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## IMPACT OF DIGITALIZATION OF TAX ADMINISTRATION ON TAX MORALE OF SELF-EMPLOYED TAXPAYERS IN TARABA STATE

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### Abstract

Tax revenue mobilization and collection have remained one of the greatest challenges facing tax administrators in all the states in Nigeria, including Taraba State. Researches have indicated that low taxpayer morale has contributed substantially to the poor tax performance in Nigeria. As part of the strategy to improve tax morale, many tax administrators have digitalized their tax administration system. This study examined the impact of digitalization of tax administration on the tax morale of self-employed taxpayers in Taraba State. The study was conducted using cross-sectional data collected with the instrument of questionnaires that were administered on 327 self-employed taxpayers, drawn from the three senatorial zones of Taraba State. The data of the study were subjected to multiple regression analysis. The results of the study showed that the digitalization of taxpayer registration, tax filing and issuance of tax clearance certificate have positive and significant impact on the tax morale of self-employed taxpayers; the digitalization of notification of tax assessment has a negative and significant impact on the tax morale of self-employed taxpayers, while the digitalization of tax collection has no significant impact on the tax morale of self-employed taxpayers. These findings therefore suggest that the tax morale of self-employed taxpayers in Taraba State can be improved upon by digitalizing taxpayer registration, tax filing and issuance of tax clearance certificate. Ultimately, this will lead to an improvement in the tax revenue of the State.

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### INTRODUCTION

Finance is an essential requirement for effective administration. Whether in private or public institutions, it is the oil that lubricates the engine of good governance (Adekoya, 2020). Governments in every country, whether developing or developed, require revenue to finance public expenditure and one of the principal and cheap means of revenue to the government of any country is tax (Alabede, 2020). Since taxation is a substantial source of revenue to the government, any instability in tax revenue will affect public expenditure (Abdulkadir & Alabede, 2022). It is noteworthy however, that tax revenue mobilization and collection have remained one of the greatest challenges facing tax administrators in most developing countries, including Nigeria.

Over the years, researches have indicated that low taxpayers' morale has contributed substantially to the poor tax revenue performance in Nigeria. (Ogbeide & Ken-Otokiti, 2022). According to Organization of Economic Cooperation and Development (2023), tax morale is the intrinsic motivation of taxpayers to pay tax. Abdulkadir and Alabede (2022) opined that a tax system that is characterized by weak tax administrative capacity will suffer from nonchalant attitude by taxpayers, towards complying with tax rules. As part of the strategy to improve tax administration therefore, many tax authorities are now making use of the internet to provide tax services. The use of the internet in tax administration is known as a digitalized tax administration system. Wasao (2014) described a digitalized tax administration system as an online platform that grants a taxpayer an internet-based access to all the services rendered by a

tax authority, such as taxpayer registration, filing of tax returns, making of tax payments and application for tax clearance certificate.

In 2013, in recognition of the value of a digitalized tax administration system, the Federal Inland Revenue Service (FIRS), which handles the administration of taxes due to the Federal Government of Nigeria, commenced the use of a digitalized tax administration system, with the introduction of the Integrated Tax Administration System (ITAS). In 2021, the FIRS upgraded from the use of ITAS to Tax Pro-Max. (Mohammed et al., 2023; Augustine et al., 2023). The FIRS is not alone in the adoption of a digitalized tax administration system in Nigeria. Several State Internal Revenue Services (SIRS) have followed in the steps of FIRS, by adopting various electronic platforms for tax administration (Sani et al., 2022).

Taraba State is among the states in Nigeria that have taken steps to adopt a digitalized tax administration system, with a view to improving their tax revenue. Taraba State Board of Internal Revenue commenced digitalized tax payment system on the 2<sup>nd</sup> of October 2018. To further enhance efficiency, the Board introduced a cutting-edge payment platform – PAYSURE, in collaboration with Interswitch PAYDIRECT, on the 18<sup>th</sup> of August, 2023. This payment platform is a transformative solution to unify the payment ecosystem, enhance transparency, and foster trust in financial transactions (Taraba State Board of Internal Revenue, 2023). This study was undertaken to examine the impact of digitalization of tax administration on tax morale of self-employed taxpayers in Taraba State, with a view to determining if digitalization of tax administration could impact positively on tax revenue generation in Taraba State.

## **LITERATURE REVIEW**

### **Conceptual Review**

Conceptual review is a presentation of variables that interrelate, as perceived by the researcher, before an actual empirical study is done to prove the existence and nature of the relationship among the variables.

### **Concept of Tax and Taxation**

A tax is a compulsory financial levy created and administered by a state, to finance various state institutions (Adrianna 2022). It is a mandatory charge levied by a sovereign power on the incomes, profits, or properties of corporate persons and individuals. Such levies when collected are used for carrying out the functions of government (Association of Accountancy Bodies in West Africa, 2019).

### **The Concept of Tax Morale**

Luttmer and Singhal (2014) defined tax morale as the non-monetary factors and motivations for tax compliance, beyond the maximization of the utilities expected. According to the Organization for Economic Cooperation and Development (OECD, 2019), tax morale is the intrinsic willingness of people to pay tax.

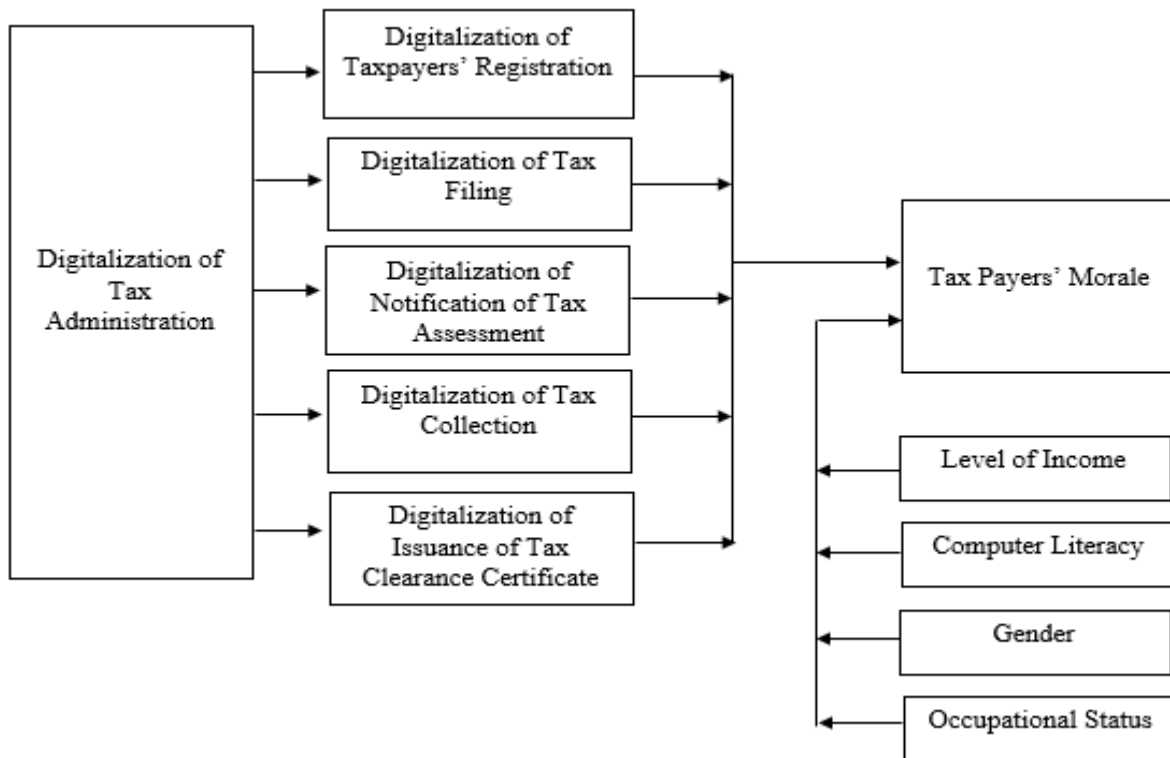
### **Digitalization of Tax Administration**

Digitalization of tax administration is the use of digital technologies for tax administration. According to Umenweke and Ifediora (2016) it is the carrying out of tax processes using an electronic media. It is the integration of digital tools and systems into the various aspects of tax administration which includes taxpayer registration, tax filing, notification of tax assessment, tax collection, issuance of tax clearance certificates.

### **Research Framework**

The purpose of this study is to determine the impact of digitalization of tax administration on the tax morale of self-employed taxpayers in Taraba State. The research framework presented below depicts the nature of the relationship between the independent variables and dependent variable of this study. In this case, research framework based on empirical evidence from literature: Umar and James (2022); Oladele et al. (2020) and OECD (2021), demonstrate that digitalization of tax administration (independent variable) directly affects the morale of

individual taxpayers (dependent variables). The study covered the specific components of digitalization of tax administration which include the digitalization of taxpayers’ registration, digitalization of tax filing, digitalization of notification of tax assessment, digitalization of tax collection and digitalization of issuance of tax clearance certificate. These variables are chosen because not much study has been done on the impact they have on tax morale of individual taxpayers in Taraba State. Apart from digitalization of tax administration, there are other variables that affect the tax morale of self-employed taxpayers. These include taxpayers’ level of income, occupational status, computer literacy and gender (Nyamapheni & Robinson, 2021). These variables were treated as control variables.



Research Framework

**Theoretical Framework**

This is a review of existing theories that serve as a roadmap for this study.

**Diffusion of Innovation Theory**

Rogers and Coleman (2003) defined diffusion of innovation as the process by which an innovation is adopted and accepted by users of a particular community. For adoption to happen, people must perceive the product, behavior or idea as innovative or better. The diffusion of innovation theory is the underpinning theory for the digitalization of tax administration. This is contingent on the fact that digitalization of tax administration involves technological innovations, whose adoption depends to a large extent, on the perception of taxpayers about its relative usefulness over the manual tax administration system.

**Ipsative Theory of Human Behaviour**

The Ipsative Theory of Human Behaviour offers another approach to explaining the interactive effects of contextual conditions and constraints (Frey, 1988; Frey, 1992); This theory integrates economic and psychological concepts into one framework which shows that behavior is determined not only by rational choice logic but also by preconditions This theory underpins the tax morale of self-employed taxpayers in Taraba State, which will be determined either by

the quality of information that the taxpayers have on the digitalized tax administration system or the strength of the preconceptions they already hold about a digitalized tax administration system.

### **Empirical Review**

Several empirical studies have been done on the impact of digitalization of tax administration on taxpayers' morale. Below are the reviews of some of these prior studies.

#### **Digitalization of Taxpayer Registration and Tax Morale**

Martini and Mulyati (2023) did a study on the effect of tax digitalization on taxpayers' compliance, using a case study of sellers in E-commerce. The aim of the study was to determine the effect of some components of tax digitalization, namely digitalized taxpayers' registration, digitalized tax filing and digitalized billing on taxpayer willingness to pay tax or tax morale. Primary data obtained from questionnaires were used for the study. The data were analyzed using multiple linear regression. The results showed that the implementation of digitalized registration of taxpayers did not affect the morale of taxpayers.

#### **Digitalization of Tax Filing and Tax Morale**

Dewi et al. (2022) conducted a study on the effect of digitalized tax filing implementation, tax socialization, taxpayer awareness, tax socialization and tax sanctions on compliance by individual taxpayer. The location of the research was the East Denpasar Primary Tax Service Office. The population comprised individual taxpayers at the East Denpasar Pratama Tax Service Office. The data analysis technique used were the Reliability Test, Validity Test, Classical Assumption Test, Coefficient of Determination Test, Multiple Linear Regression Analysis, t-Test and F Test. The results obtained showed that digitalized tax filing system has a positive and significant effect on the tax morale of individual taxpayers.

#### **Digitalization of Notification of Tax Assessment and Tax Morale**

Rokhman et al. (2023) conducted a study on the effects of digitalized notification, filing and e-government on taxpayer compliance: A case of taxpayers in Indonesia. The sampling technique in this study was incidental sampling. The research instruments used were online questionnaires distributed via social media. The data were analyzed using a structural equation model (SEM) with SmartPLS 3.0 software. The results of this study indicate that the application of digitalized tax notification has a positive and significant effect on taxpayers' morale.

#### **Digitalization of Tax Collection and Tax Morale**

Adebowale (2023) did a study on the effect of digitalized tax payment on tax compliance among SMEs in Kogi State. The population of the study comprised owners of registered small and medium scale enterprises (SMEs) in Kogi State. The data were collected using structured questionnaires administered on the SMEs owners. Using multiple regression analysis, the study found that the effect of digitalized tax payment on taxpayers' morale was positive and significant.

#### **Digitalization of Issuance of Tax Clearance Certificate and Tax Morale**

Okoye and Adesanya (2021) conducted a study on the effect of digitalized tax administration on taxpayers' morale in Lagos state. Digitalized issuance of tax clearance certificate, tax filing and payment served as proxies to the independent variable digitalized tax administration. The research design technique used was Ex – post facto research design. The data were collected from the annual reports of the internally generated revenue of Lagos state and were analyzed using Linear Regression model and analysis of variance (ANOVA) through the statistical package for social sciences (SPSS 20). The result of the analysis showed that digitalized issuance of tax clearance certificate has a positive and significant.

## RESEARCH METHODOLOGY

This study used cross-sectional survey design to obtain information on the effect of digitalization of tax administration on the tax morale of self-employed taxpayers in Taraba State. The study was conducted in Taraba State. To conduct this study in all the 16 local governments of the state will be very expensive and time-consuming. Therefore, one local government was chosen from each of the three senatorial zones in the state, as an area of study. Jalingo, Gassol and Wukari were chosen to represent Taraba North Senatorial Zone, Taraba Central Senatorial Zone and Taraba South Senatorial Zone respectively. The choice of these local governments was hinged on the fact that they are highly commercialized and have very many taxpayers.

The target population of this study was the sole proprietorships operating in Taraba State and registered with the Taraba State Board of Internal Revenue as taxpayers as at 2024. From the data base of Taraba State Board of Internal Revenue, there are a total number of 1,793 taxpayers who are sole proprietorships as at 1<sup>st</sup> March, 2024. From Abdulkadir and Alabede (2022), it was estimated that the three representative local governments have a total of 1,412 registered taxpayers in private business enterprises, with Jalingo having 600, Gassol and Wukari with 372 and 440 respectively. This represented over 70% of the target population of the study.

The sample size of the study was 392. It was arrived at using the Taro Yamane formular, with an additional 20% added to the initial 327 from the computation, to cater for likely non response by the respondents. Three sampling techniques were used in this study: cluster sampling, proportionate stratified sampling and accidental sampling techniques. The data for the study were collected using a 5-Likert scale questionnaire. The instruments were validated using face and content validity techniques and the reliability test of the instrument was conducted using Cronbach's Alpha Test. Finally,

### Model Specification

This study was tailored in line with the model developed by Gekonge and Atambo (2016), in their study on the effects of electronic tax system on the revenue collection efficiency of Kenya Revenue Authority. The functional model is as follows:

$$TMST = f(DTR, DTF, DNTA, DTC, DITCC, LI, CL, GD, OS)$$

The broad model is represented as:

$$TMST = \alpha + \beta_1 DTR + \beta_2 DTF + \beta_3 DNTA + \beta_4 DTC + \beta_5 DITCC + \beta_6 LI + \beta_7 CL + \beta_8 GD + \beta_9 OS + \varepsilon$$

Where:

TMST = Tax Morale of Self-employed Taxpayers

DTR = Digitalization of Taxpayers' Registration

DTF = Digitalization of Tax Filing

DNTA = Digitalization of Notification of Tax Assessment

DTC = Digitalization of Tax Collection

DITCC = Digitalization of Issuance of Tax Clearance Certificate

LI = Level of Income

CL = Computer Literacy

GD = Gender

OS = Occupational Status

$\alpha$  = Constant

$\beta_1 \dots \beta_5$  = Regression coefficients

$\varepsilon$  = Error Term

### Method of Data Analysis

The data gathered by means of the questionnaires administered on the respondents, were subjected to statistical analysis. Two techniques of data analysis were used for these analyses.

These are correlation analysis and regression analysis. However, before carrying out the aforementioned analysis, various pre—estimation test was done to ensure that no violations were done on any assumptions guiding this regression technique. These tests included sample size adequacy, normality test, homoscedasticity test, serial correlation test and multicollinearity test.

## DATA PRESENTATION AND ANALYSIS

### Reliability Test

To measure the reliability of the research instrument, a pilot study was conducted in Jalingo Local Government Area, using 43 respondents. The reliability test was conducted using the Cronbach's Alpha Test.

Based on the result obtained, as shown in Table 1, all the constructs met the Cronbach's Alpha requirement of 0.7 coefficient. The Cronbach's Alpha values of the respective constructs were found to be 0.809 for tax morale of self-employed taxpayers in Taraba State; 0.810 for digitalization of taxpayer registration; 0.809 for digitalization of tax filing; 0.802 for digitalization of notification of tax assessment; 0.807 for digitalization of tax collection and 0.808 for digitalization of issuance of tax clearance certificate. The average of the Cronbach's Alpha values of the respective constructs is 0.808, which indicates that the variables were reliable.

**Table 1: Reliability Test Results**

S/N	Description	Cronbach's Alpha	No of Items
1	Tax Morale of self-employed Taxpayers in Taraba State	0.809	7
2	Digitalization of Taxpayers Registration	0.810	7
3	Digitalization of Tax Filing	0.809	7
4	Digitalization of Notification of Tax Assessment	0.802	7
5	Digitalization of Tax Collection	0.807	7
6	Digitalization of Issuance of Tax Clearance Certificate	0.808	7

Source: Field Survey (2024)

## Correlation Analysis

Correlation analysis was conducted to examine association among the variables in the study.

**Table 2: Correlation Analysis of Dependent, Independent & Control Variables (N=327)**

VARIABLES	TMST	LI	CL	GD	OS	DTR	DTF	DNTA	DTC	DITCC
TMST	1									
LI	-0.349*** 0.000	1								
CL	-0.340*** 0.000	0.845*** 0.000	1							
GD	-0.406*** 0.000	0.820*** 0.000	0.785*** 0.000	1						
OS	-0.177*** 0.001	0.584*** 0.000	0.581*** 0.000	0.563*** 0.000	1					
DTR	0.392*** 0.000	-0.403*** 0.000	-0.394*** 0.000	-0.426*** 0.000	-0.258*** 0.000	1				
DTF	0.285*** 0.000	-0.142*** 0.005	-0.165*** 0.001	-0.140*** 0.006	-0.079 0.077	0.269*** 0.000	1			
DNTA	-0.150*** 0.003	0.114 0.019	0.097 0.039	0.197*** 0.000	0.096 0.041	-0.035 0.261	0.041 *** 0.000	1		
DTC	0.021 0.355	-0.109 0.024	-0.098 0.038	-0.135*** 0.126***	0.104		0.104 0.030	0.088 0.056	1	
DITCC	0.244*** 0.000	-0.185 ***	-0.203*** 0.000	0.007 -0.179***	0.030 0.024	0.011	0.123 1	-0.018 0.013	0.176*** 0.374	0.010
		0.000		0.269*** 0.001	0.024 0.335	0.000	0.013	0.374	0.010	

**Source: Field Survey (2024) \*\*\* Correlation is significant at the 0.01 level**

Table 2 indicates that tax morale of self-employed taxpayers (TMST) has a weak and positive correlation with digitalization of taxpayer registration (DTR), digitalization of tax filing (DTF) and digitalization of issuance of tax clearance certificate (DITCC), as shown by the coefficients 0.392, 0.285 and 0.244 respectively. In addition, it has a very weak and positive correlation with digitalization of tax collection (DTC), as shown by the coefficient 0.021. However, it has moderate and negative correlation with gender (GD), as shown by the coefficient -0.406. Furthermore, it has a weak and negative correlation with level of income (LI) and computer literacy (CL), as shown by the coefficients -0.349 and -0.340 respectively. Finally, it has a very weak and negative correlation with occupational status (OS) and digitalization of notification of tax assessment (DNTA), as shown by the coefficients -0.177 and -0.150 respectively. In addition, the table indicates that level income (LI) has a very strong and positive correlation with computer literacy (CL) and gender (GD), as shown by the coefficients 0.845 and 0.820 respectively. In addition, it has a moderate and positive correlation with occupational status (OS), as shown by the coefficient 0.584. Furthermore, it has a very weak and positive correlation with digitalization of notification of tax assessment (DNTA), as shown by the coefficient 0.114. However, it has a moderate and negative correlation with digitalization of taxpayer registration (DTR), as shown by the coefficient -0.403. Finally, it has a very weak and negative correlation with digitalization of tax filing (DTF), digitalization of tax collection (DTC) and digitalization of issuance of tax clearance certificate (DITCC), as shown by the coefficients -0.142, -0.109 and -1.185 respectively.

Also, the table indicates that level of computer literacy (CL) has a strong and positive correlation with gender (GD), as shown by the coefficient 0.785. In addition, it has a moderate and positive correlation with occupational status (OS), as shown by the coefficient 0.581. Furthermore, it has a very weak and positive correlation with digitalization of notification of tax assessment (DNNTA), as shown by the coefficient 0.097. However, it has a weak and negative correlation with digitalization of taxpayer registration (DTR) and digitalization of issuance of tax clearance certificate (DITCC), as shown by the coefficients -0.394 and -0.203 respectively. Lastly, It has a very weak and negative correlation with digitalization of tax filing (DTF) and digitalization of tax collection (DTC), as shown by the coefficients -0.165 and -0.098 respectively.

Furthermore, the table indicates that gender (GD) has a moderate and positive correlation with occupational status (OS), as shown by the coefficient 0.563. Next, it has a very weak and positive correlation with digitalization of notification of tax assessment (DNNTA), as shown by the coefficient 0.197. In addition, it has a moderate and negative correlation with digitalization of taxpayer registration (DTR), as shown by the coefficient -0.426. Finally, it has a very weak and negative correlation with digitalization of tax filing (DTF), digitalization of tax collection (DTC) and digitalization of issuance of tax clearance certificate (DITCC), as shown by -0.146, -0.135 and -0.179 respectively.

Next, the table indicates that occupational status (OS) has a very weak and positive correlation with digitalization of notification of tax assessment (DNNTA), digitalization of tax collection (DTC) and digitalization of issuance of tax clearance certificate (DITCC), as shown by the coefficients 0.096, 0.104 and 0.024 respectively. In addition, it has a very weak and negative correlation with digitalization of tax filing (DTF), as shown by the coefficient -0.079. Finally, it has a weak and negative correlation with digitalization of taxpayer registration (DTR), as shown by the coefficient -0.258.

In addition, the table indicates that digitalization of taxpayers' registration (DTR) has a weak and positive correlation with digitalization of tax filing (DTF) and digitalization of issuance of tax clearance certificate (DITCC), as shown by the coefficient 0.269 for both of them. In addition, it has a very weak and positive correlation with digitalization of tax collection (DTC), as shown by the coefficient 0.126. However, it has a very weak and negative correlation with digitalization of notification of tax assessment (DNNTA), as shown by the coefficient -0.035. . Furthermore, the table indicates that digitalization of tax filing (DTF) has a very weak and positive correlation with digitalization of notification of tax assessment (DNNTA), digitalization of tax collection (DTC) and digitalization of tax filing (DTF), as shown by the coefficients 0.041, 0.104 and 0.123 respectively.

Also, the table indicates that digitalization of notification of tax assessment (DNNTA) has a very weak and positive correlation with digitalization tax collection (DNNTC), as shown by the coefficient 0.088 and a very weak and negative correlation with digitalization of issuance of tax clearance certificate (DITCC), as shown by the coefficients -0.018.

Finally, the table shows that digitalization of notification of tax collection (DNNTC) has a very weak and positive correlation with digitalization of issuance of tax clearance certificate (DITCC), as shown by the coefficient 0.176.

### **Pre-Estimation Test**

The following pre-estimation tests were conducted: sample size adequacy, normality test, homoscedasticity test, autocorrelation test and multi-collinearity test.

### **Sample Size Adequacy**

Although there are more complex formulae, the general rule of thumb is no less than 50 participants for a correlation or regression with the number increasing with larger numbers of independent variables (IVs) (Carmen & Betsy, 2007). Green (1991) provides a comprehensive



overview of the procedures used to determine regression sample sizes. He suggests  $N > 50 + 8m$  (where  $m$  is the number of IVs) for testing the multiple correlation. Going by this formula, the minimum sample size requirement for this study is 90. Against this backdrop therefore, the sample size of 392 used for this study meets the sample size adequacy requirement.

### Normality Test

The normality test of the data was conducted using descriptive outputs of Skewness and Kurtosis with their standard errors.

**Table 3: Normality Test**

	Statistics	Std. Error
<b>Level of Income</b>		
Skewness	0.073	0.135
Kurtosis	-1.476	0.269
<b>Computer Literacy</b>		
Skewness	-0.157	0.135
Kurtosis	-0.513	0.269
<b>Gender</b>		
Skewness	0.434	0.135
Kurtosis	-1.823	0.269
<b>Occupational Status</b>		
Skewness	1.753	0.135
Kurtosis	1.081	0.269
<b>Tax Morale of Self-Employed Taxpayer</b>		
Skewness	0.404	0.135
Kurtosis	-0.145	0.269
<b>Digitalization of Taxpayers Registration</b>		
Skewness	0.239	0.135
Kurtosis	-0.219	0.269
<b>Digitalization of Tax Filing</b>		
Skewness	0.406	0.135
Kurtosis	0.533	0.269
<b>Digitalization of Notification of Tax Assessment</b>		
Skewness	0.094	0.135
Kurtosis	-0.115	0.269
<b>Digitalization of Tax Collection</b>		
Skewness	0.208	0.135
Kurtosis	-0.066	0.269
<b>Digitalization of Issuance of Tax Clearance Certificate</b>		
Skewness	0.517	0.135
Kurtosis	0.567	0.269

Source: Field Survey (2024)

As a rule, values for skewness and kurtosis can be used to estimate normality in a large population when values fall within -2 to +2 and -7 to +7 respectively (Hair et al., 2010; Byrne, 2010). Notably, most sample data used in behavioral studies are not normally distributed especially when the sample is greater than 40. Thus, the overall results of statistical tests are not contradicted by non-normal data (Goodhue et al., 2012). The normality test showed that tax morale of self-employed taxpayers had a skewness value of 0.404 and kurtosis of -0.145, level of income had a skewness value of 0.073 and kurtosis of -1.475, computer literacy had a

skewness value of -0.157 and kurtosis of -0.513, gender had a skewness value of 0.434 and kurtosis of -1.823, occupational status had a skewness value of 1.753 and kurtosis of 0.081, digitalization of taxpayers registration had a skewness value of 0.239 and kurtosis of -0.219, digitalization of tax filing had a skewness value of 0.406 and kurtosis of 0.533, digitalization of notification of tax assessment, had a skewness value of 0.094 and kurtosis of -0.115, digitalization of tax collection had a skewness value of 0.208 and kurtosis of -0.066 and digitalization of issuance of tax clearance certification had a skewness value of 0.517 and kurtosis of 0.567. This indicated that all of the residuals were normally distributed which made the data valid.

### Homoscedasticity Test

This test was conducted to check if there was consistency in the error term or not. The presence of homoscedasticity signifies that the variation of the error term is constant across all the variables. Jim (2021) stated that, cross-sectional studies often have very small and large values and, thus are more likely to have heteroscedasticity.

So, the Homoscedasticity test showed the presence of heteroscedasticity ( $0.000 < 0.05$ ), at 5% probability. But this does not nullify the data for analysis.

**Table 4: Homoscedasticity Test**

	R-square	p-value
Homoscedasticity	67.56327	0.0000

Source: Field Survey (2024)

### Autocorrelation

Evidence of auto-correlation among the error terms was tested because not doing so may cause faulty inference, due to the poor estimates of regression coefficient and standard errors of regression that are biased. Researchers such as Garson (2012) recommended that test statistic values ranging from 1.5 to 2.5 were relatively normal as rule of thumb for Durbin Watson. Because the value for this study fell within the threshold value at a 1% significant level, there was strong evidence that serial correlation was not present in the model of the study as presented in Table 14.

**Table 5: Autocorrelation Test**

Variables	Durbin Watson
Autocorrelation for the Model	1.870

Source: SPSS (2024)

### Multi-Collinearity

The multi-collinearity between independent variables in the study was within the acceptable threshold as in Table 6. The means of assessing multi-collinearity is through, tolerance and variance inflation factor (VIF). Tolerance lesser than 0.10 or VIF greater than 10, indicate the presence of multi-collinearity (O'Brein, 2007). From Table 4.14, it can be seen that all tolerance columns and VIF are within the thresh hold ( $VIF < 10$ ).

**Table 6: Test of Multi-Collinearity**

	VIF	Tolerance
LI	4.603	0.217
CL	4.015	0.249
GD	3.685	0.271
OS	1.745	0.573
DTR	1.361	0.735
DTF	1.094	0.914
DNTA	1.071	0.934
DTC	1.112	0.899
DITCC	1.149	0.870
<b>Mean</b>	<b>2.204</b>	<b>0.629</b>

Source: Field Survey (2024)

### Regression Results

It was necessary to assess the strength of the relationship between the dependent and independent variables. In this study the least square method was used to determine the level of variation in the dependent variable due to variations in the independent variables.

**Table 7: Regression Results**

Variables	Coefficients	Std.Error	p-value
Constant	13.783	2.401	0.000
LI	-0.119	0.477	0.803
CL	-0.045	0.594	0.940
GD	-2.244	0.707	0.002
OS	0.878	0.631	0.165
DTR	0.221	0.060	0.000
DTF	0.259	0.067	0.000
DNTA	-0.116	0.064	0.072
DTC	-0.109	0.061	0.074
DITCC	0.155	0.065	0.018
R-Square	0.226		
Adjusted R-Square	0.214		
F-Statistics	18.324		
Sig.	0.000		

Source: SPSS Computation (2024)

Table 7 indicates that, the general impact of the explanatory variables included in the model explain the dependent variable up to about 21.4% as indicated by the adjusted R Square, while the remaining 78.6% are explained by other factors such as the control variables.. The F-statistical value of 18.324 which is significant at 1% shows that the model is fit and therefore, the results are reliable.

Also, the table indicates that digitalization of taxpayer registration (DTR) has a coefficient of 0.221. This suggests that a one unit increase in digitalization of taxpayer registration would lead to a 22.1% increase in the level of tax morale of self-employed taxpayers in Taraba State. The related p-value of 0.000 is significant at 1% level of significance. This means that, digitalization of taxpayer registration has a positive and significant impact on tax morale of self-employed taxpayers in Taraba State.

Furthermore, digitalization of tax filing (DTF) has a coefficient of 0.259. A one unit increase in digitalization of tax filing therefore would lead to a 25.9% increase in the level of tax morale of self-employed taxpayers in Taraba State. The associated p-value of 0.000 which is significant at 1% level of significance means that, digitalization of tax filing has a positive and significant impact on tax morale of self-employed taxpayers in Taraba State.

More so, with a coefficient of -0.116 for digitalization of notification of tax assessment (DNAT), tax morale of self-employed taxpayers in Taraba State would decrease by 11.6% for a one unit increase in digitalization of notification of tax assessment. Also, with a p-value of 0.072 which is insignificant at 1% level of significance, digitalization of notification of taxpayers' assessment has a negative and insignificant impact on tax morale of self-employed taxpayers in Taraba State.

In addition, digitalization of tax collection (DTC) has a coefficient of -0.109. For every one unit increase in digitalization of tax collection therefore, the tax morale of self-employed taxpayers in Taraba State would decrease by 10.9%. The associated p-value is 0.074 and this is insignificant at 1% level of significance. This means that digitalization of tax collection has a negative and insignificant impact on tax morale of self-employed taxpayers in Taraba State.

Finally, the digitalization of issuance of tax clearance certificate (DITCC) has a coefficient of 0.155. This implies that a one unit increase in digitalization of issuance of tax clearance certificate would lead to a 15.5% increase in the level of tax morale of self-employed taxpayers in Taraba State. The corresponding p-value of 0.018 which is significant at 1% level of significance means that, digitalization of issuance of tax clearance certificate has a positive and significant impact on tax morale of self-employed taxpayers.

## Test of Hypotheses

This section of the chapter, tests all the hypotheses formulated in chapter one using linear regression analysis conducted.

### **Impact of Digitalization of Taxpayer Registration on Tax Morale of Self-employed Taxpayers**

The result of the linear regression analysis suggested a positive significant impact of digitalization of taxpayer registration on tax morale of self-employed taxpayers in Taraba State. The output indicated a coefficient of 0.221 and p-value of 0.000, which is less than 1%, suggesting that the results were statistically significant. Based on the above outputs, it can be concluded that digitalization of taxpayers' registration has a significant impact on tax morale of self-employed taxpayers in Taraba State. Therefore, the null hypothesis which says that digitalization of taxpayer registration has no significant impact on tax morale of self-employed taxpayers in Taraba State is hereby rejected.

### **Impact of Digitalization of Tax Filing on Tax Morale of Self-employed Taxpayers**

Furthermore, the linear regression analysis for digitalization of tax filing indicated a coefficient of 0.259 and p-value of 0.000, which is less than 1% and thus statistically significant. This output therefore means that digitalization of tax filing has a positive significant impact on tax morale of self-employed taxpayers in Taraba State. On the basis of this, the null hypothesis that digitalization of tax filing has no significant impact on tax morale of self-employed taxpayers in Taraba State is therefore rejected.

### **Impact of Digitalization of Notification of Tax Assessment on Tax Morale of Self-employed Taxpayers**

Going further, the linear regression coefficient for digitalization of notification of tax assessment is -0.116. With a p-value of 0.072, which is greater than 1%, the result is statistically insignificant. These therefore suggest that digitalization of notification of tax assessment has a negative insignificant impact on tax morale of self-employed taxpayers in Taraba State. Against this backdrop, the null hypothesis that digitalization of notification of tax assessment has no impact on the tax morale of self-employed taxpayers in Taraba state is hereby accepted.

#### **Impact of Digitalization of Tax Collection on Tax Morale of Self-employed Taxpayers**

Also, a negative insignificant impact of digitalization of tax collection on tax morale of self-employed taxpayers in Taraba State was indicated by the regression analysis. The output showed a coefficient of -0.109 and p-value of 0.074, which is greater than 1%, thus suggesting that the results were statistically insignificant. Based on the above outputs, the null hypothesis that digitalization of tax collection has no impact on tax morale of self-employed taxpayers in Taraba State is accepted.

#### **Impact of Digitalization of Issuance of Tax Clearance Certificate on Tax Morale of Self-employed Taxpayers**

Finally, the output of the linear regression analysis showed a coefficient of 0.155 and p-value of 0.018, indicating that the results were statistically significant. This result suggest a positive significant impact of digitalization of issuance of tax clearance certificate on tax morale of self-employed taxpayers in Taraba State. On this basis, the null hypothesis that digitalization of issuance of tax clearance certificate has no significant impact on tax morale of self-employed taxpayers in Taraba State is hereby rejected.

#### **Summary of Major Findings**

This study shows that digitalization of taxpayer registration, has a positive and significant impact on tax morale of self-employed taxpayers in Taraba State. It also shows that digitalization of tax filing, has a positive and significant impact on tax morale of self-employed taxpayers in Taraba State. In addition, the study reveals that digitalization of notification of tax assessment has a negative and insignificant impact on the tax morale of self-employed taxpayers in Taraba State. Digitalization of tax collection was also found to have negative and insignificant impact on the tax morale of self-employed taxpayers in Taraba State. And lastly, the study shows that digitalization of issuance of tax clearance certificate has a positive and significant impact on the tax morale of self-employed taxpayers in Taraba State.

#### **CONCLUSIONS AND RECOMMENDATIONS**

Tax revenue mobilization and collection have remained one of the greatest challenges facing tax administrators in all the states in Nigeria, including Taraba State. Researches have indicated that low taxpayer morale has contributed substantially to the poor tax performance in Nigeria. As part of the strategy to improve tax morale, many tax administrators have digitalized their tax administration system. This study examines the impact of digitalization of tax administration on the tax morale of self-employed taxpayers in Taraba State.

Generally, this study made use of five components of digitalization of tax administration which are digitalization of taxpayer registration, digitalization of tax filing, digitalization of notification of tax assessment, digitalization of tax collection and digitalization of issuance of tax clearance certificate.

The study has found a significant positive relationship between digitalization of taxpayer registration and tax morale of self-employed taxpayers in Taraba State. It also provides evidence showing that digitalization of tax filing and digitalization of issuance of tax clearance certificate have significant positive relationships with tax morale of self-employed taxpayers in Taraba State.

However, other findings of this study suggest that digitalization of notification of tax assessment has a negative insignificant relationship with tax morale of self-employed taxpayers

in Taraba State. Similar evidence is also provided for a negative insignificant relationship between digitalization of tax collection and tax morale of self-employed taxpayers in Taraba State.

### Recommendations

Based on the findings of this study, it is recommended that registration of taxpayers, tax filing and issuance of tax clearance certificate should be digitalized. However, it is recommended that notification of tax assessment and tax collection should not be digitalized.

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