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NATIONAL CULTURE AND TAX PERFORMANCE IN AFRICA

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Traditional theories ignored the power of culture with respect to tax performance, even though culture does have an impact on everything that people do or decide not to do. This study examines the impact of the national culture dimensions: the power distance, individualism, masculinity, uncertainty avoidance, long-term orientation and indulgence on tax performance in ten African countries. A quantitative research design was adopted and a panel dataset from 2010 to 2016 was analyzed using the Panel-Corrected Standard Error estimator. The results show that indulgence indicates a significant positive impact on tax performance, the power distance, individualism and long-term orientation have a significant negative impact on tax performance, whereas masculinity and uncertainty avoidance have an insignificant impact. Thus, high tax performance is associated with a low power distance, low individualism, low short-term orientation, moderate uncertainty avoidance, masculinity and high indulgence. This study recommends that tax policymakers should consider cultural values when designing tax compliance legislation or when investigating possible behavioral irregularities.

Keywords: taxation, culture, performance, Africa

JEL Classification: D82, H25, M49

INTRODUCTION

The role of taxation in weaning a country off foreign reliance has attracted every tax administration effort geared towards the achievement of tax collection targets and monitoring performance outcomes across all levels. In less-developed economies, revenue may be the only recognized performance parameter; however, tax administrators in developed nations track a range of tax performance measures, through which countries can be classified into three tax performance levels - high, low or average (Kloeden, 2011). These measures are highly dependent on a tax compliance level; therefore, tax performance and tax compliance are interchangeably used.

Economic and psychological/behavioral schools of thoughts are commonly used to buttress tax performance. The economic school is conceptualized on a tax gap, while the psychological school supports the behavioral approach in understanding tax performance (James & Alley, 2002). The cost/

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benefit analysis of noncompliance forms a thrust of tax performance from an economic point of view, whereas the psychological approach measures tax performance in relation to culture, social norms, the attitude and a moral judgment. However, according to C. W. Bame-Aldred, J. B. Cullen, K. D. Martin and K. P. Parboteeah (2011), the contribution of culture to the understanding of tax performance may be significant from one country to another.

National culture includes the dimensions that distinguish nations based on how citizens handle inequality (the power distance), how they cope with uncertainty (Uncertainty Avoidance - UA), their relationships with a group (individuality), the traits exhibited as a result of being born as a girl or as a boy (masculinity/femininity), their extent of being futuristic (Long-term Orientation - LTO) and their plight when enjoying life is concerned (indulgence). Thus, the examination of the relationships between the different dimensions of national culture and tax performance deserves urgent attention simply because culture influences everything people do or decide not to do.

Although no one likes paying tax, every citizen considering him-/herself to be a patriot should consider regular tax payment as a desire to uplift his/her nation (Eiya, Ilaboya & Okoye, 2016). What is worrisome, however, is the resultant tax gap measured by the amount of a tax due and the amount actually collected, usually caused by the underpayment of tax value, not filling out a tax return, the declaration of fraudulent revenue and expenses, among other things (Raczkowski & Mroz, 2018).

Consequently, African countries lose more than $50 billion each year (Fiawoo, 2018), which limits the Government's ability to raise tax revenue. Based on these premises, it is pertinent to inquire as to why some tax payers behave themselves while others misbehave with respect to their tax payment duty. Of a serious concern is the fact that Africa is well-known for a lack of enthusiasm when tax payment is in question (behavioral issues), as demonstrated in the tax percentage of the GDP for the majority of African countries, which either falls or hovers along the same rate. In 2010, for instance, the tax percentage of the GDP in Nigeria fell by 55%, and in Egypt and Burkina Faso by 10% and 12%, respectively (World Bank Indicator).

As a means for a reduction in tax evasion and the improvement of tax performance, tax audit and penalties for being in default were taken into consideration by earlier studies, whereas only few focused on the behavioral factors to fully comprehend taxpayers' compliant behavior. More worrisome is the insignificant attention paid to the worldwide system measure of national culture, i.e. tax performance (Hofstede, 1980). This neglect is a serious academic gap, which forms the policy thrust of this study.

The importance of culture in the taxation context has only partially been addressed in the literature. However, either omissions and/or inadequacies in these studies, especially those exploring the role national cultures play in explaining countries' tax performance by taking cognizance of the interaction between tax compliance and tax evasion, is an academic novelty presented in this study. Even more so, it is the first of its kind to apply the cultural framework propounded/established by G. Hofstede (1980) as a measure of national culture in relation to tax performance in Africa.

Against this background, the study generally examines the influence that national culture has on tax performance in Africa. Specifically, the impacts that different dimensions of national cultural (such as indulgence, the power distance (PD), masculinity, as well as the UA, the LTO and individualism) have on tax performance are evaluated. With respect to tax performance in Africa (Nigeria, Ghana, Burkina-Faso, Egypt, Mozambique, South Africa, Tanzania, Cape Verde, Senegal and Sierra Leone), it is hypothesized as follows:

H1: The PD, individualism and masculinity have not statistically significant impact on tax performance.

H2: The UA, the LTO and indulgence have not statistically significant impact on tax performance.

The aforementioned synthesis refers to the time period between 2010 (being the year when indulgence, as the latest dimension of culture, was first introduced) and 2016 (based on the data availability).

LITERATURE REVIEW

Conceptual clarifications

Culture

Anthropologists often disagree upon the meaning of culture, but they believe that a culture comprises a set of human behaviors passed down from one generation to another. Generally, it is simply linked to the lifestyle and values of a given group of people. Precisely, according to (Hofstede, 2010), culture refers to the style of thinking, feeling and behavioral patterns of a specific group. It is a summation of the attitudes, values, norms and styles that differentiate one group from all other groups (Agbetunde, Ojediran & Fadipe, 2016). Culture is timely and it has an impact on everything that people do or decide not to do. Undoubtedly, culture plays a useful role in the development of human society, likewise cuts across numerous fields. Thus, the power of culture cannot be ignored (Huang, 2016).

The psychological level and the institutional level have been observed as two traditionally different approaches to looking at culture. The issues related to the individual behavior, attitudes and norms of a particular culture are considered at the psychological level, while the institutional level looks at national culture as embodied in institutions. There is no doubt that culture is unique and varies across nations. These variations have led to outright differences in the ways people think and behave, such that those born in the same country tend to share similar cultural instincts (Nordström & Vahlne, 1994). Hence, D. Matsumoto (2007) pointed out the fact that cultural differences emanated from either implicit or explicit elements (underlying values and physical objects, respectively). These cultural differences may, therefore, explain the reasons why some individuals pay tax while others refuse compliance.

The dimensions that include the LTO, individualism, the UA, the power distance, masculinity and indulgence, too, as the implicit elements have also been considered in the literature (Hofstede, 1980; 2001; 2010) and D. A. Ralston, C. P. Egri and E. Reynaud (2011). In this regard, the magnitude by which the members of a group with a limited power believe that power is unevenly distributed is called the power distance (Hofstede, 2010). It is bottom-top addressed so that a low power distance society reveals a culture where power is unequally distributed. However, the UA refers to the extent by which uncertain scenarios are perceived as threatening and the extent to which such scenarios are avoided (Suhaila, 2016). A. Tausch (2015) indicates the manner at which a culture programs its members to address the situations different from the norms.

Individualism highlights the degree to which individuals exhibit a self-syndrome. It describes a society devoid of an individual bond, i.e. everyone is expected to cater for themselves (Tausch, 2015), thus suggesting that individuals are independent of themselves and exist on their own. Masculinity buttresses culture with regards to the gender. It is the value attributed to rigor and achievement as against the feminine values of care and modesty (Hofstede, 2001). The LTO describes the values directed towards future gains, likewise the attitudes directed towards changing situations. On the other hand, short-term orientation is backwards looking and describes the past and present values of variables like the ability to fulfill social obligations as well as those of the face preservation and national pride (Hofstede, 2010).

Indulgence *versus* restraint is the latest national cultural dimension introduced by G. Hofstede (2010). The idea behind indulgence and restraint is similar to a comparison of leisure with work ethics (Huang, 2016). Happiness, being responsible for one's life, making friends, enjoying life and having fun are the intriguing constituents of this dimension. Differently from indulgence representing a propensity to pursue human desires (naturally) embedded underneath enjoyment in life and having fun, restraint reflects a need for such desires or for subjecting them to strict social regulations (Hofstede, 2010).

Tax performance

There are three categories of tax-performing countries (high, average and low) based on the tax collection performance at any point in time (Haldenwang & Ivanyna, 2015). Moreover, there is some country-specific information for the largest number of developing countries in respect of revenues and tax systems. Typically, compared to the established values, the tax revenue to the GDP ratio (the tax ratio) gave an idea about recent tax performance at a given point in time. However, tax performance changes over time due to certain factors, such as a tax compliance level, a tax morale degree and a tax evasion rate. Consequently, there is a link between performance, compliance, morale and evasion, all being related to taxation (Luttmer & Singhal, 2014) and R. G. Cummings, J. Martinez-Vazquez, M. McKee and B. Torgler (2008).

Tax compliance involves a process whereby taxpayers submit all necessary tax returns. It involves an accurate declaration of all appropriate income and the payment of a correct tax due in line with the applicable tax laws (Masud, Aliyu & Gambo, 2014). Conversely, tax evasion simply means the illegal nonpayment or underpayment of tax, whereas tax morale describes the inner conviction of taxpayers to accept, reject or neglect tax duties (Anca & Margareta, 2013).

When considering how tax morale might influence taxpayers' decisions, an important fact to note is a possibility of inner motivation which may encourage people to comply with the provisions of tax laws (Luttmer & Singhal, 2014). The evidence that supports the causal link between fiscal autonomy and tax morale, which eventually generates greater tax compliance with less tax evasion, was produced by B. Torgler and F. Schneider (2007). Thus, tax morale and tax compliance correlate positively and tax performances also increases with an increase in tax compliance. Notably, tax performance and tax compliance are used interchangeably.

Theoretical Background

This study hinges upon Hofstede's theory of global values, as it captures the predominant variables in the study that include masculinity: the UA, indulgence, individualism, long-term orientation and the power distance.

Theory of global values

G. Hofstede (1980; 2001; 2010; 2013), a Dutch psychologist, came up with the theory of global values in 1980. The theory proposes that the international value system should have six basic clusters. It deals with how inequality (the power distance), uncertainty (UA), relationships with a group (individuality), the traits exhibited as a result of being born as a girl or a boy (masculinity/femininity), the extent of being futuristic (LTO) and plight to enjoy life (indulgence) are handled among different national societies.

For each country surveyed, G. Hofstede (1980) came up with country-based scores (the UA, the power distance, masculinity and individualism) as the four relevant dimensions of culture. Indulgence and the LTO were subsequently added (Hofstede, Hofstede & Minkov, 2010). R. Inglehart (1990) further built on Hofstede's initial work in order to make the framework more conventional.

Hofstede's cultural dimensions have been widely used to explain the effect of culture in various topics (Hofstede, 2001). The theory considered useful in measuring culture (Kirkman, Lowe & Gibson, 2006) and G. Hofstede (2013) was highly rated, so that no theory and/or cultural model could completely replace Hofstede's national cultural dimension theory in cultural studies (Huang, 2016), because most cultural theories stemmed therefrom. Besides, the theory is dynamic and always progresses at the same rate with the changes imposed by a time trend.

Yet, these cultural dimensions were subjected to criticism, probably because the approach was regarded as blunt (Jackson, 2011) or for some other reasons. However, since no significant decline was recorded in the relevance of the theorized variables

(Tung & Verbeke, 2010), the theory nonetheless provides a significant initial point for understanding cultural values.

Undoubtedly, culture plays an indispensable role in the development of humans and human society and its role in various fields, including taxation, cannot be overemphasized, either Thus, the power of culture cannot be ignored (Huang, 2016), because it has an impact on everything that people do or decide not to do. Such a decision cuts across the tax context; for instance, tax compliance describes a situation where people decide to pay taxes, whereas tax evasion is a product of people's decision not to pay tax. The suitability of Hofstede's theory in explaining tax compliance and evasion behavior was supported in previous studies, such as G. T. Tsakumis, A. B. Curatola and T. M. Porcano (2007) and A. H. Suhaila (2016).

Empirical Studies

Minimal research efforts have been made towards establishing a link between culture and tax performance. The available studies have attempted this by building the implicit elements of culture into tax compliance behavioral models. These elements indicate taxpayers' thoughts about and perceptions of taxation that invariably shape their behaviors and attitudes. Along the same line, some researchers have tried to control the influence of these elements in the model of tax behavior (Bobek, Hageman & Kellier, 2012), having become aware of the fact that the implicit cultural characteristics evidenced by the expectations of close ones (subjective norms) and general societal expectations (injunctive norms) exert an influence on tax decisions.

According to D. Matsumoto (2007), cultural dimensions with wide acceptability and applicability in social sciences were first identified by G. Hofstede (1980). These cultural dimensions have been examined by various accounting studies, including C. W. Bame-Aldred *et al* (2011); C. Rarick, G. Winter, I. Nickerson, G. Falk, C. Barczyk and P. K. Asea (2013); L. A. Agbetunde, S. Ojediran and A. O. Fadipe (2016); and A. H. Suhaila (2016) , among others.

The effect of culture on tax compliance was examined by R. G. Cummings, J. Martinez-Vazquez, M. McKee and B. Torgler (2004), who found that, irrespective of what transpired between the Government and taxpayers in terms of fiscal exchange, cultural norms might independently affect a tax compliance behavior. They argued that a tax compliance decision was anchored in a "general tax belief", which formed a part of the implicit element of culture. In the same vein, several studies also established the fact that cultural differences have an influence on tax compliance decisions (Agbetunde, Ojediran & Fadipe, 2016) and J. O. Alabede, Z. Z. Ariffin and K. Idris (2011). However, some researchers (Matsumoto, 2007) and R. G. Cummings *et al* (2008) are of the opinion that the relationship between these cultural values and tax performance levels is not understood well, because the concept of culture is complicated and multifaceted.

Contrary to this, a study by B. Torgler and F. Schneider (2007) reported that tax compliance was associated with culture. That finding pertained to Switzerland, Belgium and Spain, where the relationship between culture and tax morale is compliant with tax laws. The study revealed that, although cultures were diverse among those European countries, it was possible for culture and national pride to influence tax morale in complying with tax laws. Moreover, the significance of culture in tax matters was reaffirmed by A. Lewis, S. Carrera, J. Cullis, and P. Jones (2009) in their comparative analysis of respondents from the UK and Italy.

Having been convinced empirically that tax performance is affected by taxpayers' cultural characteristics (beside the conventional institutional factors), national cultural dimensions could be argued to remain relevant for the explanation of taxpayers' behavior in a bid to ameliorate tax performance. Yet, it is still limited in the tax context and requires a further exploration.

L. Tang and P. E. Koveos (2008) updated Hofstede's framework based on economic, dynamic and institutional stability. The findings revealed that the LTO created an increase in tax performance, whereas a positive relationship was also found between the power distance and tax performance.

Hofstede's work was also highlighted by B. L. Kirkman, K. B. Lowe and C. B. Gibson (2006) as very influential and suitable for classifying culture. With Hofstede's (1980) cultural dimensions, A. H. Suhaila (2016) used the PLS-SEM in New Zealand to examine the use of culture by tax professionals in making ethical decisions. The findings suggested that culture variables significantly influenced the intention to comply with tax laws. Such uncovered culture variables included the UA, subjective norms, masculinity, perceived behavioral control and the attitude towards tax compliance. In another study on culture carried out in 50 countries, G. T. Tsakumis *et al* (2007) used descriptive statistics and found out that tax evasion was common with the countries that had demonstrated low masculinity, a high UA, a high PD, low masculinity and low individualism. In the same vein, the evidence from a study of 3000 companies in 31 countries by C. W. Bame-Aldred *et al* (2011) revealed the fact that the culture of a collectivistic nature lacked the tendency to evade tax. Therefore, both by inference and by way of analogy, the culture that is individualistic in nature has a great potential towards tax evasion, perhaps for a personal benefit.

Specifically pertaining to developing countries, L. A. Agbetunde and L. B. Adedokun (2014) established a need for research efforts on taxpayers' attitudes towards culture and tax compliance, because of the multiethnicity characteristics. W. N. Hussein (2018) responded to this by studying the relationship between the national culture of and tax evasion in Iraq by using the Analysis of Moment Structure (AMOS). The findings he had come to revealed that national culture (neither for economic nor for administrative reasons) was the major reason for tax evasion. This creates a strong link between tax compliance and cultural subjective norms. Cultural studies are relatively strange to the tax literature and the studies bringing national culture into a relationship with tax performance by applying Hofstede's framework are nonexistent in Africa. Thus, beside controlling institutional and economic variables, this study also examined the effect of cultural values on tax performance in Africa.

METHODOLOGY

Model

A model hinged on Hofstede's theory of global values, which measured national culture against the six value dimensions, i.e. the power distance (PD), masculinity (MASC), individualism (IDV), the UA, the LTO and indulgence (IND), was constructed in this study. The scores for the value dimensions were obtained from Hofstede's framework, which the study by G. T. Tsakumis *et al* (2007) had been anchored in. However, the tax effort and the economic development level were incorporated into the model so as to control the effect of the nonbehavioral aspect of tax performance. See C. Haldenwang and M. Ivanyna and O. Kodila-Tedika and M. Mutascu (2015) for the relevance of these control variables.

The functional model is as follows:

$$TXPFM = f\,(NAC_{it},\ \mu) \qquad (1)$$

When specified, it becomes:

$$TXPFM_{it} = \beta_0 + \beta_1 UA_{it} + \beta_2 MASC_{it} + \beta_3 IDV_{it} + \beta_4 PD_{it} + \beta_5 LTO_{it} + \beta_6 IND_{it} + \beta_7 TEF_{it} + \beta_8 ECD_{it} + \mu_t \qquad (2)$$

where $TXPFM_{it}$ is tax performance, whereas *UA, MASC, IDV, PD, LTO* and *IND* remain as previously defined. The control variables are as follows: *TEF* = Tax Effort; *ECD* = Economic Development. The subscript 'it' indicates both the cross-sectional and the time dimensions of the panel data set. Note that high tax performance indicates low tax evasion, and vice versa.

The quantitative research design was adopted while the data were analyzed by using the Panel-Corrected Standard Error (PCSE) and descriptive techniques in order to espouse the strength of culture on tax evasion by using a total of 10 sampled countries out of the 54 countries in Africa. The selection of these countries (Nigeria, Ghana, Burkina Faso, Cape Verde, Senegal, Sierra Leone, Mozambique, South Africa, Tanzania and Egypt) was conducted based upon the regional representation and availability of the needed scores pertaining to *PD, UA, MASC, IDV, LTO* and

IND. More importantly, West African countries were more represented because of their cultural strength and low tax performance (Fiawoo, 2018).

Measurement of variables

The most prominently used tax performance indicator is the tax-to-GDP ratio, due to the availability and reliability of revenue and the GDP data. Thus, this study measured tax performance as a percentage of tax revenue on the GDP, while the culture variables were modeled around the sets of the international value systems measured in a manner in which different national societies treat inequality (the power distance), how they cope with uncertainty (UA), their relationships with a group (individuality), the traits exhibited as a result of being born as a girl or as a boy (masculinity/femininity), the extent of their being futuristic (LTO) and their plight to enjoy life (indulgence).

The explanatory variables are denoted in this study by *PD, IDV, UA, MASK, LTO, IND,* and additionally two control variables including the tax effort (*TEF*) and economic development (*ECD*). All the dimensions of culture were measured by using the country-specific values obtained from the updated Hofstede database of global values. Each of the national culture dimensions was scored on a 0 to 100 scale.

However, the tax effort and economic development were used to control the effect of the nonbehavioral aspect of tax performance. The tax effort was measured via tax revenue as a percentage of non-tax revenue, whereas economic development was measured by the GDP *per capita* as its traditional indicator. The data used in this study were secondary by nature and were collected from the World Bank's database, Hofstede's database, the OECD database and the websites of the selected countries' revenue authorities.

The sample period of these variables was seven years, covering the time span from 2010 to 2016. All the variables in this study were logged before the analysis, as well.

RESULTS AND FINDINGS DISCUSSION

Summary statistics

The summary statistics detailing the statistical properties of the variables used in this study as contained in Table 1 were interpreted in terms of the mean, maximum and minimum values.

Specifically, it shows that the mean value of tax performance is 15.24%, and the minimum and maximum values are 1.5% and 27.3%, respectively. This indicates that, on average, Africa has relatively low tax performance during the observation period. Moreover, Nigeria had the lowest tax performance (1.5%), while South Africa had the maximum value of 27.3% (the highest tax per GDP). The power distance variable reveals a high level of inequality in African societies (the average = 71.9%), with Mozambique demonstrating the highest inequality of 85% and South Africa demonstrating the lowest value of 49%.

Burkina Faso, Mozambique, and Ghana have the lowest level of individualism (15%), while South Africa has the highest level of individualism (65%). Masculinity, which is a value attributed to achievement and rigor, averaged 43.6% for Africa. However, the mean value of the UA in national culture in Africa is 54.3%, while the maximum and minimum values are 80% and 40%, respectively. Egypt has the highest level of the UA (highly prioritizing routines or procedures), while Cape Verde has the highest level of flexibility and informality (40%).

The average, minimum and maximum values of Africa in terms of the LTO are 18.5%, 4% and 34%, respectively. This implies that African countries are, on average, highly oriented towards future rewards. Specifically, Ghana is a short-term oriented country (4%), while Tanzania is a long-term oriented country (34%) (Table 2). The average of 55.3% for indulgence indicates a moderate level of natural human desires to enjoy life in Africa. However, the capacity to collect taxes is very low in Africa (4.25 on average), while the GDP *per capita* has a mean value of 2099.07, and the minimum and maximum values of 382.1 and 7976.5, respectively.

Table 1 The summary statistics (combined)

Variable	Mean	Minimum	Maximum
TXPFM	15.24	1.5	27.3
PD	71.9	49	85
IDV	25.5	15	65
MASC	43.6	15	63
UA	54.3	40	80
ITO	18.5	4	34
IND	55.3	4	84
TEF	4.25	1.1	7.4
ECD	2099.07	382.1	7976.5

Source: Authors

In order to test the existence of multicollinearity among these variables, the Variance Inflation Factor (VIF) was computed, which shows that the VIF is less than 10 for all the variables, suggesting that the independent variables in the model are not highly correlated with one other.

Table 2 The summary statistics (country-specific)

COUNTRY	*PD*	*IDV*	*MASC*	*UA*	*LTO*	*IND*
Burkina Faso	70	15	50	55	27	18
Cape Verde	75	20	15	40	12	83
Egypt	70	25	45	80	07	04
Ghana	80	15	40	65	04	72
Mozambique	85	15	38	44	11	80
Nigeria	80	30	60	55	13	84
Senegal	70	25	45	55	25	65
Sierra Leone	70	20	40	50	18	46
South Africa	49	65	63	49	34	63
Tanzania	70	25	40	50	34	38

Source: Authors

The model estimation result presented in Table 2 shows that the *PD* is negatively and significantly related to the tax performance proxied with the TXPFM, which indicates that a percentage increase

Table 3 The Model Estimation (PCSE)

Variable	Coefficient	Panel-corrected Std. Error	Z	P>|z|	[95% Conf. Interval]	
PD	-0.5408763	0.0887755	-6.09	0.000	-0.7148732	-0.3668794
IDV	-0.2087147	0.0773609	-2.70	0.007	0.3603393	-0.0570901
MASC	-0.0193528	0.032008	-0.60	0.545	-0.0820874	0.0433817
UA	0.0675718	0.0571251	1.18	0.237	-0.0443913	0.179535
LTO	-0.3794544	0.0742491	-5.11	0.000	-0.5249799	-0.2339289
IND	0.0921027	0.0226074	4.07	0.000	0.047793	0.1364124
TAXEFF	3.3789	0.5110494	6.61	0.000	2.377262	4.380538
GDPCAP	0.0008781	0.0003967	2.21	0.027	0.0001007	0.0016556

Group variable: c_id	Number of obs = 70
Time variable: year	Number of groups = 10
Panels: correlated (balanced)	Obs per group: min = 7
Autocorrelation: no autocorrelation	avg = 7 max = 7
Estimated covariances = 55	R-squared = 0.6787
Estimated autocorrelations = 0	Wald chi²(8) = 2179.24
Estimated coefficients = 9	Prob> chi² = 0.0000

Source: Authors

in the PD (the increase in the level of inequality in society) in Africa will adversely affect the tax performance of the continent by -0.54% (p-value = 0.000). The same significant negative relationship (coeff. = -0.21; p-value = 0.007) is also present between individualism (IDV) and the TXPFM. By implication, therefore, a percentage increase in individualism inversely affects tax performance in Africa. However, masculinity (MASC) and the UA were not significantly related to the TXPFM, (coeff. = -0.019%; p-value = 0.545 and coeff. = -0.068%; p-value = 0.237), respectively. Thus, an increase or decrease in the degree of masculinity and the UA does not significantly influence tax performance in Africa. U ovom i narednom pasusu treba srediti navođenje ovih vrednosti, posebno negativnih brojeva

Moreover, the LTO significantly and negatively propels the TXPFM (coeff. = -0.379%; p-value = 0.000). This implies that a percentage change in the virtues oriented towards future rewards reduces tax performance in Africa by 0.37 percent. Contrastingly, it is only indulgence (IND) that has a significant positive influence on tax performance in Africa (coeff. = 0.09; p = 0.0000). By inference, therefore, an increase in the level of natural human desires will increase Africa's tax performance and GDP ratio by 0.09 percent.

The evidence from Table 3 further reveals that both control variables (TEF and ECD) are significantly related to the TXPFM, thus indicating the fact that the effort of the tax authorities and the magnitude of the recorded economic development are the reasonable determinants of tax performance in Africa.

Though the individual effects of the proxies of national culture on tax performance are mixed, the Wald chi^2 (8) of 2179.24 and the associated P-value of 0.0000 indicate a joint, statistically significant effect of PD, IDV, MASC, UA, LTO, and IND on tax performance at a 1% significance level. The significant nature of the Wald test implies that the model is fit.

Findings discussion

The interplay between national culture and tax performance in Africa from 2010 to 2016 was examined and Gert Hofstede's theory of global values forms the basis for the selection of the culturally specific variables used. The results reveal indulgence as the only cultural variable with a significant positive impact on tax performance, whereas the PD, IDV and LTO are significant, but negative. However, the MASC and UA are insignificant in determining tax performance in Africa.

The power distance is negatively related to tax performance, thus suggesting that an increase in the power distance tends to reduce tax performance. This further implies that the more inequality recorded in power distribution, the lesser the tax performance experienced in Africa. This finding is in tandem with that of G. T. Tsakumis *et al* (2007), which reveals a low-tax performing country as the one that possesses a high-power distance (PD). One the other hand, the inverse relationship negates the findings of A. H. Suhaila (2016), and L. Tang and P. E. Koveos (2008), which disclose a positive relationship between the power distance and tax performance.

Also, individualism exerts an influence on tax performance, negatively indicating the fact that a rise in the emotional independence of African people tends to reduce their tax performance, i.e. a reduction in the level of collectivism is likely to hinder tax performance in Africa. This finding is in tandem with the studies of C. W. Bame-Aldred *et al* (2011), which reveal that a collectivist culture reduces the rate of tax evasion, while an individualistic culture creates an avenue for poor tax performance due to a high tendency for tax evasion in such a society.

The rate of masculinity and the UA in national culture in Africa does not show a significant influence on tax performance. By extension, therefore, the masculine/feminine values (the emotional implications of being a girl or a boy) and the level of bureaucracy due to a high UA are not significant in exerting an influence on tax performance in Africa. This result is in disagreement with the findings of A. H. Suhaila (2016) and G. T. Tsakumis *et al* (2007), which show a low-tax performing country as one with low MASC and high UA.

The inverse relationship between long-term orientation (LTO) and tax performance connotes that an increase in the level of future orientation in Africa results in a decrease in tax performance. This contradicts the findings of L. Tang and P. E. Koveos (2008), according to which an increase in the LTO creates an increase in tax performance. However, the positive significant association between indulgence and tax performance derived from this study conforms with *a priori* settings, holding that higher indulgence and lower tax evasion go hand in hand across countries, which in turns indicate high tax performance. This implies that the cultural values attached to enjoying life and leisure enhance taxpayers' tax morale, thus engendering an appreciable rise in the tax performance level in Africa.

It is also noteworthy that the level of the effort put in place by the Government through its tax authorities and the level of the economic development of the country used as the controls in this study are also good indicators of an increase in tax revenue in Africa.

CONCLUSION

The conducted analysis shows that this study supports the national culture ideas proposed by G. Hofstede as useful in explaining tax performance levels across African countries. Hence, it is concluded that the culture variables that impact tax performance negatively and significantly are inclusive of long-term orientation, individualism and the power distance, while masculinity and uncertainty avoidance are insignificant in determining tax performance in Africa. However, only indulgence has a positive statistically significant impact on tax performance.

Hence, indulgence is (positively) statistically significant, which is a refutation of the Hypothesis 2. However, individualism and the power distance are statistically significant, which is also in disagreement with Hypothesis 1. The insignificance of masculinity and uncertainty avoidance goes in line with Hypothesis 1. Thus, the study describes a tentative cultural profile of a high-tax performing country (i.e. a low-tax evasion country) as the one with a low PD, low IDV, low LTO, moderate UA & MASC, and high IND. This profile may serve as a framework for future research efforts in cross-cultural tax studies.

Based on the conclusion reached, it is recommended that specific attention should be paid to individualism in the future tax structure design and those concerning tax compliance legislation. The tax authorities should focus on cultural clusters while embarking on tax education so as to address culture-specific issues, whereas effective tax efforts should be put forward by the tax authorities in Africa in order to enhance tax performance. Moreover, tax administrators should work towards a fast, cultural shift in attitudes and behavior towards taxes by reaching the young generation in schools, knowing full well that to shift tax culture without education at an early age is very difficult to do.

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