International Standards on Auditing in the International Financial Services Centres: What Matters?

Abstract

**Purpose**- This paper aims to (1) investigate the position of International Financial Services Centres (IFSCs) in the International Federation of Accountants’ countries’ status on International Standards on Auditing’s adoption and (2) assess the factors influencing ISA adoption in these Centres.

**Design/methodology/approach**- This research drew its data from various sources, including the World Economic Forum dataset, the World Bank Report on Observation of Standards and Codes, the World Development Indicators and the Economic Intelligence Unit Report on Democracy Index on fifty countries classified as IFSCs. The adoption status is then regressed on a number of variables of interest. To establish that our results are robust, we used a combination of different regression techniques comprising OLS, multinomial and logistic regressions.

**Findings**- In addition to GDP growth and education level, this paper adds new evidence to the literature by reporting the positive association between the level of democracy and the enforcement of securities’ regulation on ISA adoption. It argues that political, economic, social and legal factors impact on ISA adoption in the IFSCs.

**Research limitations/implications**- The sample size is limited to 50 from a population of 99 IFSCs because of lack of data. Some of the independent variables are basically archival data. Reliance is placed on WEF with regard to the measurement of protection of minority interest, securities and exchange regulations, and on Economic Intelligence Unit for democracy index.

**Practical implications**- This paper stresses the importance of ISAs in IFSCs and the role of political power and the enforcement of securities laws on the adoption of ISA.

**Originality/value**- This study fills the research gap relating to the absence of empirical studies on ISA adoption and its drivers in IFSCs.

**Keywords**: International Financial Services Centre, International Standards on Auditing, IFAC
International Standards on Auditing in the International Financial Services Centres

1. Introduction

The purpose of this study is to investigate the factors that drive the adoption of International Standards on Auditing (ISA) in International Financial Services Centres (IFSC). ISA is considered as important as International Financial Reporting Standards (IFRS) and corporate governance codes in ensuring a sound financial system of a country. This is because financial statements audited under ISAs are considered credible and of good quality (Needles et al., 2002) and, therefore, gives investors more comfort when making economic decisions (Schockaert and Houyoux, 2007; Mennicken, 2008; Humphrey et al., 2009). The World Bank in its Reports on Observation of Standards and Codes (ROSC) emphasise the importance of ISA adoption as a tool to enhance confidence in the financial system of a country (www.worldbank.org/ifa/rosc_aa.html). Investors, regulators as well as international agencies such as the International Monetary Fund (IMF), the World Bank (WB), the European Union (EU), the International Auditing and Assurance Board (IAASB), the World Economic Forum (WEF), and the World Trade Organisation (WTO) are interested in the auditing standards being followed by auditors while conducting financial statements audit of firms in a country. For example, the WEF uses the adoption of and compliance with ISA by a country as a proxy for the strength of the country’s auditing and reporting system, as a national competitive index. The WB emphasises the importance of the strength of auditing standards to determine the transparency of financial information in a country. The WTO requires countries to comply with international standards (Al-Akra et al., 2009) before they can obtain membership since such compliance enhances the harmonisation of systems and practices among its members, in addition to increasing reliability and transparency of financial information. Also, aids from international agencies such the IMF and the International Bank of Research and Development are tied to a condition that international standards (in this paper ISAs) are adopted by the borrowing country (Judge et al., 2010).

Some of the previous studies on auditing have mainly looked at individual auditing standards and or auditing standards in a specific country (e.g. Bedard and Gendron, 2010; Ghafran and O’Sullivan, 2012). Others such as Needles et al. (2002) identified tentative factors which might explain delays in, or partial levels of, ISA adoption at the country level. Boolaky et al. (2013) provided evidence on the adoption of ISAs in Europe whilst Humphrey et al. (2009) emphasised the role of the International Federation of Accountants (IFAC) as the ISAs issuer
and that of the international financial regulators (such as IOSCO\textsuperscript{1}) as watchdog on ISAs users – mainly large audit firms. Humphrey et al. (2009, 2013) reported on the calls made by investors, regulators and the general public for greater harmonisation of auditing standards after the financial crises while Kohler (2009) found that some European countries’ auditing standards are not in line with the ISAs. The World Bank Reports on Observance of Standards and Codes (ROSC) also highlighted the same finding for a number of countries. Nevertheless, none of these studies has referred to IFSCs which play a key role in the global economy and which investors use as a platform to mitigate, if not eliminate, tax burden or launder their money.

The IFAC Compliance Report 2012 revealed the status of ISA adoption in 126 countries. These levels of adoption can be grouped into four categories (i) wholesale adoption, (ii) modified adoption, (iii) unofficial adoption and (iv) non-adoption. The wholesale adoption is either mandatory or voluntary. Mandatory means ISA is required by law or standard-setter while voluntary means there is no enforcement of law to adopt ISA. Modified adoption means ISA is adapted to fit the context of a country and adoption is mainly voluntary. Unofficial adoption applies to those countries claiming to have adopted ISAs but for which IFAC does not have any evidence. Non-adoption applies to countries that do not adopt ISAs at all. There are many IFSCs in this list of countries. IFSCs comprised of jurisdictions sensitive to tax evasion and avoidance as well as risk of money laundering. So, an interesting question to answer is: where are IFSCs positioned in the IFAC official list of ISA adoption? Arguably, the expectation is for IFSCs to adopt and comply with ISAs so as to increase the confidence of financial statements’ users. However, as per IFAC, only six of them require ISA adoption by law, in fifteen of these countries, standard setters adopted ISAs but they are not necessarily mandatory, whereas in another fifteen, ISAs are adopted with modification. Three have not adopted ISAs at all and eleven remain in the unknown zone, that is, as unofficial adopters. Despite belonging to the same group, there is a variation in the basis of adoption by IFSCs and this could be driven by a number of factors worthy of investigating and the outcomes of which will add further to existing auditing literature and also provide useful information to regulators, professional practitioners, international agencies and governments.

\textsuperscript{1} International Organisation of Securities’ Commissions.
Motivated by the above studies, reports and the specificity of IFSCs (in terms of risk of money laundering, tax evasion and accounting irregularities), this study provides empirical evidence on the factors influencing ISA adoption in this unique context. It is therefore the first, that we are aware of, to investigate the adoption of ISAs (as a tool utilised by auditors to provide reasonable assurance) within the IFSCs.

This study contributes to the literature in a number of ways. First, it investigates the predictors of ISA adoption in a unique environment, international financial services centres and provides evidence on the mode of ISA adoption and its predictors. Secondly, many researchers have focused on the importance of political system on accounting standards and practices of a country (Nobes, 1998, Hope et al., 2005; Boolaky and Cooper, 2015), however, none has provided empirical evidence as to how political system of a country can either hinder or facilitate the adoption process of international standards on auditing. This research therefore contributes to mainstream literature on auditing by providing evidence on the specific political, economic, legal and social factors impacting on ISA adoption. It contends that, in a country with a high level of democracy, there is more freedom of choice, speech and media, thus, facilitating the ISA adoption process. Thirdly, this study contributes to knowledge as it reveals that, in most of the IFSCs that are regarded as tax havens or offshore centres where tax avoidance is highly probable, the adoption of ISA is less likely and the determinants of adoption of international best practice is also less probable. The study’s findings are important to (1) heads of States and relevant government Ministries in their roles to adopt international best practice in their own country, (2) regulators as regards the intensity of the law and its enforcement on ISA adoption, (3) foreign investors who always look at reliability of financial information of a country, (4) multi-nationals that would always expect their host country to adhere to international standards, (5) international bodies such as IFAC to obtain an overview of what motivates and or inhibits ISA adoption and (6) OECD and the World Bank who oversees the operations of IFSC.

The rest of the paper is organised as follows. Section 2 presents a brief profile of the international financial services centres, Section 3 discusses the implications of ISA adoption for IFSCs and Section 4 discusses the theories underpinning ISA adoption with a view to developing the study’s hypotheses. Section 5 describes the research methods while the results are reported in section 6. The paper ends with a concluding note in section 7.
2. International Financial Services Centres: A brief profile

International Financial Services Centres (IFSCs) are large international full-service centres. They operate with advanced settlement and payments systems, supporting large domestic economies, with deep and liquid markets where both the sources and applications of funds are diverse, and where legal and regulatory frameworks are adequate to mitigate the agency risks. As at 2007, London was the largest and most established such centre in term of assets, followed by New York. The reason was that the proportion of international to domestic business was much greater in London than New York. The motivations for non-resident financial dealings with IFSCs may include local savoir-faire, zero taxation and supple regulation among others, while the nature of the activities undertaken in such jurisdictions include banking, insurance and special purpose vehicles (SPVs). Furthermore, the setting up of an IFSC usually eventuates from a conscious effort by a Government to develop a specialist part of the economy relating to the export of financial services in order to generate revenues that often constitute a significant proportion of the national income. There are official lists of IFSCs namely, the International Monetary Fund’s list, the Financial Secrecy Index and the Organisation for Economic Co-operation and Development (OECD)’s list. The study primarily draws countries that appear under any two of these three lists. Table 1 below is a list of fifty IFSCs together with their mode of ISA adoption.

3. Implications of International Standards for Auditing in IFSCs

The assurance provided by external audit on financial reports is fundamental in capitalist economies (IFSCs) as investors rely on financial statements to make critical investment and risk management decisions (Francis and Wang, 2008). In every episode of economic crisis, concerns were raised about auditing quality. In the Asian crisis for example, there was a call for more attention to the development of and compliance with ISAs to enhance financial statements quality (Mennicken, 2008; Humphrey et al., 2009). Similarly, during the global financial crisis in 2008, auditors were criticised for failing to uncover the risks and properly reporting these to users of accounts (See Aziz and Omoteso, 2014). As such, there was a call for reshaping the profession including review of auditing standards and auditor’s report. Sikka (2009) suggests auditors are part and parcel of certain corporate collapse, whereas, others argue that accounting including auditing amplify the crisis instead of driving it
(Waymire and Basu, 2011). A former minister in Ireland (which includes Dublin, an IFSC) has severely criticised auditors “as a joke and waste of time …….” (Irish Times, 18 October 2008 in Sikka, 2009).

Needles et al., (2002) provided a number of reasons for the lag in the development and adoption of ISA\(^1\) and further emphasised the need for greater coordination between international and local auditing standards. They further suggest that harmonisation of auditing standards at an international level has a far way to go, a view also supported by Kohler (2009) on ISAs in the European Union. He found that many EU countries have not adopted ISAs per se. Similar findings are also reported by the World Bank in the ROSCs\(^ii\). These issues have also been found relevant to the EU bloc (Kohler, 2009) and have been acknowledged as part of attempts to improve the global ‘financial architecture’ in the aftermath of the recent financial crisis (Humphrey et al., 2009; Ojo, 2010). Fraser (2010) is, however, particularly critical of the absence of a coherent approach to ISA adoption by the EU leadership and the delays have been attributed to the slow legislative process in member countries. However, IFSCs include both developed and emerging economies and are expected to have in place a sound regulatory framework (both technical and legal), a high standard of education and political stability to be able to comply with international auditing standards.

As far as we are aware, none of the current study on the adoption of ISAs has focussed on the IFSCs, where extremely huge funds are frequently transited and, more so, registration and administration of companies are remote. Mennicken (2008) provides an extensive case study of how a leading Russian audit firm sought to adopt international auditing standards and one of his conclusions is that the political, economic and social context including language affects the audit practice of a country. Al-Awaqleh (2010) suggests that, in Jordan, local users, preparers, auditors and regulators prefer ISAs to local standards on auditing because foreign investors and international agencies would perceive the latter to be inadequate. On the contrary, Brody et al. (2005) document the case of accounting and auditing standards in Poland and conclude that its local regulator only supports the use of ISAs in the absence of equivalent local standards. Although the authors highlight the fact that Poland would need to improve its standards to meet the EU directives, they find that there is some resistance in adopting EU-directed standards on a wholesale basis. (see also Dellaportas et al., 2008). None of these studies has delved into the adoption of ISAs at a country level and, in
particular, in jurisdiction(s) classified as IFSCs where risks are high. We attempt to fill the gap.

4. Theory and Hypotheses

There are a number of studies on the environmental factors influencing IFRS (Choi and Mueller, 1992; Nobes, 1998; Boolaky and Jallow, 2008; Guerreroio et al., 2008; Nobes and Parker, 2006; Nobes, 2008) For example, Nobes and Parker (2006) and Choi and Mueller (1992) provide a list of factors affecting accounting development including the decision to adopt international financial reporting standards. Among these factors are political, economic, legal and social factors of a country (see also Wallace and Gernon, 1991; Mueller et al., 1994; Schnepper and Guillen, 2004). Industrialised nations have developed their own local accounting standards over time. However, with globalisation that has eased capital mobility across the world, they have moved towards the adoption of IFRS in order to be on same level playing field with their trading partners (Judge et al. 2010, p.162). In like manner, we are arguing that it is worthy to investigate if the same conditions influence ISA adoption decision among IFSCs.

4.1 Political factors and ISA

Accounting standards are the product of political decisions (Belkaoui, 1983; Larson and Kenny, 1995; Barbue, 2004) and a political decision is a product of political power (Rahman, 1998). According to Belkaoui (1983), civil freedom is vital in the development of accounting practices in a country. He suggests that there is a lack of democracy in a country with low level of political freedom thereby limiting people’s freedom of choice in all forms. These include freedom of expression, freedom of association and free media (Houque et al., 2012). Freedom of association includes the freedom of a country to associate with international bodies such as IFAC and adopting international standards. We therefore argue that the development of auditing standards and the choice to adopt ISAs would easily prevail in a democratic country where all these indicators of freedom prevail. On the contrary, Shleifer and Vishny (1997) suggest that free media is a setback for a few post-communist countries trying to introduce open market economies. Larson and Kenny (1995) argue that if a country is politically stable, its stability will have a positive impact on the economy and, consequently, its accounting development (including auditing). Rahman (1998) contends that
political power would influence the development of accounting standards as well as the adoption of those standards. Political power in a country is influenced by its level of democracy, that is, its democratic index. We are arguing that IFSCs with a high level of democracy is more likely to adopt ISA as opposed to those which are low on the scale. Our analysis of the IFSCs’ democratic indices suggests that 38 of the 50 IFSCs lie in the score range of 6-10 which therefore suggests that the power to influence ISA adoption in these jurisdictions is strong. Given with this large number of democratic countries among IFSCs, we surmise that:

**H1: There is a positive relationship between the level of democracy and adoption of ISA.**

### 4.2 Economic factors and ISA

There is a link between economic development and accounting quality (Larson, 1993, Mueller et al., 1994; Nobes, 1998; Zeghal and Mhedhbi, 2006, Ding et al., 2007). Mueller et al., (1994) contends that there is a positive correlation between the rate of economic growth and quality of accounting. Zeghal and Mhedhbi, (2006) demonstrate that economic growth is associated with the adoption of IFRS (see Arpan and Radebaugh, 1987). Similar to Mueller et al., (1994), Bushman and Smith (2001) contend that the interaction between investor protection and high quality accounting positively affects economic growth while Ding et al. (2007) argue that the economic development of a country shapes its accounting standards, hence auditing standards as well. The growth of IFSCs since 1980 has been remarkable with an average per capita yearly growth of 3.3% and approximately 3 times greater that world growth rate (STEP Report, 2009). This rapid economic growth is the outcome of high levels of foreign investment. Investors around the world attempt to invest in these jurisdictions for certain specific economic benefits including a high level of transparency on their investments. IFSCs, in return, are required to be sufficiently developed to be able to sustain the demand for more reliable information. This can be achieved by high scores on governance quality. Our argument is that the more developed an IFSC is, the more likely it will adopt international standards. We therefore hypothesise that:

**H2: There is a positive relationship between economic growth and ISA adoption.**

Extant literature suggests that the size (Salter and Nishwander, 1995), the strength (Nobes, 1998), and the sophistication (Jemakowicz and Gornik-Tomaszewski, 2006; Boolaky and
Cooper, 2015) of the capital market are positively associated with the adoption of IFRS and accounting and auditing quality (see Hope et al., 2005). Nobes (1998) suggests that a country with a strong equity market is more likely to adopt IFRS whereas Jemakowicz and Gornik-Tomaszewski (2006) contend that a country with a financial market that offers foreign listing and foreign trading facilities is more likely to adopt IFRS. Given that many of the IFSCs have a stock market and that their strength varies, it is worth investigating the impact on ISA adoption. Using market capitalisation as a variable of interest, we posit that

\[ H3: \text{There is a positive relationship between the strength of the capital market and ISA adoption.} \]

4.3 Legal system(s) and ISA

Accounting and auditing quality is directly linked with the legal tradition of a country (Nobes, 1983; David and Brierly, 1985; Salter and Douplnik, 1992; Nobes, 1998; Francis et al., 2003; Boolaky, 2004; Nobes and Parker, 2006). David and Brierly (1985) use different legal systems to classify legal traditions including common law and civil law among others. Nobes (1998) uses basic common law and civil law to classify countries’ accounting systems (see also Salter and Douplnik, 1992). Germany, Portugal, Spain, Monaco, the Netherlands, Denmark and Belgium are among the IFSCs that used Accounting Plan but have now moved towards part adoption or wholesale adoption of IFRS as well as ISA (see Table 1 above).

The legal system in a country uses mechanisms in the form of laws (or rule of law) to discipline managers and mitigate the risk of insider dealings (La Porta et al., 1997, 2000, 2006; Dyck and Zingales, 2002; Leuz et al., 2003; Daske et al., 2008; Francis and Wang, 2008). For example, corporate law across many countries, including IFSCs, require directors to prepare and submit a true and fair financial statement to the shareholders at the annual general meeting. The law further requires that an independent external auditor should express a professional opinion about the truth and fairness of the financial statement being presented by directors. This paper argues that adopting and complying with international standards on auditing are crucial to gain confidence of investors and, in particular, foreign investors or companies registered and managed offshore as is the case in IFSCs. Drawing from extant literature, it suggests that the adoption of ISA is more likely in a country where: the legal system provides strong protection for investors, lenders and borrowers, there is judicial independence and securities laws are enforceable. IFSCs are expected to be highly regulated,
hence, ISA adoption is highly probable. As regards developing countries, they may have adopted ISA in full just to save cost involved in training and implementation (Boolaky, 2012) and, secondly, because of pressure from the World Bank to adopt the ISA. While many researchers have relied on La Porta et al.’s (1997) database for investor protection, others have been critical about his method of constructing investor protection measures (see Kaufmann et al., 2007; Spamann, 2010). Given the shortcomings in La Porta et al.’s database, we have used data from the WEF. We use the following legal variables as predictors of ISA adoption namely: (1) protection of minority interest, lenders and borrowers rights’ index, enforcement of securities laws and judicial independence. The WEF publishes scores of these variables as national competitiveness index on a scale of 1 to 7, where 1 indicates the weakest score and 7 the highest score. As a result of high correlation between judicial independence, lenders’ and borrowers’ rights and protection of minority interests, we had to recourse to only the latter to eliminate the presence of collinearity.

Ball et al. (2000), Daske et al. (2008) contend that a jurisdiction with weak minority investor protection law creates more space for corrupt accounting practices as opposed to a country with strong investor protection (La Porta et al., 1997; 2000; 2006). We therefore propose that a country with strong investor protection law is more apt to adopt international standards on auditing because, by so doing, investors will feel more confident as regard the quality of audit and assurance of the financial statements.

**H4: There is a positive relationship between minority investor protection and ISA adoption.**

Across the globe, securities laws emphasise on corporate conducts in term of disclosure practices (Hope, 2003). In order to ensure that listed companies are transparent, they are required to have their financial statements audited in accordance with international standards so as to reduce the risk of information asymmetry (Beneish and Vargus, 2002). This applies mainly to countries where cross border listing or foreign listing and foreign trading of securities are permissible. We are arguing that IFSCs do not only have securities markets of the like but companies therein are also responsible to prepare and file audited financial reports as prescribed by law. We use the score of securities exchanges regulations from WEF as a proxy for the enforcement of securities laws in the IFSCs. We argue that the higher the score, the more likely will be the adoption of ISA. We therefore hypothesise that:
4.4 Social factors and ISA

The dominant culture of accounting firms in a given country impacts more on its accounting practices than national cultures (Parboteeah et al., 2002). These authors came to this conclusion after comparing national culture of the US against Japanese accounting firms. Collective value and conformity of thought and deed, however, can be attained by the educational system and the level of literacy in a particular country. Mainstream accounting literature has shown that the educational level of a country can affect its accounting development (see Nobes, 1983; Gray, 1988; Zhegal and Mhdehbi, 2006). Zhegal and Mhdehbi, (2006) suggest that modern accounting systems depend on education. Brody et al., (2005) and Al-Awaqleh (2010) argue that a lack of professional education and training has negatively affected progress in the accounting and auditing field. This view is also repeated in the ROSC reports of many countries. Our argument is that the decision to adopt ISA is important because it requires an appreciation of whether there is a sufficient level of competence, both from an academic and a professional standpoint, to be able to understand and apply these standards. Dow and Karunaratna (2006) argue that the higher the level of education of a country, the deeper and larger will be its trade (see also Menicken, 2008 on education and training for audit professionals). Likewise, there are many other studies that provide support for education as a significant determinant of the adoption of international standards (see Guler et al., 2002; Hassan, 2008; Judge et al., 2010). We therefore hypothesise that:

H6: There is a positive relationship between educational attainment and ISA adoption.

5 Research Design

5.1 Data

We follow a number of studies on IFRS adoption and accounting quality in regard to sources and the type of data for our study. However, taking into account some inherent weaknesses in La Porta et al’s. (2000) data (such as the measurement basis and its being dated - over 15 years), we have therefore recourse to other more reliable and up-to-date source(s). Focusing
on country-level determinants of ISA adoption in this study, we use the same proxies as Judge et al., (2010) for macro-economic data and those similar to Houque et al.’s (2012) for others. Various sources have therefore been used in sourcing the study’s data. These include the Global Competitiveness Report (2009-2012) of the WEF; the World Bank Report (2002-2012) on Observance of Standards and Codes (ROSC), the IFAC’s Compliance Program Report (2009); World Bank Indicators and Economic Intelligence Unit’s Democracy Index Report. Data from WEF are scores measured on a scale of 1 to 7 (1 = worst or weakest and 7 = best or strongest) whereas data on ISA adoption is from IFAC and coded as 1 to 4 (1 not adopted and 4 adopted by law). The economic data are mainly hard data reported by the World Bank Indicators. As far as the democracy index is concerned, it is measured on a scale of 0-10 and classifies political regimes or democracy index into four groups, namely: full democracies, flawed democracies, hybrid regime and autocracy regimes.

5.2 Sample Design

The sample comprises countries that are defined as IFSCs under any two the following three bodies: MF, Financial Secrecy Index (FSI) and OECD while a country that is designated as IFSC by only one of the three bodies is excluded from the sample. As it stands there are 99 jurisdictions that are listed as IFSCs but only 59 are classified as IFSCs by two of the three bodies. Out of the 59 jurisdictions, data was only available for 50 of them.

5.3 Regression Analysis

Our empirical model follows that of Judge et al.’s (2010). We also use different regression techniques to investigate the determinants of ISA adoption in the IFSCs. First, we treat ISA adoption as an ordinal variable with four categories ranging from “no” adoption to “mandatory” adoption and use OLS regression for the analysis. The Durbin-Watson test is also run to determine the presence of serial correlation error. Because the modus of adoption has more than 2 categories, it can be defined as a multinomious variable thus allowing the use of multinomial regression. We therefore use multinomial regression to test robustness of the OLS results. We further test for robustness by re-categorising ISA adoption as a dichotomous variable and use logistic regression to fit each of these models. The analytical method used to test the hypotheses involves the estimation of the following general form equation for a data set of 50 countries for 2012.
5.3.1 Empirical Models

Model 1: \[ \text{ISAADOPT} = \beta_0 + \beta_1 \text{DEMO} + \beta_2 \text{GDPGR} + \beta_3 \text{MKCAP} + \beta_4 \text{PMIS} + \beta_5 \text{SER} + \beta_6 \text{EDU} + \text{Fixed effects}. \]

Model 1 is a fixed effect model with year specific dummy variables controlling for time period. The results are reported in Table 4.

Model 2: \[ \log(P_{ij}/P_{i1}) = \beta_0 + \beta_1 \text{DEMO} + \beta_2 \text{GDPGR} + \beta_3 \text{MKCAP} + \beta_4 \text{PMIS} + \beta_5 \text{SER} + \beta_6 \text{EDU} + \varepsilon \]

This is a multinomial regression to assess the robustness of the results from Model1. The results are reported in Table 5.

Model 3: \[ (P_i/(1-P_i)) = \beta_0 + \beta_1 \text{DEMO} + \beta_2 \text{GDPGR} + \beta_3 \text{MKCAP} + \beta_4 \text{PMIS} + \beta_5 \text{SER} + \beta_6 \text{EDU} + \varepsilon \]

This model is a logistic regression used to further test robustness of the original results. The results are reported in Table 6.

5.3.2 Variable Definition

5.3.2.1 Dependent Variable- ISA Adoption

**ISA Adoption** is the dependent variable and defined as ISAADOPT. This data is drawn from the IFAC dataset “Basis of ISA Adoption”. IFAC groups countries on the basis of adoption using four categories. The dependent variable takes one of the four categories to determine the degree of ISA adoption by a country (see Judge et al., 2010; Boolaky, 2012). When a country is coded “4” it 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, when a country is coded as “1”, it means the IFAC does not have adequate information to evaluate the status of adoption of ISA within that country, which suggests that there is little to no engagement with ISAs (see Boolaky and Cooper, 2015).

5.3.2.2 Independent Variable
Democracy index (DEMO) is measured on a scale of 0-10 and is based on 60 indicators grouped in five categories (EIU Report, 2012, p.27). The index values place countries in to one of four categories viz: 8-10 (full democracies), 6-7.9 (flawed democracies, 4-5.9 (hybrid regimes and scores below 4 is authoritarian regimes (EIU Report, 2012, p.28).

Gross Domestic Product (GDP) is the GDP growth and measured as the average growth rate in gross national income from 2009 to 2012.

Average market capitalisation (MKCAP) is a percentage of gross domestic product from 2009 to 2012.

Protection of minority interest (PPMIS) is the average score of the protection of minority interests in a country as published by the Global Competitiveness Reports of the World Economic Forum (2009-2012). It is measured on a scale of 1-7.

Enforcement of securities laws (SER) is drawn from WEF and is the score of securities exchanges regulations measured on a scale of 1-7.

Level of education is the average score for the level of tertiary education in the country and is drawn from WEF for the period 2009-2012.

6. Empirical Findings

6.1 Descriptive statistics

We report the descriptive statistics on the variables in Table 2. The mean of ISA adoption (ISAADOP) scaled by category of 1 to 4 is 2.14. We note from Table 1 that ISA adoption is mandatory only in 6 of the 50 IFSCs. As regards the adoption of ISA on a voluntary basis by standard setters, 15 IFSCs are reported to have adopted ISA. For the next category of ISA adopters, “adopting ISA with modification” 15 out of 50 IFSCs have chosen this modus of adoption. Finally, there are few of the IFSCs that have not adopted ISA (4 out of 50). Democracy index has a mean of 4.69 (measured on a scale of 0-10). The rate of Gross Domestic Product has a mean of 65.14 whereas market capitalisation as a percentage of GDP 4.17. GDPGR has a high variation rate with a standard deviation of 63.378. Protection of minority interest (PMIS), as measured on a scale of 1-7 has a mean of 4.68. The mean score of the enforcement of the securities and exchange regulations is 4.85. Higher education has a mean of 4.997 with a standard deviation of .992.
6.2 Correlations and Collinearity

We began with a larger number of independent variables. However, many of them have relatively high correlations. We therefore further investigated the presence of collinearity problem by calculating the variance inflations factors (VIF) and tolerance factor (TF) for these variables to obtain a reasonable assurance that there is no collinearity between the independent variables that would distort our analyses. As a result, we eliminated all independent variables that were highly correlated and this left us with only six variables that could be tested as possible predictors of ISA adoption. Hair et al., (2006) suggest that a tolerance value less than .10 and a VIF greater than 9 indicate multi-collinearity problem. Neither the VIF nor the TF test for these six variables is beyond this stated threshold (see also Field, 2000). The Pearson correlation results are reported in Table 3. We also verify for serial correlation error by calculating a Durbin-Watson test. The result of this is reported in Table 4.

6.3 Regression Results

6.3.1 Linear Regression

The regression results are reported in Table 4. Model 1 is the linear regression model. It reveals that four independent variables are significant predictors of ISA adoption in the IFSCs. The overall model fit is 40.8 % measured by the adjusted R-square. In particular, Gross Domestic Product is the most significant predictor of ISA adoption in the IFSCs (t= 2.953, p< .01). This result supports hypothesis 3 and aligns with Judge et al., (2010) who argued that the higher the GDP growth, the more likely a country will adopt IFRS, hence ISA. This finding also sits well with the assertion of Larson (1993) who provided empirical evidence on how economic growth in Africa led to the adoption of international accounting standards. The second most significant predictor of ISA adoption is the educational attainment in these jurisdictions (t = 2.472, p < .05) thus, hypothesis 6 is supported. This result is in line with those of Guler et al., (2002) and Dow and Karunaratha (2006) who also contend that the degree of professional education within a country influences the decision of that country on whether to adopt or not adopt ISA. While Nobes (1998) argued that the more developed the capital market of a country is, the more sophisticated is the accounting and reporting system it requires, Larson and Kenny (1995) contended that there is an association between a country’s adoption of international accounting standard and the strength of its capital market by looking at market capitalisation. We have extended this literature by investigating the association between the enforcement of securities and exchange regulations.
and ISA adoption. Our result suggests that this variable is positioned as a moderately significant predictor of ISA adoption ($t = 0.373, p< 0.10$) thus providing empirical support for hypothesis 5. This result suggests that if an IFSC has a strong securities exchange regulations’ system, then it will be more apt to adopt international standards on auditing.

Mainstream accounting and auditing literature have delved into a broad discussion on the role of political systems in the adoption of international standards but with less emphasis on empirical insights (in terms of investigation and analysis). For the first time, we have attempted to demonstrate how the level of democracy in a country can influence its decision on ISA adoption. The study therefore provides empirical support to existing discussion in the literature such as the contention of Larson and Kenny (1995 and Barbue (2004). Our finding suggests that the level of democracy is a moderately significant predictor of ISA adoption, ($p< 0.10$). This suggests that the more democratic an IFSC is, the more likely it will adopt ISA. This finding ties well with our data. There are only 13 fully democratic countries in the sample, 25 are flawed democracies and the rest are not. If the level democracy improves in these 25 countries in the future, the decision to move to a full and mandatory ISA adoption could also increase. Hypothesis 1 is therefore supported. To our surprise, the linear regression rejects hypotheses 3 and 4 but shows a positive relationship between ISA adoption and market capitalisation and between ISA adoption and protection of minority interest. As regards hypothesis 3, the result does not contradict the association between capital market regulation and accounting. However, this variable loses significance in the IFSCs and that could be due to less rigorous regulation within the jurisdiction. Our finding for hypothesis 4 is also not contrary to Francis and Wang (2008) and La Porta et al, (1997, 2006) who contend that there is an association between accounting quality and protection of minority interest. The difference is that the level of significance of this variable is not the same. Our argument to shed light on our finding for hypothesis 4 is that (i) the number of countries and the list of countries that we have considered in this study is different from those of these past studies (we have looked mainly at 50 IFSCs) and (ii) our result also suggests that the law related to protection of minority interest are not sufficiently strong enough in the IFSCs to push for ISA adoption. This is evidenced by the average score of 4.68 for protection of minority interest which is below the WEF average score of 5. Overall, the regression results provide empirical evidence that political, economic, legal and social factors impact on ISA adoption decision of a country.

6.3.2 Robustness Tests
We ran the Durbin-Watson (D-W) test to ensure that there is no serial correlation error in our analysis. The D-W test is 1.909. It confirms that there is no such error in our linear regression analysis which therefore provides further support to our initial findings. We further determine the robustness of the initial regression results in Model 1 by using two other regressions techniques namely: multinomial and logistic regressions. The results are reported through Model 2 and Model 3 in Tables 5 and 6 respectively. Model 2 is a multinomial regression whereas Model 3 a logistic regression. The results from both Models (2 and 3) support our results in Model 1. At least, three of the significant predictors from Model 1 are also reported to be significant under Model 2 as well as under Model 3. Therefore, using different regression techniques, (multinomial and logistic regressions) these results further support our hypotheses that political, economic, legal and social factors positively affect ISA adoption. In Model 2, GDPPR, SER and EDU are reported to be statistically significant predictors of ISA adoption as also revealed in Model 1. The level of democracy is not found to be statistically significant but there is, nevertheless, a positive relationship with ISA adoption.

Model 3 is basically a logistic regression whereby ISA adoption is categorised as “1” adopted regardless of the mode of adoption and “0” not adopted. This regression technique also supports our contention that political, economic, legal and social factors affect ISA adoption decision. In Model 3, the level of democracy, market capitalisation and protection of minority interest are also significant determinants of ISA adoption in the IFSCs. Educational attainment and enforcement of securities regulations are not statistically significant but still positively associated with ISA adoption. The overall model fit is 50.3%

Our findings from this study show that political, economic, legal and social factors have positive and strong impact on the ISA adoption decision in the IFSCs. Our data, drawn from a new dataset, support our theoretical contention that ISA adoption in the IFSC is influenced by politics, economic factors, legal systems including the rule of laws and the educational levels of the IFSCs.

7. Conclusion

Similar to the variation in the adoption of IFRS, there is also a variation in the mode of ISA adoption across the globe. However, countries are attempting to harmonise around both international financial reporting standards and international standards on auditing. This move
towards a global set of standards including ISAs is important both at country and corporate levels. At country level, it brings harmony into governance practices and enables regulators to better monitor auditing practices by virtue of a common auditing practice. At corporate level, especially those dealing largely in foreign trade or are multi-nationals in operations, adopting and complying with ISAs in the audit of financial statements will enhance the reliability of financial statements. Extant literature in accounting has provided evidence as to how political system, economic development, legal system and social factors influence the adoption of accounting standards (Millar et al., 2005; Ding et al., 2005; Judge et al., 2010). Our study extends the investigation to ISA adoption and attempts to identify what specific political, economic, legal and social variables influence ISA adoption and in a peculiar context, that is, the IFSCs. Drawing data from a unique dataset for 50 jurisdictions classified as IFSCs, we find relatively strong support for political system, economic development, legal mechanisms and social factors as significant determinants of ISA adoption in the IFSCs.

In fact, we find that political system, measured by the democracy level, economic development, measured by growth rate of GDP, legal mechanism, measured by score of protection of minority interest and social factors, measured by educational attainment are predictive of ISA adoption with a varied level of significance. Among these variables, the level of economic development is the most predominant predictor of ISA adoption. Interestingly, the study’s findings show that the level of democracy has a moderate impact on ISA adoption as is the law relating to the protection of minority interest. These findings are important to politicians or Heads of States and relevant government ministries, especially in the IFSCs, regulators, professional practitioners including practising auditors, international bodies such as IFAC, OECD, IAASB, the World Bank and foreign investors as well as accounting scholars.

Our study contributes to the literature by investigating the predictors of ISA adoption in a unique environment, that is, international financial services centres. Many researchers have focused on the importance of political system on accounting including auditing standards and practices of a country. However, none of these has provided empirical evidence as to how political system of a country can either hinder or facilitate the adoption process of international standards on auditing. Our findings suggest that if a country has a high level of democracy, there will be more freedom of choice, speech and media, thus, facilitating the ISA adoption process. Moreover, regulators operating in these jurisdictions will be able to propagate the adoption of best practices because there is less likelihood of negative lobbying.
Our findings also could help educators in international financial services by emphasising the need for further education and training to facilitate ISA adoption in many of these jurisdictions.

As in any other study, our study has also some limitations. First, our sample size was downsized to 50 from a population of 99 IFSCs because we were unable to obtain data for all the jurisdictions. This limitation could affect the generalisability of our findings. Secondly, we access ISA adoption data published by IFAC and have assumed that there has been no significant change(s) until 2012. As regards some of the independent variables, they are basically archival data which can be considered limiting in scope. We also rely on the measurement basis used by WEF for protection of minority interest, securities and exchange regulations and on Economic Intelligence Unit method of computing democracy index. Finally, we acknowledge that the number of countries adopting ISA is constantly changing and, as such, our study might not have captured all that existed within the IFSCs.
REFERENCES


Kohler, A.G. (2009), *Evaluation of the Possible Adoption of International Standards on Auditing (ISAs) in the EU*, University of Duisburg-Essen.


World Economic Forum (WEF) 2004-2005, Global Competitiveness Reports, New York

World Economic Forum (WEF) 2009-2012, Global Competitiveness Reports, New York


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1 Reasons for the lag in the development and adoption of ISAs could be explained by (i) the need to resolve accounting issues (e.g. measurement) first before considering how to assess the implementation of these accounting issues by companies, (ii) the need to initially legislate on accounting and auditing matters to provide the necessary legal backing for external audits and financial statements, but a lag may be due to the inherent slowness of legislative processes, (iii) the influence of large accounting firms which have historically seen themselves as operating in a self-regulatory environment and hence not keen to embrace externally defined standards of practice1, (iv) the resistance by local regulators to ISAs since their use of local auditing standards allowed them to have some control over audit process, and (v) the low level of professional education and training in accounting which would impact on the quality of the auditing function in the country.

2 The ROSC reveals that (1) many countries’ local auditing standards are not in line with ISAs, (2) in some countries although ISAs are required by law yet auditing processes do not fully comply with the standards, (3) some other countries do not have in place a local public oversight body to oversee the audit profession, (4) in
some countries the ISA translation process is either delayed or the translation is not equivalent to the original meaning in the ISAs and (5) a lack of education and training hampers compliance with ISAs.

### Basis of ISA Adoption by Jurisdiction

A. **Mandatory: Required by Law or Regulation** - Country law or regulation requires the use of ISAs as issued by the International Auditing and Assurance Standards Board (IAASB) in the auditing of general purpose financial statements. (Classified as Category 4).

B. **Mandatory/Voluntary: ISA are adopted** - A national standard-setter has adopted ISAs as the audit standards to be used in the country (there are no separate local auditing standards). (Classified as Category 3).

C. **Voluntary: National Standards are the ISAS** - While ISAs have generally been adopted as the local standards, there may be national modifications to them but changes, if any, are stated to be in line with the spirit of IAASB Modifications Policy. (Classified as Category 2).

D. **Other Unofficial adopter** - In some circumstance, available information is not adequate to evaluate whether the local adoption process, including the translation of ISAs into local language, is reasonably up to date with translation lags of a year. In other case, where a jurisdiction indicates that the local generally accepted auditing standards is “based on” or “similar to” the ISAs, it is not clear whether modifications to or other differences from the ISAs meet the requirements of the IAASB Modifications Policy. Finally, there are some countries which have declared convergence with ISAs as an objective but still have a way to go in achieving this objective. The explanatory notes provide insights into the adoption process (see pp.9-28). (Classified as Category 1).

E. **Non-Adoption**: Countries that have not adopted ISAs.
Table 1: Modus of ISA Adoption by IFSCs

<table>
<thead>
<tr>
<th>Required by Law</th>
<th>Adopted by Std Setter</th>
<th>Adopted with Modification</th>
<th>Not Adopted</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costa Rica</td>
<td>Barbados</td>
<td>Chile</td>
<td>Austria</td>
<td>Bahrain</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Belgium</td>
<td>Denmark</td>
<td>Russia</td>
<td>Brazil</td>
</tr>
<tr>
<td>Latvia</td>
<td>Botswana</td>
<td>Germany</td>
<td>US</td>
<td>Estonia</td>
</tr>
<tr>
<td>Mauritius</td>
<td>Canada</td>
<td>Hong Kong</td>
<td></td>
<td>Ghana</td>
</tr>
<tr>
<td>Slovakia</td>
<td>Czech Rep</td>
<td>India</td>
<td></td>
<td>Indonesia</td>
</tr>
<tr>
<td>Slovenia</td>
<td>Dominica</td>
<td>Israel</td>
<td></td>
<td>Japan</td>
</tr>
<tr>
<td>Guatemala</td>
<td></td>
<td>Italy</td>
<td></td>
<td>S. Korea</td>
</tr>
<tr>
<td>Hungary</td>
<td></td>
<td>Malaysia</td>
<td></td>
<td>Macedonia</td>
</tr>
<tr>
<td>Ireland</td>
<td></td>
<td>Mexico</td>
<td></td>
<td>Qatar</td>
</tr>
<tr>
<td>Jamaica</td>
<td></td>
<td>Netherlands</td>
<td></td>
<td>UAE</td>
</tr>
<tr>
<td>Luxembourg</td>
<td></td>
<td>Phillipines</td>
<td></td>
<td>Uruguay</td>
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<tr>
<td>Panama</td>
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<tr>
<td>Spain</td>
<td></td>
<td>Portugal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td></td>
<td>Singapore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td></td>
<td>Switzerland</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: www.ifac.org

Table 2: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISAADOPT</td>
<td>2.14</td>
<td>1.626</td>
<td>50</td>
</tr>
<tr>
<td>DEMO</td>
<td>4.69</td>
<td>1.044</td>
<td>50</td>
</tr>
<tr>
<td>GDPGR</td>
<td>65.14</td>
<td>63.378</td>
<td>50</td>
</tr>
<tr>
<td>MKCAP</td>
<td>4.17</td>
<td>0.944</td>
<td>50</td>
</tr>
<tr>
<td>PMIS</td>
<td>4.68</td>
<td>0.590</td>
<td>50</td>
</tr>
<tr>
<td>SER</td>
<td>4.85</td>
<td>0.518</td>
<td>50</td>
</tr>
<tr>
<td>EDU</td>
<td>4.97</td>
<td>0.992</td>
<td>50</td>
</tr>
</tbody>
</table>

ISAADOPT = Adoption of International Standards on Auditing,

DEMO = Democracy Index, GDPGR = Average Gross Domestic Product Growth Rate,

MKCAP = Average Market Capitalisation as a percentage of GDP (2009-2012),

PMIS = Average Score of Protection of Minority Interest (2009-2012),

SER = Average Score of Enforcement of Securities and Exchange Regulations (2009-2012),

EDU = Average Score of Level of Education (2009-2012)
Table 3: Pearson Correlation

<table>
<thead>
<tr>
<th></th>
<th>ISAADOPT</th>
<th>PMIS</th>
<th>SER</th>
<th>EDU</th>
<th>GDPGR</th>
<th>MKCAP</th>
<th>DEMO</th>
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</thead>
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<td>ISAADOPT</td>
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<td></td>
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<td></td>
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<tr>
<td>PMIS</td>
<td>0.073</td>
<td>1.000</td>
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<tr>
<td>SER</td>
<td>0.119</td>
<td>0.792</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDU</td>
<td>0.072</td>
<td>0.796</td>
<td>0.649</td>
<td>1.000</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>GDPGR</td>
<td>-0.35</td>
<td>0.17</td>
<td>0.154</td>
<td>0.06</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MKCAP</td>
<td>-0.13</td>
<td>0.388</td>
<td>0.448</td>
<td>0.539</td>
<td>0.088</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>DEMO</td>
<td>0.265</td>
<td>0.177</td>
<td>0.064</td>
<td>0.163</td>
<td>0.396</td>
<td>0.015</td>
<td>1</td>
</tr>
</tbody>
</table>

*p < .01; **p < .05

Table 4: Model 1: Linear Regression

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>T.Value</th>
<th>SIG</th>
<th>Tolerance Factor</th>
<th>VIF</th>
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</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.225</td>
<td>1.936</td>
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<td>-</td>
<td>-</td>
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<tr>
<td>DEMO</td>
<td>0.148</td>
<td>1.814</td>
<td>.077*</td>
<td>.646</td>
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<tr>
<td>GDPGR</td>
<td>0.135</td>
<td>2.953</td>
<td>.005**</td>
<td>.474</td>
<td>2.112</td>
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<tr>
<td>MKCAP</td>
<td>-0.001</td>
<td>0.239</td>
<td>0.812</td>
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<tr>
<td>PMIS</td>
<td>0.423</td>
<td>1.232</td>
<td>0.226</td>
<td>.553</td>
<td>1.808</td>
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<tr>
<td>SER</td>
<td>0.179</td>
<td>0.373</td>
<td>0.071*</td>
<td>.263</td>
<td>3.798</td>
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<tr>
<td>EDU</td>
<td>0.634</td>
<td>2.472</td>
<td>.018**</td>
<td>.291</td>
<td>3.431</td>
</tr>
</tbody>
</table>

Adjusted R Square | 0.408
D-W test       | 1.909
N              | 49

* Significant at .10 level, ** Significant at .05 level
*** Significant at .01 Level

None of the independent variable indicates serious multi-collinearity problem
<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Chi-Square</th>
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<tr>
<td>Constant</td>
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<td>77.028</td>
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<tr>
<td>DEMO</td>
<td>1.681</td>
<td>78.166</td>
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<td>GDPGR</td>
<td>1.359</td>
<td>89.317</td>
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<tr>
<td>MKCAP</td>
<td>0.007</td>
<td>96.36</td>
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<td>PMIS</td>
<td>5.118</td>
<td>82.492</td>
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<tr>
<td>SER</td>
<td>3.716</td>
<td>2.634**</td>
</tr>
<tr>
<td>EDU</td>
<td>1.251</td>
<td>92.097</td>
</tr>
</tbody>
</table>

**F-value**: 73.217

**N**: 49
<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Wald Chi-Square</th>
<th>SIG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>7.308</td>
<td>0.28</td>
<td>0.597</td>
</tr>
<tr>
<td>DEMO</td>
<td>4.907</td>
<td>1.928</td>
<td>0.065*</td>
</tr>
<tr>
<td>GDPGR</td>
<td>1.101</td>
<td>2.407</td>
<td>0.121</td>
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<tr>
<td>MKCAP</td>
<td>0.09</td>
<td>4.609</td>
<td>.032**</td>
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<tr>
<td>PMIS</td>
<td>11.248</td>
<td>3.172</td>
<td>.075*</td>
</tr>
<tr>
<td>SER</td>
<td>1.374</td>
<td>0.335</td>
<td>0.563</td>
</tr>
<tr>
<td>EDU</td>
<td>4.239</td>
<td>2.231</td>
<td>0.135</td>
</tr>
</tbody>
</table>

Adjusted R Square 0.503
F Value 24.363
N 49