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#### Articles

International Financial Reporting Standards (IFRS) Adoption in Africa: Does Cultural Affinity to Europe Play a Part?

> Design Issues in Management Control Systems: A Systems Framework

Testing Cointegration between US and BRICS Stock Markets

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#### Case Study

Service and Brand Design: A Case of Shaadi.com

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## **Institute of Management**



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One of the essential ingredients of accounting information is ease in understanding and interpreting financial reports. Globalization and capital flows across borders require uniformity in accounting standards for the purpose of ease in understanding and interpretation of financial reports globally. To achieve this, the International Accounting Standards Board (IASB) in 2005 introduced the International Financial Reporting Standards (IFRS) as an accounting product and expects all countries in the world to adopt it.

Interestingly, some countries are yet to adopt it despite the expected benefits from its adoption. A study by Simon Fraser University (2011) has reported that only 54 per cent of African countries have adopted IFRS. Literature on why countries adopt IFRS focuses on many variables such as the country's cultural affinity to Europe offering the IFRS product (Ramanna and Sletten, 2009; Farooque, Yarram, and Khandaker, 2009; Epstein, 2009; Beneish, Miller, and Yohn, 2010; and Chen, Ding, and Xu, 2011).

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The past decade saw many companies involved in financial scandals (e.g. Enron, Tyco, Cadbury, and Worldcom) that shocked the world. As a result, more attention was placed on the role of IFRS in checking this ugly trend through uniformity and clarity of financial reporting across the globe. Surprisingly, there is paucity of research on the role of variables like culture in IFRS adoption decisions across countries in Africa. To the best of the researcher's knowledge, very few studies have investigated the association between IFRS adoption decisions by countries and cultural affinity to Europe (Salter and Niswander, 1995; Robert and Salter, 1999; Jaggi and Low, 2000; Ramanna and Sletten, 2009). The findings in these studies are mixed which makes the issue inconclusive.

Some of the previous studies have excluded countries which are yet to adopt international accounting standards (Eddie, 1990; Salter and Niswander, 1995; Robert and Salter, 1999; Jaggi and Low, 2000) which poses questions about their sample impartiality. Excluding countries which are yet to adopt IFRS makes the sample size per continent small and therefore their results could not be reliable. The important point here is that the non-adoption decision is still a decision. Therefore, the sample in this study has covered countries in all the five geographical regions of Africa (Eastern Africa, Middle Africa, Northern Africa, Southern Africa, and Western Africa), including those which are yet to adopt IFRS.

Most of the empirical literature on the role of culture in adoption of international accounting standards (Robert and Salter, 1999; Jaggi and Low, 2000) has focused on the firm level. This study complements the firm level studies by looking at the role of culture in IFRS adoption at the country level. In this study 2011 was used as the observation year. This is because data for a country's population is usually at the last census; and data for an African country's year of independence is the date of independence. The study is designed to answer the question: In what way does cultural affinity to Europe (the continent offering the IFRS product) influence an African country's decision to adopt IFRS?

## **Culture and IFRS Adoption**

In a study of a sample of thirteen countries of the Asia-Pacific region, Eddie (1990) tests all four hypotheses in the Hopstede-Gray framework. His empirical study confirmed all predicted signs of association between culture and preference for a single mandatory treatment in accounting. Nevertheless, the results should be viewed with caution because his method of measurement was not rigorous, the index was subjectively determined, and he used two different sets of data twenty years apart. Salter and Niswander (1995) operationalized Gray's hypothesis using data from 29 countries. A variety of cultures in terms

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of language, geographical location, colonial antecedents, and economic development was included in the sample. They found significant support for only six out of thirteen of Gray's predicted relationships between cultural value dimensions and accounting values.

According to Salter and Niswander (1995), the preference for a single mandatory treatment in accounting is not significantly influenced by culture. This result is not in consonance with Robert and Salter's findings (1999). This may be because of the differences in cultural dimensions employed in these studies. While Salter and Niswander (1995) relied on only Gray's culture dimensions, Robert and Salter relied on only two hypotheses in arriving at their conclusion. They examine the drivers behind accountants' attitudes towards uniformity in accounting rules. They hypothesized as follows: (1) "the strength of desire for a single mandatory treatment for an accounting issue in a country is related to the culture of a country and (2) the strength of desire for a single mandatory treatment for an accounting issue in a country is positively related to the importance of the stock market in that country" (Robert and Salter, 1999).

Robert and Salter administered a questionnaire comprised of fourteen accounting issues to a sample of auditors employed in Big 6 accounting firms in 23 countries. The countries were selected based on the size of stock markets at the end of 1993. Each respondent was asked to respond with a yes/no on the statement whether they wanted a single mandatory treatment (e.g. IFRS) for fourteen different accounting issues. The dependent variable was the response whether or not a single mandatory method was preferred. The independent variable consisted of the importance of capital market and culture. The results showed that the respondents tended to favour a mandatory single treatment in 66 per cent of the cases analysed. This result is consistent with Gray's (1988) hypothesis that uniformity has a positive relation to culture. Robert and Salter (1999) concluded that the preference of a single mandatory treatment in accounting is influenced significantly by culture.

Ding, Jeanjean, and Stolowy (2005) in their study on the role of culture in the way national accounting systems of 52 sample countries may differ from international accounting standards, claimed that the difference between domestic accounting standards and international accounting standards can be classified into: (1) divergence - if domestic accounting standards prescribe a different method from international accounting standards and (2) absence - if domestic standards do not cover an accounting issue regulated by international accounting standards. Their study focuses on the cultural values of each country as the explanatory variable for the differences between each domestic standard and IAS. With regard to divergence, they hypothesized that a country with a higher level of

individualism and uncertainty avoidance and a lower level of masculinity and power distance is likely to have accounting standards that diverge from international accounting standards. In terms of absence, they hypothesized that a country with a higher level of masculinity and uncertainty avoidance and higher level of individualism that are less extensive than international accounting standards is not likely to have accounting standards that diverge from international accounting standards.

These results show that culture is significant in explaining divergence from international accounting standards, while the level of absence appears to be less related to cultural factors. Ding, Jeanjean, and Stolowy (2005) argued that the level of absence is more likely related to economic development and capital market issues. They concluded that discrepancy from IAS/IFRS is "not exclusively driven by contractual motives or a claimed technical superiority or legal origin, but also by diversity in cultural factors". On the same side of the spectrum, Jaggi and Low (2000) examine the impact of culture on financial disclosures by firms from different countries, and find that the culture of a country is not likely to impact the compliance with international accounting standards if firms choose to follow them. Focusing analysis on a sample of 102 countries, Ramanna and Sletten (2009) examine IFRS adoption in relation to cultural sensitivities. They are of the view that if the IASB is perceived as a European institution, countries that are culturally more distant from Europe are less likely to accept IFRS. They found that countries that are culturally more distant from Europe are less accepting of IFRS. In the light of the above, it is hypothesized in this study that: cultural affinity to Europe has no significant relationship with adoption of IFRS in Africa.

### **Theoretical Framework**

This study sets out to ascertain the relationship between cultural affinity to Europe – the continent offering the IFRS product – and adoption of IFRS by African countries. It relies on the economic theory of networks (Katz and Shapiro, 1985) to build a comprehensive framework able to capture the role of African countries' cultural affinity to Europe and their IFRS adoption. The reason for the choice of the theory of network is because, according to Ramanna and Sletten (2009), "adopting a set of standards like IFRS can be more appealing to a country if other countries have adopted it as well," given their closeness to Europe. In this sense, IFRS can be a product with network effect.

#### Economic Theory of Networks

In life at times, one finds himself in a situation where choice has to be made between two things that are desirable; for example a country having to choose between its domestic accounting standards and IFRS. When making such choices, one consideration is inevitable, and that is, how our participation will affect others within the same political or geographical block and how the participation of others will affect us. Most of us naturally consider what the people around us are choosing or are likely to choose. Since so many choices seem to have some network dimension, it is not surprising that economists have taken up these ideas and have coined a term to connote these network elements. This term is *network effect* or *network externality* (Liebowitz and Margolis, 1994).

In the case of IFRS adoption decision by a country, Ramanna and Sletten (2009) posit that the direct benefit of network effects may be represented by net cultural benefit of IFRS over local standards. That is, cultural sensitivity, a country's population, and gross domestic product might influence IFRS adoption.

Thus

$$ADP = f(CUL, POP, GDP)$$

where

CUL = cultural affinity to Europe

POP = population of the country

GDP = gross domestic product

POP and GDP are introduced as control variables in this study.

Based on the above, we use the economic theory of networks to develop the hypothesis in this study:

 H. Cultural affinity to Europe has significant relationship with adoption of IFRS in Africa.

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(1)

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## Methodology

Cross-sectional survey research design was adopted in this study because the researcher wanted to reach to several countries in the African continent. The population comprised 54 countries in Africa. A survey of the sampled countries with respect to the determinants of IFRS adoption was carried out. The sample size is 46 countries. Cluster sampling was complemented with simple random sampling technique was used. The reason for the choice of cluster sampling is that the population of study (54 countries making up Africa) is distributed in five clusters/regions. Cluster sampling will therefore make for proportional selection of samples such that the number of subjects selected from each region will represent its share of the entire population. For each country in a given cluster/region to have equal chance of being selected, random sampling was introduced. The clusters are: West Africa (16 countries), East Africa (16 countries), Middle Africa (9 countries), Southern Africa (6 countries), and North Africa (7 countries).

The next step was to number the countries in each of the clusters in a range. West Africa was numbered 01 to 16; East Africa 01 to 16; Middle Africa 01 to 9; Southern Africa 01 to 06; and North Africa 01 to 07. A computer package (Excel) was programmed to select 46 random numbers within the specified ranges in proportion to the cluster's share of the total population. The numbers thus generated were used to choose the countries included in the study sample.

Secondary sources of data were used in this study. Data for GDP were sourced from the World Bank World Development Indicators (WDI) database; data for a country's population was sourced from the *World Almanac and Book of Facts*; and cultural affinity was taken as the number of years a country has gained independence from its colonial masters (Ramanna and Sletten, 2009) which was sourced from WABF. Ordered logistic regression analysis was used to regress decision to adopt IFRS in relation to its predictors.

In operational terms, IFRS adoption is defined in this study as the decision a country has taken either to adopt IFRS or not (Ramanna and Sletten, 2009). To measure or arrive at the score for decision on IFRS adoption by an African country, the dependent variable (IFRS adoption) is in five categories: category 0 to category 4; where 0 means decision not to adopt IFRS by the country; 1 means efforts to implement IFRS are still being identified by the country; 2 means publicly listed entities and significant public interest entities are to prepare their financial statements using applicable IFRS; 3 means all other public interest entities mandatorily adopt IFRS for statutory purposes; and 4 means small and medium-sized

entities (SMEs) mandatorily adopt IFRS. Cultural affinity is defined as cultural closeness to the culture (Europe) offering the IFRS product. Cultural affinity is taken as years since independence from a European Union country (Ramanna and Sletten, 2009).

#### **Model Specification**

Assuming a linear relationship, we can write the above equation (1) in an explicit functional form as:

$$Y = \beta_{0} + \beta_{1} X_{1} + \beta_{2} X_{2} + \dots + \beta_{n} X_{n}$$
<sup>(2)</sup>

where  $\beta_0$ ;  $\beta_1$ ;  $\beta_2$ , ...,  $\beta_n$  are parameters to be estimated

*Y* = dependent variable (IFRS adoption decision)

 $X_1, X_2, \dots, X_n$  = independent variables

 $X_1$  = cultural affinity

 $X_2 = population$ 

 $X_3 =$ gross domestic product

In this case, our *n* is 3

Thus equations (1) and (2) become:

 $ADP = \beta_0 + \beta_1 CUL + \beta_2 POP + \beta_2 GDP + U$ 

where  $\beta_0$ ,  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  are parameters to be estimated. The priori expectation is that

 $\beta_1 > 0, \beta_2 > 0, \text{ and } \beta_3 > 0$ 

*U* is the error term and  $\beta_0$  is the constant term.

#### Results

The results of data analysed for all the countries in Africa are presented below.

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#### REGRESSION RESULT

Dependent Variable: ADP

Method: ML - Ordered Logit

Included observations: 46

Number of ordered indicator values: 5

Variable	Coefficient	Std. error	z-statistic	Probability
CUL	%0.052761	0.016382	%0.522160	*0.5207
РОР	0.062855	0.011581	0.210481	*0.3971
GDP	0.139160	0.581072	0.471990	*0.5993
LR statistic	12.48269			
Prob(LR statistic)	0.061525			

Convergence achieved after five iterations

\* not significant at 5% level

The results can be represented in an equation as shown below:

 $ADP = \beta_{0} + \beta_{1} CUL + \beta_{2} POP + \beta_{3} 1GDP + U$ -0.052761 0.062855 0.39160

In this study each slope coefficient measures the change in the estimated logit for a unit change in the value of the given regressor (holding other regressors constant). Thus, the cultural affinity to Europe (*CUL*) coefficient of -0.052761 means CUL has a negative effect on the logit, that is, if CUL increases by a unit, the estimated logit has the likelihood of reducing by 0.053 unit, suggesting a negative relationship between the two. If POP increases by a unit, on average the estimated logit has the likelihood of increasing by about 0.063 unit, suggesting a positive relationship between the two. Likewise, if GDP increases by a unit, on average the estimated logit also has the likelihood of increasing by about 0.14 unit, suggesting a positive relationship between the two.

From the ordered logistic regression result above, all the variables appear not to be statistically significant at 5 per cent level. Although statistically the effect of a country's population and gross domestic product is positive, that of cultural affinity is negative. However, together all the regressors have a significant impact on IFRS adoption, as the LR statistic is 12.48269, whose p value is about 0.061525, which is very small. The LR statistic measures the joint correlation of the explanatory variables (CUL, POP, GDP) with the dependent variable (ADP). It is used to test the rejection or otherwise of the null hypothesis that none of the explanatory variables is related to the dependent variable. The LR statistic is 12.48 and is significant at 5 per cent level given the p value 0.06. This shows that the explanatory variables jointly explain the variation in IFRS adoption. On the whole, the model has an overall good-fit.

#### **Hypothesis Test**

The following hypothesis was developed for the study:

- H<sub>o</sub>: Cultural affinity to Europe has no significant relationship with adoption of IFRS in Africa.
- H<sub>i</sub>: Cultural affinity has significant relationship with adoption of IFRS in Africa.

From the analysis conducted for the null hypothesis, the relationship between cultural affinity and IFRS adoption decision by African countries did not also pass the significance test at 5 per cent level (p=0.00<0.05). This shows that there is the likelihood that cultural affinity does not significantly affect IFRS adoption decision by African countries. Cultural affinity was also found to impact negatively on IFRS adoption as depicted by the long run slope coefficient (-0.052761). Hence, the null hypothesis ( $H_o$ ) of no significant relationship between cultural affinity and adoption of IFRS in Africa is accepted while we reject the alternative hypothesis ( $H_i$ ).

### Discussion

We observe that the evaluation of the slope coefficients of the explanatory variables reveals the existence of negative relationship between culture and IFRS adoption (-0.052761) which is also statistically not significant at 5 per cent ( $p \le 0.05$ ). This result is in consonance with the finding of Salter and Niswander (1995) that the preference for a single mandatory treatment in accounting is not significantly influenced by culture. Also in tandem with the finding in this study is that of Jaggi and Low (2000) who examined the impact of culture on financial disclosures by firms from different countries and found out that the culture of a country is not likely to impact the compliance with international accounting standards, if firms choose to follow them.

However, the result in this study is not in consonance with the finding of Eddie (1990) and Robert and Salter (1999). This may be because of the differences in cultural dimensions employed in these studies. While Salter and Niswander (1995) relied on only Gray's culture dimensions, Eddie (1990) used Hofstede-Gray cultural dimensions, while Robert and Salter (1999) relied on only two hypotheses in arriving at their conclusion. Robert and Salter (1999) concluded that the preference of a single mandatory treatment in accounting is influenced significantly by culture.

Focusing analysis on a sample of 102 countries, Ramanna and Sletten (2009) examine IFRS adoption in relation to cultural sensitivities. They are of the view that if the IASB is perceived as a European institution, countries that are culturally more distant from Europe are likely to be less accepting of IFRS. Thus they test whether cultural differences can explain cross-country variation in IFRS adoption. They found that countries that are culturally more distant from Europe are less accepting of IFRS. This finding by Ramanna and Sletten (2009) is in tandem with the finding in this study.

## Conclusion

The finding that cultural affinity does not seriously affect IFRS adoption in Africa has serious implications for level of financial transactions, and disposition to uniformity in accounting practices in Africa. This result is not surprising given the high level of cultural diversity and affinities in Africa. Here, we have not only the Anglophone/Anglo-Saxon African countries but also the Francophone and even those not belonging to any of these two blocs. This also reflects a high level conservatism and poor cultural globalization in Africa. Based on this result of negative and not significant relationship between cultural affinity and IFRS adoption, there should be a policy shift towards cultural globalization, if there is going to be uniformity and comparability in accounting standards in Africa viz-a-viz the rest of the world.

African economies should take steps at improving on cultural globalization. This is necessary to open up their economies for benefits of economic globalization in terms of competitiveness of human resources and markets from Africa; which, hopefully, will bring about adoption of the IFRS product by more countries in Africa.

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List of Countries in Africa	IFRS Adoption Status/ adoption date	GDP in USD	Population as at last census	Date Coloniz ed	Colonizer	YOI <sup>#</sup>	YO I to 201 1
West Africa							
Benin	Not Permitted	7,294,865,847	9,099,922	1904	France	1960	51
Burkina Faso	Not Permitted	10,187,211,704	16,967,845	1896	France	1960	51
Cape Verde	Not Permitted	1,901,136,230	500,585	1462	Portugal	1975	36
Cote d'Ivoire (Ivory Coast)	Not Permitted	24,073,812,829	20,152,894	1842	France	1960	51
Gambia (The)	2009	898,282,866	1,776,103	1588	Britain	1965	46
Ghana	2007	39,199,656,051	24,965,816	1844	Britain and Germany	1957	54
Liberia	Not Permitted	1,545,461,660	4,128,572		United States(indirectly)	1847	164
Mali	2010	10,589,925,352	15,839,538	1898	France	1960	51
Nigeria	2012	243,985,812,280	162,470,737	1861	Britain	1960	51
Senegal	Not Permitted	14,291,456,855	12,767,556	1890	France/Portugues	1960	51
Sierra Leone	2006	2,242,960,927	5,997,486	1787	Britian	1961	50
Togo	Not Permitted	3,620,169,609	6,154,813	1960	Germany;France	1990	21

## Appendix

## SAMPLED COUNTRIES AND THEIR CHARACTERISTICS

International Financial Reporting Standards (IFRS) Adoption in Africa

East Africa							
Burundi	2004	2,325,972,144	8,575,172	1916	Belgium	1962	49
Eritrea	Not Permitted	2,608,715,447	5,415,280	1890	Ethiopia	1993	18
Ethiopia	2010	30,247,359,642	84,734,262		Italy	1941	70
Kenya	2005	33,620,684,016	41,609,728	1890	Britain	1963	48
Madagascar	2005	9,911,781,297	21,315,135	1885	France	1960	51
Malawi	2005	5,621,000,678	15,380,888	1891	Britain	1964	47
Mauritius	2005	11,259,856,301	1,286,051	1721	Frane/Britain	1968	43
Rwanda	2008	6,374,877,468	10,942,950		Belgium	1962	49
Seychelles	2009	1,007,186,292	86,000	1794	Britain	1976	35
Tanzania	2004	23,874,165,047	46,218,486	1880	Britain	1963	48
Uganda	2004	16,809,623,489	34,509,205	1894	Britain	1962	49
Mozambique	2008	Non Anglo-Saxon	12,797,754,23 1	23,929, 709	1505	Portuga 1	197 5
Zambia	2005	19,206,044,932	13,474,959	1889	Britain	1964	47
Middle Africa							
Angola	2009	104,331,613,337	19,618,432	1583	Portugal	1975	36
Cameroon	2009	25,235,747,212	20,030,362	1884	Germany;France and Britain	1960	51
Central African Republic	Not Permitted	2,194,720,004	4,486,837		France	1960	51
Chad	2009	9,485,741,541	11,525,496	1900	France	1960	51
Congo (Brazzaville)	Not Permitted	14,425,606,793	4,139,748		France	1960	51

Congo, Democratic							
Republic	Not Permitted	15,653,634,042	67,757,577	1876	Belgium	1960	51
Equatorial Guinea	Not Permitted	19,789,801,404	720,213	1778	Spain	1968	43
Gabon	2009	17,051,616,749	1,534,262		France	1960	51
Sao Tome and Principe	Not Permitted	248,286,778	168,526	1471	Portugal	1975	36
North Africa							
Algeria	2009	188,681,099,191	35,980,193	1848	France	1962	49
Egypt	2008	229,530,568,260	82,536,770	1882	Britain	1922	89
Libya	2010		6,422,772	1912	Italy	1951	60
Morocco	2008	100,221,001,988	32,272,974	1909	France and Spain	1956	55
Sudan	Not Permitted	64,053,368,930	34,318,385	1820	Britain and Egypt	1955	56
Tunisia	Not Permitted	45,863,804,800	10,673,800	1881	France	1956	55
Southern Afric	ca						
Botswana	2007	17,327,510,032	2,030,738	1886	Britain	1966	45
Lesotho	2007	2,426,200,017	2,193,843	1868	Britain	1966	45
Namibia	2005	12,300,698,895	2,324,004	1890	Germany and Southern Africa	1990	21
South Africa	2005	408,236,752,340	50,586,757	1806	Britain	1931	80
Swaziland	2008	3,977,754,360	1,067,773	1903	Britain	1968	43
Zimbabwe	2005	9,656,199,414	12,754,378	1809	Britain	1965	46