–Godfrey tests show that the serial correlation assumption has been violated. In this case, running a linear regression with robust standard errors is the most appropriate method for correcting serial correlations. White and Breusch-Pagan tests indicate that the homoscedasticity assumption has been violated. Therefore, the standard cluster-robust mistake is the optimal technique to handle the violation of homoscedasticity of error terms and generate efficient estimates of residuals, thus providing robust results. Additionally, LLC test and Breitung test indicate that the panel data has a unit root. Consequently, the first-differences approach is the best method to correct for non-stationary variables.

After addressing all the statistical issues relating to testing the assumptions of linear regression, Table 7 shows the results of conducting multiple linear regression models with cluster-robust standard errors to examine the ISAs–FMIs nexus.

Column 1 of Table 7 reports that countries that adopted ISAs during the initial stages are more likely to have lower levels of financial market integration (*IFNI*). This means that *H1* has been statistically rejected. This result is, however, aligned with those of Palea (2013) that state that the absence of the needed mechanisms for uniform application of ISA internationally in addition to other differences among countries, such as national legal enforcement regimes, investor protection, auditing practices, tax regulation and corporate governance practices, can lead to a reduction in the level of financial market integration.

**Insert table 6 here**

Columns 2 and 3 of Table 7 indicate that countries with lower levels of stock market capitalisation are more likely to become the early adopters of ISAs. This means that *H2* has not been statistically supported. This finding contradicts the results of previous studies (e.g., Boolaky & Omoteso, 2016; Boolaky & Soobaroyen, 2017) that found a positive and significant association between ISAs adoption and stock market capitalisation level. In line with prior studies (e.g., Sayumwe & Francoeur, 2017; Samaha & Khlif, 2016; Ali et al., 2016; Ball, 2016; Kimeli, 2017), financial markets are mostly compelled to adopt global accounting and auditing standards as a response to various stakeholders’ pressures, who seek to maximise their interests; this seemed to be leading to unintended consequences, such as a decreasing level of market capitalisation, due to the conflict of interests between stakeholders.

As shown in column 4 of Table 7, the results suggest a negative and significant association between ISAs adoption and the total value of stock traded (*SMTD*). This implies that H3 has not been statistically supported. However, it is tied to the results of Figlioli et al. (2017) that claim that the volume of stocks traded has significantly decreased after the adoption of IFRS due to reduction in stock prices. Theoretically, though, if accounting standards were not geared to meeting investors' demands in a context that may be characterised by low legal and institutional enforcement, the adoption of ISAs may not reflect positive economic consequences, such as lower levels of stock traded (Figlioli et al., 2017).

As reported in column 5 of Table 7, the stock market turnover (*SMTO*) has significantly decreased after the early adoption of ISAs. This finding does not empirically support *H4.* It is, however, in line with the findings of previous IFRS studies (e.g., Khurana & Michas, 2011; Burnett et al., 2015) that reported a negative and significant association between the adoption of international accounting standards and stock market turnover. Arguably, Daske et al. (2013) state that voluntary adopters may only adopt the label of international accounting and auditing standards without fully adhering to the requirements of these global standards, which might result in decreasing stock market turnover.

Contrary to the expectation, column 6 of Table 7 reports a negative and significant association between ISAs adoption and stock market return (*SMRT*). This result indicates that *H5* is rejected. Even though the negative coefficient on *SMRT* tends to support the existing IFRS literature (e.g., Patro & Gupta, 2016; Key & Kim, 2017; Klimczak, 2011) that suggested a negative and significant association between the adoption of international accounting innovations and stock market returns, yet, it contradicts the findings of other IFRS studies that found a significant and positive association between IFRS adoption and stock market returns (e.g., Escaffre & Sefsaf, 2011; Loureiro & Taboada, 2012; Yip & Young, 2012; Adereti & Sanni, 2016; Erin et al., 2017; Bartov et al., 2005). In this regard, Barth et al. (2008) explained two potential reasons of such a negative association between ISAs adoption and stock market returns to include: (i) ISAs may be of lower quality as compared with domestic auditing standards; and (ii) other features of financial reporting system can mitigate potential development in the quality of auditing information due to the existence of higher quality auditing standards (Key & Kim, 2017).

**Insert table 7 about here**

Column 7 of Table 7 shows a negative and significant association between ISAs adoption and stock price volatility (*SPVO*). This means that *H6* has been statistically accepted. This result is consistent with previous studies (e.g., Chau et al., 2013; Patro & Gupta, 2016; Chalmers et al., 2011; Nulla, 2014) that suggested that the level of stock market volatility has been significantly decreased post the adoption of international accounting and auditing standards. This appears to imply that both the international accounting and auditing standards have the same negative and significant impact on reducing stock price volatility and make stock markets more stable, which can attract more foreign investors. Crucially, the scrutiny of foreign investors can persuade companies to provide more accurate financial disclosures, where the adoption of accounting and auditing standards can provide firms with opportunities to produce more informative financial statements, which offer better information to foreign investors and reduce stock price volatility (Patro & Gupta, 2016).

As shown in column 8 of Table 7, the levels of financial market development (*FMKD*) have been significantly reduced following the early and the mandatory adoption of ISAs. This implies that *H7* is rejected. This result, though, offers support for the results of Larson and Kenny (1995) that reported a negative and significant association between the adoption of international accounting innovations and financial market development. Theoretically, our empirical evidence raises questions about how ISAs were enforced and implemented. Arguably, countries that had adopted IASs early might have been the ones categorised with the most recently established stock markets (Larson and Kenny, 1995). This implies a crucial need to determine the best type of accounting and auditing systems that can best help developing economies in facilitating their financial market development.

The main reason for this inconsistency with previous research is because prior studies have focused on examining the influence of strength of auditing and reporting standards on stock market development and they found a positive and significant link (Boolaky, 2011; Boolaky & Cooper, 2015; Boolaky & O’Leary, 2011; Boolaky & O’Leary, 2012; Boolaky et al., 2013). However, our study examines the relationship between ISAs adoption categories suggested by DOI theory and stock market development, which can definitely trigger different findings.

In column 9 of Table 7, we compute one proxy that summarizes all of the FMIs through the mean value. Consistent with our individual variable analysis, it shows that the adoption of ISAs has a significantly negative impact on FMIs internationally.

In totality, Table 8 shows that the financial consequences are negatively associated with early adoption of ISAs internationally. Form a DOI theory perspective, the consequences of the adoption of international accounting innovation can be direct or indirect, desirable or undesirable, anticipated or unanticipated (Rogers, 1995). In this regard, Tan (2004) defined the direct consequences as changes to an organisation that happen immediately as a response to innovation adoption, although indirect consequences might take a longer time to develop. In line with our results, Schmukler (2004), for example, argues that the globalisation of financial markets appeared to lead to large benefits to developing countries with weak financial markets integration, but only in the longer term.

**Insert table 8 about here**

Similarly, Rogers (1995; 2003) argues that the consequences of the adaptation of innovation can be either desirable or undesirable. This means that whether a consequence, such as market capitalisation level, is desirable or undesirable can be determined by whether the effects of innovation adoption (i.e., ISAs adoption) are functional or dysfunctional from a particular country point of view (Tan, 1995). In addition, DOI theory states that a financial consequence of innovations’ adoption can be anticipated or unanticipated, which is highly dependent on whether countries recognise these changes as the intended consequences of the adoption of innovations (Rogers, 1998). Unanticipated financial consequences are likely to be unknown to non-adopters until after the effects are widespread (Rogers, 1995; Tan, 1995). This implies that countries associated with a higher value of stock traded, stock market returns, and financial market development might not be able to anticipate the consequences of ISAs adoption until after its impact is well-recognised internationally, which can ultimately lead to a late ISAs adoption (Ali Rashed and Mouyiasis, 2013).

Although we exclusively use the classification of DOI theory in examining the impact of ISAs adoption on FMIs, yet, we also use a previous rankings of adopters that are reported by Boolaky et al. (2017)[[1]](#footnote-1), as an alternative measure. Table 7 reports that ISAs adoption with amendments (*WIAM*) is positively and significantly associated with *IFNI* and *SMCP*, and negatively with *SMTO.* ISAs adoption without amendments (*WOAM*) is positively and significantly associated with *MCPL, SMCP, SMTD* and *SMTO.* ISAs adoption with translation (*WITR*) is positively and significantly associated with *IFNI, MCPL* and *SMCP*, and negatively with *SMTO.* ISAs adoption without translation (*WOTR*) is negatively and significantly associated with *SMTD, SMTO* and *SPVO.* ISAs adoption with amendment and translation (*WAMT*) is positively and significantly associated with *MCPL, SMCP, SMTD* and *SMTO,* and negatively with *SMRT* and *SPVO*. ISAs adopted by a country’s law (*BLAW*) is positively correlated with *SMTO*, while ISAs adopted in “gap matters” (*GMAT*) is positively and significantly attributed to *IFNI* and *SMCP*, and negatively with *SMRT*. ISAs adopted for financial reports prepared in accordance with IFRS (*IFRSS*) is positively and significantly associated with *IFNI, SMCP, SMRT* and *SPVO*, and negatively with *FMKD.*

Unlike Boolaky et al. (2017), which reported a positive relationship between ISAs adoption and FMIs, our results are suggestive of heterogeneous effects of ISA adoption on the financial consequences of stock markets in that they might have either encouraged or discouraged the FMIs. Even though Boolaky et al. (2017) examined the ISA–FMI nexus across 89 countries for four years, we investigate it across 110 countries covering 20 years. This gives more credibility and generalisability to our findings, where we argue that unanticipated FMIs could be unknown to non-adopters until after the effects of adopting this innovation are widespread (Rogers, 1995). This implies that countries associated with higher FMIs appeared not to be able to anticipate the financial consequences of ISA adoption until after its impact is well-recognised internationally, which ultimately might lead to the late adoption ISAs by such countries (Ali Rashed and Mouyiasis, 2013).

Concerning the geographical regions, consistent with prior studies (e.g., Ramanna & Sletten 2014; De George et al., 2016), we find that countries that adopted ISAs and are located in the *EURO* regionseem to have higher levels of *MCPL, SMCP, SMTD, SMTO* and *FMKD*, while countries that adopted ISAs and are located in the *LNAM* region tend to have higher levels of *MCPL*. Similarly, adopters in the *CSAS* region appeared to have higher levels of *SMCP, SMTD* and *SMTO*, whereas those located in the *EASP* region tend to have higher levels of *MCPL, SMCP, SMTD, SMTO, SPVO* and *FMKD*. Likewise, countries in the *MENA* region lean towards having higher levels of *MCPL*, and lower levels of *SMRT*.

With respect to language, adopters with *ENGL* as an official language are more likely to have higher levels of *MCPL,* and a lower level of *SPVO*. Furthermore, *FRNL* spoken countries are more likely to have higher levels of *MCPL, SMCP* and *SMTD*. Although adopters with *SPNL* are likely to have higher levels of *MCPL, SMTD* and *SMTO*, and lower levels of *IFNI*, others with *ARBL* tend to have higher levels of *MCPL, SMTD* and *SPVO*. Additionally, adopters with *GRML* are likely to have higher levels of *IFNI, MCPL* and *FMKD*, and lower levels of *SPVO*, while other adopters with *RUSL* appeared to have higher levels of *FMKD*. This result indicates that language barriers can also make the adoption of ISAs even harder (De George et al., 2016; Hossain et al., 2015).

Regarding the colonial history, our results are in line with the findings of previous studies (e.g., Ramanna & Sletten, 2009; Degos et al., 2019; Likitwongkajon & Sutthachai, 2019). For example, our findings suggest that countries that adopted ISAs and have never been colonised *NEVC* tend to have higher levels of *IFNI, MCPL, SMCP, SMTD, SMTO* and *FMKD*. Likewise, adopters linked to the *SPNC* colonisation tend to have higher levels of *IFNI*, and lower levels of *MCPL* and *SMTO*, although others colonised by the *DUTC* Empire have a tendency to have higher levels of *IFNI* and *FMKD*, and lower levels of *SMTD* and *SMTO*.

#### **Robustness Analyses**

The country-year level effects might not be detected by solely using multiple linear regression. Drawing on prior literature, therefore, a fixed-effects model and a two-stage least squares (2SLS) model have been employed as robustness tests (Boolaky & Omoteso, 2016; Boolaky & Soobaroyen, 2017). Crucially, by using country-year level characteristics to control for the omitted variables bias, we employ a fixed-effects model. Table 9 presents the results of fixed-effects models. Our results suggest that the magnitudes and directions of most financial indicators used in our study remained relatively similar to the results of the multiple linear models in Table 7. This implies that our results appear to be largely rigorous and reliable. Table10 shows the results of estimating a *2SLS* model. The results are supportive of the earlier inferences that we obtained from estimating both OLS and fixed-effects models, with a small degree of sensitivity. This implies that our findings do not appear to suffer from any severe endogeneity problems.

**Insert table 9 & table 10 here**

#### **Conclusion**

Although prior studies focused on examining the IFRS–FMIs nexus, we have distinctively addressed an existing gap in the literature by examining the financial consequences of adopting ISAs internationally. We argue that countries with lower levels of FMIs are more likely to adopt ISAs as a strategy to attract higher FDIs. In contrast, stock markets in developed countries tend to delay their decision to adopt ISAs due to better financial strength and lesser motivation to attract inward FDIs compared to their developing counterparts. Additionally, this study shows that the extent of international financial integration among countries has significantly increased after the introduction and adoption of ISAs, but only for those countries where ISAs applies in matters not regulated by the local audit standards. Finally, and most importantly, we found that international financial integration and stock market capitalization in addition to stock market returns and stock market volatility have significantly improved after ISAs adoption, but only for listed firms that issued their financial statements under IFRS and audited by ISAs. Furthermore, we argue that DOI theory complements our understanding of how countries adopt new accounting innovations, such as ISAs.

Our findings of our study have important implications for academics, governments, policy-makers, practitioners, regulators and standards-setters. For example, it provides impetus for academics to enhance current understanding by conducting further empirical research on the relationship between ISAs adoption and the FMIs. Our empirical evidence also raises questions about how ISAs were enforced and implemented. For example, countries that had adopted IASs at early stages may have been characterised with the most recently established stock exchanges and enforced by dominant stakeholder pressures. This implies a crucial need to determine the best type of accounting and auditing systems that can best help emerging economies in facilitating the development of their financial markets through positive financial consequences of ISAs adoption.

Although the results of the present study are robust, several limitations should be acknowledged. This study has been limited to 110 countries due to restricted availability of data. Additionally, our results might be constrained by the coding scheme suggested by the DOI theory, which is based on the adoption-time. Therefore, future research may improve on our findings by employing our framework using a larger number of countries and different coding schemes to the one that we have used in this study to further test the robustness of their findings. Moreover, our results indicate that the adoption of ISAs has a negative effect on FMIs. These puzzling results may be attributed to the composition of the study’s sample, which includes both countries with high and low enforcement regions. Hence, future studies may improve upon our findings by including countries with similar strength of auditing and reporting standards.

**References**

Adereti, S. & Sanni, M. (2016), “The adoption of international financial reporting standards and the earnings quality of first bank of Nigeria Plc”, *International Journal of Economics, Commerce & Management*, Vol. 4 No. 10, pp. 757-768.

Akman, N.H., (2011), “The effect of IFRS edoption on financial disclosure: Does culture still play a role? ”, *American International Journal of Contemporary Research*, Vol.1 No.1, pp. 6-17.

Al-awaqleh, Q. (2010),“The factors that influence the adoption of the international standards on auditing in Jordan”, *International Management Review*, Vol. 6 No. 2, pp. 28-34.

Ali, A., Akbar, S., & Ormrod, P. (2016), “Impact of international financial reporting standards on the profit and equity of AIM-listed companies in the UK”, *Accounting Forum*, Vol. 40 No. 1, pp. 45-62.

Alnodel, A. A. (2016), “The effect of the adoption of international financial reporting standards on capital market integration in the gulf cooperation council countries”, *Risk Governance & Control: Financial Markets & Institutions, Vol. 6 No.* 4, pp. 464-474.

Alon, A. (2010), “Three studies related to the institutionalization of international financial reporting standards”, PhD Thesis. The University of Central Florida. Kenneth G. Dixon School of Accounting. College of Business Administration. Orlando, Florida.

Alsaqqa, I. (2012), “The impact of adopting IFRS on profitability and stock performance in listed firms at Abu Dhabi and Dubai stock exchanges”, Doctoral dissertation, Liverpool John Moores University, UK.

Askarany, D. (2016), “Attributes of innovation and management accounting changes”, *Contemporary Management Research,* Vol. 12 No*.*4, pp. 455-466.

Auer, K.V. (1998), “The influence of the change from the accounting standard to the risk parameters of swiss shares”, *Journal of Business Research*, Vol. 50 No. 2, pp.129-55.

Ball, R. (2001), “Infrastructure requirements for an economically efficient system of public financial reporting and disclosure”, *Brookings-Wharton Papers on Financial Services*, pp. 127-169.

Ball, R., Robin, A., & Wu, J. S. (2003), “Incentives versus standards: properties of accounting income in four East Asian countries”, *Journal of Accounting and Economics, Vol. 36* No.1, pp.235-270.

Ball, R. (2016), “IFRS-10 years later”, *Accounting and Business Research,* Vol. 46 No. 5, pp. 545-571.

Barth, M. E., Landsman, W. R., & Lang, M. H. (2008), “International accounting standards and accounting quality”, *Journal of Accounting Research,* Vol. 46 No. 3, pp. 467-498.

Barth, M. E., Landsman, W. R., Lang, M. H., & Williams, C. D. (2018), “Effects on comparability and capital market benefits of voluntary IFRS adoption”, *Journal of Financial Reporting*, Vol. 3 No. 1, pp. 1-22.

Bartov, E., Goldberg, S. & Kim, M. (2005), “Comparative value relevance among German, U.S., and international accounting standards: A German Stock Market Perspective”, *Journal of Accounting, Auditing and Finance,* Vol. 20 No. 2, pp95-119.

Beneish, M. D., Miller, B. P., & Yohn, T. L. (2012), “The impact of financial reporting on equity versus debt markets: macroeconomic evidence from mandatory IFRS adoption”, working paper, ([1403451](https://ssrn.com/abstract=1403451)), Indiana University, Kelley School of Business, May 2014.

Ben Othman, H., & Kossentini, A. (2015),“IFRS adoption strategies and theories of economic development: effects on the development of emerging stock markets”, *Journal of Accounting in Emerging Economies,* Vol. 5*,* No. 1, pp. 70-121.

Beuselinck, C., Joos, P., Khurana, I. K., & Van Der Meulen, S. (2009), “Mandatory IFRS reporting and stock price informativeness”, working paper, (1381242), Catholic University of Lille, IESEG School of Management, April, 2009.

Boolaky, P. K., & Cooper, B. J. (2015), “Comparing the strength of auditing and reporting standards and investigating their predictors in Europe and Asia”, *Australian Accounting Review,* Vol. 25 No. 3, pp.292-308.

Boolaky, P. K. (2011), “Auditing and reporting in europe: an analysis using country-level data”, *Managerial Auditing Journal, Vol. 27* No. 1, pp. 41-65.

Boolaky, P., & O’leary, C. (2011),“Determining the strength of auditing standards and reporting”, *Corporate Ownership and Control,* Vol. 8 No. 4, pp. 69-80.

Boolaky, P., & O’leary, C. (2012), “Positive influences of governance, legal, educational and market factors on audit environments”, *Corporate Board: Role, Duties and Composition,*Vol. 8 No. 1, pp. 69-80.

Boolaky, P., and Omoteso, K. (2016), “International standards on auditing in the international financial services centres: what matters?”, *Managerial Auditing Journal,* Vol. 31 No. 6/7, pp. 727-747.

Boolaky, P. K. & Soobaroyen, T. (2017),“Adoption of international standards on auditing (isa): do institutional factors matter? *International Journal of Auditing, 21*(1), 59-81.

Boolaky, P., Krishnamurti, C., & Hoque, A. (2013),“Determinants of the strength of auditing and reporting standards: a cross-country study”, *Australasian Accounting, Business & Finance Journal,* Vol. 7 No*.* 4, pp.17-36.

Botha, N., & Atkins, K. (2005), “An assessment of five different theoretical frameworks to study the uptake of innovations”, paper presented at New Zealand agricultural and resource economics society conference, August 26-27, 2005, Nelson, New Zealand, available at <https://ageconsearch.umn.edu/record/98497>

Bova, F., & Pereira, R. (2012), “The determinants and consequences of heterogeneous IFRS compliance levels following mandatory IFRS adoption: evidence from a developing country”, *Journal of International Accounting Research,* Vol. 11 No. 1, pp. 83-111.

Brochet, F., Jagolinzer, A. D. & Riedl, E. J. (2013), “Mandatory IFRS adoption and financial statement comparability”, *Contemporary Accounting Research,* Vol 30 No. 4, pp. 1373-1400.

Brüggemann, U., Daske, H., Homburg, C., & Pope, P. (2012), “How do individual investors react to global IFRS adoption? financial accounting and reporting section (FARS)”, working paper, ([1458944](https://ssrn.com/abstract=1458944)), Humboldt University of Berlin, School of Business and Economics, Aug 2012.

Brüggemann, U., Hitz, J. M., & Sellhorn, T. (2013), “Intended and unintended consequences of mandatory IFRS adoption: A review of extant evidence and suggestions for future research”, *European Accounting Review*, Vol. 22 No. 1, pp. 1-37.

Burnett, B. M., Gordon, E. A., Jorgensen, B. N., & Linthicum, C. L. (2015), “Earnings quality: Evidence from Canadian firms' choice between IFRS and US GAAP”, *Accounting Perspectives*, Vol. 14 No. 3, pp. 212-249.

Burns, J., & Fogarty, J. (2010), “Approaches to auditing standards and their possible impact on auditor behaviour”, *International Journal of Disclosure and Governance*, Vol. 7 No. 4, pp. 310-319.

Cai, F., & Wong, H. (2010), “The effect of IFRS adoption on global market integration”, *the International Business & Economics Research Journal,*Vol. 9 No. 10, pp. 25-34.

Chalmers, K., Clinch, G., & Godfrey, J. M. (2011),“Changes in value relevance of accounting information upon IFRS adoption: Evidence from Australia”, *Australian Journal of Management, Vol. 36* No. 2, pp.151-173.

Chau, F., Dosmukhambetova, G. & Kallinterakis, V. (2013),“International financial reporting standards and noise trading: evidence from Central and Eastern European countries”, *Journal of Applied Accounting Research, Vol. 14* No. 1, pp. 37-53.

Chebaane, S., & Ben Othman, H. (2014), “The impact of IFRS adoption on value relevance of earnings and book value of equity: the case of emerging markets in African and Asian regions”, *Procedia - Social and Behavioral Sciences, Vol. 145* No. 25, pp.70-80.

Clements, C. E., Neill, J. D., & Scott Stovall, O. (2010), “Cultural diversity, country size, and the IFRS adoption decision”, *Journal of Applied Business Research,* Vol. *26* No. 2, pp. 115-126.

Cuijpers, R., & Buijink, W. (2005),“Voluntary adoption of non-local gaap in the European Union: a study of determinants and consequences”, *European Accounting Review*, Vol. 14 No. 3, pp. 487-524.

Daske, H., Hail, L., Leuz, C. And Verdi, R. (2008),“Mandatory IFRS reporting around the world: early evidence on the economic consequences”, *Journal of Accounting Research, Vol. 46 No.* 5, pp. 1085–1142.

Daske, H., Hail, L., Leuz, C., & Verdi, R. (2013),“Adopting a label: heterogeneity in the economic consequences around IAS/IFRS adoptions”, *Journal of Accounting Research*, Vol. 51 No. 3, pp. 495-547.

Daske, H. (2006),“Economic benefits of adopting IFRS or US‐GAAP–have the expected cost of equity capital really decreased?”, *Journal of Business Finance & Accounting, Vol. 33* No. 3‐4, pp.329-373.

De George, E. (2013),“Consequences of accounting harmonization: IFRS Adoption and cross-border contagion”, working paper, University of Michigan: United States.

De George, E. T., Li, X., & Shivakumar, L. (2016), “A review of the IFRS adoption literature”, *Review of Accounting Studies*, Vol. 21 No. 3, pp. 898-1004.

Degos, J. G., Levant, Y., & Touron, P. (2019), “The history of accounting standards in French-speaking African countries since independence: The uneasy path toward IFRS”, *Accounting, Auditing & Accountability Journal*, Vol. 32 No. 1, pp. 75-100.

Drake, M. S., Myers, L. A., & Yao, L. (2010),“Are liquidity improvements around the mandatory adoption of IFRS attributable to comparability effects or quality effects? ”, working paper, (1466353), Brigham Young University - Marriott School, Dec 2012.

Elbakry, A. E. M. (2010),“The impact of IFRS Adoption on Stock performance and financial indicators: a comparative study between Germany and the UK”, Doctoral Thesis, University of Plymouth, UK.

El-Helaly, M., Ntim, C.G., & Al-Gazzar, M. (2020), “Diffusion theory, national corruption and IFRS adoption around the world’’, *Journal of International Accounting, Auditing and Taxation*, Forthcoming.

Elmghaamez, I.K. (2019), "Antecedents and consequences of the worldwide diffusion of accounting innovations: the case of international accounting and auditing standards." PhD Thesis, University of Huddersfield, UK.

Elmghaamez, I.K., & Ntim, C.G. (2016),“Assessing the effectiveness of internal governance controls: the case of internal auditors’ skills and challenges in Libya”, *Corporate Ownership & Control*, Vol. 13 No. 3, pp. 46-59.

Epstein, M. J. (2012),“Studies in managerial and financial accounting: organizational learning approach to process innovations: the extent and scope of diffusion and adoption in management accounting systems”, Emerald Group Publishing Limited.

Erin, O., Olojede, P., & Ogundele, O. (2017), “value relevance of accounting data in the pre-and-post IFRS era: evidence from Nigeria”, *International Journal of Finance and Accounting,* Vol. 6 No.4, pp. 95-103.

Escaffre, L., & Sefsaf, R. (2011), “The value relevance of accounting numbers: the case of financial institutions”, *Bankers, Markets & Investors:* *An Academic and Professional Review, Groupe Banque,* pp. 4-18.

Felski, E. (2015), “Do common features exist among countries that locally adopt IFRS?”, *International Journal of Accounting and Financial Reporting,* Vol. 5 No. 2, pp. 144-177.

Figlioli, B., Lemes, S., & Lima, F. G. (2017),“IFRS, synchronicity, and financial crisis: the dynamics of accounting information for the Brazilian capital market”, *Accounting & Finance Journal,* Vol. 28 No. 75, pp. 326-343.

Floros, C. (2007),“The effects of international accounting standards on stock market volatility: the case of greece”, *Investment Management and Financial Innovations,* Vol. 4 No*.* 1, pp. 61-72.

Francis, J. R., Khurana, I. K., & Pereira, R. (2003),“The role of accounting and auditing in corporate governance and the development of financial markets around the world”, *Asia-Pacific Journal of Accounting & Economics,* Vol. 10 No. 1, pp. 1-30.

Fraser, P.N. (2010),“A single set of worldwide auditing standards: the road is long”, *International Journal of Disclosure and Governance,* Vol. 7 No. 4, pp. 298-309.

Gassen, J. & Sellhorn, T. (2006),“Applying IFRS in Germany: determinants and consequences”, *Journal of Business Research and Practice,* Vol. 58 No. 4, pp. 365--386.

Green, S. B. (1991),“How many subjects does it take to do a regression analysis?”, *Multivariate behavioural Research*, Vol. 26 No. 3, pp. 499-510.

Harahap, D. Irawady, C. Bede, D. & Jayanti, D. (2018),“Audit fee: evidence from indonesia after adopting international standards on auditing (ISAs)”, *Review of Integrative Business & Economics Research,* Vol. 7 No. 1, pp. 170-182.

Hegarty, J., Gielen, F., & Barros, A. (2004), “Implementation of international accounting and auditing standards: lessons learned from the world bank s accounting and auditing ROSC Program”, working paper, World Bank, World Bank Group, Oct 2008.

Hope, O. K., Jin, J., & Kang, T., (2006), “Empirical evidence on the jurisdictions that adopt IFRS”, *Journal of International Accounting Research,* Vol. 5No. 2, pp. 1-20.

Humphrey, C., & Loft, A. (2008),“Setting standards, making history: the international federation of accountants (IFAC), 1977-2007”, working paper presented at Oresund auditing research network conference, Sweden, January 2008.

Humphrey, C., Loft, A., and Woods, M. (2009),“The global audit profession and the international financial architecture: understanding regulatory relationships at a time of financial crisis”, *Accounting, Organization and Society, Vol. 34* No. 6-7, pp. 810-825.

Hossain, M., Hasan, M., & Safiuddin, M. (2015), “Adoption of international financial reporting standards in Bangladesh: benefits and challenges”, *Journal of Business and Management*, Vol. 17 No. 8, pp. 16-24.

Jayaraman, S., & Verdi, R. S. (2014),“Are reporting incentives and accounting standards substitutes or complements in achieving accounting comparability? ”, working paper, ([2428263](https://ssrn.com/abstract=2428263)), University of Rochester, Simon Business School, April 2014.

Judge, W., Li, S., & Pinsker, R. (2010),“National adoption of international accounting standards: an institutional perspective”, *Corporate Governance: An International Review,* Vol. 18 No. 3, pp. 161-174.

Kang, W. (2013),“The impact of mandatory IFRS adoption on the earnings–returns relation”, *Applied Financial Economics, Vol. 23* No. 13, pp. 1137-1143.

Kelly, J. (1998),“Big five criticized over global audit standards: world bank action may speed up international code”, *Financial Times*, 19 October 1998, p. 1.

Key, K.G., & Kim, J.Y. (2017),“IFRS adoption in korea: the relation between earnings and stock prices and returns”, *The Journal of Business Inquiry, Vol. 17* No. 1, pp. 72-85.

Khurana, I. K., & Michas, P. N. (2011), “Mandatory IFRS adoption and the U.S. home bias”, *Accounting Horizons,* Vol. 25 No. 4, pp. 729-753.

Kimeli, E.K. (2017),“IFRS adoption and capital markets”, *Journal of Finance and Accounting*, Vol. 5 No. 1, pp. 19-30.

Klibi, M. F., & Kossentini, A. (2014),“Does the adoption of IFRS promote emerging stock markets development? evidence from MENA countries”, *International Journal of Accounting, Auditing and Performance Evaluation,* Vol. 10 No*.* 3, pp. 279-298.

Klimczak, K. M. (2011),“Market reaction to mandatory IFRS adoption: evidence from Poland”, *Journal of Accounting and Management Information Systems,* Vol. 10 No*.* 2, pp. 228-248.

Kohler, A.G., Merkt, H., & Bohm, W.P. (2010),“Evaluation of the possible adoption of international standards on auditing (ISAs) in the EU”, *The Journal of the Global Accounting Alliance*, pp. 1-15.

Kohler, A. G. (2009),“Evaluation of the possible adoption of international standards on auditing (ISAs) in the EU”, Final Report, University of Duisburg-Essen, Duisburg-Essen.

Lambertides, N., & Mazouz, K. (2013), “Stock price volatility and informational efficiency following the mandatory adoption of IFRS in Europe”, *Journal of Applied Accounting Research,* Vol. 14 No. 1, pp. 4-17.

Landsman, W. R., Maydew, E. L., & Thornock, J. R. (2012),“The Information content of annual earnings announcements and mandatory adoption of IFRS”, *Journal of Accounting and Economics,* Vol. 53 No. 1-2, pp. 34-54.

Lane, P. R., & Schmukler, S. L. (2007),“The international financial integration of China and India”, policy research working papers. World Bank, February 2007.

Larson, R. K., & Kenny, S. Y. (1995),“An empirical analysis of international accounting standards, equity markets, and economic growth in developing countries”, *Journal of International Financial Management & Accounting,* Vol. 6 No. 2, pp. 130-157.

Lasmin, D. (2011),“An institutional perspective on international financial reporting standards adoption in developing countries”, *Academy of Accounting & Financial Studies Journal,* Vol. 15 No. 2, pp. 61-71.

Leftesi, A. (2008),“The diffusion of management accounting practices in developing countries: evidence from Libya”, PhD Thesis. The University of Huddersfield. School of Business. Department of Accountancy and Finance.

Leuz, C. (2003),“IAS versus US GAAP: information-asymmetry based evidence from germany's new market”, *Journal of Accounting Research,* Vol. 41 No. 3, pp. 445-472.

Leuz, C., & Verrecchia, R. E. (2000), “The economic consequences of increased disclosure”, *Journal of Accounting Research,* Vol. 38, pp. 91-124.

Li, Yan, Dhaliwal, D.S., & Periera, R. (2013),“Does mandatory IFRS adoption facilitate financial market integration? Canadian academic accounting association (CAAA)”, Annual Conference, January 8, 2013. Anaheim, California. Available at <http://dx.doi.org/10.2139/ssrn.2197775>.

Likitwongkajon, N., & Sutthachai, S. (2019), “Colonialism influence on accounting practices in Asean countries regarding earnings management strategy classification”, *International Journal of Business & Society*, Vol. 20 No. 1, pp. 125-150.

Loureiro, G., & Taboada, A. G. (2012),“The impact of IFRS adoption on stock price informativeness”, working paper, ([1952593](https://ssrn.com/abstract=1952593)), Gilberto Loureiro, University of Minho, Portugal, October 2011.

Manyara, S. M., & Benuto, L. (2014),“Adoption of international financial reporting standards improves access to equity capital in australia”, *Academy of Accounting and Financial Studies Journal,* Vol. 18 No. 2, pp. 51-66.

Mennicken, A. (2008),“Connecting Worlds: The translation of international auditing standards into post-soviet audit practice”, *Accounting, Organizations and Society,* Vol. 33 No. 4-5, pp. 384-414.

Merkt, H. (2009),“International standards on auditing and their adoption in the EU: Legal Aspects and Unsettled Questions”, Tison, M., De Wulf, H., Van Der Elst, C., and Steennot, R., (Eds.), *Perspectives in Company Law and Financial Regulation*. Cambridge University Press, Cambridge, UK, pp. 244-263.

Mourik, C., & Walton, P. (2014), “The routledge companion to accounting, reporting and regulation. Humphrey, C., Samsonova, A., & Siddiqui, J. (Eds). *Auditing, Regulation and the Persistence of the Expectation Gap*. Routledge: Taylor & Francis Group, New York, US.

Naranjo, P. L., Saavedra, D., & Verdi, R. S. (2017), “Financial reporting regulation and financing decisions”, working paper, (2147838), Massachusetts Institute of Technology. Jesse H. Jones Graduate School of Business, Rice University, April 2017.

Ndagijimana I.B. & Barayandema, J. (2017), “International financial reporting standards and the capital market in rwanda”, In: Achtenhagen L., Brundin E. (Eds). *Management Challenges in Different Types of African Firms*. Frontiers in African Business Research. Springer, Singapore, pp. 129-147.

Needles, B. E., Ramamoorti, S., & Waller Shelton, S. (2002),“The role of international auditing in the improvement of international financial reporting”, *Advances in International Accounting*, Vol. 15, pp. 181-201.

Negi, P., Srivastava, R., & Bhasin, S. (2014), “The impact of IFRS adoption on stock market volatility”, *Journal of Applied Finance*, Vol. 20 No. 4, pp. 58-68.

Nulla, Y. M. (2014), “Does IFRS adoption influence quality of reporting? An empirical evidence from large Canadian banks”, *International Journal of Accounting and Taxation, Vol. 2* No. 2, pp. 85-109.

Obaidat, A. N. (2007), “Auditors compliance with international standards on auditing (ISAs): evidence form Jordan”, *Journal of Social Sciences,* Vol. 3 No. 4, pp. 185-189.

Okafor, O. N., Anderson, M., & Warsame, H. (2016), “IFRS and value relevance: evidence-based on Canadian adoption”, *International Journal of Managerial Finance,* Vol. 12 No. 2, pp. 136-160.

Okoye, P. V., Okoye, J. F., & Ezejiofor, R. A. (2014), “Impact of the IFRS adoption on stock market movement in nigerian corporate organization”, *International Journal of Academic Research in Business and Social Sciences,* Vol. 4 No. 9, pp. 202-218.

Paglietti, P. (2009),“Investigating the effects of the EU mandatory adoption of IFRS on accounting quality: evidence from Italy”, *International Journal of Business and Management,* Vol. 4 No. 12, pp. 3-18.

Palea, V. (2013),“IAS/IFRS and financial reporting quality: lessons from the European experience”, *China Journal of Accounting Research*, Vol. 6 No. 4, pp. 247-263.

Ramanna, K., & Sletten, E. (2014),“Network effects in countries' adoption of IFRS”, *The Accounting Review*, Vol. 89 No. 4, pp. 1517-1543.

Ramanna, K., & Sletten, E. (2009),“Why do countries adopt international financial reporting standards? ”, working paper, Harvard University - Business School (HBS); University of Oxford - Blavatnik School of Government, August 2009.

Patro, A., & Gupta, V. K. (2016), “Impact of international financial reporting standards on stock price synchronicity for Asian markets”, *Contemporary Management Research,* Vol. 12 No. 1, pp. 61-88.

Renders, A., & Gaeremynck, A. (2007),“The impact of legal and voluntary investor protection on the early adoption of international financial reporting standards (IFRS)”, *De Economist,* Vol. 155 No. 1, pp. 49-72.

Riahi, O., & Khoufi, W. (2015),“The role of the economic and behavioural circumstances in the ias/ifrs’s adoption: the case of developing countries”, *International Journal of Accounting and Economics Studies,* Vol. 3 No. 1, pp. 69-77.

Robertson, T. S. (1967),“The process of innovation and the diffusion of innovation”, *The Journal of Marketing*, Vol. 31 No. 1, pp. 14-19.

Rogers, E. M., & Kincaid, D. L. (1981), “Communication networks: toward a new paradigm for research”, The Free Press, New York, US.

Rogers, E.M. (1962),“Diffusion of innovations”, The Free Press of Glencoe, New York, US.

Rogers, E. M. (1976),“New product adoption and diffusion”, *Journal of Consumer Research*, Vol. 2 No. 4, pp. 290-301.

Rogers, E. M. (1995),“Diffusion of innovations”, The Free Press, New York, US.

Rogers, E. M. (2002),“Diffusion of preventive innovations”, *Addictive Behaviours, Vol. 27* No. 6, pp. 989-993.

Rogers, E. M. (2003),“Diffusion of innovations”, The Free Press, New York, US.

Roussey, R. S. (1996),“New focus for the international standards on auditing”, *Journal of International Accounting and Taxation,* Vol. 5 No. 1, pp. 133-146.

Rudhani, L. H., Ismajli, H., & Mustafa, A. (2017),“The importance of the audited financial statement in attracting foreign investors in private sector in kosovo”, *Baltic Journal of Real Estate Economics and Construction Management,* Vol. 5 No. 1, pp. 118-136.

Samaha, K., & Khlif, H. (2016),“Adoption of and compliance with IFRS in developing countries: a synthesis of theories and directions for future research”, *Journal of Accounting in Emerging Economies*, Vol. 6 No. 1, pp. 33-49.

Sanyaolu, O. A., Iyoha, F. O., & Ojeka, S. A. (2017),“International financial reporting standards adoption and earnings of quoted banks in Nigeria”, *International Journal of Economics and Financial Issues,* Vol. 7 No. 1, pp. 279-284.

Sayumwe, M., & Francoeur, C. (2017),“Who really benefits from mandatory adoption of IFRS? A closer look at preparers and users of financial information”, *Research in Applied Economics*, Vol. 9 No. 1, pp. 1-25.

Schmukler, S. L. (2004),“Benefits and risks of financial globalization: challenges for developing countries. the world bank policy research report “globalization, growth, and poverty,” Available at <http://worldbank.org/research/bios/schmukler>, Development Research Group, World Bank, June 2004.

Schneider, A., Hommel, G., & Blettner, M. (2010),“Linear regression analysis: part 14 of a series on evaluation of scientific publications,” *Deutsches Ärzteblatt International*, Vol. 107 No. 44, pp. 776-782.

Senyiit, Y. B., (2014),“Determinants of voluntary IFRS adoption in an emerging market: evidence from Turkey,” *Accounting and Management Information Systems*, Vol. 13 No. 3, pp. 449-465.

Shima, K, M., and Yang, D, C. (2012), “Factors affecting the adoption of IFRS,” *International Journal of Business, Vol. 17* No. 3, pp. 276- 298.

Stainbank, L. J. (2014),“Factors influencing the adoption of international financial reporting standards by African countries,” *South African Journal of Accounting Research,* Vol. 28 No. 1, pp. 79-95.

Tucker, B., & Parker, L. (2014),“In Our Ivory Towers? The research-practice gap in management accounting,” *Accounting & Business Research, Vol. 44 No.*2, pp. 104-143.

Wang, Y., Xiaoyu, L., Abdou, H., and Ntim, C. (2015), “Financial development and economic growth in China”**,** Investment management and Financial Innovations, Vol. 12 No. 3, pp.8-18.

Williams, M. N., Grajales, C. A. G., & Kurkiewicz, D. (2013),“Assumptions of multiple regression: correcting two misconceptions,” *Practical Assessment, Research & Evaluation,* Vol. 18 No*.* 11, pp. 2-14.

Wong, P. (2004),“Challenges and successes in implementing international: standards achieving convergence to IFRSS and IASS. New York, USA,” The International Federation of Accountants IFAC, working Paper, September 2004.

Yip, R. W. Y., & Young, D. (2012),“Does mandatory IFRS adoption improve information comparability?,” *The Accounting Review,* Vol. 87 No. 5, pp. 1767-1789.

Yong, A. S., & Mahzan, N. D. (2013),“Adoption of clarified international standard of auditing (ISA) and the international standard of quality control (ISQC) among small and medium practice (SMP) in Malaysia,” working paper presented at the 14th Four Annual Conference, Penang, Malaysia, October, 2013.

Yurekli, E. (2016),“How does corporate culture affect the implementation of IFRS?,” *International Journal of Contemporary Economics & Administrative Sciences,* Vol. *6* No. 3-4, pp. 86-104.

**Table 1:** The classifications of 110 countries based on their adoption-time into five adopters’ groups suggested by DOI theory

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

Table 2: The operational definition of the research variables and data sources

|  |  |  |
| --- | --- | --- |
| ***Variables*** | ***Measures*** | ***Data sources*** |
| ***Dependent variables*** |  |  |
| ***IFNI ($)*** | International financial integration is measured by multiplying the net foreign assets in the current local currencies by the annual official exchange rates provided by the International Monetary Fund (IMF). | The International Monetary Fund (IMF), International Financial Statistics, the World Development Indicators-World Bank Data. |
| ***MCPL (%)*** | Market capitalisation to GDP ratio is measured by dividing stock market capitalisation of a country by its GDP, then multiplied by 100. | The World Development Indicators-World Bank Data, The World Federation of Exchanges database, UN Data, the Global Financial Development Database (GFDD), |
| ***SMCP ($)*** | The market capitalisation of listed firms is measured by multiplying the number of outstanding stocks by the current market price of one share. | The World Development Indicators-World Bank Data, The World Federation of Exchanges database. |
| ***SMTD (%)*** | Stock market traded to GDP ratio is 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. | The World Development Indicators-World Bank Data, The World Federation of Exchanges database. |
| ***SMTO (%)*** | The stock market turnover ratio is measured by using the total value of shares traded in a stock market at the end of the year divided by the average market capitalisation for the period, then multiplied by 100. | The World Development Indicators-World Bank Data, The World Federation of Exchanges database. |
| ***SMRT (%)*** | The stock market return might be in the form of profit through trading, or dividends paid by a company to its shareholders from time to time. | The Global Financial Development Database (GFDD)- provided by the World Bank. |
| ***SPVO*** | 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)- provided by the World Bank. |
| ***FMKD*** | 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 defined by the World Economic Forum. |
| ***Independent variables*** | ***Measures*** | ***Data sources*** |
| ***ISAAC*** | The adoption categories of the ISAs involve the five adopter groups that proposed by the DOI theory, which are: | Reports on the Observance of Standards and Codes |
| *EXPRA* | “1” = Experiments refer to countries adopted the ISAs before 1995 | Basis of ISA Adoption by Jurisdiction from the IFAC |
| *ERADA* | “2” = Early adopters refer to countries adopted the ISAs 1995-2000 |  |
| *ERMJA* | “3” = Early majority refer to countries adopted the ISAs 2001-2006 |  |
| *LTMJA* | “4” = Late majority refer to countries adopted the ISAs 2007-2014 |  |
| *LGGRA* | “5” = Laggards refer to countries haven't adopted the ISAs till 2014 |  |
| ***ISAAS*** | The adoption status of the ISAs, which includes several groups: | Action Plan Template – IFAC |
| *NOAD* | “0” = Non-adopters of ISAs (laggards) | Basis of ISA Adoption by Jurisdiction from the IFAC |
| *WIAM* | “1” = ISAs are the local audit standards with modifications | Reports on the Observance of Standards and Codes |
| *WOAM* | “2” = ISAs are the local audit standards without amendments | (ROSCs) provided by the World Bank Group. |
| *WITR* | “3” = ISAs are the local audit standards with translation |  |
| *WOTR* | “4” = ISAs are the local audit standards without translation |  |
| *WAMT* | “5” = ISAs are national standards with modifications & translation |  |
| *BLAW* | “6” = ISAs are required to be adopted mandatory by the law |  |
| *GMAT* | “7” = ISAs only apply in matters not regulated by local audit standards |  |
| *IFRSS* | “8” = Financial statements issued under IFRS must be audited by ISAs |  |
| ***Control variables*** | ***Measures of (Social factors)*** | **Data sources** |
| ***GERI***  *EURO*  *NLSA*  *CSAS*  *EASP*  *MENA*  *AFRC* | The geographical regions  “1” = The country is in Europe  “2” = The country is in North, Latin and South America  “3” = The country is in Central & South Asia  “4” = The country is in East Asia & Pacific  “5” = The country is in the Middle East & North Africa  “6” = The country is in Sub-Saharan Africa | The classification of all countries by the continental regions presented at the World Bank website |
| ***Control variables*** | ***Measures of (Social factors)*** | **Data sources** |
| ***OFLN***  *ENGL*  *FRNL*  *SPNL*  *ARBL*  *GRML*  *RUSL*  *OTLN* | The official language per group  “1” = English is an official language in the country  “2” = French is an official language in the country  “3” = Spanish is an official language in the country  “4” = Arabic is an official language in the country  “5” = German is an official language in the country  “6” = Russian is an official language in the country  “7” = Other languages are official languages in the country | The World Factbook website established by the Central Intelligence Agency (CIA). |
| ***COHS***  *NEVC*  *BRTC*  *FRNC*  *SPNC*  *PORC*  *DUTC*  *GRMC*  *RUSC*  *OTCO* | The colonial history  “0” = Never colonised countries  “1” = Countries colonised by the British Empire  “2” = Countries colonised by the French Empire  “3” = Countries colonised by the Spanish Empire  “4” = Countries colonised by the Portuguese Empire  “5” = Countries colonised by the Dutch Empire  “6” = Countries colonised by the German Empire  “7” = Countries colonised by the Russian Empire  “8” = Countries colonised by other colonists | The World Factbook website established by the Central Intelligence Agency (CIA). |
| **D08-09** | Year dummy for the crisis period, where 1= 2008-09, 0 = otherwise | Year dummies to control for the financial crisis of 2008 |

Table 3: Summary of the descriptive statistics of 110 countries from 1995 to2014

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Dep Var** | ***ISAAC*** | **N** | **%** | **Mean** | **Std. D** | **Variance** | **Min** | **Max** |
| ***IFNI***  ***($)*** | *EXPRA* | 120 | 5.5% | 21.86 | 44.85 | 2.01 | -9.54 | 259.96 |
| *ERADA* | 380 | 17.3% | 37.66 | 130.01 | 16.90 | -14.31 | 885.75 |
| *ERMJA* | 760 | 34.5% | 75.72 | 381.17 | 145.29 | -149.39 | 4,641.46 |
| *LTMJA* | 840 | 38.2% | 42.12 | 140.71 | 19.80 | -341.61 | 1,351.91 |
| *LGGRA* | 100 | 4.5% | 230.28 | 607.95 | 369.61 | -535.68 | 2,288.37 |
| ***MCPL***  ***(%)*** | *EXPRA* | 120 | 5.5% | 54.28 | 48.90 | 23.91 | 1.04 | 298.67 |
| *ERADA* | 380 | 17.3% | 20.76 | 26.14 | 6.83 | 0.10 | 106.35 |
| *ERMJA* | 760 | 34.5% | 64.53 | 126.65 | 160.39 | 0.02 | 1,254.47 |
| *LTMJA* | 840 | 38.2% | 52.87 | 51.18 | 26.19 | 0.01 | 487.88 |
| *LGGRA* | 100 | 4.5% | 61.70 | 41.48 | 17.20 | 9.46 | 156.81 |
| ***SMCP***  ***($)*** | *EXPRA* | 120 | 5.5% | 111.16 | 225.79 | 5.10 | 0.15 | 956.16 |
| *ERADA* | 380 | 17.3% | 125.58 | 394.07 | 15.53 | 0.00 | 2,740.34 |
| *ERMJA* | 760 | 34.5% | 248.50 | 687.83 | 47.31 | 0.01 | 6,004.95 |
| *LTMJA* | 840 | 38.2% | 257.63 | 601.92 | 36.23 | 0.07 | 4,614.07 |
| *LGGRA* | 100 | 4.5% | 3,379.30 | 6,454.04 | 4,165.47 | 2.38 | 26,330.59 |
| ***SMTD***  ***(%)*** | *EXPRA* | 120 | 5.5% | 25.46 | 45.80 | 20.98 | 0.26 | 200.01 |
| *ERADA* | 380 | 17.3% | 12.40 | 30.86 | 9.52 | 0.00 | 172.08 |
| *ERMJA* | 760 | 34.5% | 24.89 | 67.09 | 45.01 | 0.00 | 723.59 |
| *LTMJA* | 840 | 38.2% | 29.77 | 45.96 | 21.12 | 0.00 | 331.26 |
| *LGGRA* | 100 | 4.5% | 55.91 | 85.23 | 72.64 | 0.31 | 387.54 |
| ***SMTO***  ***(%)*** | *EXPRA* | 120 | 5.5% | 32.46 | 43.10 | 18.58 | 0.66 | 207.76 |
| *ERADA* | 380 | 17.3% | 42.59 | 113.33 | 128.44 | 0.00 | 1,612.94 |
| *ERMJA* | 760 | 34.5% | 36.45 | 56.13 | 31.51 | 0.00 | 580.60 |
| *LTMJA* | 840 | 38.2% | 48.24 | 57.35 | 32.89 | 0.01 | 497.40 |
| *LGGRA* | 100 | 4.5% | 67.73 | 76.39 | 58.35 | 2.39 | 404.07 |
| ***SMRT***  ***(%)*** | *EXPRA* | 120 | 5.5% | 9.15 | 28.20 | 7.95 | -41.77 | 129.02 |
| *ERADA* | 380 | 17.3% | 6.98 | 28.05 | 7.87 | -54.47 | 402.46 |
| *ERMJA* | 760 | 34.5% | 9.92 | 30.72 | 9.44 | -63.16 | 378.83 |
| *LTMJA* | 840 | 38.2% | 11.75 | 33.55 | 11.26 | -55.02 | 386.44 |
| *LGGRA* | 100 | 4.5% | 15.15 | 22.50 | 5.06 | -40.60 | 89.73 |
| ***SPVO***  ***(%)*** | *EXPRA* | 120 | 5.5% | 15.48 | 9.09 | 8.27 | 1.00 | 42.89 |
| *ERADA* | 380 | 17.3% | 13.15 | 18.23 | 33.22 | 1.00 | 141.58 |
| *ERMJA* | 760 | 34.5% | 16.64 | 14.09 | 19.86 | 1.00 | 95.46 |
| *LTMJA* | 840 | 38.2% | 17.14 | 11.55 | 13.33 | 1.00 | 63.87 |
| *LGGRA* | 100 | 4.5% | 19.02 | 6.95 | 4.83 | 7.47 | 39.59 |
| ***FMKD***  ***(Scale)*** | *EXPRA* | 120 | 5.5% | 4.53 | 0.49 | 0.24 | 2.85 | 5.63 |
| *ERADA* | 380 | 17.3% | 4.08 | 0.51 | 0.26 | 3.07 | 5.89 |
| *ERMJA* | 760 | 34.5% | 4.39 | 0.77 | 0.59 | 3.03 | 6.40 |
| *LTMJA* | 840 | 38.2% | 4.35 | 0.67 | 0.44 | 2.86 | 5.87 |
| *LGGRA* | 100 | 4.5% | 4.79 | 0.45 | 0.20 | 4.01 | 5.84 |

**Note**: The variables have been operationally defined in Table 2.

Table 4: A summary of all categorical independent and control variables for 110 countries over 1995-2014

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Variables** | **Observations** | **Countries** | **Percent** | **Cumulative %** | **Tolerance** | **VIF** |
| **Independent Variables** | | | | | | |
| **Panel A**: ***ISAAC*** | | | | | | |
| *EXPRA* | 120 | 6 | 5.5% | 5.5% | 0.62 | 1.61 |
| *ERADA* | 380 | 19 | 17.3% | 22.7% | 0.66 | 1.52 |
| *ERMJA* | 760 | 38 | 34.5% | 57.3% | 0.60 | 1.66 |
| *LTMJA* | 840 | 42 | 38.2% | 95.5% | 0.58 | 1.73 |
| *LGGRA* | 100 | 5 | 4.5% | 100% | 0.69 | 1.45 |
| Total | 2200 | 110 | 100% |  |  |  |
| **Panel B**: ***ISAST*** | | | | | | |
| *NOAD* | 1093 | 102 | 49.7% | 49.7% | 0.33 | 3.05 |
| *WIAM* | 308 | 28 | 14.0% | 63.7% | 0.45 | 2.21 |
| *WOAM* | 106 | 10 | 4.8% | 68.5% | 0.70 | 1.44 |
| *WITR* | 344 | 34 | 15.6% | 84.1% | 0.41 | 2.42 |
| *WOTR* | 15 | 1 | 0.7% | 84.8% | 0.78 | 1.29 |
| *WAMT* | 139 | 16 | 6.3% | 91.1% | 0.51 | 1.95 |
| *BLAW* | 177 | 14 | 8.0% | 99.2% | 0.52 | 1.92 |
| *GMAT* | 16 | 2 | 0.7% | 99.9% | 0.86 | 1.16 |
| *IFRSS* | 2 | 1 | 0.1% | 100% | 0.98 | 1.02 |
| Total | 2200 |  | 100% |  |  |  |
| **Control Variables** | | | | | | |
| **Panel C**: ***GERE*** | | | | | | |
| *EURO* | 720 | 36 | 32.7% | 32.7% | 0.14 | 6.92 |
| *LNAM* | 420 | 21 | 19.1% | 51.8% | 0.21 | 4.86 |
| *CSAS* | 220 | 11 | 10.0% | 61.8% | 0.47 | 2.13 |
| *EASP* | 300 | 15 | 13.6% | 75.5% | 0.52 | 1.93 |
| *MENA* | 260 | 13 | 11.8% | 87.3% | 0.15 | 6.59 |
| *AFRC* | 280 | 14 | 12.7% | 100% | 0.38 | 2.60 |
| Total | 2200 | 110 | 100% |  |  |  |
| **Panel D**: ***OFLN*** | | | | | | |
| *ENGL* | 620 | 31 | 28.2% | 28.2% | 0.28 | 3.53 |
| *FRNL* | 60 | 3 | 2.7% | 30.9% | 0.56 | 1.78 |
| *SPNL* | 280 | 14 | 12.7% | 43.6% | 0.11 | 9.13 |
| *ARBL* | 220 | 11 | 10.0% | 53.6% | 0.13 | 7.70 |
| *GRML* | 140 | 7 | 6.4% | 60.0% | 0.46 | 2.17 |
| *RUSL* | 60 | 3 | 2.7% | 62.7% | 0.45 | 2.16 |
| *OTHL* | 820 | 41 | 37.3% | 100% | 0.25 | 4.08 |
| Total | 2200 | 110 | 100% |  |  |  |
| **Panel E**: ***COHS*** | | | | | | |
| *NEVC* | 340 | 17 | 15.5% | 15.5% | 0.33 | 2.99 |
| *BRTC* | 740 | 37 | 33.6% | 49.1% | 0.17 | 5.96 |
| *FRNC* | 100 | 5 | 4.5% | 53.6% | 0.62 | 1.60 |
| *SPNC* | 260 | 13 | 11.8% | 65.5% | 0.10 | 10.26 |
| *PORC* | 40 | 2 | 1.8% | 67.3% | 0.77 | 1.30 |
| *DUTC* | 60 | 3 | 2.7% | 70.0% | 0.57 | 1.74 |
| *GRMC* | 40 | 2 | 1.8% | 71.8% | 0.80 | 1.25 |
| *RUSC* | 200 | 10 | 9.1% | 80.9% | 0.32 | 3.14 |
| *OTHC* | 420 | 21 | 19.1% | 100% | 0.24 | 4.12 |
| Total | 2200 | 110 | 100% |  |  |  |

**Note**: The panels (A &B) represent the abbreviations of our independent variables. See Table 2.

Table 5: Bivariate correlation coefficients for all variables included in this study

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Variables*** | ***IFNI*** | ***MCPL*** | ***SMCP*** | ***SMTD*** | ***SMTO*** | ***SMRT*** | ***SPVO*** | ***FMKD*** | ***EXPRA*** | ***ERADA*** | ***ERMJA*** | ***LTMJA*** | ***LGGRA*** | ***NOAD*** | ***WIAM*** | ***WOAM*** | ***WITR*** | ***WOTR*** | ***WAMT*** | ***BLAW*** | ***GMAT*** | ***IFRSS*** | ***GERE*** | ***OFLN*** | ***COHS*** |
| ***IFNI*** |  | **.361\*\*\*** | **.562\*\*\*** | **.412\*\*\*** | **.303\*\*\*** | **.091\*\*\*** | **.281\*\*\*** | **.230\*\*\*** | **.007** | **-.100\*\*\*** | **-.033** | **.063\*\*\*** | **.103\*\*\*** | **-.104\*\*\*** | **-.015** | **.108\*\*\*** | **.114\*\*\*** | **-.082\*\*\*** | **.087\*\*\*** | **-.114\*\*\*** | **.098\*\*\*** | **.031** | **.020** | **.036\*** | **-.177\*\*\*** |
| ***MCPL*** | **.143\*\*\*** |  | **.745\*\*\*** | **.749\*\*\*** | **.389\*\*\*** | **.096\*\*\*** | **.160\*\*\*** | **.609\*\*\*** | **.067\*\*\*** | **-.322\*\*\*** | **.008** | **.163\*\*\*** | **.114\*\*\*** | **.055\*\*** | **.026** | **.108\*\*\*** | **-.116\*\*\*** | **-.133\*\*\*** | **.084\*\*\*** | **-.107\*\*\*** | **.038\*** | **-.029** | **-.051\*\*** | **-.200\*\*\*** | **-.382\*\*\*** |
| ***SMCP*** | **.195\*\*\*** | **.176\*\*\*** |  | **.861\*\*\*** | **.659\*\*\*** | **.125\*\*\*** | **.473\*\*\*** | **.510\*\*\*** | **-.003** | **-.290\*\*\*** | **-.058\*\*\*** | **.215\*\*\*** | **.160\*\*\*** | **.031** | **-.099\*\*\*** | **.177\*\*\*** | **-.004** | **-.132\*\*\*** | **.092\*\*\*** | **-.143\*\*\*** | **.103\*\*\*** | **.015** | **-.151\*\*\*** | **.021** | **-.332\*\*\*** |
| ***SMTD*** | **.237\*\*\*** | **.741\*\*\*** | **.444\*\*\*** |  | **.836\*\*\*** | **.081\*\*\*** | **.456\*\*\*** | **.582\*\*\*** | **.044\*\*** | **-.259\*\*\*** | **-.097\*\*\*** | **.215\*\*\*** | **.143\*\*\*** | **.092\*\*\*** | **-.169\*\*\*** | **.163\*\*\*** | **-.056\*\*\*** | **-.134\*\*\*** | **.138\*\*\*** | **-.114\*\*\*** | **.085\*\*\*** | **-.027** | **-.151\*\*\*** | **.081\*\*\*** | **-.339\*\*\*** |
| ***SMTO*** | **.195\*\*\*** | **.158\*\*\*** | **.259\*\*\*** | **.458\*\*\*** |  | **.122\*\*\*** | **.490\*\*\*** | **.375\*\*\*** | **-.004** | **-.110\*\*\*** | **-.111\*\*\*** | **.152\*\*\*** | **.102\*\*\*** | **.117\*\*\*** | **-.260\*\*\*** | **.161\*\*\*** | **-.031** | **-.091\*\*\*** | **.170\*\*\*** | **-.120\*\*\*** | **.093\*\*\*** | **-.027** | **-.232\*\*\*** | **.279\*\*\*** | **-.190\*\*\*** |
| ***SMRT*** | **-.018** | **.024** | **.001** | **-.034** | **.042\*\*** |  | **.128\*\*\*** | **.064\*\*\*** | **-.014** | **-.082\*\*\*** | **-.016** | **.044\*\*** | **.097\*\*\*** | **.109\*\*\*** | **-.050\*\*** | **-.012** | **-.023** | **-.043\*\*** | **-.060\*\*\*** | **-.027** | **-.026** | **.048\*\*** | **.007** | **.033** | **-.013** |
| ***SPVO*** | **.094\*\*\*** | **.058\*\*\*** | **.061\*\*\*** | **.201\*\*\*** | **.228\*\*\*** | **.135\*\*\*** |  | **.155\*\*\*** | **.001** | **-.169\*\*\*** | **-.001** | **.100\*\*\*** | **.075\*\*\*** | **.076\*\*\*** | **-.225\*\*\*** | **.020** | **.155\*\*\*** | **-.109\*\*\*** | **-.029** | **-.045\*\*** | **.079\*\*\*** | **.037\*** | **-.217\*\*\*** | **.340\*\*\*** | **.056\*\*\*** |
| ***FMKD*** | **.087\*\*\*** | **.489\*\*\*** | **.211\*\*\*** | **.468\*\*\*** | **.200\*\*\*** | **-.044\*\*** | **.063\*\*\*** |  | **.084\*\*\*** | **-.188\*\*\*** | **.006** | **.034** | **.159\*\*\*** | **.100\*\*\*** | **-.028** | **.139\*\*\*** | **-.222\*\*\*** | **-.103\*\*\*** | **-.001** | **.056\*\*\*** | **.065\*\*\*** | **-.051\*\*** | **-.125\*\*\*** | **-.115\*\*\*** | **-.269\*\*\*** |
| ***EXPRA*** | **-.033** | **.007** | **-.036** | **-.002** | **-.037** | **-.009** | **-.014** | **.064\*\*\*** |  | **-.110\*\*\*** | **-.174\*\*\*** | **-.189\*\*\*** | **-.052\*\*** | **-.239\*\*\*** | **-.097\*\*\*** | **-.054\*\*** | **.007** | **-.020** | **.267\*\*\*** | **.370\*\*\*** | **-.021** | **-.007** | **-.100\*\*\*** | **.064\*\*\*** | **-.065\*\*\*** |
| ***ERADA*** | **-.037\*** | **-.169\*\*\*** | **-.065\*\*\*** | **-.113\*\*\*** | **-.004** | **-.049\*\*** | **-.105\*\*\*** | **-.180\*\*\*** | **-.110\*\*\*** |  | **-.332\*\*\*** | **-.359\*\*\*** | **-.100\*\*\*** | **-.278\*\*\*** | **.093\*\*\*** | **.077\*\*\*** | **.141\*\*\*** | **.181\*\*\*** | **.104\*\*\*** | **.011** | **-.039** | **-.014** | **-.088\*\*\*** | **.103\*\*\*** | **.140\*\*\*** |
| ***ERMJA*** | **.040\*** | **.110\*\*\*** | **-.056\*\*\*** | **-.015** | **-.070\*\*\*** | **-.009** | **.020** | **.050\*\*** | **-.174\*\*\*** | **-.332\*\*\*** |  | **-.571\*\*\*** | **-.159\*\*\*** | **-.076\*\*\*** | **.208\*\*\*** | **.020** | **.053\*\*** | **-.060\*\*\*** | **-.142\*\*\*** | **-.046\*\*** | **-.062\*\*\*** | **-.022** | **.009** | **-.083\*\*\*** | **.055\*\*\*** |
| ***LTMJA*** | **-.051\*\*** | **.010** | **-.052\*\*** | **.053\*\*** | **.056\*\*\*** | **.037\*** | **.050\*\*** | **.001** | **-.189\*\*\*** | **-.359\*\*\*** | **-.571\*\*\*** |  | **-.171\*\*\*** | **.308\*\*\*** | **-.193\*\*\*** | **-.033** | **-.125\*\*\*** | **-.065\*\*\*** | **-.043\*\*** | **-.109\*\*\*** | **.109\*\*\*** | **.038\*** | **.097\*\*\*** | **.002** | **-.153\*\*\*** |
| ***LGGRA*** | **.132\*\*\*** | **.026** | **.406\*\*\*** | **.118\*\*\*** | **.076\*\*\*** | **.034** | **.044\*\*** | **.143\*\*\*** | **-.052\*\*** | **-.100\*\*\*** | **-.159\*\*\*** | **-.171\*\*\*** |  | **.220\*\*\*** | **-.088\*\*\*** | **-.049\*\*** | **-.094\*\*\*** | **-.018** | **-.057\*\*\*** | **-.065\*\*\*** | **-.019** | **-.007** | **.021** | **-.070\*\*\*** | **.048\*\*** |
| ***NOAD*** | **-.059\*\*\*** | **-.011** | **.065\*\*\*** | **.026** | **.056\*\*\*** | **.055\*\*\*** | **.061\*\*\*** | **.092\*\*\*** | **-.239\*\*\*** | **-.278\*\*\*** | **-.076\*\*\*** | **.308\*\*\*** | **.220\*\*\*** |  | **-.401\*\*\*** | **-.224\*\*\*** | **-.428\*\*\*** | **-.082\*\*\*** | **-.258\*\*\*** | **-.294\*\*\*** | **-.085\*\*\*** | **-.030** | **.049\*\*** | **-.042\*** | **-.055\*\*\*** |
| ***WIAM*** | **-.045\*\*** | **.021** | **-.049\*\*** | **-.073\*\*\*** | **-.146\*\*\*** | **-.056\*\*\*** | **-.204\*\*\*** | **-.006** | **-.097\*\*\*** | **.093\*\*\*** | **.208\*\*\*** | **-.193\*\*\*** | **-.088\*\*\*** | **-.401\*\*\*** |  | **-.091\*\*\*** | **-.174\*\*\*** | **-.033** | **-.105\*\*\*** | **-.119\*\*\*** | **-.035** | **-.012** | **.197\*\*\*** | **-.343\*\*\*** | **-.102\*\*\*** |
| ***WOAM*** | **.229\*\*\*** | **.261\*\*\*** | **.049\*\*** | **.221\*\*\*** | **.090\*\*\*** | **-0.016** | **.010** | **.154\*\*\*** | **-.054\*\*** | **.077\*\*\*** | **.020** | **-0.033** | **-.049\*\*** | **-.224\*\*\*** | **-.091\*\*\*** |  | **-.097\*\*\*** | **-.019** | **-.058\*\*\*** | **-.067\*\*\*** | **-.019** | **-.007** | **.039\*** | **-.012** | **-.146\*\*\*** |
| ***WITR*** | **-.021** | **-.107\*\*\*** | **-.049\*\*** | **-.068\*\*\*** | **.018** | **.054\*\*** | **.175\*\*\*** | **-.219\*\*\*** | **.007** | **.141\*\*\*** | **.053\*\*** | **-.125\*\*\*** | **-.094\*\*\*** | **-.428\*\*\*** | **-.174\*\*\*** | **-.097\*\*\*** |  | **-.036\*** | **-.112\*\*\*** | **-.127\*\*\*** | **-.037\*** | **-.013** | **-.090\*\*\*** | **.249\*\*\*** | **.237\*\*\*** |
| ***WOTR*** | **-.018** | **-.050\*\*** | **-.018** | **-.039\*** | **-.047\*\*** | **-.025** | **-.093\*\*\*** | **-.095\*\*\*** | **-.020** | **.181\*\*\*** | **-.060\*\*\*** | **-.065\*\*\*** | **-.018** | **-.082\*\*\*** | **-.033** | **-.019** | **-.036\*** |  | **-.022** | **-.025** | **-.007** | **-.002** | **.020** | **.094\*\*\*** | **.078\*\*\*** |
| ***WAMT*** | **.039\*** | **.036\*** | **.013** | **.088\*\*\*** | **.104\*\*\*** | **-.058\*\*\*** | **-.040\*** | **-.002** | **.267\*\*\*** | **.104\*\*\*** | **-.142\*\*\*** | **-.043\*\*** | **-.057\*\*\*** | **-.258\*\*\*** | **-.105\*\*\*** | **-.058\*\*\*** | **-.112\*\*\*** | **-.022** |  | **-.077\*\*\*** | **-.022** | **-.008** | **-.130\*\*\*** | **.090\*\*\*** | **-.081\*\*\*** |
| ***BLAW*** | **-.058\*\*\*** | **-.085\*\*\*** | **-.063\*\*\*** | **-.120\*\*\*** | **-.106\*\*\*** | **-.027** | **-.051\*\*** | **.031** | **.370\*\*\*** | **.011** | **-.046\*\*** | **-.109\*\*\*** | **-.065\*\*\*** | **-.294\*\*\*** | **-.119\*\*\*** | **-.067\*\*\*** | **-.127\*\*\*** | **-.025** | **-.077\*\*\*** |  | **-.025** | **-.009** | **-.136\*\*\*** | **.065\*\*\*** | **.078\*\*\*** |
| ***GMAT*** | **.141\*\*\*** | **.001** | **.086\*\*\*** | **.052\*\*** | **.053\*\*** | **-.026** | **.061\*\*\*** | **.051\*\*** | **-.021** | **-.039\*** | **-.062\*\*\*** | **.109\*\*\*** | **-.019** | **-.085\*\*\*** | **-.035** | **-.019** | **-.037\*** | **-.007** | **-.022** | **-.025** |  | **-.003** | **-.023** | **.059\*\*\*** | **-.003** |
| ***IFRSS*** | **-.002** | **-.015** | **-.006** | **-.014** | **-.017** | **.048\*\*** | **.026** | **-.058\*\*\*** | **-.007** | **-.014** | **-.022** | **.038\*** | **-.007** | **-.030** | **-.012** | **-.007** | **-.013** | **-.002** | **-.008** | **-.009** | **-.003** |  | **-.008** | **-.014** | **.010** |
| ***GERE*** | **-.009** | **.026** | **-.070\*\*\*** | **-.060\*\*\*** | **-.145\*\*\*** | **-0.007** | **-.164\*\*\*** | **-.076\*\*\*** | **-.099\*\*\*** | **-.097\*\*\*** | **-.006** | **.123\*\*\*** | **.011** | **.053\*\*** | **.200\*\*\*** | **.033** | **-.109\*\*\*** | **.004** | **-.118\*\*\*** | **-.121\*\*\*** | **-.019** | **-.015** |  | **-.349\*\*\*** | **-.323\*\*\*** |
| ***OFLN*** | **.086\*\*\*** | **-.187\*\*\*** | **-.107\*\*\*** | **-.067\*\*\*** | **.149\*\*\*** | **.053\*\*** | **.330\*\*\*** | **-.135\*\*\*** | **.060\*\*\*** | **.096\*\*\*** | **-.068\*\*\*** | **-.006** | **-.071\*\*\*** | **-.042** | **-.340\*\*\*** | **-.010** | **.250\*\*\*** | **.092\*\*\*** | **.087\*\*\*** | **.062\*\*\*** | **.061\*\*\*** | **-.015** | **-.325\*\*\*** |  | **.390\*\*\*** |
| ***COHS*** | **-.069\*\*\*** | **-.235\*\*\*** | **-.147\*\*\*** | **-.243\*\*\*** | **-.051\*\*** | **.023** | **.148\*\*\*** | **-.232\*\*\*** | **-.074\*\*\*** | **.158\*\*\*** | **.057\*\*\*** | **-.148\*\*\*** | **.010** | **-.061\*\*\*** | **-.142\*\*\*** | **-.133\*\*\*** | **.239\*\*\*** | **.102\*\*\*** | **-.036\*** | **.074\*\*\*** | **.021** | **-.003** | **-.388\*\*\*** | **.518\*\*\*** |  |

**Note**: The bottom left part of the table represents the Pearson correlation, while the upper right part represents the Spearman correlation. The variables are defined in Table 2.

Table 6: The results of multiple linear regression models for 110 countries over 1995-2014

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OLS Regression Models** | **Financial Consequences (dependent variables)** | | | | | | | |
| **Dependent variables** | ***IFNI*** | ***MCPL*** | ***SMCP*** | ***SMTD*** | ***SMTO*** | ***SMRT*** | ***SPVO*** | ***FMKD*** |
| **Independent variables** | **Coef** | **Coef** | **Coef** | **Coef** | **Coef** | **Coef** | **Coef** | **Coef** |
| **The ISAs Adopters**  **DOI Theory Classification)** |  |  |  |  |  |  |  |  |
| *EXPRA* | -0.23\*\*\* | 11.43 | -39.42\*\*\* | -30.84\*\*\* | -55.05\*\*\* | -6.65 | -2.36 | -0.19\*\* |
|  | (0.000) | (0.314) | (0.000) | (0.000) | (0.000) | (0.170) | (0.208) | (0.029) |
| *ERADA* | -0.28\*\*\* | -40.18\*\*\* | -40.67\*\*\* | -55.20\*\*\* | -39.50\*\*\* | -11.65\*\*\* | 7.11\*\*\* | -0.50\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.003) | (0.000) | (0.000) |
| *ERMJA* | -0.20\*\*\* | 2.62 | -38.98\*\*\* | -40.74\*\*\* | -45.40\*\*\* | -8.70\*\* | 3.98\*\*\* | -0.17\*\* |
|  | (0.000) | (0.761) | (0.000) | (0.000) | (0.000) | (0.018) | (0.005) | (0.011) |
| *LTMJA* | -0.25\*\*\* | -10.74 | -39.03\*\*\* | -38.41\*\*\* | -35.92\*\*\* | -3.56 | -2.50\* | -0.41\*\*\* |
|  | (0.000) | (0.189) | (0.000) | (0.000) | (0.000) | (0.307) | (0.064) | (0.000) |
| **The ISAs Status**  **Classical classification** |  |  |  |  |  |  |  |  |
| *WIAM* | 4.23\*\* | -0.52 | -1.32 | 7.07\*\* | -14.46\*\*\* | 2.81 | -2.67\*\*\* | -0.15\*\*\* |
|  | (0.025) | (0.921) | (0.185) | (0.031) | (0.002) | (0.211) | (0.002) | (0.000) |
| *WOAM* | 27.83\*\*\* | 94.97\*\*\* | 5.67\*\*\* | 42.88\*\*\* | 9.61 | 1.80 | -0.39 | 0.24\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.154) | (0.576) | (0.756) | (0.000) |
| *WITR* | 2.41 | 6.97 | 2.05\*\* | 3.13 | 0.91 | 5.60\*\*\* | 2.14\*\*\* | -0.13\*\*\* |
|  | (0.165) | (0.153) | (0.027) | (0.303) | (0.834) | (0.007) | (0.008) | (0.000) |
| *WOTR* | 3.81 | 27.59 | 1.77 | 4.38 | -54.08 | -10.91 | -12.74\*\*\* | -0.03 |
|  | (0.594) | (0.169) | (0.461) | (0.727) | (0.003) | (0.203) | (0.000) | (0.832) |
| *WAMT* | 5.47\*\* | 18.68\*\* | 3.33\*\* | 15.65\*\*\* | 19.59\*\*\* | -5.99\* | -6.27\*\*\* | -0.08 |
|  | (0.036) | (0.011) | (0.016) | (0.001) | (0.003) | (0.056) | (0.000) | (0.129) |
| *BLAW* | 5.77\*\* | -0.27 | 1.03 | -8.13\*\* | -20.35\*\*\* | 0.46 | -3.13\*\*\* | -0.02 |
|  | (0.014) | (0.967) | (0.409) | (0.049) | (0.001) | (0.869) | (0.004) | (0.696) |
| *GMAT* | 30.57\*\*\* | -36.45\*\* | 18.18\*\*\* | -8.99 | 7.83\*\*\* | -7.31 | 0.38 | 0.04 |
|  | (0.000) | (0.045) | (0.000) | (0.428) | (0.629) | (0.346) | (0.899) | (0.793) |
| *IFRSS* | 8.26 | -6.05 | 3.16 | 0.91 | -7.54 | 39.99\* | 13.03 | -0.81\*\* |
|  | (0.641) | (0.903) | (0.736) | (0.977) | (0.865) | (0.059) | (0.112) | (0.031) |
| **Dummy 08-09** |  |  |  |  |  |  |  |  |
| D08-09 | 1.04 | -3.27 | -0.58 | 17.91\*\*\* | 10.36\*\* | -25.89\*\*\* | 5.88\*\*\* | 0.14\*\*\* |
|  | (0.570) | (0.523) | (0.549) | (0.000) | (0.023) | (0.000) | (0.000) | (0.000) |
| **Control Variables** |  |  |  |  |  |  |  |  |
| **Geographical region** |  |  |  |  |  |  |  |  |
| *EURO* | -10.68\*\*\* | 9.06 | -0.78\*\*\* | 4.92 | 31.51\*\*\* | -2.84 | 1.87 | 0.59\*\*\* |
|  | (0.000) | (0.208) | (0.566) | (0.273) | (0.000) | (0.355) | (0.116) | (0.000) |
| *LNAM* | 1.43 | 35.14\*\*\* | 19.40\*\*\* | 26.43\*\*\* | 23.72\*\*\* | -3.30 | 0.66 | 0.09 |
|  | (0.580) | (0.000) | (0.000) | (0.000) | (0.000) | (0.286) | (0.584) | (0.100) |
| *CSAS* | -7.23\*\* | -5.62 | -1.25 | 5.29 | 58.90\*\*\* | 2.07 | -0.38 | 0.08 |
|  | (0.012) | (0.484) | (0.412) | (0.290) | (0.000) | (0.546) | (0.776) | (0.192) |
| *EASP* | 9.47\*\*\* | 60.88\*\*\* | 1.55\*\*\* | 36.69\*\*\* | 37.66\*\*\* | -1.04 | 6.62\*\*\* | 0.54\*\*\* |
|  | (0.000) | (0.000) | (0.226) | (0.000) | (0.000) | (0.719) | (0.000) | (0.000) |
| *MENA* | -13.46\*\*\* | 7.52 | -4.80\* | -19.76\*\* | -16.89 | -10.40\* | -12.53\*\*\* | 0.44\*\*\* |
|  | (0.005) | (0.571) | (0.056) | (0.017) | (0.154) | (0.067) | (0.000) | (0.000) |
| **Official language** |  |  |  |  |  |  |  |  |
| *ENGL* | -4.61\*\* | 74.69\*\*\* | 2.15\* | 36.20\*\*\* | 3.77 | -3.09 | -6.46\*\*\* | 0.21\*\*\* |
|  | (0.037) | (0.000) | (0.067) | (0.000) | (0.497) | (0.245) | (0.000) | (0.000) |
| *FRNL* | 19.13\*\*\* | 39.58\*\*\* | 0.32 | 17.89\*\* | -9.99 | -3.45 | -0.59 | 0.32\*\*\* |
|  | (0.000) | (0.000) | (0.882) | (0.010) | (0.316) | (0.470) | (0.751) | (0.000) |
| *SPNL* | -17.01\*\*\* | 33.97\*\* | -1.22 | 36.74\*\*\* | 48.87\*\*\* | -4.83 | -1.97 | -0.31\*\* |
|  | (0.004) | (0.041) | (0.698) | (0.000) | (0.001) | (0.495) | (0.472) | (0.014) |
| *ARBL* | 11.47\*\* | 68.51\*\*\* | -1.25 | 47.19\*\*\* | 30.35\*\* | 9.47 | 12.74\*\*\* | -0.07 |
|  | (0.017) | (0.000) | (0.625) | (0.000) | (0.012) | (0.101) | (0.000) | (0.472) |
| *GRML* | 14.56\*\*\* | 49.75\*\*\* | -6.40\*\*\* | 22.79\*\*\* | 8.68 | -4.35 | -7.33\*\*\* | 0.60\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.201) | (0.181) | (0.000) | (0.000) |
| *RUSL* | -2.41 | -19.03 | -1.43 | -23.15\*\*\* | 3.12 | 5.16 | 10.51\*\*\* | -0.50\*\*\* |
|  | (0.569) | (0.108) | (0.524) | (0.002) | (0.768) | (0.308) | (0.000) | (0.000) |
| **Continuation: Table 6** | ***IFNI*** | ***MCPL*** | ***SMCP*** | ***SMTD*** | ***SMTO*** | ***SMRT*** | ***SPVO*** | ***FMKD*** |
| **Colonial history** |  |  |  |  |  |  |  |  |
| *NEVC* | 14.06\*\*\* | 47.06\*\*\* | 8.73\*\*\* | 48.64\*\*\* | 32.50\*\*\* | 1.24 | 1.98\*\* | 0.50\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.611) | (0.036) | (0.000) |
| *BRTC* | -9.38\*\*\* | -38.36\*\*\* | -1.16 | -27.55\*\*\* | -13.35\* | -2.85 | -6.64\*\*\* | 0.51\*\*\* |
|  | (0.001) | (0.000) | (0.426) | (0.000) | (0.051) | (0.385) | (0.000) | (0.000) |
| *FRNC* | -14.40\*\*\* | -57.43\*\*\* | 2.87 | -32.30\*\*\* | -23.59\*\*\* | -5.01 | -12.28\*\*\* | -0.14\* |
|  | (0.000) | (0.000) | (0.135) | (0.000) | (0.009) | (0.248) | (0.000) | (0.063) |
| *SPNC* | 3.42 | -59.33\*\*\* | -21.26\*\*\* | -70.99\*\*\* | -91.50\*\*\* | 9.80 | -6.38\*\* | 0.51\*\*\* |
|  | (0.622) | (0.002) | (0.000) | (0.000) | (0.000) | (0.238) | (0.047) | (0.001) |
| *PORC* | -15.38\*\*\* | -28.23\*\* | -23.88\*\*\* | -41.03\*\*\* | -27.80\*\* | -1.40 | -1.01 | 0.50\*\*\* |
|  | (0.001) | (0.037) | (0.000) | (0.000) | (0.021) | (0.809) | (0.652) | (0.000) |
| *DUTC* | -5.51 | 14.43 | 3.14 | -26.79\*\*\* | -28.39\*\*\* | -1.88 | -7.49\*\*\* | 0.35\*\*\* |
|  | (0.158) | (0.187) | (0.130) | (0.000) | (0.004) | (0.687) | (0.000) | (0.000) |
| *GRMC* | -21.54\*\*\* | -57.67\*\*\* | 2.03 | -52.48\*\*\* | -34.57\*\*\* | -3.66 | -5.13\*\* | -0.30\*\*\* |
|  | (0.000) | (0.000) | (0.425) | (0.000) | (0.004) | (0.523) | (0.021) | (0.004) |
| *RUSC* | -0.99 | 2.72 | 0.70 | -2.70 | -29.11\*\*\* | 3.04 | -4.55\*\*\* | 0.04 |
|  | (0.684) | (0.690) | (0.585) | (0.526) | (0.000) | (0.297) | (0.000) | (0.498) |
| Constant | 32.84\*\*\* | 16.92 | 39.52\*\*\* | 45.87\*\*\* | 65.93\*\*\* | 21.91\*\*\* | 24.99\*\*\* | 3.97\*\*\* |
|  | (0.000) | (0.127) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Observations | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| Clusters groups | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| F value | 20.00\*\*\* | 32.24\*\*\* | 37.84\*\*\* | 42.70\*\*\* | 20.64\*\*\* | 6.71\*\*\* | 28.41\*\*\* | 45.53\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| R-squared | 0.228 | 0.323 | 0.359 | 0.387 | 0.237 | 0.090 | 0.296 | 0.402 |
| Adjusted R-squared | 0.217 | 0.313 | 0.349 | 0.377 | 0.222 | 0.077 | 0.285 | 0.393 |
| Polynomials contrasts | 36.21\*\*\* | 8.08\*\*\* | 18.36\*\*\* | 27.90\*\*\* | 28.73\*\*\* | 4.43\*\* | 5.63\*\* | 6.74\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.035) | (0.017) | (0.009) |
| Shapiro-Wilk W test | 0.251\*\*\* | 0.475\*\*\* | 0.213\*\*\* | 0.500\*\*\* | 0.547\*\*\* | 0.699\*\*\* | 0.928\*\*\* | 0.984\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Jarque-Bera LM test | 1.46\*\*\* | 7.25\*\*\* | 1.16\*\*\* | 1.75\*\*\* | 1.86\*\*\* | 2.05\*\*\* | 7.33\*\*\* | 62.5\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Durbin's alternative | 8870.8\*\*\* | 6494.7\*\*\* | 10391.6\*\*\* | 12752.7\*\*\* | 1748.4\*\*\* | 383.3\*\*\* | 6303.8\*\*\* | 13315.5\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Breusch-Godfrey LM | 1720.9\*\*\* | 1510.1\*\*\* | 1727.9\*\*\* | 1756.1\*\*\* | 711.9\*\*\* | 348.9\*\*\* | 1525.9\*\*\* | 1777.2\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Breusch-Pagan test | 1051.5\*\*\* | 9400.1\*\*\* | 18767.8\*\*\* | 4397.5\*\*\* | 392.6\*\*\* | 492.9\*\*\* | 279.7\*\*\* | 32.05\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| White's test chi2 | 1182.8\*\*\* | 1453.2\*\*\* | 1242.4\*\*\* | 1157.8\*\*\* | 114.5\*\*\* | 264.9\*\*\* | 425.4\*\*\* | 1172.1\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Levin-Lin-Chu Test | -2.74\*\*\* | -23.30\*\*\* | -7.43\*\*\* | -16.01\*\*\* | -8.83\*\*\* | -7.96\*\*\* | -6.56\*\*\* | -7.86\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Breitung Test | 8.55 | -7.32\*\*\* | -6.57\*\*\* | 0.19 | -7.41\*\*\* | -16.12\*\*\* | -6.64\*\*\* | 1.42 |
|  | (0.987) | (0.000) | (0.000) | (0.425) | (0.000) | (0.000) | (0.000) | (0.922) |

**Note**: The variables are defined in Table 2. Statistical significance level (p-value) in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 7: The results of the multiple linear regression with cluster-robust standard errors for 110 countries

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OLS Regression Models** | **Financial Consequences (dependent variables)** | | | | | | | | |  | |
| **Dependent variables** | ***IFNI*** | ***MCPL*** | ***SMCP*** | ***SMTD*** | ***SMTO*** | ***SMRT*** | ***SPVO*** | ***FMKD*** | ***Average*** | |
| **Independent variables** | **Coef** | **Coef** | **Coef** | **Coef** | **Coef** | **Coef** | **Coef** | **Coef** | **Coef** | |
| **The ISAs Adopters**  **DOI Theory Classification** |  |  |  |  |  |  |  |  |  | |
| *EXPRA* | -16.14 | -8.74 | -20.74\*\* | -35.86 | -56.91\* | -13.06\*\*\* | -3.63 | -0.17 | -1.539\*\* | |
|  | (0.147) | (0.627) | (0.010) | (0.104) | (0.070) | (0.009) | (0.361) | (0.480) | (0.021) | |
| *ERADA* | -19.52\* | -83.42\*\*\* | -29.75\*\*\* | -72.21\*\*\* | -62.18\*\* | -17.90\*\*\* | -9.60\*\*\* | -0.49\*\*\* | -2.54\*\*\* | |
|  | (0.064) | (0.000) | (0.000) | (0.001) | (0.036) | (0.000) | (0.005) | (0.008) | (0.000) | |
| *ERMJA* | -14.44 | -18.25 | -18.69\*\* | -42.87\*\* | -53.03\* | -14.30\*\*\* | -5.20\* | -0.17 | -1.516\*\* | |
|  | (0.146) | (0.251) | (0.019) | (0.047) | (0.074) | (0.001) | (0.093) | (0.348) | (0.016) | |
| *LTMJA* | -15.66 | -19.15 | -15.11 | -30.94 | -39.24 | -10.38 | -3.23 | -0.41\*\* | -1.123\* | |
|  | (0.140) | (0.161) | (0.152) | (0.127) | (0.172) | (0.118) | (0.313) | (0.018) | (0.061) | |
| **The ISAs Status**  **Classical Classification** |  |  |  |  |  |  |  |  |  | |
| *WIAM* | 9.94\*\*\* | 10.21 | 3.76\*\* | -3.43 | -18.89\*\* | 3.39 | -1.98 | -0.12 | 0.052 | |
|  | (0.001) | (0.228) | (0.030) | (0.564) | (0.027) | (0.129) | (0.147) | (0.216) | (0.778) | |
| *WOAM* | 14.69 | 47.34\*\* | 13.04\*\*\* | 32.46\*\*\* | 25.48\*\*\* | 2.80 | 0.50 | 0.25 | 1.083\*\*\* | |
|  | (0.104) | (0.012) | (0.000) | (0.001) | (0.009) | (0.369) | (0.834) | (0.124) | (0.000) | |
| *WITR* | 14.42\*\*\* | 20.17\*\* | 7.02\*\*\* | 7.40 | -7.56 | 1.86 | 2.09 | -0.14 | 0.417\*\* | |
|  | (0.000) | (0.036) | (0.001) | (0.236) | (0.342) | (0.477) | (0.217) | (0.103) | (0.022) | |
| *WOTR* | 2.28 | 7.68 | -1.87 | -40.64\*\*\* | -71.69\*\*\* | -11.44 | -12.13\* | -0.15 | -0.959\*\* | |
|  | (0.791) | (0.665) | (0.595) | (0.000) | (0.007) | (0.109) | (0.065) | (0.422) | (0.016) | |
| *WAMT* | 10.53 | 26.03\*\* | 5.45\*\* | 21.86\*\*\* | 24.68\*\*\* | -6.39\*\*\* | -5.88\*\* | -0.09 | 0.468\*\* | |
|  | (0.103) | (0.039) | (0.022) | (0.000) | (0.005) | (0.005) | (0.029) | (0.505) | (0.010) | |
| *BLAW* | 4.27 | -10.08 | 1.40 | -9.46 | -23.22\*\* | 0.60 | -2.71 | -0.02 | -0.151 | |
|  | (0.276) | (0.478) | (0.592) | (0.258) | (0.039) | (0.875) | (0.281) | (0.850) | (0.576) | |
| *GMAT* | 26.02\* | -15.45 | 10.86\*\*\* | -2.93 | 8.27 | -7.13\*\*\* | 1.51 | 0.05 | 0.425\* | |
|  | (0.063) | (0.365) | (0.008) | (0.771) | (0.406) | (0.004) | (0.822) | (0.711) | 0.087 | |
| *IFRSS* | 26.65\*\*\* | -24.80 | 9.57\*\*\* | -5.17 | -10.42 | 46.53\*\*\* | 14.72\*\*\* | -1.01\*\*\* | 0.560\* | |
|  | (0.000) | (0.105) | (0.002) | (0.593) | (0.369) | (0.000) | (0.000) | (0.000) | (0.088) | |
| **Dummy 08-09** |  |  |  |  |  |  |  |  |  | |
| D08-09 | 1.62 | 2.70 | 1.21\*\*\* | 16.09\*\*\* | 10.17\*\*\* | -35.56\*\*\* | 5.79\*\*\* | 0.14\*\*\* | 0.211\*\*\* | |
|  | (0.233) | (0.250) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | |
| **Control Variables** |  |  |  |  |  |  |  |  |  | |
| **Geographical region** |  |  |  |  |  |  |  |  |  | |
| *EURO* | -0.09 | 65.90\*\*\* | 12.71\*\*\* | 43.21\*\*\* | 56.85\*\*\* | -3.24 | 3.14 | 0.56\*\* | 1.450\*\*\* | |
|  | (0.993) | (0.009) | (0.005) | (0.005) | (0.005) | (0.457) | (0.489) | (0.011) | (0.003) | |
| *LNAM* | -1.44 | 82.13\*\*\* | 11.98 | 29.28 | 19.11 | -5.88 | 0.57 | 0.05 | 0.880 | |
|  | (0.792) | (0.004) | (0.116) | (0.230) | (0.486) | (0.134) | (0.876) | (0.878) | (0.246) | |
| *CSAS* | 3.42 | 22.51 | 8.62\* | 32.68\*\* | 70.01\*\*\* | -0.13 | 0.11 | 0.10 | 1.016\* | |
|  | (0.749) | (0.328) | (0.057) | (0.030) | (0.009) | (0.984) | (0.986) | (0.594) | (0.050) | |
| *EASP* | 14.20 | 88.45\*\*\* | 16.05\*\*\* | 60.21\*\*\* | 66.61\*\*\* | -4.41 | 6.27\* | 0.52\*\* | 1.805\*\*\* | |
|  | (0.261) | (0.002) | (0.000) | (0.000) | (0.001) | (0.233) | (0.081) | (0.049) | (0.000) | |
| *MENA* | 14.13 | 51.42\* | 9.01 | 18.87 | 14.81 | -10.07\* | -11.94 | 0.28 | 0.690 | |
|  | (0.197) | (0.057) | (0.150) | (0.238) | (0.487) | (0.083) | (0.113) | (0.661) | (0.162) | |
| **Official language** |  |  |  |  |  |  |  |  |  | |
| *ENGL* | 0.43 | 48.40\*\* | 3.53 | 10.72 | -10.97 | -2.88 | -6.47\* | 0.19 | 0.106 | |
|  | (0.957) | (0.014) | (0.275) | (0.242) | (0.370) | (0.411) | (0.068) | (0.329) | (0.708) | |
| *FRNL* | 18.16 | 59.31\*\* | 13.01\*\*\* | 24.98\*\* | -1.93 | -0.73 | 1.30 | 0.29 | 0.903\*\* | |
|  | (0.155) | (0.012) | (0.005) | (0.013) | (0.920) | (0.860) | (0.754) | (0.121) | (0.020) | |
| *SPNL* | -32.89\*\*\* | 38.76\*\*\* | 3.30 | 15.84\* | 28.47\*\* | -4.73 | -1.87 | -0.26 | 0.220 | |
|  | (0.000) | (0.008) | (0.265) | (0.075) | (0.011) | (0.110) | (0.478) | (0.195) | (0.376) | |
| *ARBL* | 6.43 | 55.46\*\* | 1.93 | 27.45\*\* | 12.80 | 7.83 | 12.50\* | 0.07 | 0.584\* | |
|  | (0.444) | (0.024) | (0.734) | (0.017) | (0.421) | (0.128) | (0.083) | (0.905) | (0.079) | |
| *GRML* | 18.34\* | 41.91\*\* | 2.44 | 16.91 | -6.81 | -3.98 | -7.56\* | 0.56\*\*\* | 0.143 | |
|  | (0.082) | (0.050) | (0.488) | (0.103) | (0.636) | (0.250) | (0.092) | (0.003) | (0.640) | |
| *RUSL* | 7.25 | -14.63 | -1.90 | -13.59 | 4.50 | 0.81 | 7.35 | -0.60\*\* | -0.103 | |
|  | (0.459) | (0.604) | (0.802) | (0.255) | (0.910) | (0.925) | (0.479) | (0.027) | (0.850) | |
| **Continuation: Table 7** | ***IFNI*** | ***MCPL*** | ***SMCP*** | ***SMTD*** | ***SMTO*** | ***SMRT*** | ***SPVO*** | ***FMKD*** | ***Average*** | |
| **Colonial history** |  |  |  |  |  |  |  |  |  | |
| *NEVC* | 18.68\*\* | 58.21\*\*\* | 16.62\*\*\* | 44.67\*\*\* | 40.04\*\*\* | 3.45 | 2.66 | 0.48\*\* | 1.380\*\*\* | |
|  | (0.017) | (0.000) | (0.000) | (0.000) | (0.002) | (0.269) | (0.386) | (0.011) | (0.000) | |
| *BRTC* | -3.24 | 13.79 | 0.60 | -0.11 | -5.09 | -0.88 | -5.93 | 0.47\*\* | 0.012 | |
|  | (0.732) | (0.560) | (0.875) | (0.993) | (0.759) | (0.822) | (0.168) | (0.054) | (0.973) | |
| *FRNC* | -9.18 | -61.46\*\* | -6.78 | -33.12\*\* | -17.36 | -1.76 | -10.48\*\* | -0.14 | -0.893\* | |
|  | (0.285) | (0.039) | (0.180) | (0.039) | (0.368) | (0.757) | (0.030) | (0.502) | (0.053) | |
| *SPNC* | 44.17\*\*\* | -80.17\*\* | -5.94 | -46.19 | -65.68\* | 9.84 | -5.01 | 0.44 | -0.773 | |
|  | (0.003) | (0.019) | (0.531) | (0.113) | (0.064) | (0.151) | (0.472) | (0.300) | (0.396) | |
| *PORC* | -4.95 | -11.20 | 0.37 | -4.37 | 3.17 | -0.32 | -0.91 | 0.53 | 0.166 | |
|  | (0.732) | (0.680) | (0.978) | (0.888) | (0.937) | (0.965) | (0.920) | (0.110) | (0.887) | |
| *DUTC* | 22.07\*\* | 30.67 | 3.30 | -22.11\* | -51.09\* | -0.45 | -7.72 | 0.35\*\* | -0.297 | |
|  | (0.022) | (0.375) | (0.364) | (0.075) | (0.096) | (0.929) | (0.108) | (0.037) | (0.465) | |
| *GRMC* | -23.36\*\* | -44.27 | -10.49\*\* | -67.63\*\*\* | -89.06\* | 0.33 | -3.74 | -0.32 | -1.78\*\*\* | |
|  | (0.021) | (0.347) | (0.023) | (0.004) | (0.052) | (0.962) | (0.754) | (0.585) | (0.009) | |
| *RUSC* | -10.76\* | -38.31\*\* | -10.84\*\*\* | -25.34\*\* | -30.78\* | 3.46 | -3.93 | 0.04 | -1.03\*\*\* | |
|  | (0.085) | (0.011) | (0.002) | (0.011) | (0.074) | (0.437) | (0.364) | (0.853) | (0.001) | |
| Constant | 7.38 | 10.43 | 5.92 | 24.71 | 61.07\* | 29.43\*\*\* | 25.31\*\*\* | 4.01\*\*\* | 4.991\*\*\* | |
|  | (0.629) | (0.718) | (0.510) | (0.346) | (0.091) | (0.000) | (0.000) | (0.000) | (0.000) | |
| Observations | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | |
| Clusters groups | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | |
| F value | 27.85\*\*\* | 68.72\*\*\* | 84.99\*\*\* | 80.62\*\*\* | 57.80\*\*\* | 11.32\*\*\* | 33.15\*\*\* | 41.03\*\*\* | 89.80\*\*\* | |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | |
| R-squared | 0.291 | 0.504 | 0.557 | 0.544 | 0.461 | 0.143 | 0.329 | 0.377 | 0.570 | |
| Adjusted R-squared | 0.281 | 0.496 | 0.550 | 0.537 | 0.453 | 0.131 | 0.319 | 0.368 | 0.563 | |
| Polynomials Contrasts | 2.50\*\*\* | 16.09\*\*\* | 12.10\*\*\* | 77.86\*\*\* | 59.12\*\*\* | 9.97\*\*\* | 2.75\*\*\* | 7.92\*\*\* | 14.53\*\*\* | |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.002) | (0.005) | (0.005) | (0.000) | |
| Jarque-Bera LM test | 0.146 | 0.241 | 0.704 | 0.268 | 0.484 | 0.022 | 0.171 | 0.393 | 4.849\*\*\* | |
|  | (0.929) | (0.887) | (0.703) | (0.874) | (0.785) | (0.989) | (0.997) | (0.822) | (0.000) | |
| Levin-Lin-Chu test | -22.66\*\*\* | -16.06\*\*\* | -11.10\*\*\* | -18.69\*\*\* | -8.93\*\*\* | -7.77\*\*\* | -7.07\*\*\* | -15.16\*\*\* | -10.4\*\*\* | |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | |
| Breitung Test | -17.75\*\*\* | -4.49\*\*\* | -3.64\*\*\* | -11.28\*\*\* | -5.48\*\*\* | -16.26\*\*\* | -5.45\*\*\* | -13.16\*\*\* | -4.98\*\*\* | |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | |

**Note**: The variables are defined in Table 2. Statistical significance level in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 8: A comparison between research hypotheses and results | | | | |
| Hypothesis | Expected sign | Result | Decision |
| H1 | + | - | The early adoption of ISA is associated with lower stock market integration. |
| H2 | + | - | The adoption of ISA cannot predict equity market integration. |
| H3 | + | - | ISAs adoption is negatively correlated with the total value of stock traded |
| H4 | + | - | Stock market turnover has significantly decreased after the early adoption of ISAs. |
| H5 | + | - | There is a significant negative association between ISAs adoption and the stock market return. |
| H6 | - | - | The early adoption of ISA is attributed to lower stock price volatility. |
| H7 | + | - | The level of financial market development has been significantly reduced following the early ISA adoption. |

Table 9: The results of the fixed-effects model with cluster-robust standard errors for 110 countries

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Fixed cluster Effects** | **Financial Consequences (dependent variables)** | | | | | | | | |  | |
| **Dependent variables** | ***IFNI*** | ***MCPL*** | ***SMCP*** | ***SMTD*** | ***SMTO*** | ***SMRT*** | ***SPVO*** | ***FMKD*** | ***Average*** | |
| **Independent variables** | **Coef.** | **Coef.** | **Coef.** | **Coef.** | **Coef.** | **Coef.** | **Coef.** | **Coef.** | **Coef.** | |
| **The ISAs Adopters**  **DOI Theory Classification** |  |  |  |  |  |  |  |  |  | |
| *EXPRA* | -16.44 | 17.29 | -13.71\* | -30.05 | -64.71\*\* | -13.05\*\*\* | -5.82 | -0.19 | -1.230\* | |
|  | (0.142) | (0.343) | (0.092) | (0.170) | (0.041) | (0.007) | (0.145) | (0.453) | (0.069) | |
| *ERADA* | -19.71\* | -60.93\*\*\* | -23.89\*\*\* | -66.86\*\*\* | -67.94\*\* | -18.01\*\*\* | -11.43\*\*\* | -0.50\*\*\* | -2.276\*\*\* | |
|  | (0.053) | (0.000) | (0.003) | (0.002) | (0.023) | (0.000) | (0.001) | (0.007) | (0.000) | |
| *ERMJA* | -14.96 | -3.53 | -14.62\* | -39.09\* | -56.90\* | -14.27\*\*\* | -6.47\*\* | -0.17 | -1.329\*\* | |
|  | (0.120) | (0.833) | (0.068) | (0.069) | (0.057) | (0.000) | (0.035) | (0.341) | (0.036) | |
| *LTMJA* | -14.39 | -10.65 | -12.84 | -28.99 | -41.60 | -10.34 | -3.95 | -0.41\*\* | -1.022\* | |
|  | (0.136) | (0.440) | (0.110) | (0.151) | (0.149) | (0.106) | (0.213) | (0.017) | (0.090) | |
| **The ISAs Status**  **Classical Classification** |  |  |  |  |  |  |  |  |  | |
| *WIAM* | 13.59\*\*\* | -18.71\*\* | -3.48\* | -10.83 | -12.93 | 4.35\*\* | -0.27 | -0.12 | -0.291 | |
|  | (0.000) | (0.037) | (0.064) | (0.113) | (0.192) | (0.039) | (0.864) | (0.237) | (0.162) | |
| *WOAM* | 6.07 | 20.30 | 5.88\*\* | 26.10\*\* | 32.67\*\*\* | 2.69 | 2.75 | 0.26 | 0.760\*\*\* | |
|  | (0.321) | (0.278) | (0.018) | (0.010) | (0.003) | (0.313) | (0.263) | (0.120) | (0.003) | |
| *WITR* | 14.55\*\*\* | 6.21 | 0.03 | 1.37 | -0.29 | 0.39 | 4.30\*\* | -0.14 | 0.104 | |
|  | (0.000) | (0.518) | (0.991) | (0.829) | (0.974) | (0.891) | (0.025) | (0.173) | (0.575) | |
| *WOTR* | 1.35\* | -22.19 | -9.35\*\* | -48.97\*\*\* | -65.80\*\* | -6.18 | -9.97 | -0.15 | -1.319\*\*\* | |
|  | (0.084) | (0.223) | (0.010) | (0.000) | (0.017) | (0.171) | (0.124) | (0.424) | (0.001) | |
| *WAMT* | 6.19 | 1.29 | -1.48 | 16.93\*\*\* | 33.45\*\*\* | -5.51\*\*\* | -3.74 | -0.07 | 0.178 | |
|  | (0.459) | (0.917) | (0.550) | (0.004) | (0.006) | (0.006) | (0.171) | (0.642) | (0.353) | |
| *BLAW* | 7.25\*\* | -35.62\*\* | -5.43\*\* | -15.43\* | -16.04 | 0.27 | -0.58 | -0.01 | -0.456 | |
|  | (0.032) | (0.013) | (0.043) | (0.064) | (0.157) | (0.946) | (0.828) | (0.926) | (0.101) | |
| *GMAT* | 16.45\*\*\* | -37.48\*\* | 4.54 | -7.50 | 15.91 | -4.12 | 3.51 | 0.06 | 0.158 | |
|  | (0.000) | (0.037) | (0.287) | (0.465) | (0.145) | (0.284) | (0.606) | (0.670) | (0.527) | |
| *IFRSS* | 18.61\*\*\* | -43.81\*\* | 2.39 | -3.45 | -4.59 | 47.50\*\*\* | 19.68\*\*\* | -0.93\*\*\* | 0.370 | |
|  | (0.000) | (0.010) | (0.449) | (0.731) | (0.721) | (0.000) | (0.000) | (0.000) | (0.272) | |
| **Dummy 08-09** |  |  |  |  |  |  |  |  |  | |
| D08-09 | 1.63 | 59.21\*\*\* | 11.15\*\*\* | 33.28\*\*\* | 10.88 | -35.53\*\*\* | 7.29\*\*\* | 0.10\*\* | 0.822\*\*\* | |
|  | (0.225) | (0.000) | (0.000) | (0.000) | (0.153) | (0.000) | (0.000) | (0.028) | (0.000) | |
| **Control Variables** |  |  |  |  |  |  |  |  |  | |
| **Geographical region** |  |  |  |  |  |  |  |  |  | |
| *EURO* | 0.12 | 65.26\*\* | 12.61\*\*\* | 42.94\*\*\* | 56.67\*\*\* | -3.04 | 3.16 | 0.56\*\* | 1.442\*\*\* | |
|  | (0.990) | (0.010) | (0.005) | (0.006) | (0.006) | (0.489) | (0.486) | (0.011) | (0.004) | |
| *LNAM* | -1.48 | 81.68\*\*\* | 11.91 | 29.08 | 19.01 | -5.72 | 0.59 | 0.05 | 0.874 | |
|  | (0.788) | (0.004) | (0.116) | (0.233) | (0.490) | (0.148) | (0.872) | (0.881) | (0.249) | |
| *CSAS* | 4.64 | 22.46 | 8.62\* | 32.72\*\* | 70.03\*\*\* | -0.15 | 0.12 | 0.10 | 1.017\* | |
|  | (0.675) | (0.327) | (0.058) | (0.031) | (0.009) | (0.982) | (0.986) | (0.594) | (0.051) | |
| *EASP* | 15.56 | 87.58\*\*\* | 15.88\*\*\* | 59.90\*\*\* | 66.57\*\*\* | -4.32 | 6.32\* | 0.52\*\* | 1.795\*\*\* | |
|  | (0.214) | (0.003) | (0.000) | (0.000) | (0.001) | (0.249) | (0.079) | (0.049) | (0.000) | |
| *MENA* | 14.23 | 51.87\* | 9.18 | 18.87 | 14.43 | -10.08\* | -11.99 | 0.28 | 0.695 | |
|  | (0.215) | (0.061) | (0.133) | (0.241) | (0.499) | (0.097) | (0.109) | (0.666) | (0.162) | |
| **Official language** |  |  |  |  |  |  |  |  |  | |
| *ENGL* | -0.73 | 49.06\*\* | 3.59 | 11.08 | -10.62 | -3.35 | -6.48\* | 0.19 | 0.113 | |
|  | (0.929) | (0.013) | (0.266) | (0.231) | (0.388) | (0.350) | (0.069) | (0.323) | (0.689) | |
| *FRNL* | 19.94 | 58.68\*\* | 13.01\*\*\* | 24.52\*\* | -2.59 | -1.08 | 1.31\*\* | 0.28 | 0.894\*\* | |
|  | (0.131) | (0.012) | (0.005) | (0.015) | (0.892) | (0.795) | (0.753) | (0.128) | (0.022) | |
| *SPNL* | -33.15\*\*\* | 39.74\*\*\* | 3.57 | 16.03\* | 28.09\*\* | -5.16\* | -1.94 | -0.26 | 0.231 | |
|  | (0.000) | (0.006) | (0.231) | (0.071) | (0.013) | (0.088) | (0.464) | (0.195) | (0.353) | |
| *ARBL* | 6.35 | 54.53\*\* | 1.68 | 27.26\*\* | 13.08 | 7.64 | 12.57\* | 0.08 | 0.573\* | |
|  | (0.468) | (0.033) | (0.761) | (0.020) | (0.416) | (0.157) | (0.078) | (0.904) | (0.088) | |
| *GRML* | 19.78\*\* | 42.54\*\* | 2.59 | 17.13\* | -6.82 | -4.45 | -7.60\* | 0.57\*\*\* | 0.151 | |
|  | (0.047) | (0.045) | (0.460) | (0.098) | (0.636) | (0.190) | (0.092) | (0.003) | (0.621) | |
| *RUSL* | 7.03 | -14.61 | -1.76 | -13.94 | 3.78 | 1.34 | 7.29 | -0.60\*\* | -0.105 | |
|  | (0.447) | (0.599) | (0.813) | (0.239) | (0.924) | (0.878) | (0.486) | (0.027) | (0.847) | |
| **Continuation: Table 9** | ***IFNI*** | ***MCPL*** | ***SMCP*** | ***SMTD*** | ***SMTO*** | ***SMRT*** | ***SPVO*** | ***FMKD*** | ***Average*** | |
| **Colonial history** |  |  |  |  |  |  |  |  |  | |
| *NEVC* | 20.32\*\* | 56.59\*\*\* | 16.23\*\*\* | 44.21\*\*\* | 40.30\*\*\* | 3.12\*\*\* | 2.79 | 0.48\*\* | 1.360\*\*\* | |
|  | (0.010) | (0.000) | (0.000) | (0.000) | (0.002) | (0.318) | (0.365) | (0.011) | (0.000) | |
| *BRTC* | -2.71 | 13.84 | 0.60 | -0.08 | -5.08 | -1.04 | -5.93 | 0.48\* | 0.012 | |
|  | (0.775) | (0.557) | (0.873) | (0.995) | (0.761) | (0.795) | (0.169) | (0.055) | (0.972) | |
| *FRNC* | -9.72 | -60.52\*\* | -6.61 | -32.78\*\* | -17.25 | -1.55 | -10.53\*\* | -0.14 | -0.882\* | |
|  | (0.257) | (0.044) | (0.199) | (0.043) | (0.374) | (0.788) | (0.029) | (0.510) | (0.059) | |
| *SPNC* | 45.36\*\*\* | -82.31\*\* | -6.51 | -46.69 | -65.04\* | 10.10 | -4.87 | 0.44 | -0.798 | |
|  | (0.001) | (0.015) | (0.488) | (0.109) | (0.069) | (0.141) | (0.485) | (0.300) | (0.380) | |
| *PORC* | -4.54 | -9.91 | 0.69 | -4.01 | 2.97 | -0.28 | -1.01 | 0.53 | 0.182 | |
|  | (0.750) | (0.721) | (0.960) | (0.898) | (0.941) | (0.969) | (0.911) | (0.110) | (0.878) | |
| *DUTC* | 21.06\*\* | 28.33 | 2.59 | -22.52\* | -50.11 | -0.92 | -7.49 | 0.35\*\* | -0.325 | |
|  | (0.024) | (0.414) | (0.464) | (0.070) | (0.102) | (0.856) | (0.120) | (0.037) | (0.423) | |
| *GRMC* | -25.13\*\* | -43.77\*\* | -10.45\*\* | -67.37\*\*\* | -88.80\* | 0.02 | -3.74 | -0.31 | -1.783\*\* | |
|  | (0.015) | (0.343) | (0.027) | (0.005) | (0.052) | (0.998) | (0.753) | (0.588) | (0.011) | |
| *RUSC* | -10.20\* | -39.39\*\* | -11.08\*\*\* | -25.64\*\* | -30.72\* | 2.96 | -3.84 | 0.04 | -1.046\*\*\* | |
|  | (0.098) | (0.010) | (0.002) | (0.010) | (0.076) | (0.503) | (0.374) | (0.859) | (0.001) | |
| Constant | 6.81 | -50.63\* | -1.32 | 5.97 | 53.76 | 29.68\*\*\* | 25.97\*\*\* | 3.98\*\*\* | 4.457\*\*\* | |
|  | (0.652) | (0.078) | (0.884) | (0.816) | (0.134) | (0.000) | (0.000) | (0.000) | (0.000) | |
| Observations | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | |
| Clusters groups | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | |
| F-value | 20.00\*\*\* | 51.63\*\*\* | 62.24\*\*\* | 55.86\*\*\* | 38.74\*\*\* | 27.32\*\*\* | 24.51\*\*\* | 27.22\*\*\* | 61.04\*\*\* | |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | |
| R-squared | 0.317 | 0.546 | 0.592 | 0.565 | 0.474 | 0.135 | 0.363 | 0.388 | 0.586 | |
| Adjusted R-squared | 0.301 | 0.535 | 0.582 | 0.555 | 0.462 | 0.125 | 0.348 | 0.374 | 0.577 | |
| Cox & Snell R Square | 0.318 | 0.546 | 0.592 | 0.565 | 0.474 | 0.135 | 0.363 | 0.388 | 0.587 | |
| Nagelkerke R-Square | 0.318 | 0.546 | 0.592 | 0.565 | 0.474 | 0.135 | 0.363 | 0.388 | 0.600 | |
| Sargan-Hansen Statistic | 13.2\*\*\* | 22.92\*\*\* | 52.97\*\*\* | 56.28\*\*\* | 20.76\*\*\* | 8.46\*\*\* | 71.93\*\*\* | 38.50\*\*\* | 57.53\*\*\* | |
|  | (0.000) | (0.003) | (0.000) | (0.000) | (0.007) | (0.000) | (0.000) | (0.000) | (0.000) | |
| Wald test (testparm) | 4.54\*\*\* | 17.4\*\*\* | 20.1\*\*\* | 10.9\*\*\* | 7.08\*\*\* | 11.1\*\*\* | 11.3\*\*\* | 6.05\*\*\* | 27.172\*\*\* | |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | |

**Note**: The variables are defined in Table 2. Statistical significance level in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 10: The results of instrumental variables (2SLS) estimation for 110 countries from 1995 to 2014

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2SLS Regression Models** | **Financial Consequences (dependent variables)** | | | | | | | |  |
| **Dependent variables** | ***IFNI*** | ***MCPL*** | ***SMCP*** | ***SMTD*** | ***SMTO*** | ***SMRT*** | ***SPVO*** | ***FMKD*** | ***Average*** |
| **Independent variables** | **Coef** | **Coef** | **Coef** | **Coef** | **Coef** | **Coef** | **Coef** | **Coef** | **Coef** |
| **The ISAs Adopters**  **DOI Theory Classification** |  |  |  |  |  |  |  |  |  |
| *EXPRA* | -18.66 | 8.90 | -10.20 | -7.53 | -22.52 | -10.97\* | -1.49 | 0.15 | -26.37 |
|  | (0.119) | (0.715) | (0.157) | (0.720) | (0.410) | (0.071) | (0.746) | (0.565) | (0.181) |
| *ERADA* | -20.03\* | -63.27\*\*\* | -21.25\*\*\* | -48.21\*\* | -35.74 | -16.39\*\*\* | -8.29\*\* | -0.17 | -6.059 |
|  | (0.069) | (0.004) | (0.003) | (0.016) | (0.161) | (0.003) | (0.028) | (0.311) | (0.633) |
| *ERMJA* | -17.43\* | -12.50 | -10.40 | -22.09 | -24.14 | -12.50\*\* | -3.00 | 0.06 | -6.329 |
|  | (0.097) | (0.569) | (0.140) | (0.262) | (0.340) | (0.015) | (0.402) | (0.971) | (0.593) |
| *LTMJA* | -16.88 | -3.42 | -8.66 | -12.81 | -21.04 | -8.70\* | -2.10 | -0.15 | 4.085 |
|  | (0.116) | (0.848) | (0.209) | (0.491) | (0.385) | (0.061) | (0.556) | (0.377) | (0.654) |
| **The ISAs Status**  **Classical Classification** |  |  |  |  |  |  |  |  |  |
| *WIAM* | 9.48\*\*\* | 9.92 | 3.55\*\* | -5.58 | -24.09\*\* | 4.60\* | -1.32 | -0.14\* | -2.004 |
|  | (0.003) | (0.234) | (0.014) | (0.381) | (0.004) | (0.047) | (0.344) | (0.092) | (0.425) |
| *WOAM* | 13.45\* | 38.73\*\* | 10.89\*\*\* | 24.90\*\* | 15.75 | 4.10 | 1.29 | 0.14 | -1.443 |
|  | (0.084) | (0.027) | (0.000) | (0.014) | (0.148) | (0.225) | (0.615) | (0.227) | (0.611) |
| *WITR* | 13.79\*\*\* | 18.42\*\* | 6.11\*\*\* | 2.82 | -14.96\* | 2.66 | 2.30 | -0.19\*\* | 1.730\* |
|  | (0.000) | (0.048) | (0.001) | (0.639) | (0.052) | (0.331) | (0.189) | (0.022) | (0.079) |
| *WOTR* | 4.72 | -16.62 | -4.88 | -55.43\*\*\* | -81.02\*\*\* | -10.21 | -10.28\* | -0.49\*\*\* | 0.849 |
|  | (0.545) | (0.304) | (0.146) | (0.000) | (0.005) | (0.137) | (0.096) | (0.004) | (0.628) |
| *WAMT* | 17.16\*\* | 28.01\*\* | 7.36\*\*\* | 19.51\*\* | 18.53 | -2.60 | -3.19 | -0.13 | 9.090 |
|  | (0.017) | (0.038) | (0.001) | (0.012) | (0.146) | (0.345) | (0.201) | (0.351) | (0.254) |
| *BLAW* | 0.70 | -14.65 | 1.98 | -12.94 | -27.28\*\* | 1.90 | -2.07 | -0.08 | 8.398 |
|  | (0.869) | (0.338) | (0.444) | (0.134) | (0.010) | (0.637) | (0.421) | (0.544) | (0.281) |
| *GMAT* | 32.23\* | -17.61 | 4.62 | -19.59\*\* | -20.11\* | -5.73\*\* | 1.60 | -0.06 | 1.953 |
|  | (0.077) | (0.251) | (0.155) | (0.030) | (0.079) | (0.046) | (0.805) | (0.596) | (0.125) |
| *IFRSS* | 33.12\*\*\* | -35.06\*\* | 5.95\*\* | -13.38 | -16.89 | 46.14\*\*\* | 15.19\*\*\* | -1.18\*\*\* | 0.585 |
|  | (0.000) | (0.030) | (0.048) | (0.191) | (0.136) | (0.000) | (0.000) | (0.000) | (0.473) |
| **Dummy 08-09** |  |  |  |  |  |  |  |  |  |
| D08-09 | 2.97\*\* | 1.78 | 0.96\*\* | 14.68\*\*\* | 8.26\*\*\* | -35.13\*\*\* | 6.15\*\*\* | 0.12\*\*\* | -0.230 |
|  | (0.036) | (0.484) | (0.012) | (0.000) | (0.003) | (0.000) | (0.000) | (0.000) | (0.687) |
| **Control Variables** |  |  |  |  |  |  |  |  |  |
| **Geographical region** |  |  |  |  |  |  |  |  |  |
| *EURO* | -0.08 | 20.45 | 6.95 | 24.14 | 54.03\*\* | -4.12 | 4.83 | 0.08 | 5.652 |
|  | (0.994) | (0.394) | (0.116) | (0.149) | (0.019) | (0.397) | (0.332) | (0.971) | (0.167) |
| *LNAM* | 2.52 | 68.12\*\*\* | 9.85\* | 20.03 | 12.65 | -5.09 | 1.95 | -0.18 | 0.724 |
|  | (0.628) | (0.007) | (0.073) | (0.308) | (0.583) | (0.191) | (0.572) | (0.519) | (0.105) |
| *CSAS* | 6.58 | 17.82 | 6.46 | 28.13\* | 65.47\*\* | -0.33 | 0.26 | 0.06 | 5.050 |
|  | (0.509) | (0.423) | (0.133) | (0.071) | (0.012) | (0.959) | (0.966) | (0.929) | (0.213) |
| *EASP* | 6.86 | 53.29\*\* | 14.11\*\*\* | 49.29\*\*\* | 70.02\*\*\* | -4.81 | 7.49\*\* | 0.14 | 2.962\*\* |
|  | (0.529) | (0.032) | (0.001) | (0.002) | (0.000) | (0.215) | (0.045) | (0.563) | 0.032 |
| *MENA* | 9.41 | 16.01 | 3.56 | 3.91 | 11.73 | -11.84\* | -11.77 | -0.12 | 3.272 |
|  | (0.330) | (0.519) | (0.482) | (0.805) | (0.586) | (0.089) | (0.182) | (0.839) | (0.257) |
| **Official language** |  |  |  |  |  |  |  |  |  |
| *ENGL* | 0.19 | 42.66\*\* | 4.90 | 12.09 | -6.06 | -1.70 | -5.13 | 0.14 | -1.769 |
|  | (0.978) | (0.018) | (0.122) | (0.206) | (0.580) | (0.618) | (0.149) | (0.421) | (0.319) |
| *FRNL* | 11.25 | 44.48\*\*\* | 8.81\* | 13.42 | -12.87 | -2.00 | 0.14 | 0.12 | -3.419 |
|  | (0.462) | (0.005) | (0.056) | (0.253) | (0.423) | (0.655) | (0.974) | (0.632) | (0.355) |
| *SPNL* | -31.44\*\*\* | 44.99\*\*\* | 3.61 | 16.99\*\* | 27.93\*\* | -5.28\* | -2.51 | -0.20 | -3.460 |
|  | (0.000) | (0.000) | (0.122) | (0.031) | (0.010) | (0.087) | (0.346) | (0.255) | (0.295) |
| *ARBL* | 5.17 | 50.33\*\* | 1.73 | 17.63 | 4.10 | 7.25 | 11.72 | -0.06 | -0.293 |
|  | (0.450) | (0.039) | (0.745) | (0.168) | (0.812) | (0.304) | (0.194) | (0.918) | (0.775) |
| *GRML* | 19.73\* | 1.60 | -0.91 | 4.87 | -2.95 | -3.34 | -4.61 | 0.10 | 0.069 |
|  | (0.089) | (0.937) | (0.838) | (0.659) | (0.843) | (0.386) | (0.341) | (0.607) | (0.944) |
| *RUSL* | 0.12 | -33.59 | -5.49 | -20.78 | 3.94 | -1.44 | 6.23 | -0.78\*\*\* | -1.796 |
|  | (0.989) | (0.189) | (0.378) | (0.101) | (0.925) | (0.860) | (0.518) | (0.000) | (0.357) |
| **Continuation: Table 10** | ***IFNI*** | ***MCPL*** | ***SMCP*** | ***SMTD*** | ***SMTO*** | ***SMRT*** | ***SPVO*** | ***FMKD*** | ***Average*** |
| **Colonial history** |  |  |  |  |  |  |  |  |  |
| *NEVC* | 17.66\*\* | 40.62\*\*\* | 12.29\*\*\* | 34.81\*\*\* | 33.81\*\*\* | 2.51 | 2.57 | 0.28\* | 3.374\*\* |
|  | (0.028) | (0.002) | (0.000) | (0.000) | (0.006) | (0.430) | (0.416) | (0.098) | (0.036) |
| *BRTC* | -6.41 | -10.22 | -2.53 | -8.93 | -4.07 | -2.48 | -5.94 | 0.21 | 6.176 |
|  | (0.405) | (0.623) | (0.513) | (0.496) | (0.809) | (0.542) | (0.192) | (0.360) | (0.295) |
| *FRNC* | -6.12 | -57.70\* | -2.81 | -19.78 | 0.04 | 0.04 | -8.25 | -0.04 | 2.624 |
|  | (0.520) | (0.056) | (0.614) | (0.266) | (0.998) | (0.995) | (0.138) | (0.856) | (0.347) |
| *SPNC* | 33.33\*\* | -94.34\*\*\* | -9.06 | -49.75\*\* | -59.23\* | 7.82 | -5.68 | 0.28 | 8.097 |
|  | (0.017) | (0.001) | (0.215) | (0.041) | (0.059) | (0.260) | (0.410) | (0.469) | (0.315) |
| *PORC* | -13.15 | -23.80 | -0.76 | 0.22 | 16.56 | -2.63 | -1.74 | 0.50\* | 6.836 |
|  | (0.395) | (0.340) | (0.943) | (0.993) | (0.598) | (0.708) | (0.838) | (0.062) | (0.377) |
| *DUTC* | 19.84\*\* | -12.51 | 1.84 | -25.67\* | -30.27 | -1.68 | -5.31 | 0.08 | 1.220 |
|  | (0.041) | (0.481) | (0.633) | (0.090) | (0.128) | (0.775) | (0.213) | (0.785) | (0.363) |
| *GRMC* | -30.22\*\*\* | -39.34 | -9.85\* | -62.04\*\*\* | -83.61\* | -1.12 | -5.26 | -0.19 | 3.316 |
|  | (0.001) | (0.393) | (0.075) | (0.009) | (0.083) | (0.881) | (0.680) | (0.723) | (0.458) |
| *RUSC* | -12.43\*\* | -37.90\*\*\* | -6.30\*\* | -18.53\* | -19.24 | 4.78 | -2.58 | 0.06 | -5.153 |
|  | (0.045) | (0.003) | (0.024) | (0.052) | (0.274) | (0.282) | (0.520) | (0.704) | (0.205) |
| Constant | 11.78 | -9.74 | 6.60 | 16.79 | 52.25 | 29.91\*\*\* | 25.36\*\*\* | 3.92\*\*\* | -5.275 |
|  | (0.416) | (0.727) | (0.417) | (0.493) | (0.105) | (0.000) | (0.000) | (0.000) | (0.704) |
| Observations | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| Clusters groups | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| F value | 396.3\*\*\* | 149.5\*\*\* | 298.2\*\*\* | 266.1\*\*\* | 274.3\*\*\* | 209.8\*\*\* | 322.3\*\*\* | 899.8\*\*\* | 48.82\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Adjusted R-squared | 0.343 | 0.551 | 0.643 | 0.578 | 0.492 | 0.132 | 0.339 | 0.472 | 0.520 |
| The SW Chi2 test for underid |  |  |  |  |  |  |  |  |  |
| *EXPRA* | 7.67\* | 7.67\* | 7.67\* | 7.67\* | 7.67\* | 7.67\* | 7.67\* | 7.67\* | 7.67\* |
|  | (0.053) | (0.053) | (0.053) | (0.053) | (0.053) | (0.053) | (0.053) | (0.053) | (0.053) |
| *ERADA* | 8.07\*\* | 8.07\*\* | 8.07\*\* | 8.07\*\* | 8.07\*\* | 8.07\*\* | 8.07\*\* | 8.07\*\* | 8.07\*\* |
|  | (0.044) | (0.044) | (0.044) | (0.044) | (0.044) | (0.044) | (0.044) | (0.044) | (0.044) |
| *ERMJA* | 7.51\*\* | 7.51\*\* | 7.51\*\* | 7.51\*\* | 7.51\*\* | 7.51\*\* | 7.51\*\* | 7.51\*\* | 7.51\*\* |
|  | (0.047) | (0.047) | (0.047) | (0.047) | (0.047) | (0.047) | (0.047) | (0.047) | (0.047) |
| *LTMJA* | 7.65\* | 7.65\* | 7.65\* | 7.65\* | 7.65\* | 7.65\* | 7.65\* | 7.65\* | 7.65\* |
|  | (0.053) | (0.053) | (0.053) | (0.053) | (0.053) | (0.053) | (0.053) | (0.053) | (0.053) |
| The LM test of IV redundancy | 371.7\*\*\* | 371.7\*\*\* | 371.7\*\*\* | 371.7\*\*\* | 371.7\*\*\* | 371.7\*\*\* | 371.7\*\*\* | 371.7\*\*\* | 371.7\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| The Sargan-Hansen of overid | 3.98 | 1.05 | 2.73 | 0.54 | 1.07 | 2.71 | 3.49 | 0.22 | 5.646\* |
|  | (0.137) | (0.593) | (0.112) | (0.764) | (0.585) | (0.258) | (0.175) | (0.894) | (0.059) |
| The C statistic of endogeneity | 26.33\*\*\* | 201.9\*\*\* | 116.1\*\*\* | 129.7\*\*\* | 139.2\*\*\* | 3.30 | 39.15\*\*\* | 275.2\*\*\* | 114.64\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.509) | (0.000) | (0.000) | (0.000) |
| Reset test of omitted variables | 2.24 | 2.53 | 0.14 | 2.52 | 1.37 | 0.94 | 0.96 | 1.49 | 0.02 |
|  | (0.135) | (0.112) | (0.708) | (0.113) | (0.243) | (0.325) | (0.328) | (0.223) | (0.893) |

**Note**: The variables are defined in Table 2. Statistical significance level (p-value) in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

1. Boolaky et al. (2017) measure IAS adoption as follows: “4” means that ISA is mandatory by law, “3” national standard setters have adopted ISA as auditing standards, but not mandatory by law, “2” ISAs have been generally adopted as the local auditing standards, but subject to modification and finally when a country is coded as “1” it means the IFAC does not have adequate information. ‘0’ ISA not adopted”. [↑](#footnote-ref-1)