Mediating role of trust in the relationship between public governance quality and tax compliance: An African cross-sectional analysis

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ABSTRACT

This paper examined the mediating role of trust in government on the influence of public governance quality indicators (accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption) on tax compliance in Africa. Cross-country data obtained from 38 African countries for 2015 was used and analyzed using Ordinary Least Squares (OLS) regression analysis. The study found that accountability, political stability, control of corruption and trust have significant influence on tax compliance among the sampled African countries, but government effectiveness, regulatory quality and the rule of law have insignificant influence on tax compliance.

The result the mediating effects revealed that trust mediate the influence of accountability and political stability on tax compliance in Africa. However, it failed to mediate the influence of government effectiveness, regulatory quality, rule of law, and control of corruption on tax compliance among sample African countries. The study offers theoretical insights on the role of trust as a mediator on social exchange relationship from the context of public governance quality on tax compliance. It also implies to the policymakers that building trust is an important mechanism through which the impact of public governance on tax compliance would be more pronounced. The study further calls for replication of its findings in other continents such as Americas, Asia, and Europe.

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Introduction

For about a decade, literature documents that public governance quality variables (accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption) have been consistently influencing tax compliance (Alabede, et al., 2012; Torgler, Schaffner, & Macintyre, 2007; Torgler & Schneider, 2009). However, the mechanism that explains why this relationship has been steady across different samples and settings has not yet been explored. Baron and Kenny (1986) explained that where there has been a consistent relationship between variables, there is a need to understand the mechanism that explains such happening over time and across different settings through mediation analysis. Interestingly, Social Exchange Theory (Emerson, 1976) highlights that trust is a potential mediator of a social exchange relationship. Specifically, the theory highlights that the influence of public governance quality on tax compliance could be explained by social exchange relationship that subsists between governments and citizens. Where government ensures efficient public governance through effective accountability, political stability, effectiveness in governance, quality of regulations, the rule of law and control of corruption, then, it will build trusts in the heart of citizens which eventually may enhance their willingness to pay tax. However, this has not been validated in the taxation literature. Moreover, the earlier research from African perspective such as Alabede, et al. (2012) which examined the influence of public governance quality...
in its aggregate form on tax compliance, such studies failed to examine the influence of individual dimensions of public governance quality on tax compliance. Additionally, the extant global literature within the continuum of taxation (Alabede, et al., 2012; Torgler, Schaffner, & Macintyre, 2007; Torgler & Schneider, 2009) is yet to explore through empirical evidence the mediating effect of trust in the relationship between public governance quality and tax compliance despite the theoretical insights from Social Exchange Theory of Emerson (1976). These gaps within the literature motivate the current study. Furthermore, there has been lack of trust between government and citizens; citizens have low trust in public institutions (Armah-Attoh, Gyimah-Boadi, & Chikwanha-Dzenga, 2007) which could be the reason for low tax compliance among African countries (Isbell, 2017). This highlights the role of trust as an important variable in tax compliance among African countries; thus, its examination would provide some insights to the policymakers in Africa.

Therefore, in line with the above arguments derived from the postulations of Social Exchange Theory (Emerson, 1976) and the practical insights relating to trust (Armah-Attoh et al., 2007) and tax compliance in Africa (Isbell, 2017; TJN, 2011) the objective of this paper examines whether or not trust in government by citizens mediates the relationship between public governance quality and tax compliance across 39 African countries. The paper serves as an extension of Mas’ud and Dandago (2014). However, it differs in three ways. First, Mas’ud and Dandago (2014) studied only the direct effect of public governance quality variables on tax compliance in Africa, but this paper considers the mediating role of trust by citizens as an extension not addressed in the extant literature. Second, although both Mas’ud and Dandago (2014) and the current study are cross country analysis within Africa, the data used in this paper is for 2015 while for Mas’ud and Dandago (2014) it was for 2012. Lastly, this paper underpinned the studied relationships with strong theoretical backing by deploying Social Exchange Theory of Emerson (1976), which has not been considered in tax compliance literature for testing the mediating role of trust in the influence of public governance quality on tax compliance. The paper has been divided into five sections, with this as an introduction. Literature review served as the second part while methodology as the third. The fourth and the fifth sections are results and conclusion respectively.

**Literature Review**

**Theoretical and Conceptual Background**

**Tax Compliance Review**

Tax compliance has been defined by Jackson and Milliron (1986) as filing with relevant tax authority all income as well as expenses and tax payable using applicable tax laws, regulations, and court orders. Another definition was offered by Palil and Mustapha (2011) who considered tax compliance as a process in which individual discloses all his income accurately and pays the tax due appropriately on the due date as prescribed in relevant tax laws. In taxation literature, compliance has been divided into two categories. These are administrative compliance and judicious compliance. The first category refers to complying with tax laws while the second relate the accuracy in filing tax returns by taxpayers (Chow, 2004). Noncompliance which otherwise refers to as evasion has been described as the failure of the taxpayer to file a tax return or underreporting his/her tax liability. Similar to compliance, noncompliance is also of two categories. These are intentional and unintentional. Intentional tax noncompliance is considered tax evasion, but unintentional tax compliance is regarded as underreporting of income resulting from taxpayer’s condition such as knowledge of tax laws or financial condition (Loo, 2006).

Tax noncompliance, more especially the evasion category has been a global phenomenon in developed, transition and developing economies. Countries that are developed such as United States (US), the amount evaded for only 1992 was about $127 billion; these figures composed both individual and corporate taxpayers. The estimate was based on the annual increase of 10% since 1973 (Alm, 1999; Inland Revenue Service, 1996). Acceleration of this figure was a further witness in 2005 which amounted to about $285 billion (Cobham, 2005). In transiting and developing African nations, the tax evaded was estimated to cost various governments revenue loss of about $79.2 billion, which is approximately 97.7% of the African continent health sector budget (TJN, 2011). The extent of this evasion mandated the need for an investigation into the possible factors that caused tax evasion in Africa, as a way of providing a solution for taxing noncompliance problem and improving revenue generation efforts of various nations within the continent. Thus, consideration has been made for the examination of the mediating role of trust in government on the influence of public governance quality on tax compliance.

**Public Governance Quality and Tax Compliance**

The public governance quality was confirmed to be multidimensional construct in tax compliance literature (Alabede, et al., 2012; Torgler, Schaffner, & Macintyre, 2007; Torgler & Schneider, 2009). These dimensions are classified into six; accountability; political stability; government effectiveness; regulatory quality; the rule of law; and control of corruption (Kaufmann, Kraay, & Mastruzzi, 2010). Tax compliance literature documents several evidence that confirmed the possibility of public governance quality affects tax compliance. For example, Schneider and Togler (2007) found that governance and institutional quality affect the level of tax compliance. The findings from Schneider and Togler (2007) further showed that the higher the governance and institutional quality, the lower the size of the shadow economy (high tax compliance). In another study, Togler and Schneider (2009) investigated the influence of tax morale and institutional quality on shadow economy, and the result showed that governance and institutional quality strongly predict tax compliance. Altunbas and Thornton (2010) who also conducted a cross-country analysis to find the relationship between governance quality and tax compliance, found that there is a significant correlation between governance quality and tax
compliance. More so Alabede, Ariffin and Idris (2012) investigated the relationship between public governance quality and tax compliance behavior in Nigeria. It was found that the relationship between public governance quality and tax compliance is positive and significant; the higher the public governance quality, the higher the level of tax compliance. More recently, Mas’ud and Dandago (2014) also investigated the influence of public governance quality on tax compliance across 44 African countries for 2012.

Empirical Review and Hypotheses Development

Several empirical evidences confirmed the effect of accountability on tax compliance. A cross-sectional analysis in Europe conducted by Togler, Schaffner, and Macintyre (2008) revealed that accountability is positively related to tax morale, and tax morale is negatively related to evasion. Similarly, findings from Nigeria by Modugu, Eragbhe, and Izedonmi (2012) showed that government accountability influenced voluntary tax compliance in Nigeria. Contrarily, Mas’ud and Dandago (2014) discovered on significant effect of accountability on tax compliance in Africa. In line with these findings, the following hypothesis is developed.

**H1 Public Accountability influences tax compliance in Africa.**

Another essential dimension of public governance quality that affects tax compliance is political stability (Kaufmann, et al., 2010). Studies such as Togler, Schaffner and Macintyre (2008) and Everest-Phillips (2011) investigated the influence of political stability on tax compliance. The findings revealed that political stability is an important predictor of tax compliance. Specifically, a citizen can use their right of paying taxes to play an important role in ensuring check and balances in government, so that tax can be paid if there is good and consistent governance in a country. Hence, in line with this argument, the following hypothesis is developed.

**H2 Political stability influences tax compliance in Africa.**

Another dimension of public governance quality with predictive power on tax compliance is government effectiveness. Finding from Togler, Schaffner and Macintyre (2008), Cummings, Martinez-Vazquez, McKee, & Torgler (2009), (Prichard, 2010) and Mas’ud and Dandago (2014) provide empirical evidence on the government effectiveness and tax compliance. The results from these studies except Mas’ud and Dandago (2014) revealed that government efficiency significantly affects tax compliance. Based on this empirical evidence, the following hypothesis which intends to investigate the influence of government effectiveness on tax compliance using cross-sectional African data was formulated.

**H3 Government effectiveness influences tax compliance in Africa.**

About tax compliance, regulatory quality has been considered as another dimension of public government quality(Alabede, et al., 2012; Kaufmann, et al., 2010). It has focused mainly on policies, such as incidence of market/unfriendly policies, perceptions of the burdens imposed by excessive regulation (Torgler & Schneider, 2009). Evidence from studies such as Togler, Schaffner, and Macintyre (2008), Cummings, Martinez-Vazquez, McKee, & Torgler (2009), and Mas’ud and Dandago (2014) also revealed the relevance of this construct in predicting the tax compliance. Therefore, the following hypothesis is developed.

**H4 Regulatory quality influences tax compliance in Africa.**

Available evidence from literature documented that that rule of law is another indicator of public governance quality in relation to tax compliance (Alabede, et al., 2012; Kaufmann, et al., 2010).

The rule of law explained the ability of government to enforce the law and the obedience of the citizens on such enforcement. The finding from McCoon (2010) shows that low level of compliance with general laws has an association with lower level of compliance with tax laws. However, the findings from Mas’ud and Dandago (2014) revealed the contrary result. Thus, the contradiction in finding indicates the need for more empirical evidence, thus, the following hypothesis is developed to provide proof from cross-country African perspectives.

**H5: Rule of law influences tax compliance in Africa.**

In relation to tax compliance, control of corruption is another strong indicator of public governance quality. Togler, Schaffner and Macintyre (2008) found that quality of governance measured by many proxies such as zero or low level of corruption, the rule of law, voice and accountability, regulatory quality and political stability has a strong effect on tax morale; hence tax compliance. However, conflicting findings were revealed from the study of Mas’ud and Dandago (2014), where no relationship was documented, hence, the need for further investigation. Thus, the following hypothesis has been developed.

**H6: Control of Corruption influences tax compliance in Africa.**

Trusts as a Mediator between Public Governance Quality and Tax Compliance

It can be seen from the preceding review that the influence of public governance quality variables on tax compliance has been consistent across samples and settings. Baron and Kenny (1986) explained that where there has been a consistent relationship between variables, there is a need to understand the mechanism that explains such happening over time and across different settings, through mediation analysis. Interestingly, Social Exchange Theory (Emerson, 1976) highlights that trust is a potential mediator in a social exchange relationship. The influence of public governance quality on tax compliance could be explained by social exchange relationship that subsists between governments and citizens. Where government ensures efficient public governance through effective
accountability, political stability, effectiveness in governance, quality of regulations, the rule of law and control of corruption, then, it will build trust in the heart of citizens which eventually may enhance their willingness to pay tax. In tax compliance research, the social exchange theory highlights that taxpayers’ relationship with government is highly reciprocal, taxpayers pay tax in anticipation of receiving good public governance including qualitative institutions, law, and orders, trust and corruption free nation. It was asserted that when taxpayers are convinced that government will be just in providing public goods, there will be more chances that they will have more trust in governance which in essence may enhance their ability comply with their tax obligations (Torgler & Schneider, 2007). It also empirically tested that government which adheres to fiscal exchange would be more likely to have high compliance from their taxpayers (Alm, Jackson, et al., 1992; Alm, McClelland, & Schulze, 1992).

Thus, in line Social Exchange Theory which highlights the potential mediating role of trust in the relationship between accountability, political stability, effectiveness in governance, quality of regulations, the rule of law and control of corruption and tax compliance the following hypotheses are developed to empirical provide evidence using cross country African data.

| Hypothesis                                                                 | Description                                                                 |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| H7 Trust positively influenced tax compliance in Africa.                   | It also empirically tested that government which adheres to fiscal exchange would be more likely to have high compliance from their taxpayers (Alm, Jackson, et al., 1992; Alm, McClelland, & Schulze, 1992). |
| H8 Trust mediates the relationship between accountability and tax compliance in Africa. | It also empirically tested that government which adheres to fiscal exchange would be more likely to have high compliance from their taxpayers (Alm, Jackson, et al., 1992; Alm, McClelland, & Schulze, 1992). |
| H9 Trust mediates the relationship between political stability and tax compliance in Africa. | It also empirically tested that government which adheres to fiscal exchange would be more likely to have high compliance from their taxpayers (Alm, Jackson, et al., 1992; Alm, McClelland, & Schulze, 1992). |
| H10 Trust mediates the relationship between government effectiveness and tax compliance in Africa. | It also empirically tested that government which adheres to fiscal exchange would be more likely to have high compliance from their taxpayers (Alm, Jackson, et al., 1992; Alm, McClelland, & Schulze, 1992). |
| H11 Trust mediates the relationship between quality of regulation and tax compliance in Africa. | It also empirically tested that government which adheres to fiscal exchange would be more likely to have high compliance from their taxpayers (Alm, Jackson, et al., 1992; Alm, McClelland, & Schulze, 1992). |
| H12 Trust mediates the relationship between the rule of law and tax compliance in Africa | It also empirically tested that government which adheres to fiscal exchange would be more likely to have high compliance from their taxpayers (Alm, Jackson, et al., 1992; Alm, McClelland, & Schulze, 1992). |
| H13 Trust mediates the relationship between control of corruption and tax compliance in Africa | It also empirically tested that government which adheres to fiscal exchange would be more likely to have high compliance from their taxpayers (Alm, Jackson, et al., 1992; Alm, McClelland, & Schulze, 1992). |

**Research and Methodology**

To test the thirteen hypotheses developed in section two above, this section outlined the method to be adopted for the purpose. Specifically, it highlights the methods followed in sourcing the research data, the population, sample selection as well the data analysis techniques used in testing the hypotheses.

**Population and Sample**

The study used 61 African countries as contained in (http://listofafricancountries.com) as population. The sample comprised of 38 African countries for which data were available for the year 2015 for all the variables used in the analysis. This sample represents 62.3% of the entire population. Multi-stage sampling technique was adopted. For instance, in the first stage, all the countries were given an equal chance of being selected. States for which data were not available for the variables under consideration failed to move to the next stage. In this, about 20 countries did not have the consistent data for all the three main variables, leaving us with 41 countries. In the second stage, two outliers were identified using Mahalanobis distance (D2), which Tabachnick and Fidell (2007) defined as “the distance of a case from the centroid of the remaining cases where the centroid is the point created at the intersection of the means of all the variables” (p. 74). Based on 40 observations the corresponding chi-square was 63.691 (p = .001). Based on this threshold value, two outliers were identified in the dataset. Hence, removed, leaving us with final sample 38 observations.

**Variables and Variables Measurement**

For tax compliance which is the dependent variable, tax as a percentage of GDP was used as a proxy. The data was obtained from United States Central Intelligence Agency (US-CIA) data for 2015. The measurement was based on a percentage of 1-100% (Central Intelligence Agency, 2015). The measurement commonly depicts that the higher the incomes tax as a percentage of GDP of a country, the higher would possibly be the level of tax compliance in a particular country and vice-versa. Earlier studies use similar sources of the in-measuring tax compliance (Mas’ud, et al, 2019). For the independent variables which are the dimensions of public governance quality (public accountability; political stability; government effectiveness; regulatory quality; rule of law and control of corruption) data was obtained from World Bank Group (WBG) Worldwide Governance Indicators (WGI) for 2015. The method used in measuring these variables were based on Kaufmann, Kraay, and Mastruzzi (2010) methodology. Percentile of low 0–10th; 11-20th; 21-30th; 31-40th; 41-50th; 51-60th; 61-70th; 71-80th; 81–90th; 91–100th great (World Bank Group, 2012), were usually used. Previous studies also adopted a similar approach in measuring public governance quality (Alabede, 2012; Alabede, et al., 2012; Torgler, 2002; Torgler, et al., 2008; Torgler, et al., 2007; Torgler & Schneider, 2009). For trust, which is the mediating variable the data was sourced from Transparency International’s (TI) Corruption Perception Index (CPI) for 2015. It the index of corruption was used as a proxy of trust. The justification is that when there is the high perception of corruption citizens would have low trust in authorities. The scores ranged from 1-100%. A low score indicates a high rate of corruption which implied a low level of confidence. Earlier studies used same measurement (Mas’ud, et al, 2019).

**Data and Data Analysis Technique**

Data for the dependent variable (tax compliance) were sourced from the US Central Intelligence Agency for 2015. But that of public governance quality (public accountability; political stability; government effectiveness; regulatory quality; the rule of law and control of corruption) were sourced from World Bank Group for 2015, obtained from their Worldwide Governance Indicators (WGI). For trust which is the mediating variable data was sourced from Transparency International’s (TI) Corruption Perception Index (CPI) for 2015. The analysis of the data was performed using SPSS version 19. The data is presented below in Table 1.

![Table 1](http://listofafricancountries.com)
Table 1: Data

| Country                | Accountability | Political Stability | Government Effectiveness | Regulatory Quality | Rule of Law | Control of Corruption | Trust | Tax Compliance |
|------------------------|----------------|---------------------|--------------------------|--------------------|-------------|------------------------|-------|----------------|
| Algeria                | 28.92          | 22.27               | 46.41                    | 20.10              | 31.58       | 42.11                  | 36    | 28.2           |
| Angola                 | 21.57          | 36.49               | 24.88                    | 29.67              | 21.05       | 11.00                  | 15    | 34.7           |
| Benin                  | 64.22          | 58.29               | 43.06                    | 44.98              | 43.06       | 47.37                  | 37    | 22.9           |
| Botswana               | 69.12          | 96.68               | 74.16                    | 73.68              | 77.51       | 82.30                  | 63    | 38.8           |
| Burkina Faso           | 48.53          | 35.55               | 43.54                    | 51.20              | 45.45       | 55.98                  | 38    | 19.3           |
| Cape Verde             | 88.24          | 91.47               | 69.38                    | 55.50              | 76.56       | 83.73                  | 55    | 14.1           |
| Central African Republic| 18.14          | 7.11                | 6.70                     | 11.96              | 3.83        | 13.88                  | 24    | 13.1           |
| Congo, Dem Rep.        | 18.14          | 6.64                | 8.61                     | 12.92              | 6.70        | 14.83                  | 23    | 15.6           |
| Congo, Rep.            | 26.96          | 40.28               | 24.40                    | 19.62              | 23.44       | 15.79                  | 22    | 43.9           |
| Côte D’ivoire          | 39.71          | 27.96               | 41.15                    | 46.41              | 40.67       | 52.63                  | 32    | 18.9           |
| Djibouti               | 17.16          | 44.55               | 30.62                    | 42.11              | 29.67       | 52.15                  | 34    | 33.7           |
| Egypt                  | 24.02          | 13.74               | 37.32                    | 32.06              | 45.93       | 47.37                  | 36    | 26.7           |
| Ethiopia               | 20.10          | 11.37               | 41.63                    | 26.32              | 48.33       | 52.63                  | 33    | 15.8           |
| Gabon                  | 27.94          | 58.77               | 38.28                    | 34.93              | 45.45       | 44.02                  | 34    | 25.8           |
| Gambia, The            | 14.71          | 58.77               | 32.06                    | 48.80              | 40.19       | 36.84                  | 28    | 29.8           |
| Ghana                  | 70.59          | 58.77               | 55.02                    | 60.29              | 66.03       | 59.33                  | 47    | 21.6           |
| Guinea                 | 27.94          | 40.76               | 19.62                    | 30.14              | 17.22       | 25.36                  | 25    | 15             |
| Guinea-Bissau          | 29.41          | 45.97               | 9.09                     | 21.53              | 15.31       | 11.48                  | 17    | 23             |
| Liberia                | 46.57          | 32.70               | 12.92                    | 29.67              | 29.67       | 44.02                  | 37    | 33.8           |
| Madagascar             | 40.20          | 44.55               | 15.79                    | 34.93              | 37.80       | 36.36                  | 28    | 26.6           |
| Malawi                 | 54.90          | 56.40               | 40.67                    | 32.06              | 54.07       | 36.36                  | 31    | 18.6           |
| Mauritania             | 27.94          | 35.55               | 24.40                    | 30.62              | 32.54       | 30.62                  | 31    | 44.4           |
| Mauritius              | 79.41          | 94.79               | 87.08                    | 89.95              | 82.30       | 75.12                  | 53    | 19.1           |
| Mozambique             | 45.59          | 36.49               | 38.28                    | 47.37              | 29.67       | 36.36                  | 31    | 27             |
| Namibia                | 72.06          | 82.46               | 72.73                    | 59.81              | 66.99       | 69.86                  | 53    | 35.9           |
| Niger                  | 47.06          | 24.17               | 43.06                    | 36.84              | 41.63       | 48.33                  | 34    | 2.9            |
| Nigeria                | 40.20          | 6.64                | 27.27                    | 30.62              | 21.53       | 19.14                  | 26    | 27.7           |
| Country            | Accountability | Political Stability | Gov't Effectiveness | Regulatory Quality | Rule of Law | Control of Corruption | Tax Compliance |
|--------------------|----------------|---------------------|--------------------|-------------------|-------------|-----------------------|----------------|
| São Tomé & Principe| 66.18          | 64.93               | 39.71              | 36.36             | 33.01       | 62.68                 | 42             | 25.9|
| Senegal            | 62.75          | 53.08               | 48.33              | 55.50             | 60.29       | 64.11                 | 44             | 24.3|
| Somalia            | 3.92           | 5.21                | 1.44               | 2.87              | 0.48        | 5.74                  | 8              | 2.5 |
| South Africa       | 73.04          | 53.08               | 72.25              | 71.29             | 65.07       | 62.20                 | 44             | 26.5|
| South Sudan        | 13.73          | 6.16                | 1.44               | 6.22              | 3.83        | 4.78                  | 15             | 3.4 |
| Sudan              | 4.90           | 6.64                | 11.00              | 9.09              | 17.70       | 9.57                  | 12             | 7.7 |
| Tanzania           | 48.04          | 40.28               | 43.06              | 50.24             | 49.76       | 36.84                 | 30             | 14.8|
| Togo               | 29.90          | 53.55               | 19.14              | 32.06             | 33.01       | 38.76                 | 32             | 24.7|
| Uganda             | 34.80          | 27.96               | 47.37              | 55.02             | 53.59       | 20.10                 | 25             | 13.2|
| Zambia             | 50.49          | 59.72               | 44.50              | 49.76             | 56.46       | 52.63                 | 38             | 14.9|
| Zimbabwe           | 21.08          | 36.49               | 19.62              | 5.74              | 11.48       | 11.96                 | 21             | 26.8|

Note. Data for Accountability, Political Stability, Gov't Effectiveness, Regulatory Quality, Rule of Law, Control of Corruption was sourced from WBG (2015), Trust was based on Transparency International’s Corruption Perception Index (2015), and Tax Compliance was based as Tax Revenue as % of GDP sourced from CIA-World Fact Book (2015).
Table 1 depicts the data for independent, mediating and independent variables. Explanation on how these variables were measured has been disclosed above under the caption variables and variables measurement.

**Research Model**

Therefore, based on the hypotheses consisting of six independent variables, the mediator, and the dependent variable, the following model was developed for validation using cross-sectional data of 39 countries in Africa. The selection of 38 was based on the availability of data for all the variables during the year of study.

![Figure 1: Research Model](image)

The above model in Figure 1 was developed in line with the procedure for mediation analysis outlined by Baron and Kenny (1986), and with the theoretical inferences from Social Exchange Theory (Emerson, 1976) and the practical insights relating to trust in public institutions in African countries (Armah-Attoh et al., 2007) as well as high level of evasion and noncompliance (Isbell, 2017; TJN, 2011). Thus, it is proposed for validation in this study.

**Results and Discussions**

In this section, the result of the study comprising descriptive analysis of the data, normality test, correlation analysis between independent variables to check for multicollinearity, and regression analysis for both direct and mediation effects were performed.

**Descriptive Analysis**

Table 2 presents the descriptive analysis of the data informs of minimum, maximum, mean and standard deviation.

| Variables                 | N   | Minimum | Maximum | Mean   | Std. Deviation |
|---------------------------|-----|---------|---------|--------|---------------|
| Accountability            | 38  | 3.92    | 88.24   | 39.95  | 21.95         |
| Political Stability       | 38  | 5.21    | 96.68   | 41.48  | 25.00         |
| Govt. Effectiveness       | 38  | 1.44    | 87.08   | 35.68  | 21.18         |
| Regulatory Quality        | 38  | 2.87    | 89.95   | 37.59  | 19.92         |
| Rule of Law               | 38  | .48     | 82.30   | 38.39  | 21.47         |
| Control of Corruption     | 38  | 4.78    | 83.73   | 39.85  | 21.91         |
| Trust                     | 38  | 8.00    | 63.00   | 32.47  | 12.15         |
| Tax Compliance            | 38  | 2.50    | 44.40   | 22.67  | 10.33         |
It is evident from Table 2 above that minimum values for all the variables are less than 10 while the maximum are not more than 96.68. This implied that the values are within the range, because all the measures are between 1-100; so no score that fall outside 100%. The values of means and standard deviations are also good as no high level of dispersions was revealed in dataset.

**Normality Test**

The test of normality is an important postulation of multiple regression analysis (Tabachnick and Fidell, 2007). It is required that the data should be normally distributed. Though there are two ways of measuring normality of data, either through statistical approach using skewness and kurtosis or using graphical approach using histogram. In this paper, both statistical and graphical approaches were employed as depicted in Table 3 and Figure 2 below.

| Variables               | N | Skewness Statistic | Std. Error | Kurtosis Statistic | Std. Error |
|-------------------------|---|--------------------|------------|--------------------|------------|
| Accountability          | 38 | .419               | .383       | -.756              | .750       |
| Political Stability     | 38 | .428               | .383       | -.159              | .750       |
| Govt. Effectiveness     | 38 | .451               | .383       | -.116              | .750       |
| Regulatory Quality      | 38 | .357               | .383       | .099               | .750       |
| Rule of Law             | 38 | .161               | .383       | -.598              | .750       |
| Control of Corruption   | 38 | .118               | .383       | -.814              | .750       |
| Trust                   | 38 | .346               | .383       | .245               | .750       |
| Tax Compliance          | 38 | .019               | .383       | -.114              | .750       |

Hair et al., (2013;2016) suggested that normality can be statistically evaluated using Skewness and Kurtosis based on threshold of ±1. In another study, the cut-off values of 2 and 7 were suggested for skewness and Kurtosis respectively by Curran et al (1996) and West et al (1995). Based on these suggestions, it can be seen that the data is normally distributed as all the values for both Skewness and Kurtosis are less than the cut-off values suggested in the literature.

**Correlation Analysis**

Test of multicollinearity which is normally performed through Pearson correlation is another important postulation multiple regression analysis (Tabachnick and Fidell, 2007). It is normally required that two or more independent variables should not have perfect correlation. A correlation of .90 and above between two or more independent variables revealed a possibility of multicollinearity. Put differently, when the correlation between two independent variables is .90 and above it indicates that the variables are performing same job, meaning one is redundant. Thus, must be removed from the research model. Table 4 depicts the correlation analysis between the independent variables of the study.
From Table 4 above it is evident that even though there is a correlation between the variables, there is no evidence of multicollinearity, because no two independent variables which have correlation coefficients of .90 and above.

### Regression Analysis

Multiple regression analysis was used in testing the hypothesis for both direct and mediating effects as contained in Table 5 below. In carrying-out the analysis, the recommendation of Baron and Kenny (1986) for mediation analysis was followed.

#### Table 5: Multiple Regression Analysis

| Models | Variables | Beta | SE  | t    | P   | Hypotheses |
|--------|-----------|------|-----|------|-----|------------|
| Model 1= Direct Effects | Accountability => TC | -.288 | .148 | -1.948 | .030** | Supported |
| | Political Stability => TC | .208 | .106 | 1.969 | .029** | Supported |
| | Govt. Effectiveness => TC | -.022 | .220 | -1.01 | .410 | Not Supported |
| | Regulatory Quality => TC | .131 | .193 | .682 | .251 | Not Supported |
| | Rule of Law => TC | -187 | .231 | -0.810 | .212 | Not Supported |
| | Control of Corruption => TC | -.437 | .260 | -1.684 | .050** | Supported |
| | Trust => TC | 1.278 | .508 | 2.514 | .018** | Supported |
| Model 2 = Mediating Effects | Accountability => Trust => TC | Nil | 54702.511 | -1.369 | 0.085*** | Supported |
| | Political Stability => Trust => TC | Nil | 41866.646 | 1.374 | 0.084*** | Supported |
| | Govt. Effectiveness => Trust => TC | Nil | 57277.053 | -0.099 | 0.460 | Not Supported |
| | Regulatory Quality => Trust => TC | Nil | 53205.184 | 0.640 | 0.261 | Not Supported |
| | Rule of Law => Trust => TC | Nil | 65149.931 | -0.746 | 0.226 | Not Supported |
| | Control of Corruption => Trust => TC | Nil | 89722.739 | 1.266 | 0.103 | Not Supported |

Note: *significant at 1%, **significant at 5%, ***significant at 10%.

From Table 5 it can be seen that out of the seven direct relationships tested, three were supported. Specifically, accountability was found to have significant influence on tax compliance on African countries studied (β=.288, t=.1948, p=.030) at 5% significant level. Thus, hypothesis one was supported. Likewise, political stability was also found to have significant influence on tax compliance in the studied African countries (β=.208, t=1.969, p=.029) at 5% significant level. Hence, the result supports hypothesis two of the study. These two findings are consistent with that of Togler, Schaffner, and Macintyre (2008). It highlights when people are given high voice and opportunity to demand for accountability, they would likely evade tax, because some public institutions may not provide strong and accountable evidence passively due to high corruption among some African countries, hence, the taxpayers may try to evade due to poor accountability. The results on the political stability implied that the higher the political stability the higher would be tax compliance, which would not be surprising.

However, the results revealed that revealed insignificant influence of government effectiveness on tax compliance (β=.022, t=.101, p=.410). This is consistent with the findings of Mas’ud and Dandago (2014). Thus, hypothesis three was not supported. It also revealed the insignificant influence of regulatory quality on tax compliance (β=.158, t=3.82, p=.352), thereby not supporting hypothesis four. This finding is pioneering and contrary to Mas’ud and Dandago (2014) who found significant influence of regulatory quality on tax compliance. The findings also revealed that rule of law has an insignificant influence on tax compliance among African countries (β=.445, t=.836, p=.205), thus, not supporting hypothesis five. This is consistent with the findings of Mas’ud and Dandago (2014). The finding also revealed that control of corruptive has a significant influence on tax compliance among African countries (β=.437, t=1.684, p=.050), thus, supporting hypothesis six. It implied that high perception of corruption will lead to evasion. The result further showed that trust in authority has significant influence on tax compliance (β=.1278, t=2.514, p=.018) at 5% level of
significance, this is consistent with the result of Mas’ud, Manaf, and Saad (2014), who discovered that trust in authorities has significant correlation with tax compliance, thus, supporting the postulations of hypothesis seven.

For the mediating role of trust in the relationship between public governance variables and tax compliance, the result revealed that trust mediate the influence of accountability on tax compliance ($r=1.369, p=.085$) at 10% level of significance. This supports the proposition of hypothesis eight of this study. It implied that trust is an important mechanism that explained the influence of accountability on tax compliance. The findings also showed that trust has a significant mediating role on the influence of political stability on tax compliance ($r=1.374, p=.084$) at 10% level of significance, thus, supporting hypothesis nine of this study. It also confirmed the postulation of Social Exchange Theory that trust is a mediator in social exchange relationship. It revealed here that when there is political stability, citizens will have trust in government and eventually comply with their tax obligations.

Contrarily, the findings did not support hypothesis ten which postulated the mediating role of trust on the influence of government effectiveness on tax compliance in Africa ($r=.099 p=.460$). Similarly, the findings also failed to support the proposition of hypothesis eleven on the mediating role of trust on the influence of regulatory quality on tax compliance among African countries ($r=.640, p=.261$). The finding contradicts the postulation of Social Exchange Theory, the possible justifications could be that most African countries are underdeveloped and the literacy rate cannot be compared with that of the developed nations, thus, they may have less knowledge and awareness on the concept of government effectiveness and regulatory quality, eventually its influence on tax compliance could be difficult to established and ultimately the mediation effect of trust.

The finding further do not supports hypothesis twelve which postulated the mediating role of trust on the relationship between the rule of law and tax compliance ($r=-.9746, p=.226$). It also failed to support the postulations of hypothesis thirteen on the mediating role of trust on the influence of control of corruption on tax compliance among African countries ($r=1.226, p=.103$). Thus, it contradicts the postulation of Social Exchange Theory, which could be possible due to the different context. The theory emerged from developed countries which have a distinct development trends and advancement compared to African countries.

**Implications**

The study contributes to the Social Exchange Theory in number of ways. First, it confirmed the mediating effect of trust in social exchange relationship between African nations and their citizens about quality of governance and tax compliance which has not been availed in the literature. This contribution to knowledge is pioneering because extant literature did not reveal that such evidence has been provided in both taxation literature and using cross-country analysis in Africa.

Second, it expands the understanding of social exchange relationship by studying the dimensions and indicators of public governance quality; earlier studies such as Alabede, et al. (2012) only study the overall effect of public governance quality on tax compliance neglecting the specific influence of each dimension of tax compliance. Lastly, earlier validations of the theory were mostly using a single country data (John, Vedder, & Guynes, 2017; Trinchero, Farr-Wharton, & Brunetto, 2019; Yin, 2018). This study deployed cross-country data from 38 countries, which can be considered as another contribution for the validation of the theory from different perspective.

Governments in African countries need to be aware that trust is an important variable when desiring to enhance tax compliance in their countries. Specifically, it shows that when countries need to improve tax compliance, provision of public goods and services through effective public governance is highly enviable. The fact is that such effective public governance increase trust on governments by citizens which eventually results in tax compliance. This implied that if citizens have trust in government resulting from the quality of governance, the citizens would be more willing to comply with their tax obligations.

**Conclusion**

The study examined the mediating role of trust on the relationship between public governance quality variables and tax compliance. From the result, accountability was found to have significant positive influence on tax compliance on African countries studied, so also the political stability. However, the findings revealed the insignificant influence of government effectiveness on tax compliance as well as the regulatory quality. It further showed that rule of law has insignificant influence on tax compliance among African countries, but control of corruption has a significant influence on tax compliance among the sampled African states. It also revealed that trust in authority has significant positive influence on tax compliance. On the mediating role of trust, the finding showed that trust mediates the relationships between accountability and political stability, but failed to mediates the influence of the rule of law, control of corruption, government effectiveness and regulatory quality on tax compliance.

Looking at the coefficient of determination (R-square) which is only 33.9% for dependent variable (tax compliance) and 9.4% for the mediator (trust) it showed the need for more additional predictors of tax compliance to be included in the research model. This can be considered by future researchers. Second, the test of mediating role of trust in the relationship between public governance quality and tax compliance using cross-country African data was pioneered in this research, thus, it calls for similar studies in other continents such as Americas, Asia, and Europe that have number of countries enough to serve as observations in the cross-sectional analysis. Thus, future research is recommended in this direction.
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