



## **IAS/IFRS ADOPTION AND BEHAVIORAL DIMENSION: A META-ANALYSIS OF THE EMPIRICAL EVIDENCE**

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### **Abstract:**

*In this article, we investigate the causality links between behavioral factors and the decision to adopt IFRS in developing countries until the year 2013. We implement this empirical model by using the neo-institutional approach and based on a sample of 108 developing countries. Our empirical results show that there exists bidirectional causal relationship between the majority of the developed behavioral variables and the decision of adopting or not IFRS by developing countries. They also indicate through multivariate analysis that the selection of IAS / IFRS by developing countries is primarily legitimized by institutional and social pressures (institutional isomorphism). These empirical insights are of particular interest to local accounting standard setters of selected countries since they can provide a better discernment of factors that can encourage the adoption of IAS IFRS.*

**Key words:** *International Accounting Standards (IAS/IFRS), Developing countries, Neo-institutional approach*

### **1. Introduction**

Although it is not a recent phenomenon, the process of globalization has been accelerated in the past twenty years fostering greater interdependence between economies functioning as a process of universalization and promising a greater richness (Clifford, 2000) and a reduction of poverty for all economies through the "logic of capitalism". Accounting has played a radical role in the process of globalization through the activities of multinational corporations, the regulatory systems in developed countries and the prevalence of international accounting firms.

The internationalization of economic trade and the globalization of businesses are in growth. As well, the financial statements prepared according to the accounting systems of local communities could barely meet the needs of investors, business partners, financiers, and decision makers who are accustomed with the norms of an

international level. The dissimilarity of national accounting systems had vigorous economic consequences due to misinterpretations attached to financial information. On the grounds of the foregoing, international accounting organizations have launched a process intended to promote the harmonization of these systems, as a means of improving the transparency and comparability of financial data. In other words, to bridge the gap in accounting practices between the countries, the International Accounting Standards Committee (IASC) founded in 1973 by a group of professional accountants has supported the attempt to formulate uniform accounting standards which would aim to reduce gaps in international accounting. By embracing globalization, entire societies are disturbed (Engardio and Belton, 2000) and the cultural originality of several nations is threatened by ideologies and dominant Western technologies.

Another criticism of globalization is that the objectives of poverty reduction have not been completed; rather the opposite has taken place. These tips have now made the world split into two levels: the developed and developing countries. The developing countries are characterized by the absence and even by the poor organization of the financial markets. Then such an IAS/IFRS adoption would be relevant for these nations. They allowing them to reform the situation of existing exchanges, to strengthen foreign direct investment, make financial information within these countries more comparable and more transparent. To this end, our study will therefore tend to implicitly explain why some countries do not always adopt the IAS/IFRS despite that these lead to the improvement of the quality of financial reporting, the comparability, reliability and relevance of the financial statements. Therefore, and in our opinion, the accounting standards in most developing countries, does not detect a case in flawless harmony with the reality of a nation. It usually results from a search for legitimacy on the part of those states in the international community. This can predict that, specifically, the behavioral component has a fundamental role in the adoption of IAS/IFRS by these countries.

This research is pushed on the one hand, by the desire to discern the reasons for which some developing countries are still far from adopting IAS/IFRS despite that these latest lead to the improvement of the quality of financial reporting, the comparability, reliability and relevance of the financial statements, and on the other hand by the scarcity of studies that have treated this theme in the framework of these countries. At the present study, we strive to provide input to the earlier literature focused on the determinants of the choice of an accounting practice in a developing country reverberating to a new dimension which is the behavioral attribute. In this paper, our objective is to examine the impact of key factors that could affect the decision to adopt IAS/IFRS in developing countries. In other words, this work looks at identifying different behavioral variables that are potentially likely to influence the adoption of IAS/IFRS.

Therefore, it would be essential to determine the sign and size of the impact of each variable. The remainder of this article is organized as follows. Section 2 outlines the research hypotheses throw a briefly literature. Section 3 outlines the econometric

modeling approach and describes the data used. Section 4 reports and discusses the empirical results. Section 5 concludes the article and offers some policy implications.

## **2. Research hypotheses**

Several studies have focused on causality relationship between environmental factors and the development of accounting. The purpose of this study is to recognize the major behavioral determinants for adopting the IAS/IFRS by the developing countries. To note, studies on this issue are rare.

The previous literature has always provided evidence that environmental factors in the countries have a cruel influence on the development of accounting systems and have led to the diversity of accounting (Gray and Morris, 2007; Choi and Meek, 2005; Nobes and Parker, 2008; Mueller et al, 1991; Cooke and Wallace, 1990). In this regard, number of institutional factors (for example, political, legal, educational and religious) was examined. The neo-institutional theory infers that the environment, as a social construct, directs the behavior of organizations and of its members. Indeed, the institutions are composed of skills, cultures, structures and routines that formalize, standardize and legitimize the models of the member's behavior in organizations (Scott, 1995; Glynn and Murphy, 1996; Lande, 2006). From this point of view, the neo-institutional theory can be mobilized to analyze the mechanism of the adoption of international accounting standards inside the developing countries. In referring to this theory, the adoption of any accounting system finds its legitimacy through the institutional dimensions which order and approve the actions of various stakeholders. A minority of trials examined the behavioral emblems of the countries toward the alternative for the adoption of International Accounting Standards (IAS/IFRS). According schools adopting the behavioral sciences, the determinants of human behavior are individual, social and cultural. Indeed, human behavior can be stuffy as the set of lines; it is -to- say the assortment of responses both psychological and active to contractions to which it is submitted. The individual perceives these contractions in different ways, depending on the environment in which it is immersed, according to his precept of personal motivations and according to its abilities. Through a behavioral track, the individual has concurrently a concern for stability and a concern for mutation, which will enable him or not to improve the profitability of a choice any such as that of the adoption of IAS/IFRS. Accounting choices reflect a both full and formal perception but also informal and individual perceptions. These selections within the companies are the resulting from a set of behaviors. The choices are supported by every action, thought or judgment, to which any responsible faces in the business. Thus, the accounting choices, such as the adoption of international accounting standards mechanism, should be considered as organizational behavior. The analysis of these should develop individual behavior, engaging cognitive characteristics, but also the social scale which, through the communal inclusion, organization is a source of complexity of behavior. Clearly, parallel to the new institutionalism, the social cognitive approach, which draws its theoretical foundations of cognitive psychology and social

psychology, seems appropriate to develop an analytical framework for behavioral determinants of adoption of accounting standards International in developing countries. Under this approach, the behavior has two levels. There is a manifest behavior, but also a latent behavior. The manifest behavior is all motor activities, "including verbal and glandular activities by which the individual responds to the proclamations of his physical and social environment." (Chabrak, 2000). The latent behavior consists of the set of mental activities. Cognitive psychology states that there are operations of perception of the information, operations in which stakeholders stand reproductions and make choices. To be able to bring out the determining factors in the adoption of international accounting standards, the scope of cognitive psychology lead us to exceed the accounting studies which have focused on the controversy of international accounting standards through another more fundamental level. Indeed, accounting choice is, in this approach, the results of a set of observable behaviors. Therefore, we can assume that behavioral factors influence the use of international accounting standards in developing countries. In a study which has analyzed the links between the appropriation (process that integrates the phase of adoption (Brewer, 1996)), of IAS/IFRS standards and organizational and managerial dimensions of accounting, SY (2011) is widely recommended that the implementation of IAS/IFRS is the result of a managerial innovation. Indeed, in a psycho-cognitive vision, the appropriation is directed to the manner in which the actors create an intelligence of situations. It" is understood as the process of appropriation of new knowledge by actors, able and willing to be exploited to improve the decision-making process or to influence other organizational actors" (Miller, 1996).

This author also showed that "the accounting practices in IAS/IFRS are spreading rapidly by the phenomenon of isomorphism, by imitation or discursive coercively (DiMaggio and Powell, 1983) and by the fad (Abrahamson, 1996)." Indeed, the alleged social behavior by the new institutionalism, whatever the degree of their legitimacy, consistent three forms of isomorphism: the normative isomorphism, mimetic isomorphism and coercive isomorphism. These behaviors can be viewed on persistent interactions between members of a company and their environment. They represent processes that are not legitimate and are considered irrational. On an individual component, behaviors are legitimized by compliance with beliefs, motivations or skills and values. At the organizational stage, behaviors are expected by the mutually shared values or policies. Moreover and on an environmental component, behaviors comply with external pressures. As commonly known, the isomorphism by its three forms; is determined as a copying or moving a process of adjustment to a community rationality to legitimize the actions (DiMaggio & Powell, 1983). In this regard, it is only "processes within which organizations tend to adopt the same practices and the same structures in response to an institutional pressure" (Carpenter & Feroz, 2001). Anyway, this copying spreads and changes the social context within which the entities operate (Hopwood, 1987) including the alignment of existing accounting standards. Faced with the problem of the adoption of international accounting systems, accounting research has clarified that entities can be guided to pass in a positive way and consenting to the

application according to different processes and from different sources. This impact symbolizes a kind of behavioral homogeneity which is widely alleged by the original neo-institutionalism of sociological inspiration. (Azan and al. 2011). Lasmin (2011) analyzed the relationship between the decisions of 46 developing countries to adopt IAS/IFRS and institutional contexts of these countries. Using the approach of institutional isomorphism (1983), this author found that the adoption of IAS/IFRS by developing countries is strongly linked to institutional pressures. In particular, its achievements show that the coercive isomorphism, mimetic and normative isomorphism are strong predictors of developing the country's decision to adopt IAS/IFRS. In the same vein, and by enrolling in a neo-institutional approach to divine the factors of IAS/IFRS adoption, Tournon (2004) stated that the normative and mimetic isomorphisms are an explanatory determinants of the choice of the company St. Gobain-Pont-à-Mousson (a French leader specializing in the production, processing and distribution of materials) to adopt US accounting standards by 1970. Meanwhile, in an analysis that is based on a questionnaire designed according to the neo-institutional approach, sent in 2005 to the financial directors of CAC 40 companies and EURONEXT 100, Barbu (2006) concluded that the application of IAS / IFRS is strongly linked to an institutional environment where the coercive isomorphism is predominant, doubled a rather fatal mimetic isomorphism. In a similar vein, Judge et al. (2010) attempted to understand the reasons why some nations have rapidly adopted IAS/IFRS while others have partially adopted and others continue to resist. The authors found empirical support for the three pressures of institutional isomorphism: coercive, mimetic and normative. In 2014, Ben Othman and Kossentini studied the effects of institutional pressures isomorphic variables (coercive, normative and mimetic) and economic pressures on the extent of the adoption of IAS/IFRS in emerging economies. Their empirical analysis was based on a variety of regressions techniques for 50 emerging economies over a period from 2001 to 2011. Their results showed that both the coercive and the mimetic isomorphism have a strong and positive effect on the level of IAS/IFRS adoption. Thus, it should be noted that the neo-institutional approach has stressed the role of exogenous institutional forces inciting isomorphism. These forces are responsible for regulating and organizations in leadership position. If it is based on these findings, it would be possible to argue that the choice of IAS/IFRS by developing countries is driven more by institutional and social pressures (institutional isomorphism). In connection with the analysis of the determinants explaining the mechanism of IAS/IFRS adoption in developing countries, the accounting conservatism seems to postulate its evidence in the appropriation of IAS/IFRS by developing countries. Usually, several studies are proposed to explore the links that exist between the cultural values specific to any country and carrying values characterizing the financial accounting system to better explain the valuation and disclosure practices adopted within an organization based on the model of Hofstede (1984) and Gray (1988). In opposition to the above and to better tackle the objective of the study of behavioral determinants of IAS/IFRS adoption in developing countries, we will choose to detect traits that may result from the analysis of possible links between

the decision to adopt or not international accounting standards in developing countries and the accounting values that characterize them including the conservatism. Indeed, the "conservatism" value means, generally, a favor for a prudent approach of the accounting valuation in order to cope with the uncertainty of future events. Thus, studies that provide direct theoretical support for the role of information in the conservative choice of accounting standards are obviously absent. To extract a theoretical support in this finding, we refer to the studies of Gray (1988) and Hofstede (1984). Indeed, Gray (1988) has deployed the model of Hofstede (1984). He suggested that the attitudes of accountants or the accounting values are presumed to have a link or derive societal values and that these accounting values in their turn simulate the accounting practice. Under this angle it can be assumed that cultural variables set by G.Hofsted (1984) but also those behavioral factors can explain international differences between the accounting systems before resorting to the adoption of IAS/IFRS. In extending and referring to the study of Hofstede (1984), Chouchane (2010) and Ben Aicha and Hamid (2013) have pointed out, through their studies that focus on the sample of two developing countries namely Tunisia and Algeria, it must take into consideration the cultural factor, subject to the accounting conservatism which reflects a behavioral axiom, in the choice of an accounting system. Similarly, an adoption of the concept of the fair value where the IAS/IFRS advocate to do seems far to be highlighted in the countries where the conservative attitude of managers and leaders is amply rooted. Accordingly, it is expected to consider that the level of accounting conservatism will affect the decision to adopt international accounting standards. We can deduce then that the level of accounting conservatism has a significant influence on the choice of IAS/IFRS by developing countries: the more a country exhibits a level of accounting conservatism, the more it is reluctant to the adoption of IAS/IFRS.

### **3. Methodology, Model, and Data**

#### **Methodology**

The purpose of the methodology is the highlighting and analyzing the relationship that may exist between behavioral factors and IAS/IFRS adoption in developing countries. This research follows a hypothetical-deductive methodology. It tries to confirm or refute the hypotheses. After analyzing data collected through a descriptive and comparative aspect between the two groups in the sample (countries that have adopted IAS/IFRS and those which are far from adopting them), the research will be based on a multivariate analysis that represents the step the more interesting of the study since it allows to judge the impact of the different variables taken together. Before starting this analysis we are going to proceed to an examination of the correlations between the different explanatory variables. In case of no detection of a

possible multicollinearity among these variables we can introduce them fully to the model.

### **Empirical Model**

The target of this analysis is to test the simultaneous impact of all the variables that are in sync with our hypotheses and discern the validity of theoretical concepts. Model testing is logistic regression model. To estimate the parameters of this regression, the technique commonly used is not that of ordinary least square but the maximum likelihood technique. This technique is based on an iterative algorithm because of the quality of the non-linear regression. It seeks to maximize the log likelihood that broadcasts how the observed values of the dependent variable can be predicted from the observed values of the explanatory variables. Since the dependent variable is binary, that takes 1 if a country has already adopted IAS/IFRS; 0 if not, the proper analysis is therefore an application of logistic regression.

Indeed, through a mathematical side; the practice of logistic modeling is adjacent to that of the linear modeling. The latter approved to explain the relationship between a dependent variable (Y) and quantitative variables ( $X_1, X_2, X_3 \dots X_n$ ) as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n + \varepsilon$$

Obviously, the above model does not apply to qualitative variables including binary where Y is expressed in terms of yes or no. It is therefore essential to use a model adjusted for assembling the explanatory variables for qualitative variable (Y) to estimate.

The model will thus be as follows:

$$\ln\left(\frac{P}{1-P}\right) = \text{logit}(p) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n + \varepsilon$$

### **Data Source and Variables measurement**

#### **Data Source**

The perception of the effects of behavioral factors on IAS/IFRS adoption in developing countries (DC) is not, of course, information available in a database. To complete the study, it seems appropriate to be based on a sample of developing countries that has been selected by a well detailed procedure, using various sources of information from data provided by the official sites of the IASB (<http://www.ifrs.org/Pages/default.aspx>), the World Bank ([www.worldbank.org](http://www.worldbank.org)), Price Water House Coopers (<http://www.pwc.com>), the Organization of Harmonization of Business Law in Africa ([www.ohada.com](http://www.ohada.com)), master Nation (<http://www.nationmaster.com>), Deloitte (<http://www.iasplus.com/en>) and Web sites of

organizations adjusting the accounting rules of selected countries if they have a site. The table.1 illustrates the approach of constitution of the final sample.

### **Variables measurement**

**The dependant variable.** Analysis of the information found in the accounting systems of selected developing countries in our study allows us to distinguish between countries that have adopted IAS/IFRS and those which have not adopted these standards. This distinction allows us to define a dichotomous variable that takes the value 1 if a country has adopted IAS/IFRS and zero if not.

**Table 1: Composition of the final sample**

<b>Sample</b>	<b>Developing country</b>
Starting sample	119
<u>Countries that adopt IAS/IFRS in 2013</u>	90
➤ The countries where information is not available	8
➤ Residual	82
<u>Countries that remain far from adopting IAS/IFRS</u>	29
➤ The countries where information is not available	3
➤ Residual	26
Final sample	108

**The independent variables.** Depending on the specific attributes of each country and the previous accounting studies, the behavioral factors presented in table.2 will be tested to explain the use of IAS/IFRS by developing countries.

**Table 2: Summary of the independent variables measures**



	Variables	Measuring	Source
Interest variable proxies	The overall level of innovation $INNOV_i$	The average expenditure on research and development (% of GDP) during the five years preceding the date of adoption	The authors, based on WB website.
	Normative isomorphism $NORM_i$	The average of the gross rate of secondary school enrolment during the five years preceding the date of the adoption	The authors, based on WB website.
	<i>The mimetic isomorphism</i> an interactive proxy between economic openness to the outside and the import growth rate, "EO * IMPORT" $MIM_i$	<ul style="list-style-type: none"> <li>The economic openness to the outside (EO): measured by the average rate of foreign direct investment during the five years preceding the date of the adoption of IAS/IFRS by developing countries.</li> <li>Import growth rate (IMPORT): measured by the annual rate of growth of imports of goods and services in constant local currency during the five years preceding the date of the adoption of IAS / IFRS by developing countries.</li> </ul>	The authors, based on WB website
	The coercive isomorphism $COER_i$	The percentage of official development assistance (ODA) to gross national income (GNI) during the five years preceding the date of adoption	The authors, based on WB website
	The level of accounting conservatism $CONSERV_i$	1: country i has a strong accounting conservatism; 0: otherwise.	The authors , based on colonial spread in developing countries
control variables	The tax burden $TAX_i$	The maximum marginal rate of corporate tax over the period of five years preceding the date of the adoption of IAS / IFRS in developing countries.	PricewaterhouseCoopers and WB website
	Size $Size_i$	The share of final consumption expenditure of public administrations in the GDP over the period of five years preceding the date of the adoption of IAS/IFRS standards in DC.	WB website

#### 4. Empirical Findings and Discussion

The empirical data will be addressed with the help of three figures of Statistical tools. The first consists in the descriptive analysis that can detect the overall texture of each variable within the DC. The second figure is the univariate analysis. This tool allows us to test the impact of each variable on the adoption of the IAS/IFRS. The third tool of analysis is the method of multivariate analysis. It admits to refine the results of the univariate analysis by other empirical results from the estimation of multivariate regression model.

##### **Descriptive analysis: characteristics of the two groups together**

Given that the explanatory variables used are both numeric and dichotomous, the results of the descriptive analysis of these variables would occur in two tables. Table.3 traces the dichotomous variables while Table.4 outlines the numerical variables.

Table.3 presented the descriptive statistics of the accounting conservatism for the two sub-samples together. On average, this variable does not draw a large gap between the countries of our population. In fact, it turns out that 68.5 per cent of the countries generate a strong accounting conservatism which is very widespread in the sub-Saharan Africa, Latin America and the Caribbean and the Arab world (the Middle East and North Africa). This reduced deviation in the degree of accounting conservatism between these countries is the result of an accounting institutional structure virtually homogeneous in all developing countries.

**Table 3: Descriptive statistics for dichotomous variables**

Variables		frequencies	Percentages
<b>CONSERV</b>	Strong accounting conservatism	74	68,5
	Low accounting conservatism	34	31,5

In the following, we focus on the description of numerical variables in our study (table.4).The overall level of innovation "INNOV", normative isomorphism "NORM" through the gross secondary school enrollment and the level of the mimetic isomorphism (MIM) have low averages. This weakness indicates the homogeneity of behaviors and attitudes in developing countries peoples.

A primary analysis of these three behavioral variables reveals that developing countries are approximately close, especially at the level of global innovation "INNOV" which has a standard deviation of 0.35315. Indeed, the overall level of innovation "INNOV" among developing countries is ample stared as low (averaging 0.2197% over

the period 2006-2010) when compared with that of Sweden in 2010 that traces a level of 3.39902%.

**Table.4: Descriptive statistics of numeric variables**

<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Minimum</b>	<b>Maximum</b>
<b>INNOV</b>	108	0,2197	0,35315	0,00	1,98
<b>NORM</b>	108	70,6852	26,32317	14,00	120,00
<b>MIM</b>	108	58,6698	162,83256	-217,70	1448,00
<b>COER</b>	108	6,7491	6,25073	0,00	36,10

This measure warns on “capital Current expenditure (private and public) to finance creative work undertaken systematically to increase knowledge, including knowledge of the human race, culture and society and to use this knowledge in new applications. Research and development includes basic research, applied research and experimental development”. Source: World Bank.

Referring to Table.4, we also note that the secondary school gross enrolment ratio "norm", a measure identified by the World Bank, reveals an average of 70,6852 on the period 2007-2012 which is proportionally reduced if it refers to that of the Netherlands (128%). Concerning this variable, it should be noted that developing countries are partially homogeneous (a standard deviation of 26.32317) overlooked the total enrollment in secondary education.

As regards 'in the percentage of official development assistance (ODA) in relation to the gross national income (GNI), that exposes the coercive aspect of behavioral factors, it reflects an average of 6,7491%. According to all paces, it appears that public support remains a necessity for most countries in our sample for the period (2007-2012). The results have spread an average dispersion (6, 25073). These pushed us to estimate more that the high level of foreign aid will be a factor in the implementation of international accounting standards in developing countries.

### **Univariate analysis: comparison between the two groups of countries**

The purpose of this analysis is to examine if there is, a priori, a difference between the group of developing countries having adopted the IAS/IFRS and the group of countries which has not yet adopted these standards. To get there, comparison tests of the means between the two independent samples must be put in place. The test of normality of Kolmogorov-Smirnov (see Appendix. 1) has enabled us to identify the most appropriate technique to access to the comparison of the means. Indeed, if the distribution of a variable follows the normal distribution, the Student's t test will be the appropriate technique to compare the means between the two groups of countries and if not the Mann Whitney test that uses the order of appearance of observations of the two samples would therefore be more suitable.

**Table.5: Comparison between the two groups of developing countries:  
Mann Whitney U test**

<b>Statistiques des deux groupes</b>				
<b>Variables</b>	<b>Adoption decision</b>	<b>average rank</b>	<b>Z</b>	<b>Sig.</b>
<b>INNOV</b>	<b>No Adoption</b>	41,96	-2,477	0,013*
	<b>Adoption</b>	58,48		
<b>NORM</b>	<b>No Adoption</b>	32,52	-4,108	0,000*
	<b>Adoption</b>	61,47		
	<b>Adoption</b>	64,85		
<b>MIM</b>	<b>No Adoption</b>	23,00	-5,885	0,000*
	<b>Adoption</b>	64,49		
<b>COER</b>	<b>No Adoption</b>	41,87	-2,362	0,018*
	<b>Adoption</b>	58,51		
<b>CONSERV</b>	<b>No Adoption</b>	61,12	-1,536	0,124
	<b>Adoption</b>	52,40		

**\* Significant at the 5% threshold**

Table.5 shows clearly the behavioral differences between the two sub-samples. In fact, all of the variables have clear dissimilarities between countries that were adopted IAS/IFRS and those which have not adopted these standards. In fact, 2 variables ("NORM" and "MIM") on 5 have exhibited some offsets that disperse 20 points the first sub-sample of the other. Furthermore, it should be noted that only four variables ("INNOV", "NORM", "MIM" and "COER") are equipped with significance at the threshold of 5%. Hence we firmly believe that our hypothesis will be guaranteed.

However, the results in Table.5 have exposed a gap which is devoid of significance between the two groups of DEP in the sense that the offsets between the average ranks for the countries which have not adopted the IAS/IFRS and those which have adopted these standards are very minimal. They have shown, in fact, the non significance of a single variable which is the level of accounting conservatism "CONSERV" (sig = 0.124). Empirical outcomes are in line with our expectations emblem; but given the lack of significance in some variables, the main hypothesis concerning the behavioral component will be partially rejected.

### **Multivariate analysis**

Before reaching a multivariate analysis of our model, we will refer to the analysis of the multicollinearity characteristics between the explanatory variables. Indeed, it is commonly known that the problems of multicollinearity in the model can trigger signs and inaccurate factors and alter, therefore, outcomes and conclusions of

the analysis. As called Groebner et al. (2008), and Aczel Sounderpandian (2002) and Gujarati (1995), we will proceed to the establishment of the correlation matrix between different variables and VIF test (Variance Inflation Factor) (Appendix.2). Both tools, according to these researchers, draw very efficient methods for discerning multicollinearity between the variables of a model.

The outcomes of these two tests, as set out in Appendix 2, make known that the correlation coefficients are significantly smaller than 0.6.

Indeed, the test Pearson recommended that these variables are all different from each other. Beyond that the examination of the VIF Test (Variance Inflation Factor) has seemed very imperative.

Based on the study of Groebner et al. (2008), which considered that there is a serious impediment multicollinearity among the independent variables of a regression when the VIF values exceed 5, we have noted that the application of this test to our explanatory variables exhibited outputs which do not exceed the value of 1.359 (VIF of the variable "TAX"). Under discernible results, we recorded that VIF varies from 1.066 to 1.359. Ultimately, these bearing (Pearson tests and VIF) developed clearly that multicollinearity does not prove to be an embarrassment in our regressions.

From the beginning, our empirical objective was to segment our population into two parts: developing countries that have adopted the international accounting standards IAS/IFRS; 1 and those who do not adopt; 0. In this perspective, this dichotomous classification allowed us to opt for logistic regression in order to analyze the impact of the following behavioral variables "INNOV", "NORM", "MIM", "COER" "CONSER", "TAX", "SIZE". Under this component, we quest for the admission of these seven variables in our behavioral model and we have selected the "entry" method. Therefore, our job was to expose in the first time our logistic function in a whole and then to examine it with care.

Referring to Table.6, we have seen a wide range of significance through behavioral variables. Only three variables (INNOV, TAX and size) on seven were devoid of significant attribute in our logistics function. We also noticed that the three variables tracing the isomorphic appearance in our model (behavioral) are all significant at the 5% threshold. These achievements come to support our expectations and the conclusions of the previous studies in this theme (Hopwood, 1987; Lasmin,2011 ;Touron ,2004 ;Barbu ,2006; Judge et al. ,2010 and Ben Othmen and Kossentini,2014). The degree of the Coercive isomorphism which has been measured by the percentage of official development assistance (ODA) in relation to the gross national income (GNI), appears as the most voluminous variable in all significant explanatory variables ( coefficient = 0.419, Sig = 0.012). This result led us to note that under the Coercive isomorphism, developing countries with a high level of external pressures exerted by international institutions donors of the loans are more likely to adopt the IAS/IFRS. Other variables tracing the impact of isomorphism by its three components on the adoption of IAS/IFRS by the developing countries also hold significant values. Indeed, the degree of normative isomorphism "NORM" which unveiled a coefficient of 0.054 and 0.015 significance we called out to defend that the

development of the accounting profession has a significant and positive effect on the use of international accounting standards by developing countries because of the normative isomorphism.

**Table. 6 : The results of logistic regression**

<b>Variables</b>	<b><math>\alpha</math> Coeff</b>	<b>Wald</b>	<b>Sig.</b>
INNOV	0,955	0,550	0,459
NORM	0,054	5,868	0,015*
MIM	0,063	8,284	0,004*
COER	0,419	6,332	0,012*
CONSERV	-1,891	4,515	0,034*
TAX	-0,099	2,609	0,106
SIZE	-0,056	,775	0,379
<b>Khi-deux</b>	68,456*		
<b>-2Log-Likelihood</b>	50,761		
<b>Hosmer-Lemeshow test</b>	3,025**		
<b>R-square of Cox &amp;Snell</b>	0,469		
<b>R-square of Nagelkerke</b>	0,702		
<b>% of good classification of the model</b>	87,0		
<b>N</b>	108		

\* The probability is significant at the 0.05 level

\*\* Significance level is high (more than 0.05)

Similarly, the degree of isomorphism mimetic "MIM" which was measured based on interactivity between economic openness to the outside and the import growth rate, put us in the face of parameters ( coefficient = 0.063, Sig = 0.004) that could certify our assumptions. Therefore, under mimetic isomorphism, developing countries with a high degree of economic globalization are more likely to adopt IAS/IFRS. In addition, the confirmation of our assumptions granted us the ability to strongly agree that the choice of IAS/IFRS by developing countries is driven more by institutional and social pressures (institutional isomorphism). In this vision of significance, the other significant variable existing in our empirical function is the one that reflects the level of conservatism "CONSERV" in the countries selected for our sample. This variable is carrier of values (coefficient=-1, 891, SIG=0.034) which allocated us the possibility to certify that the level of accounting conservatism has a significant influence on the choice of the IAS/IFRS by the developing countries: the more a country exhibits a strong level of accounting conservatism, the more it is reluctant to the adoption of the IAS/IFRS. On the other hand, the results attached to the variable "INNOV" (coefficient= 0.955, sig=0.459) have advocated that the probability that a developing country will adopt the IAS/IFRS is not significantly

attached to its overall level of innovation. These facts are significantly opposed to our expectations and those of Sy (2011). Meanwhile, the variable "SIZE" appears as a variable that has no legitimate and significantly influence on the decision of the PED to refer to the IAS/IFRS (coefficient = -0.056 , SIG=0,379). In the same action, the variable highlighting the weight of taxation in the developing countries seems devoid of all meaning of significance. In effect, the tax aspect has no impact on the decision of IAS/IFRS adoption by the developing countries.

Consequently, it is obvious that the results of the multivariate analysis are largely different from those of the univariate analysis.

## **5. Concluding remarks**

The comparability of financial statements has been recognized as an important characteristic of the financial information given its interventions in improving the usefulness of the accounting information. Generally, the economic decision making are derived from a comparison made on the alternatives and accounting manuals. The literature and the experiments have amply argued that the analysis of the financial data without a basis of comparison would be impossible. They also emphasized that the financial outcomes cannot be assessed in isolation. In this observation, the various accounting standard setters have positioned comparability as a central component of the financial reporting system. More specifically, the comparability has been one of the four qualitative characteristics of the accounting information adopted by Conceptual Framework produced by the International Accounting Standards Board (IASB). Undoubtedly, the adoption of IAS/IFRS around the world was then a response to the needs of comparability between the financial statements, to pressure from financial markets and the effects of globalization, rather than as a response to any initiative of a government policy of any kind. For several countries, the adoption of IAS/IFRS has alerted a change in the underlying logic to the accounting standards.

Our main target was therefore to identify the behavioral determinants of IAS/IFRS adoption in the developing countries. In order to achieve this, the orientation of our methodological pace has been the highlighting and the analysis of the correlation which could embody between the cited factors and the IAS/IFRS adoption in developing countries. Tested models are functions of logistic regression. To assess the parameters of these functions, the commonly used method is not that of ordinary least square but the maximum likelihood technique. In short, this study followed a hypothetical-deductive methodology by referring to the application of a logistic regression for each of the variables presumed to be analyzed.

Based on a logistic regression for a sample of 108 Developing Countries, results attached to our behavioral variables allowed us to conclude that the adoption of IAS/IFRS by developing countries has been particularly legitimized by institutional and social impulses through institutional isomorphism. In fact, countries with a high degree of economic globalization and high levels of tenuous external pressures from donors of loans such as the World Bank or the International Monetary Fund are more pushed to

adopt these standards. In addition, developing countries that have experienced timely developments in the accounting profession have been more inclined to adopt international accounting standards.

Our achievements are hypothetically important for the local standardization bodies of selected countries since they can provide a better discernment of the factors that may encourage the adoption of IAS/IFRS.

However, it is essential to indicate that some limits are assigned to our study. They are attached principally to the restriction of the variables around a single component (behavioral) in abstraction of other variables which could probably better explain the choice of adoption of IAS/IFRS by developing countries. In addition, our use of a dichotomous dependent variable presents a limit reaching of the application of a binary logistic regression in a sense where the robust inequality at the level of the numbers of the countries of sub-samples can relatively weaken the results found.

Given that the sample of the study is considerably very heterogeneous and exhibits a significant mass of countries, it should in future research focus on a study by country or by group of countries drawing of homogeneous specificities in order to better refine the results. Other upcoming work also seem conceivable to respond to the following problem: What are the real environmental components that are in favor or against the adoption of the IAS/IFRS in the developing countries?

## **References**

- Abrahamson, E. (1996). Management fashion. *Academy of management review*, 21(1), 254-285.
- Aczel, A. D., & Sounderpandian, J. (2002). Complete business statistics (Vol. 545, p. 2006). New York, NY: McGraw-Hill/Irwin.
- Azan, W., & Bollecker, M. (2011). Management control competencies and ERP: an empirical analysis in France. *Journal of Modelling in Management*, 6(2), 178-199.
- Barbu, E. (2006). L'application des normes IAS/IFRS par les entreprises françaises cotées: une décision sous influence institutionnelle. In *COMPTABILITE, CONTROLE, AUDIT ET INSTITUTION (S)* (pp. CD-Rom).
- Benaïcha, B., & Hamid, F. (2013). Facteur culturel et pratiques comptables en Algérie. *Revue de chercheur*, 13(1), 157-172.
- Brewer, P. C. (1996). *A Case Study of An Activity-Based Cost Management System—Implementation at Harris SemiConductor*. Working Paper, August, Miami University.
- Carpenter, V. L., & Feroz, E. H. (2001). Institutional theory and accounting rule choice: an analysis of four US state governments' decisions to adopt generally accepted accounting principles. *Accounting, organizations and society*, 26(7), 565-596.
- Chabrak, N. (2000). La politique comptable comme comportement organisationnel: une approche sociocognitive. *Congrès ASAC-IFSAM 2000*.
- Choi, F. D., & Meek, G. K. (2005). Akuntansi Internasional. *Jakarta: Salemba Empat*.
- Chouchane, B. (2010). Pertinence des normes comptables IAS/IFRS au contexte culturel tunisien. *La Revue des Sciences de Gestion*, (5), 129-140.
- Clifford, M. L., E. (2000). Moving up the ladder, *Business Week*, November 6, 46 – 51.
- Cooke, T. E., & Wallace, R. O. (1990). Financial disclosure regulation and its environment: A review and further analysis. *Journal of Accounting and Public Policy*, 9(2), 79-110.



- DiMaggio, P. J., & Powell, W. W. (2000). The iron cage revisited-Institutional isomorphism and collective rationality in organizational fields (Reprinted from the American Sociological Association vol 48, pg 147-160, 1983). *ADVANCES IN STRATEGIC MANAGEMENT, VOL 17, 2000, 17*, 143-166.
- ENGARDIO, P., & BELTON, C. (2000). Global capitalism. *Business Week*, vol. 6, 40-45.
- Glynn, J. J., & Murphy, M. P. (1996). Public management: Failing accountabilities and failing performance review. *International Journal of Public Sector Management*, 9(5/6), 125-137.
- Gray, J. (1988). *National information policies: Problems and progress*. London; New York: Mansell.
- Groebner, D. F., Shannon, P. W., Fry, P. C., & Smith, K. D. (2011). *Business statistics: a decision making approach*. Prentice Hall/Pearson.
- Gujarati, D. N. (2009). *Basic econometrics*. Tata McGraw-Hill Education.
- Hofstede, G. (1984). *Culture's consequences: International differences in work-related values* (Vol. 5). sage.
- Hopwood, A. G. (1987). The archeology of accounting systems. *Accounting, organizations and society*, 12(3), 207-234.
- Judge, W., Li, S., & Pinsker, R. (2010). National adoption of international accounting standards: An institutional perspective. *Corporate Governance: An International Review*, 18(3), 161-174.
- KOSSENTINI, A., & BEN OTHMAN, H. (2014). A study of the institutional and economic determinants of IFRS adoption in emerging economies. *TIJA Symposium TIJA, V.K. Zimmerman Center for International Education & Research in Accounting, University of Illinois at Urbana-Champaign*
- Lande, E. (2006). Accrual Accounting in the public sector: Between institutional Competitiveness and the search for Legitimacy. *Accounting Reform in the Public Sector: Mimicry, Fad or Necessity*, 19-30.
- Lasmin, D. (2011). An institutional perspective on international financial reporting standards adoption in developing countries. *Academy of Accounting and Financial Studies Journal*, 15(2), 61-71.
- Miller, P. (1996). *Dilemmas of accountability: the limits of accounting* (pp. 57-69). Blackwell Publishers.
- Morris, R. D., & Gray, S. J. (2007, March). Corporate transparency differences in the Asian region: The feasibility of global standardization in practice. In *AFAANZ Conference, Gold Coast, July*.
- Mueller, G. G., Kelly, L., & May, R. G. (1991). *Introductory financial accounting*. Prentice Hall.
- Nobes, C., & Parker, R. H. (2008). *Comparative international accounting*. Pearson Education.
- Scott, W. R. (1995). *Institutions and organizations* (pp. p-33). Thousand Oaks, CA: Sage.
- Sy, I. T. (2011). *Etude des liens entre l'appropriation des normes IAS/IFRS et les dimensions organisationnelles et managériales des services comptables* (Doctoral dissertation, Conservatoire national des arts et metiers-CNAM).
- Touron, P. (2004). L'adoption des principes comptables généralement reconnus aux États-Unis par Saint-Gobain-Pont-à-Mousson: du conflit d'agence à la légitimité institutionnelle. *Comptabilité-Contrôle-Audit*, 10(3), 161-191.

**Appendix.1**

Normality tests						
Variables	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistics	ddl	Signification	Statistics	ddl	Signification
INNOV	,268	108	,000	,686	108	,000
NORM	,120	108	,001	,949	108	,000
IMPORT	,151	108	,000	,826	108	,000
OE	,222	108	,000	,605	108	,000
MIM	,307	108	,000	,415	108	,000
COER	,160	108	,000	,778	108	,000
CONSERV	,435	108	,000	,584	108	,000

**Appendix.2**

Variables	INNOV	NORM	MIM	COER	CONSERV	TAX	SIZE	VIF
INNOV	1							1,091
NORM	0,249**	1						1,290
MIM	0,042	0,049	1					1,085
COER	-0,102	-0,203*	0,253**	1				1,277
CONSERV	0,133	0,063	-0,016	-0,202*	1			1,210
TAX	-0,093	-0,328**	-0,048	-0,115	-0,296**	1		1,359
SIZE	0,067	0,055	0,037	0,151	-0,062	-0,175	1	1,066

\*\* . Correlation is significant at the 0.01 level (bilateral).

\* . Correlation is significant at the 0.05 level (bilateral).