

# The Impact of Tax Administration on Tax Compliance Levels in Fako Division of the Southwest Region of Cameroon

Alain Vilard Ndi Isoh, Forbe Hodu Ngangnchi, Ndifongong Ferdinand Nsanyui & Sheku Ahmed Fofanah

## Abstract:

Tax noncompliance is one of the biggest challenges faced by tax administrators when collecting tax revenues. Despite a series of punitive and coercive measures put in place by most governments including Cameroon, the phenomenon persists with billions of dollars lost every fiscal year. It is on this premise that this study examines the impact of tax education, tax policies and tax audit on the level of tax compliance in Fako Division of the Southwest Region of Cameroon. The research adopted a conclusive case study design supported by the philosophical underpinnings of positivism epistemology and objectivism ontology. Multistage sampling technique was used to source data from a sample of 307 participants using semi-structured questionnaires measured using the five-point Likert scales. Exploratory and confirmatory factor analyses were conducted to reduce the dimension of the data. Structural Equation Modeling (SEM) was used to test hypotheses. Results from the study revealed that there is significant statistical evidence to suggest that the existing tax policies in Fako Division has positive impact on the level of tax compliance with  $[\mu = 0.00 < 0.05; \beta = 51\%; \alpha = 0.05]$ . Also, the study revealed that tax education has a negative statistical significant effect on tax compliance with  $[\mu = 0.00 < 0.05; \beta = -18.5\%; \alpha = 0.05]$ . This implies that the more taxpayers are knowledgeable about the tax system, the more they are likely to fraud and default tax payments. It should be noted that the latent construct tax audit was rejected in the data cleaning process. This research, therefore, recommends that the government should improve on the tax policies and make it friendly and acceptable to a majority of taxpayers and that tax administrators should enforce civic education on the importance to respect tax laws by justifying the significance of taxes revenue as a source of funding for community development.

**Keywords:** Noncompliance, Tax policies, Tax audits, Tax education, Tax administration



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## 1.1 Introduction:

The Cameroon tax system is exclusively managed by the state through the Directorate of Taxes, Ministry of Finance, both in the collection and distribution of tax proceeds. According to Jobeth (2013), taxes are the main sources of income for most countries which are used in funding public sector projects and pay salaries to state employees. Given the importance of tax revenues, the government is responsible to institute responsive tax policies, educate and mobilise citizens on the importance to honour their tax obligations. To this effect, this study seeks to examine the extent to which tax education, tax audits, and taxation policies affect the level of tax compliance in the case Fako Division, Southwest Region of Cameroon.

## 2.0 Theoretical Underpinning

### 2.1 The Deterrence Theory of Tax Compliance

The deterrence theory was developed by Beccaria (1738–1794) and Jeremy Bentham (1748–1832). The theory opined that people are generally motivated to obtain pleasure and avoid pain. Accordingly, crime can be deterred by increasing the certainty, celerity and severity of legal punishment for committing an offence. Beccaria (1963) observed that since people are rationally egocentric, they will avoid committing crimes if the perceived costs of such acts exceed the perceived benefits to be achieved. In the same light, Bentham (1948) argued that nature has positioned mankind under the supremacy of two independent masters: pain and pleasure. The deterrence theory is premised on the challenges of tax compliance in an attempt to seek an enforcement mechanism on citizen's tax morality and responsiveness (Ortega & Sanguinetti, 2013). According to Alm (2013), there is widespread evidence that tax evasion is aimed at reducing the obligation to pay appropriate taxes. The mind-sets of the taxpayers when evading taxes is to maximise the expected utility of the tax evasion gamble. The theoretical debates on tax compliance are commonly discussed in terms of economic deterrence theory and the wider behavioural theory (Frey & Feld, 2002). The behavioural theory encompasses both the social and fiscal psychological theories.

The deterrence theory is widely used in the analysis of tax evasion (Feld, Schmidt, & Schneider, 2007). The theory is applied through two viewpoints: the punitive and the persuasive perspectives. In the case of the punitive perspective, it takes the form of increasing the probability of being detected and increasing the tax rate or otherwise, through imposing tougher penalties on tax defaulters. It also provides better education and increased motivations for respecting established tax procedures and institutions (Frey & Feld, 2002). According to the IMF (2015), deterrence measures are required to improve revenues collection in situations of noncompliance. This means that the taxpayers always do a balance decision as they choose how much to evade and the associated risk of being detected and penalised (Frey & Feld, 2002).

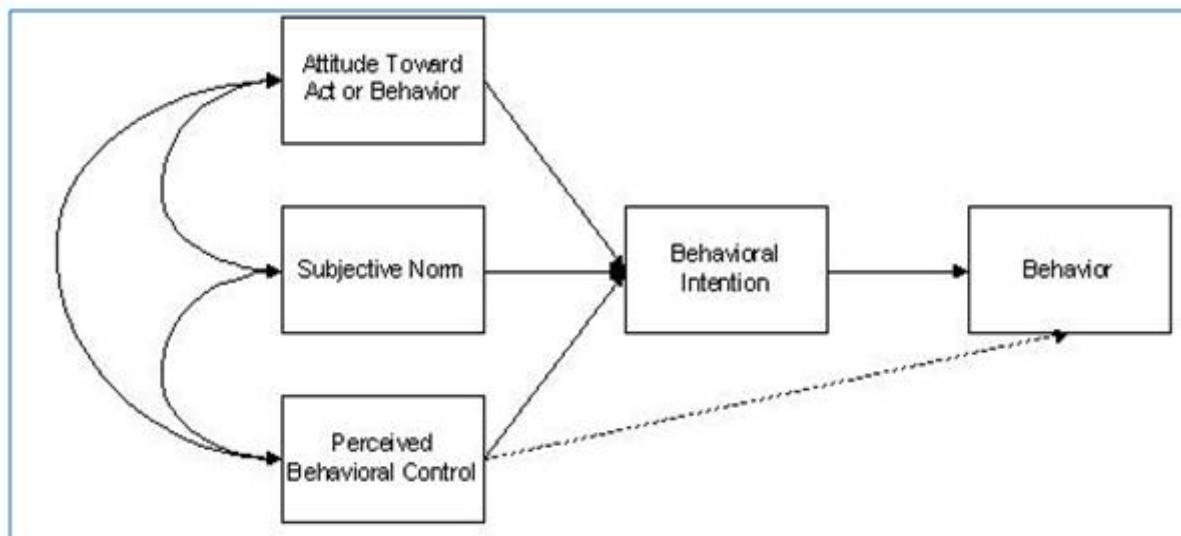
The economic deterrence theory further assumes that taxpayers seek for-profit and their actions are motivated by the calculation of costs to be evaded and the opportunities that come with that. The taxpayer assumed that the payoff from the tax evasion is greater than the expected cost of being caught (Hasseldine & Bebbignton, 1991). It has been established that the economic deterrence model has a positive impact on tax evasion. The theory emphasises on the use of threat, coercion, and intrinsic material incentives to alter taxpayers' behaviours. In addition, interest rates, the perceived probability of being caught, legal penalties and the severity of punishment will influence them to comply with their tax obligations (Hasseldine & Bebbignton, 1991). Furthermore, Chauke & Sebola (2016) argued that the deterrence theory

plays a pivotal role in improving tax compliance. That notwithstanding, Devos (2007) underscored that the deterrence theory has certain limitations which are captured in the behaviour theory as explained below.

## 2.2 Theory of Planned Behaviour

Unlike the deterrence theory which stresses on penalties for noncompliance, the psychological theory of planned behaviour upholds that taxpayers are influenced to comply with tax duties by psychological factors (Olowookere & Fasina, 2013). The theory of planned behaviour uses belief and behaviour to explain human intention. It was developed by Icek Ajzen (1991-1998) to help understand how the behaviour of people can be changed. It has its origin from the Theory of Reasoned Action proposed by Ajzen (1991).

**Figure 1: Theoretical Model of Planned Behaviour**



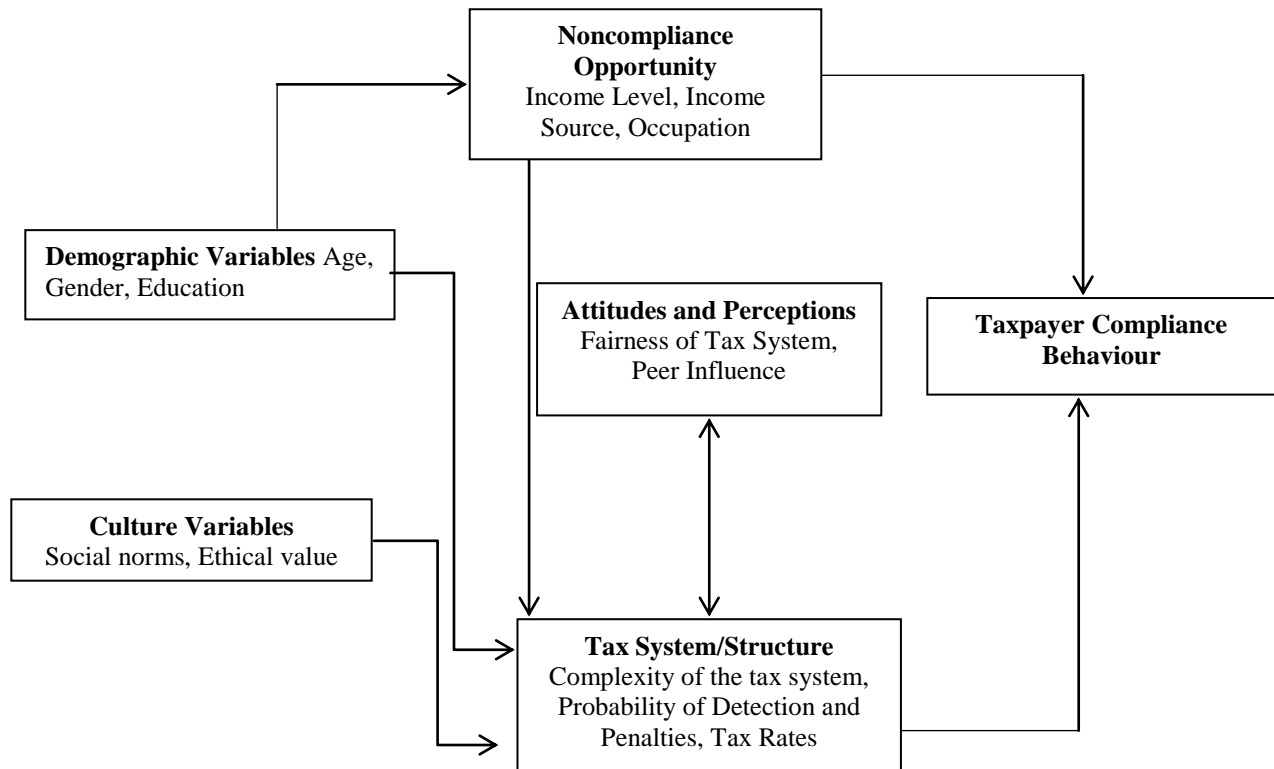
**Source:** Adapted from Ajzen (1991)

According to this theory, the behaviour of an individual is under the influence of definite factors which originate from certain reasons and occurred in a planned way. The ability to perform a particular behaviour depends on an individual purpose towards that behaviour (behavioural intention). Behavioural intention, in turn, depends on three factors: attitude towards the behaviour, subjective norms and perceived behavioural control (Andi *et al.*, 2018), which are under the influence of behavioural beliefs, normative beliefs and control beliefs. In other words, the behaviour of a person is being influenced by three factors. The theory of planned behaviour has been used in several disciplines including taxation. Empirically, it has been proven that attitude, subjective norm, perceptual behaviour, and perceptions of taxpayers towards the government have certain effects on the intention to comply with tax obligations (Damayanti *et al.*, 2015). A taxpayer who portrays an optimistic attitude towards the objectives of the tax systems is likely to have a positive impact on tax compliance and vice versa (Aryati, 2012). As opposed to the economic theories that emphasised on increase audits, coercive and penalties to mitigate tax compliance issues; the psychological theories instead stressed on the changing trends of individual attitudes towards the tax systems.

### 2.3: The Fisher's Model

This research adopts the Fisher's tax compliance model which explains a mix of factors that may impact taxpayers' compliance to establish tax procedures and institutions. The Fisher's model provides a framework for understanding the influence of socio-economic and psychological components on the decision of tax compliance by taxpayers. The model is summarised below.

**Figure 2: Fisher's Tax Compliance Model**



Source: Fisher *et al.*, (1992)

The tax compliance literature identifies four key factors influencing tax compliance decision. These components include: demographic variables, noncompliance opportunities, attitude and perception and the tax structure (Olowookere & Fasina, 2013). The model assumes that the above factors determine the compliance behaviour of the taxpayers. According to Fisher *et al.*, (1992), education as a demographic variable relates to the taxpayers' ability to comply or not to comply with the tax laws. Jackson & Milliron (1986) revealed that females are more likely to comply with tax laws compared to males. An experimental study conducted by Baldry (1987) also supported that females have a higher compliance tendency compared to their male counterpart. However, this view is opposed by Houston & Tran (2001) who opined that a higher proportion of tax evasion is committed by women compared to men. Age-wise, the Fisher's model posits that young taxpayers are more willing to take risks and are less sensitive to noncompliance punitive measures (Andreoni *et al.*, 1998).

Based on income level, the Fisher's model assumes that higher-income earners are more likely to evade taxes compared to the low-income earners. This view is supported by Ritsema *et al.* (2003) who reported that income level is positively related to tax liabilities. However, Houston & Tran (2001) argued that the lower-income groups often tend to have a lower

proportion of tax compliance whereas, Sutherland (1949) argues that tax evasion is considered as a white-collar crime committed by people with high respect and social status. The Fisher's model also assumes that the efficacy of a tax system is influenced by its complexity, penalties and tax rates (Fisher *et al.*, 1992). Scott & Grasmick (1982) indicated that respondents who believe that the tax system is unfair are more likely to exhibit tax non-compliance behaviour. In addition, Chau & Leung (2009) proposed a refinement to the Fisher's model by integrating culture as a determinant of the taxpayers' compliance decision. This is linked to the view that ethical values may prohibit taxpayers from engaging in tax evasion behaviour (Blanthrone & Kaplan, 2008).

## 2.3 Hypotheses Formulation

### 2.3.1 The concept of tax compliance

Andreoni *et al.*, (1998) defined tax compliance as taxpayers' willingness to respect the existing tax laws. Kirchler (2007) considers tax compliance as taxpayers' willingness to pay taxes. Song & Yarbrough (1978) suggested that tax compliance is the willingness and ability of the taxpayers' to comply with tax laws and existing tax institutions determined by ethics, legal environment and other situational factors at a particular time and place. Tax compliance is the opposite of tax delinquency. In addition, tax compliance could be viewed as the process whereby taxpayers are required to declare all incomes and the exact tax liability based on applicable tax laws and regulation (Aliyu & Gambo, 2014). Compliance takes the forms of voluntary compliance or enforced compliance.

### 2.3.2 The concept of tax education and tax compliance

Aksnes (2014) described taxpayer education as the process of teaching and training the taxpayers on taxation procedures and institutions. It assists taxpayers to honour their tax duties to the government. The primary aim of taxpayer education is to encourage voluntary compliance. According to Misra (2004), the main objective of taxpayer education is in three folds: impart knowledge on tax laws and compliance, change taxpayer attitude towards taxation and increase tax collection through voluntary compliance. Taxpayer education programme is one of the strategies for improving tax service delivery to the taxpayers. Service delivery is critical to enhance voluntary tax compliance. The lack of voluntary tax compliance procedures compels tax revenue authorities to use costly and coercive methods for tax administration (Fieldstad & Ranker, 2003). Taxpayer education is designed to enable taxpayers to understand tax laws and procedures. It involves providing education, counseling and support to the taxpayers through different media such as electronic, television, radio programmes, workshops, seminars, and front desk help. However, empirical evidence has shown that individuals do not like paying taxes, and they take a variety of actions to reduce their tax liabilities such as interpreting tax laws to their advantage (Gitaru, 2017).

A major concern affecting voluntarily compliance by taxpayers is the notion that government is reckless and corrupt in spending tax revenues (Onuoha & Dada, 2016). The low level of tax compliance in the majority of developing countries has been attributed to low levels of taxpayer education. Azubike (2009) argues that the lack of information by taxpayers is a major problem as they are not sufficiently educated on the provisions of the various tax laws. According to Machogu (2013), the basic goal of most education programmes are directed towards behavioural change. Both the behaviour and learning theories best explain how tax education can change the behaviour of an individual (Svetna & Taumo, 2007). Some of the modifying factors are knowledge, attitudes, intentions, interpersonal support, organisational

and environmental conditions. Taxpayer education is expected to change these behaviours from negative to positive attitudes by providing the taxpayers with the necessary tax knowledge to comply with their respective tax liabilities (Gitaru, 2017). Tax knowledge is the level of awareness of tax legislation (Hasseldine *et al.*, 2009). Tax knowledge refers to the processes, by which taxpayers become aware of tax legislation and other tax-related information. The general education received by taxpayers does not contribute to the understanding of tax requirements. According to Saira *et al.* (2010), an increase in the level of awareness is essential in gaining public acceptance with established tax laws. Based on the aforementioned literature, this study therefore hypothesised that:

***H<sub>1</sub>: Tax education has a significant positive impact on tax compliance levels in the case of the Fako Division of the South West Region of Cameroon***

***H<sub>2</sub>: Tax policies have a significant positive impact on tax compliance levels in the case of the Fako Division of the South West Region of Cameroon***

### **2.3.3 The concept of tax audit and tax compliance**

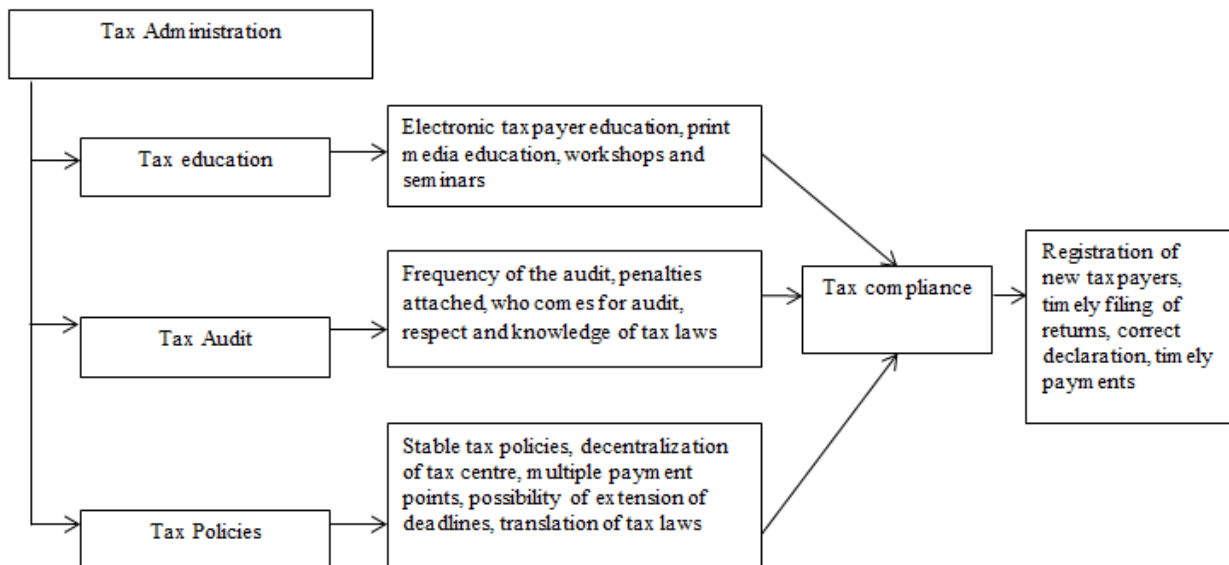
Slemrod (2000) asserted that tax audit is one of the most effective policies to prevent tax evasion. According to (OECD, 2006), as cited by Modugu & Anyaduba (2014), tax audit is an examination of whether a taxpayer has properly assessed and reported his/her tax liabilities as stipulated by the tax authorities. However, noncompliance in tax systems remains an obstacle to tax administration and revenue generation. The purpose of an audit is to assure the truth, fair and credible views of financial statements of companies and institutions. An audit is equally seen as an on-site verification of activities for inspection or examination to ensure the observed quality is in strict compliance with requirements. However, most tax audits end up with tax penalties. Tax penalties are punitive measures for failure to file in tax returns, undervalued tax returns and for late declaration of taxes. The Cameroon Tax Code (GTC) prescribed a 100% penalty on the tax liability per month.

According to Allingham & Sandmo (1972), deterrence factors such as the probability of being audited and being detected by tax authorities are found to reduce non-compliance among taxpayers. The Malaysian tax system encourages taxpayers to voluntarily disclose undervalued and or omitted tax returns. Failure to comply with voluntary disclosures will ultimately attract tax penalties depending on the time between the tax omission and the voluntary disclosure (Doran, 2009). Virmani, (1989) observed that the rate of tax penalties are positively associated with the rate of tax evasion. The higher the rates of tax penalties, the more likely people will be encouraged to cheat. According to him, an increase in the rates of tax penalties might result in more tax avoidance and defaults. On the one hand, Wang & Conant (1988) hold that tax fines should be high enough to decrease the value of tax evasion. Based on the aforementioned literature, this study therefore hypothesised that:

***H<sub>3</sub>: Tax audit has a significant positive impact on tax compliance levels in the case of the Fako Division of the South West Region of Cameroon***

## Conceptual Framework

Figure 3: Conceptual Framework on relationship between Tax administration and compliance level of taxpayers



## 2.4 Methodology

The target population of this study consisted of taxpayers in Fako Division of the Southwest Region of Cameroon, principally, Buea, Limbe and Tiko where the majority of small and medium sized enterprises are operational. Multistage sampling was used consisting of purposive and stratified techniques. The Krejcie-Morgan sample size formula was used to determine the sample size of this study (Krejcie & Morgan, 1970). The sampling frame includes 323 taxpayers allocated proportionately to Buea, Limbe and Tiko depending on the population of taxpayers in these areas. Primary data was purposively sourced using semi-structured questionnaires (Kotari, 2014). Ethical issues including voluntary participation, anonymity, and confidentiality of respondents were strictly observed. The hypothesised model was carefully operationalised (Campbell, 1952). The questionnaire was structured using five (5) Likert scale measurement ranging from Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D) to Strongly Disagree (SD) (Boone & Boone, 2012). The research instrument was checked for reliability and validity using the alpha Cronbach [ $\alpha > 0.7$ ] and construct validity tests [AVE > 0.5] (Cronbach, 1951; Heale & Twycross, 2015). Ambiguities in the dataset were eliminated (Freedman, 2000). Data were cleaned using both exploratory (EFA) and confirmatory factor analyses (CFA) (Hurley *et al.*, 1997). Missing data was completed using the Expectation-Maximization Algorithm (EMA).

Parametric norms were tested. Multivariate normality was validated using Shapiro-Wilk test, multicollinearity was assessed using the Variance Inflation Factor – VIF and Tolerance –T and homogeneity test was checked using the Lavene statistics. Outliers were identified using the boxplots methods. The common cutoff values for tolerance test [T > 0.1] and VIF [VIF < 10] (Schermelleh-Engel, Moosbrugger, & Muller, 2003; Field, 2009; Hair *et al.*, 2010). In addition, Field (2009) and Pallant (2010) recommended that the Lavene statistic must be statistically insignificant at [P-Value > 0.05] for the assumption of homogeneity of variance to be admissible. The hypothesised model was validated using a structural equation technique with the aid of the AMOS 24 statistical package. The measurement model for SEM was tested for

suitability for all retained latent variables (Field, 2009). The assessment of SEM include the test of reliability - Alpha Cronbach [ $\alpha > 0.7$ ] and validity - Construct validity [AVE > 0.5] and discriminant validity [AVE > Maximum share variance]. Furthermore, to ensure a good fit, other indices for structural modeling were observed: Absolute Fit Indices [Chi-square ( $X^2$ ) GFI, AGFI, AIC, BIC, ECVI, RMR, SRMR]; Relative Fit Indices [IFI, TLI, NFI]; Parsimonious Fit Indices [PGFI, PNFI, PNFI2, PCFI] and Non-centrality-based Indices [RMSEA, CFI, RNI, CI]. For the model to be of appropriate fitness, the Chi-square [ $X^2$ ] test should be insignificant with [P-values > 0.05]. Other closer absolute indices like GFI and AGFI should have a value of 0.9 and above [GFI, AGFI > 0.90] (Bryman., 2008). Similar to GFI and AGFI, the IFI, TLI and NFI should be 0.9 and above [IFI, TLI and NFI > 0.90] (Hair *et al.*, 2010). Under the non-centrality based indices, the CFI should be 0.9 and above [CFI > 0.90] and the RMSEA should be 0.08 and lower [RMSEA < 0.08] for acceptability of the model. The econometric model specification is as shown below.

$$TC = f(TE, TA, TP)$$

$$TC = \alpha + \beta_1 TE + \beta_2 TA + \beta_3 TP + e \dots\dots\dots 1$$

$$PATH 1 \rightarrow TC = \alpha + \beta_1 TE + e1 \dots\dots\dots 1.1$$

$$PATH 2 \rightarrow TC = \alpha + \beta_2 TA + e2 \dots\dots\dots 1.2$$

$$PATH 3 \rightarrow TC = \alpha + \beta_3 TP + e3 \dots\dots\dots 1.3$$

Where; [TC  $\rightarrow$  Tax Compliance], [TE  $\rightarrow$  Tax Education], [TA  $\rightarrow$  Tax Audit], [e1, e2 and e3  $\rightarrow$  error terms for paths (1), (2) and (3)] while [ $\beta_1$   $\beta_2$  and  $\beta_3$   $\rightarrow$  Path coefficients for paths (1), (2) and (3)]. The priori expectation  $\rightarrow \beta_1 > 0; \beta_2 > 0; \beta_3 > 0$  as shown below:

**Table 1: Measurement of Variables and expected relationships**

N	Variables	Measurement	Expected Impact	A priori
	Dependent Variable Tax Compliance (TC)	Five Likert Scale point with coding grading from strongly agree to strongly disagree		
	Independent Variables			
1	Tax Education (TE)	Five Likert Scale point with coding grading from strongly agree to strongly disagree	+	$\beta > 0$
2	Tax Audit (STD)	Five Likert Scale point with coding grading from strongly agree to strongly disagree	+	$\beta > 0$
3	Tax Policy (TP)	Five Likert Scale point with coding grading from strongly agree to strongly disagree	+	$\beta > 0$

### 3.0 Data Analysis and Presentation of Results

#### 3.1 Missing Data Analysis

The analysis for missing data was completed using the questionnaire response rate of 95% of participants involved in the study. For validity purposes, the Little's MCAR test was conducted to verify if missing data were completely at random (Hair et al., 2010 & Pallant, 2010). The result revealed that missingness was completely at random with [Chi-Square ( $X^2$ ) = 128.763, DF (Degree of Freedom) = 92, Sig. = 0.07 > 0.05]. Missing data were completed using the Expectation-Maximization Algorithm (EMA) methods.

#### 3.1.1 Exploratory Factor Analysis (Independent latent constructs)

A total of eighteen (18) indicators were used to measure three (3) specific independent latent constructs in the ratio 6:5:7 corresponding to Tax Education (C), Tax Audit (D), and Tax Policies (E) respectively. Based on the analysis, the Kaiser-Meyer-Olkin Measure of Sampling



Adequacy was 0.698, greater than 0.5 [KMO = 0.698 > 0.5] indicating an adequate sample size for the analysis. Kaiser (1974) recommends accepting values between [0.5 and 1] (Field, 2009). Equally, the Bartlett's Test of Sphericity revealed [Chi-square ( $X^2$ ) = 559.507; Degree of Freedom (DF) = 36 and P-value = 0.000 < 0.01] indicating that there exist at least one (1) significant correlation amongst observed items. Bartlett's test should be significant at [P-value < .05] (Field, 2009; Hair *et al.*, 2010) is as shown below:

**Table 2: KMO and Bartlett's Test**

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.698
Bartlett's Test of Sphericity	Approx. Chi-Square ( $X^2$ )	559.507
	Degree of Freedom (DF)	36
	P-value (Sig.)	.000

Promax Rotation was used to indicate retained and rejected indicators relating to the independent latent constructs. Three (3) new components with defined extraction procedure were created. Small coefficients of less than 0.4 were suppressed. The results revealed that for the three components extracted, eigenvalues were; 5.023, 1.430, and 1.225 all greater than 1 [EV > 1]. Components with eigenvalues of less than 1 were rejected from the analysis. However, the three extracted components accounted for 60.836% of Total Variance Explained (TVE) distributed in the ratio 30.296%: 17.005%: 13.535% relating to components 1, 2, and 3 respectively. The pattern matrix for the three factors components based on extraction mode of Principal Component Analysis and Rotation Method of Promax with Kaiser Normalization converged in 6 iterations revealed the following factor loading patterns as shown in the table below.

**Table 3: Pattern Matrix**

	Component		
	1	2	3
C1: Regular trainings will enable taxpayers to file in their tax returns		.852	
C2: Taxpayers' sensitization programme plays a vital role in the attitude of the taxpayers		.761	
C4: Tax knowledge promotes voluntary compliance and increases revenue collection		.670	
D2: Most tax auditors focus on tips rather than tell the taxpayers what is supposed to be			.843
D4: Exaggerated penalties during tax audits create room for tax evasion and avoidance			.741
E1: Tax laws are appropriately translated and interpreted to all taxpayers	.706		
E2: Tax payment's deadlines and times are flexible especially in times of crisis	.686		
E4: Tax offices are available in every town to avoid for long distances for tax purposes	.783		
E5: The state provides tax incentives in the form of tax reduction and tax holidays.	.678		
Extraction Method: Principal Component Analysis.			
Rotation Method: Promax with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			

Based on the aforementioned analysis, it is evidence that there is no factor loading with a coefficient of less than 0.5 and no cross-loading. To this effect, retained and rejected indicators for Tax Education (C), Tax Audit (D), and Tax Policies (E) are shown below:

**Table 4: Retained and Rejected Indicators Independent Construct**

Latent Construct	Retained Indicators	Rejected Indicators
Tax Education (C),	C1,C2,C4	C3,C4,C5 & C6
Tax Audit (D)	D2, D4:	D1,D3 & D5
Tax Policies (E)	E1,E2, E4 & E5	E3,& E6

### 5.2.3 Exploratory Factor Analysis (Tax Compliance)

A total of six (6) indicators were used to measure the dependent latent construct. The assumption of sampling adequacy and evidence of significant correlations were tested and results were as follow: The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.649 greater 0.5 [KMO = 0.649 > 0.5] indicating appropriate sample size for the analysis. Equally, the Bartlett's Test of Sphericity revealed Chi-square ( $X^2$ ) = 152.706; Degree of Freedom (DF) = 10 and P-value = 0.00 < 0.01 indicating at least one (1) significant correlation amongst observed items as shown below:

**Table 4: Pattern Matrix**

Indicators	Component	
	1	2
B1: Generally, taxpayers are willing to pay their taxes		.833
B2: The system use for filing or submitting tax returns is friendly to taxpayers	.763	
B4: Taxpayers are satisfied with the tax policies authorities	.771	
B5: Taxpayers always Declare their taxes Correctly and on Time		.595
B6: Tax centers and payment point are well decentralized to ease compliance	.736	

Extraction Method: Principal Component Analysis.  
Rotation Method: Promax with Kaiser Normalization.  
a. Rotation converged in 3 iterations.

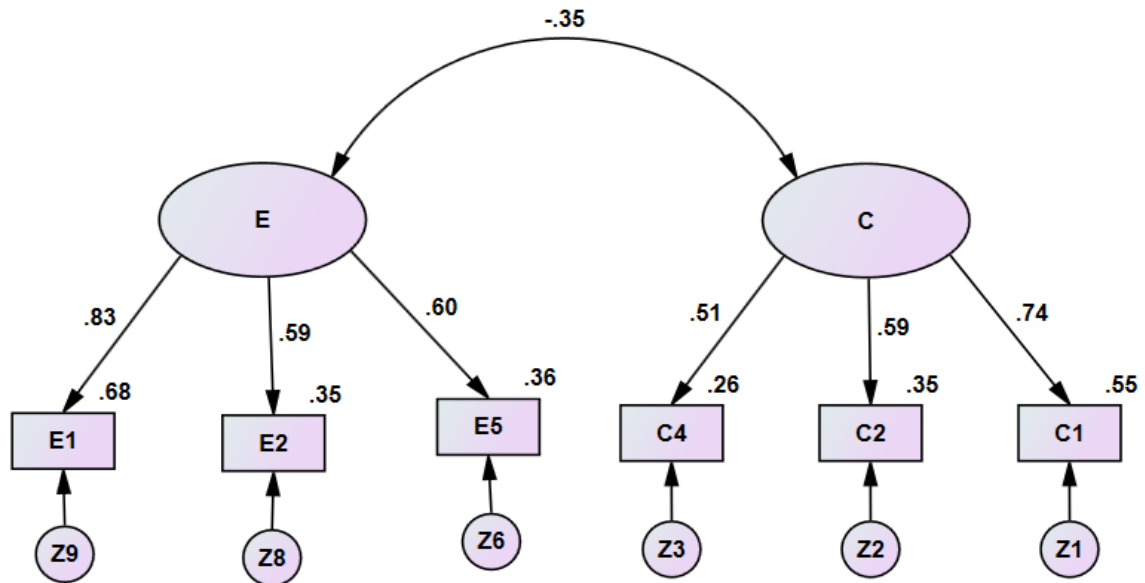
Based on the aforementioned analysis, there is evidence that no factor loading has a coefficient of less than 0.5 and no cross-loadings involved. To this effect, retained and rejected indicators for Tax compliance (B) are shown below.

Latent Construct	Retained Indicators	Rejected Indicators
Tax compliance (B)	B2,B4,B6	B1,B3,B5

### 3.1.3 Confirmatory Factor Analysis (CFA):

Confirmatory Factor Analysis (CFA) is a multivariate statistical procedure used to test how well measured variables represent the number of constructs. The three main model fit indices in CFA are: Model Chi-square, Confirmatory Factor Index (CFI) with values ranging between 0 and 1 [values greater than 0.90 → conservatively, 0.95 → indicate good fit]; Root Mean Square Error of Approximation (RMSEA) with values (0.1 → Excellent, 0.05 → Good and 0.08 → mediocre fit), Tucker Lewis Index (TLI) ranging between 0 and 1 with values greater than 0.90 indicating a good fit Hair et al. (2010). CFI values range from 0 to 1, with larger values indicating a better fit. A CFI value of 0.95 or higher is presently accepted as an indicator of a good fit (Hu & Bentler, 2009).

Figure 1: Confirmatory Factor Analysis model for Independent Latent Constructs



**TWO FACTORS CORRELATED FACTOR ANALYSIS**  
**CMIN/DF = 1.985, P-VALUE = 0.044, GFI = 0.981, IFI = 0.977, TLI = 0.956, CFI = 0.976**  
**RMSEA = 0.055, SRMR = 0.0446**

The path analyses for all indicators for the three specific latent constructs were significant at the 95% confidence interval [ $\mu < 0.05$ ]. All parameters were of good fit according to the CFA specifications of the hypothesised model. Based on the outcome of the CFA model, six (6) indicators were retained for the two (2) latent constructs required for the development of Structural Equation Model (SEM).

**3.2 Validity and Reliability Measurement (VRM)**

To ensure that all retained indicators are valid, construct validity tests (CVT) were conducted with 0.5 acceptable thresholds [AVE > 0.5]. Reliability was tested for internal consistency using the Alpha Cronbach Test. Empirically; the acceptable threshold for reliability is [ $\alpha > 0.7$ ]. The analyses for all four constructs were reliable and valid as shown below:

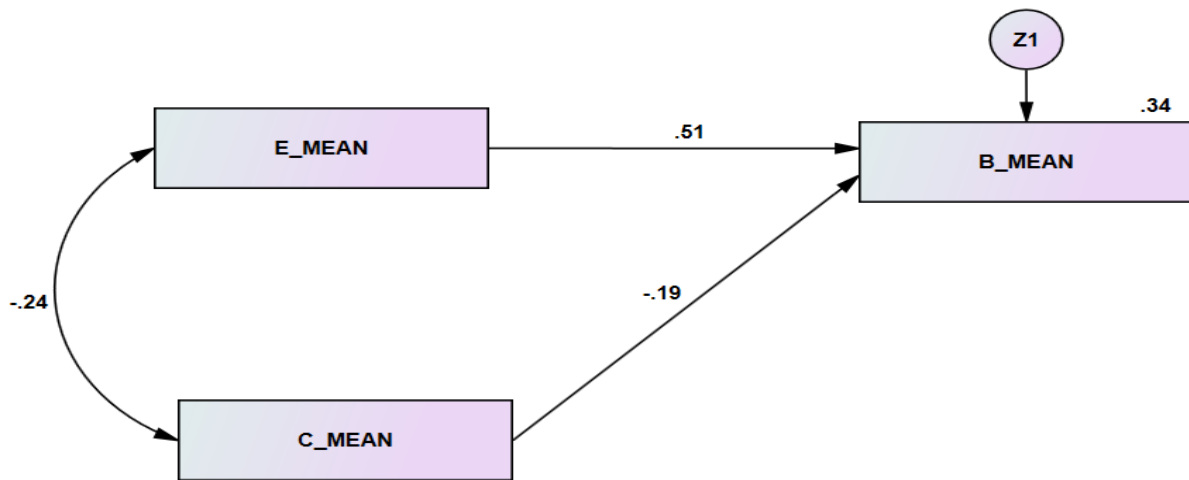
**Table 5: Cronbach's Alpha and Average variance Extracted**

Latent Constructs	Cronbach's Alpha [ $\alpha > 0.6, 0.7$ ]	Construct validity [AVE > 0.5]	Status
Tax Education C	0.637	0.585	Reliable and valid
Tax audit D	0.555	0.630	Reliable and valid
Tax polices E	0.711	0.510	Reliable and valid
Tax compliance B	0.654	0.573	Reliable and valid

**3.4 Testing of Hypotheses using Structural Equation Model (SEM)**

The hypothesised model was tested using Structural Equation Model technique. It is the combination of both factor analysis and multiple regression analysis. Two predictors of tax compliance [Tax education and Tax Policies] were retained as shown in the SEM model below.

Figure 6: Structural Equation Model



**STRUCTURAL EQUATION MODEL**  
**CMIN/DF = 1.95, P-VALUE = 0.54, GFI = 0.991, IFI = 0.997, TLI = 0.956, CFI = 0.996**  
**RMSEA = 0.08, SRMR = 0.006**

From the above structural model, the study reveals that Tax Policies (E) with a standardised regression coefficient of 0.51 has a greater impact on Tax compliance (B) than Tax Education (C) with a standardized regression coefficient of (0.19). The overall model explains 34% of the total variance of tax compliance (B) caused by tax education and tax policies. Both regression paths are statistically significant at the 95% confidence interval. These results are summarised in the table below:

**Table 6: Harmonized Test of Hypotheses**

Hypotheses	P-Value at 95% (CI)	Decision / Conclusion
H2: Tax policies (E) have a positive impact on the level of tax compliance (B)	P-V = 0.000 < 0.05 Statistically significant @ 5% R <sup>2</sup> = moderate positive effect @ 0.507 = 51 %	Reject the null hypothesis and conclude that there is significant statistical evidence to suggest that Tax Policies (E) have an impact on the level of Tax Compliance (B)
H3: Tax Education (C) negatively affects the level of Tax Compliance (B).	P-V = 0.000 < 0.05 Statistically significant at 1%, 5% and 10% R <sup>2</sup> = weak negative effect @ = 18.5 %	Reject the null hypothesis and conclude that there is adequate statistical evidence to suggest that Tax Education (C) has a negative impact on the level of Tax Compliance (B).

**4.0 Discussion and conclusion**

This study seeks to examine the impact of tax administration on the level of tax compliance involving 307 taxpayers in Fako division of the south-west region of Cameroon particularly in Buea, Tiko and Limbe Municipalities. Three specific objectives were developed: To examine the extent to which tax education, tax audit and tax policies influence the level of tax compliance. Results from the study revealed that tax education has a negative statistically significant effect on the level of tax compliance. This result is similar to those concluded by Kwok & Yip (2019) who revealed that tax education negatively affects tax compliance level. However, the result contradicts Gitaru (2017) who opined that tax education positively affects tax compliance level. This was buttressed only if tax education measures were effectively put in place. In effect, their results suggested that effective taxpayer education will provide essential knowledge to change taxpayers’ attitudes from negative to positive towards tax compliance tendencies. According to Saira *et al.* (2010), increase awareness and

knowledge of taxpayers is essential to gain acceptance and confidence in the tax system. Hence, taxpayer education should be considered as a tool to enable them to understand the existing tax laws and improve tax compliance levels. Also, the study revealed that tax policies have a positive statistically significant effect on tax compliance levels. This implies that a less complex tax regime is more likely to increase tax compliance level. This study thus recommends that tax administrators should educate the taxpayers to be responsible and avoid tax defaults. Secondly, the study recommends that the tax system should be simpler, leaner and free of bureaucratic bottlenecks and lastly, that tax administrators should change taxpayers' attitudes from being negative to positive regarding tax compliance tendencies by educating them that tax revenues are channelled towards community-based projects and not to the pockets of top government officials.

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