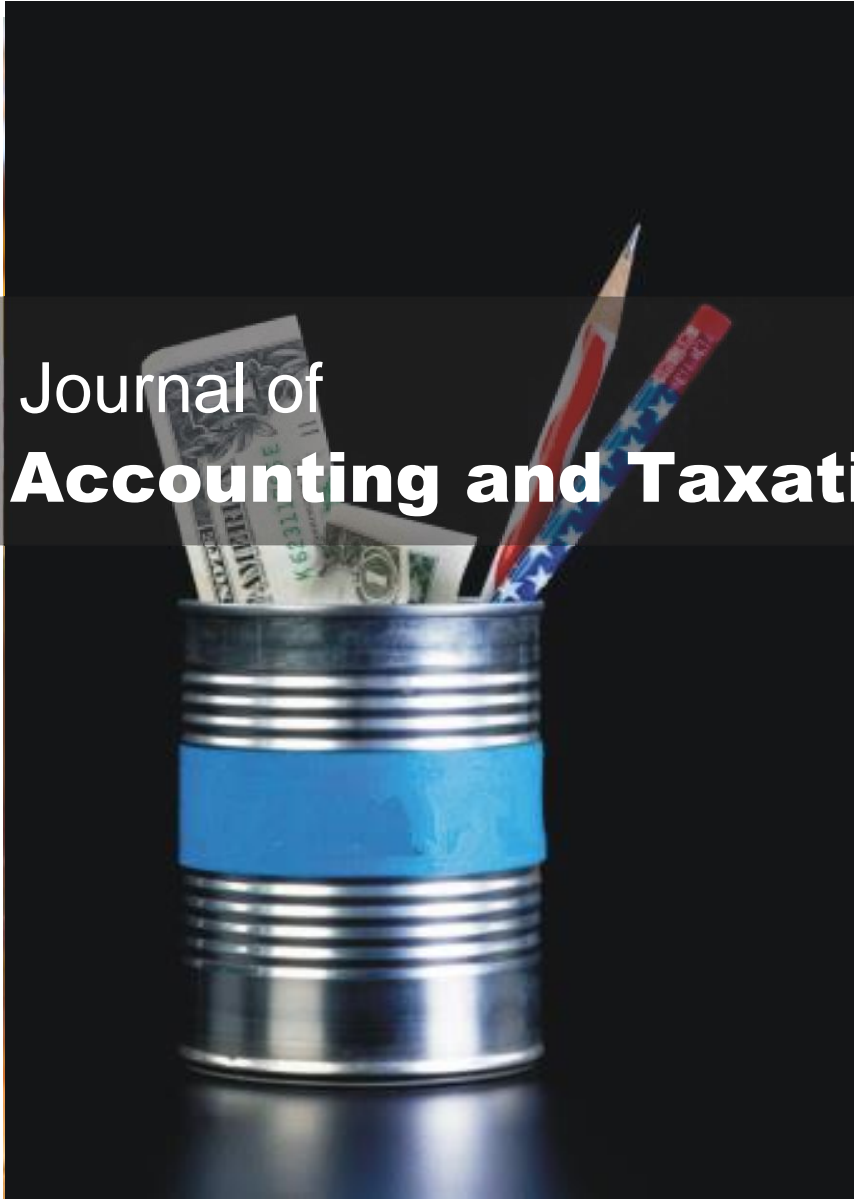


OPEN ACCESS



Journal of
Accounting and Taxation

July 2019
ISSN: 2141-6664
DOI: 10.5897/JAT
www.academicjournals.org

 **ACADEMIC
JOURNALS**
expand your knowledge

About JAT

The Journal of Accounting and Taxation (JAT) is a peer reviewed open access journal. The journal is published monthly and covers all areas of Accounting and Taxation.

Open Access Policy

Open Access is a publication model that enables the dissemination of research articles to the global community without restriction through the internet. All articles published under open access can be accessed by anyone with internet connection.

The Journal of Accounting and Taxation is an Open Access journal. Abstracts and full texts of all articles published in this journal are freely accessible to everyone immediately after publication without any form of restriction.

Article License

All articles published by Journal of Accounting and Taxation are licensed under the [Creative Commons Attribution 4.0 International License](#). This permits anyone to copy, redistribute, remix, transmit and adapt the work provided the original work and source is appropriately cited. Citation should include the article DOI. The article license is displayed on the abstract page the following statement:

This article is published under the terms of the [Creative Commons Attribution License 4.0](#) Please refer to <https://creativecommons.org/licenses/by/4.0/legalcode> for details about [Creative Commons Attribution License 4.0](#)

Article Copyright

When an article is published by in the Journal of Accounting and Taxation, the author(s) of the article retain the copyright of article. Author(s) may republish the article as part of a book or other materials. When reusing a published article, author(s) should;

Cite the original source of the publication when reusing the article. i.e. cite that the article was originally published in the Journal of Accounting and Taxation. Include the article DOI

Accept that the article remains published by the Journal of Accounting and Taxation (except in occasion of a retraction of the article)

The article is licensed under the Creative Commons Attribution 4.0 International License.

A copyright statement is stated in the abstract page of each article. The following statement is an example of a copyright statement on an abstract page.

Copyright ©2016 Author(s) retains the copyright of this article.

Self-Archiving Policy

The Journal of Accounting and Taxation is a RoMEO green journal. This permits authors to archive any version of their article they find most suitable, including the published version on their institutional repository and any other suitable website.

Please see <http://www.sherpa.ac.uk/romeo/search.php?issn=1684-5315>

Digital Archiving Policy

The Journal of Accounting and Taxation is committed to the long-term preservation of its content. All articles published by the journal are preserved by Portico. In addition, the journal encourages authors to archive the published version of their articles on their institutional repositories and as well as other appropriate websites.

<https://www.portico.org/publishers/ajournals/>

Metadata Harvesting

The Journal of Accounting and Taxation encourages metadata harvesting of all its content. The journal fully supports and implement the OAI version 2.0, which comes in a standard XML format. [See Harvesting Parameter](#)

Memberships and Standards



Academic Journals strongly supports the Open Access initiative. Abstracts and full texts of all articles published by Academic Journals are freely accessible to everyone immediately after publication.



All articles published by Academic Journals are licensed under the [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](#). This permits anyone to copy, redistribute, remix, transmit and adapt the work provided the original work and source is appropriately cited.



[Crossref](#) is an association of scholarly publishers that developed Digital Object Identification (DOI) system for the unique identification published materials. Academic Journals is a member of Crossref and uses the DOI system. All articles published by Academic Journals are issued DOI.

[Similarity Check](#) powered by iThenticate is an initiative started by CrossRef to help its members actively engage in efforts to prevent scholarly and professional plagiarism. Academic Journals is a member of Similarity Check.

[CrossRef Cited-by](#) Linking (formerly Forward Linking) is a service that allows you to discover how your publications are being cited and to incorporate that information into your online publication platform. Academic Journals is a member of [CrossRef Cited-by](#).



Academic Journals is a member of the [International Digital Publishing Forum \(IDPF\)](#). The IDPF is the global trade and standards organization dedicated to the development and promotion of electronic publishing and content consumption.



[COUNTER](#) (Counting Online Usage of Networked Electronic Resources) is an international initiative serving librarians, publishers and intermediaries by setting standards that facilitate the recording and reporting of online usage statistics in a consistent, credible and compatible way. Academic Journals is a member of [COUNTER](#)

Archiving In



[Portico](#) is a digital preservation service provided by ITHAKA, a not-for-profit organization with a mission to help the academic community use digital technologies to preserve the scholarly record and to advance research and teaching in sustainable ways.

Academic Journals is committed to the long-term preservation of its content and uses [Portico](#)



Academic Journals provides an [OAI-PMH](#)(Open Archives Initiatives Protocol for Metadata Harvesting) interface for metadata harvesting.

Contact

Editorial Office: jat@academicjournals.org

Help Desk: helpdesk@academicjournals.org

Website: <http://www.academicjournals.org/journal/JAT>

Submit manuscript online <http://ms.academicjournals.org>

Academic Journals
73023 Victoria Island, Lagos, Nigeria
ICEA Building, 17th Floor, Kenyatta Avenue, Nairobi, Kenya

Editors

Dr. George Iatridis

Department of Economics

University of Thessaly

Ministry of Economics

Volos, Greece.

Editorial Board Members

Dr. Jeyapalan Kasipillai

School of Business

Monash University

Sunway, Malaysia.

Dr. Arikan Tarik Saygili

Izmir Ekonomi Universitesi

Balcova, Turkey.

Dr. Manoj Subhash Kamat

Faculty, Shree Damodar College of Commerce

& Economics

Goa University

Comba, India.

Dr. Salisu Abubakar

Department of Accounting, Finance &

Management

Ahmadu Bello University

Zaria, Nigeria.

Dr. Mohammad Talha

Department of Accounting & MIS

College of Industrial Management (AACSB

Accredited) King Fahd University of Petroleum

& Mineral Dhahran,

Saudi Arabia.

Dr. Jenő Beke

Department of Accounting, Corporate

Economics and Finance, Business and

Management,

Hungary.

Dr. Norman Bin Mohd Saleh

Graduate School of Business
Universiti Kebangsaan Malaysia
Selangor, Malaysia.

Dr. Fayaz Ahamed Mohamed Amin

Department of Business Administration
Amity University Dubai
UAE.

Dr. Alexandre Ripamonti

Business Administration,
University of Sao Paulo,
Brazil.

Dr. Adrian Morosan

Finance and Accounting
"Lucian Blaga" University of Sibiu
Romania.

Dr. Khalifa Ahsina

Management Department
Ibn Tofail University
Morocco.

Table of Content

An assessment of just in time system on the financial performance of manufacturing firms in Nigeria Adeniran Busari Ganiyu, Agbaje Wale Henry and Adeosun M. Adekunle	111
The influence of tax amnesty programme on tax compliance in Nigeria: The moderating role of political trust Francis Okoye	120

Full Length Research Paper

An assessment of just in time system on the financial performance of manufacturing firms in Nigeria

Adeniran Busari Ganiyu^{1*}, Agbaje Wale Henry² and Adeosun M. Adekunle³

¹Department of Accounting, Faculty of Management Sciences, Ebonyi State University, Abakaliki, Ebonyi State, Nigeria.

²Department of Accounting, Faculty of Social and Management Sciences, Adekunle Ajasin University, Akungba-Akoko, Ondo State, Nigeria.

³Department of Accounting, Faculty of Management Sciences Lagos State University, Ojo, Lagos, Nigeria.

Received 3 November, 2018; Accepted 6 February, 2019

The study examines the effect of Just-in-time on the financial performance of manufacturing organizations in Nigeria. The purpose of the research work is to determine the effect of application of just in time on cost reduction and return on investment of manufacturing firms in Nigeria. Primary data were collected through a self administered questionnaire on knowledgeable sample of employees selected to test the strength of model specified and hypotheses formulated on JIT and financial performance of manufacturing firms. Analysis was carried out using Multiple Regression model and findings revealed that 39.4 and 16.3% variations in cost reduction and returns on investment are due to the impact of JIT as explained by the predictor variables combined. This implies that JIT has contributed positively to the financial performance of manufacturing firms in Nigeria and manufacturers will benefit immensely from its adaptation. The study concludes that each of the cost components employed to measure the effect of JIT on cost reduction and returns on company's investment shows appreciable level of significance. The study therefore recommends the manufacturing firms should adopt JIT in cutting their production costs in order to achieve enhanced efficiency and eliminate waste to the barest minimum from the entire supply chain.

Key words: Just-in-time, financial performance, manufacturing, cost reduction.

INTRODUCTION

Organizational management is faced with inventory management problems continuously due to a lot of funds/capital tied down in it for production processes. Because of competition due to dynamic nature of global market, only firms that can adopt new strategies which help companies in delivering quality products at lowest prices in achieving their objectives can survive /or nowadays, survival of organizations depends largely on adoption of new strategies that can help companies in delivering quality products at competitive prices in

achieving their objectives. Therefore, improved performance of organizations depends on costs cutting, high level of productivity, guaranteed quality which helps in satisfying customer's requirements or taste (Raouf, 1994).

Management nowadays tried as much as possible to lower their production costs while improving on their product quality. This is achieved by adopting new manufacturing strategies like Just in Time (JIT), International Standards Organization (ISO), Total Quality

*Corresponding author. E-mail: yeminiran2002@yahoo.com. Tel: +2347031687464.

Management (TQM) etc that have emerged at the last quarter of 20th century which have helped operations at reduced costs (Dreyfus et al., 2004).

The most important strategy which has been so effective and efficient in manufacturing operations in reducing product costs, improved product quality, increased productivity, and reducing wastage to the barest minimum is Just in Time (JIT) (Mazanai, 2012). It is an approach or a strategy that originated/developed in Japan in the '50s and subsequently adopted instantly by Toyota and other manufacturing firms in Japan which has helped in increasing productivity level while eliminating waste to the barest minimum (Kaneko and Nojiri, 2008).

The concept of Just in Time advocates the reduction of waste by making production process easier than ever before. It also helps in reducing excessive inventories during operations which leads to efficient uses of resources (Kannan and Tan, 2005). Previous studies have shown that Just in Time manufacturing system is a relatively new concept in Nigeria (Adeyemi, 2000). Obamiro (2009) further stressed that, to achieve a strong economy and world class competitiveness, Nigerian firms have focused on Japanese techniques in particular, Just in Time (JIT) manufacturing systems.

Performance is a key means of measuring firms, what they do, and how their immediate environments affect them. Though several scholars and researchers have written on the concept performance in academic literature, there have not been a consensus and acceptable definition despite many definitions from these scholars (Gavrea et al., 2011). Damanpour et al. (2009) opines that firm's performance covers three major areas; (a) Financial performance (profits, return on assets, return on investment, etc.....); (b) Performance according to product market (total sales/turnover, the share of the market/market share, etc.....); and (c) Return on shareholders' funds (total return on shareholders' fund, value added, etc.....). However, this study adopted financial performance as a variable.

The present economic situation in the country has forced many manufacturing firms to close shops due to high cost of production especially inventory related costs like ordering costs, inventory cost, stock-out costs, and most especially carrying/holding costs thereby having adverse or negative effect on return on investment, cost reduction and quality of products manufactured. According to Singh and Ahuja (2012), excessive investment on inventory jacked-up production costs and thereby reduces profits (ROI) of a manufacturing firm. In essence, firms should control their investment on inventory in order to reduce production costs and therefore increase profits.

It has been observed that due to problems of pilferage, evaporation, obsolescence, and deterioration in the quality of inventory (raw materials and work in progress) while in the store awaiting production, the quality of finished product and reliability of production facilities is

adversely affected thereby lowering the quality of production. Equally, keeping of finished products in store for too long leads to deterioration in product quality, increased obsolescence, waste and unreliable performance.

The question therefore arises; can this system be applied by manufacturing firms in Nigeria? What effects does JIT system have on ROI, reduction in production costs, and quality of products produced in Nigeria? Proffering solutions which answered above questions through research is the reason for this study.

Objectives of the study

The main objective of this research work was to evaluate effects of Just-in-Time on the financial performance of manufacturing firms in Nigeria. However, the following specific objectives will guide the study;

- i) To examine the effect of application of Just-In-Time on cost reduction in manufacturing firms.
- ii) To determine the effect of application of Just-In-Time on Return on Investment in manufacturing firms.

Significance of the study

This research work shall provide to both researchers and non researchers, to investors, customers and entire public the implications of just in time as strategic option available to improve organizational performance in manufacturing firms in Nigeria.

It will also serve as source of reference for researchers and students of management sciences on the meaning and the impact of just in time on provision for purchasing of consumable in manufacturing sector and its effects on industry's performance.

Scope of the study

This research work analyzes the effect of Just –In-Time system on the financial performance of manufacturing organizations in Nigeria. The work focuses on the senior staff personnel of accounting, costing, inventory, and production units of the company. The choice is based on their knowledge of the effect of JIT on the organization performance.

LITERATURE REVIEW

Conceptual review

According to Akbar et al. (2013), Just in Time is Japanese developed concept and has been put into use by many firms in Japan since early '70s. Perfection of the concept was further proved in Toyota plants by Talichi

Ohno as a way of enhancing consumer's request (Goddard, 1986). Concepts like Just-in-Time (JIT), Total Quality Management (TQM), Business Process Re-engineering, Management by Objectives (MBO), Job Enrichment, Empowerment and Downsizing are functions of management used at increasing organization's performance. Ohno (1982) sees Just in Time as a term which guaranteed the right spare at appropriate time, at right quantity when the organization is in operation.

Just in Time is a concept that helps to manufacture and deliver finished goods (Schonberger and Gilbert, 1983). JIT to be delivered, sub assemblies JIT to be assembled into final products, fabricated parts JIT to go into the sub-assemblies and sourced materials JIT to be converted into fabricated parts. Pillai (2010) believes that careful management of inventory will help in lowering costs. It was discovered in a study carried out by Adeyemi (2010) that Just in Time concept can help lowering costs and improve products quality in Nigeria environment. Wafa and Yasin (1998) corroborated other studies that Just in Time helps continuously in achieving organization's objectives by eradicating waste and increase output. In the manufacturing process, Just in Time assures that production costs are controlled by making sure that only quality products/parts are produced, in the right quantity, at the required time and where it is required using lower materials, equipment and human capital.

Broyles et al. (2005) opine that Just in Time has stood out for years by improving the organization's working conditions especially their procurement procedures. It has changed the competition in the global business environment from organization to organization to supply chain and supply chain. Companies and businesses affect our daily activities and lives, hence, successful businesses are a key to a nation's economic development. According to Gavrea et al. (2011), many researchers see firms and institutions as the engine room for economic, social and political development of a nation. Therefore, organizational performance achievement is an important index in measuring a firm's behaviour. Continuous performance is the objective of a firm's because it is through it that growth and survival can be sustained for a very long time (Gavrea et al., 2011).

However, Lebas and Euske (2005) see performance as an indicator of financial and non-financial used in getting information on the achievement of goals in an organization. Though, organizations remain in business for profit; however, there are various functions that firms performed which are affected by non-financial operations. Therefore, measuring performance can be viewed from both financial and non-financial indicators (Wruck and Jensen, 1998). Many scholars have empirically written on Just in Time concept and its effects on organizational achievements. Sakakibara et al. (1993) write on framework and measuring indicators for Just in Time based on sixteen main practices. Callen et al. (2000) opine that Just in Time production at the level of

operation is associated with higher output, reduced operational costs and increase in returns. Ahmad et al. (2002) investigated infrastructural performances in making adoption of Just in Time more effective using three perspectives; universal, contingency and configurationally and gave report of synergetic effect between Just in Time and infrastructural needs necessary to achieve higher firm's competitiveness.

Since the '70s, quality based competition has grown and brings about more interest, concern and happiness. Firms are more concern about product quality improvement so as to stay competitive in the global marketplace (Mahesh, 2016). The major aspect of product quality of any organization is the ability to grant all expectations of stakeholders and get value for it (Sanner and Wijkman, 2005). In essence, studies which are based on quality are measured using ISO index standards. According to Mahesh (2016), excellent quality product is now the benchmark for business survival; therefore, organizations that cannot guarantee quality products cannot survive any longer. He stressed further that the introduction of another concept called Total Quality Management (TQM) has brought about development in managerial concept. Total Quality Management (TQM) particularly is about making sure that quality production process is adhered to rather than checking for poor quality products after manufacturing process. According to him, companies that are successful understood serious effects of quality products on business growth, development and survival. Hence, many serious organizations that want to stay competitive maintain and increase their product quality standard continually.

As observed by Botchkarev and Andru (2011), Return on Investment (ROI) happened to be the most accepted measuring index applied in business analysis. Some years back, ROI was assumed to be a term in finance used in critical and figurative analysis of financial returns and costs (Botchkarev and Andru, 2011). Nowadays, however, Return on Investment (ROI) is been adopted and unanimously applied in finance by both the private and public sectors. They further opined that ROI is used in measuring and determining the effectiveness of an investment opportunity or to rank a number of investment opportunities. To evaluate Return on Investment (ROI), it is simply dividing the benefit (that is return) by the investment's cost outlay; the outcome is always in ratio or percentage.

Empirical review

Obamiro (2009) explored the extent of relationship between Just in Time and a firm's achievement in terms of performance of a selected number of firms in Nigeria environment using primary data collected through a self administered questionnaires of 300 knowledgeable staff

to test models specified and hypotheses formulated. The three hypotheses were tested using bivariate correlation technique and findings revealed that; there exists a significant relationship between Total Quality Management (TQM) and Just in Time; that human resources management was also positively related to Just in Time; and there was also a positive significant relationship between Just in Time and a firm's performance.

Adeyemi (2010) examined the extent to which Just in Time has helped manufacturing firms in developing economies like Nigeria using primary data collected through administered questionnaires on firms to know whether they have adopted Just in Time or not, the kind of Just in Time Production system adopted, and the gains accrued from its adoption. The results show that bigger and financially strong or buoyant firms adopt Just in Time than relatively smaller firms who are yet to have enough facts about the concept and benefits derivable from its adoption. Some factors were identified as militating against its adoption and the study therefore recommended that successful implementation of Just in Time are benchmarked on some factors like management commitment, ability to respond quickly to market tastes and needs for education and communication on the need for adoption of Just in Time based on its benefits.

He further recommended that world is now a global village and therefore, Nigerian firms cannot be lagging behind, hence, the need for complete adoption of Just in Time by firms in Nigeria in order to compete favourably with overseas suppliers and diversify their excess inventory ordered from abroad to produce or bring up new ideas and products. Also, the study however recommends workshops and seminars in reeling out necessary information on Just in Time to management of organizations yet to adopt it, so that they can be well informed and embrace the concept for the benefit of those firms and the economy at large.

Mazanai (2012) investigated the impact of Just in Time on efficiency, product quality and flexibility among production outfit, small and medium scale companies in South Africa using primary data collected from 82 questionnaires administered in the food, wood and furniture, metals, non-metals firms. Analysis was conducted using Spearman Correlation Coefficient technique and results of the study showed that most manufacturing firms among small and medium enterprises were not adopting Just in Time and it was further discovered that some factors are responsible for non-application of Just in Time by SMEs which include among others; lack of reliable supplier network, lack of adequate capital, and lack of information on gains accruable from adoption of Just in Time. It was however recommended that small and medium firms should be updated with information about Just in Time, how to adopt it, and benefits derivable from its adoption.

Melek and Fikri (2008) carried out an empirical

investigation on effects of Just in Time production and Total Quality Management (TQM) using primary data sourced from 122 production outfits from Turkey in 2005. Analysis of data collected was conducted using Multi-correlation and Multinomial Logistic Regression and findings revealed that there exists a linear relationship between using multidimensional performance index and those outfits that adopted Just in Time and Total Quality Management (TQM) than those that did not adopt the said concepts. It was therefore recommended that some elements defining the new production environment are the contingent attribute variables directed along the achievement measurement and knowing types of achievement measurement system.

Keitany and Riwo-Abudho (2014) examined effects of Lean production on organizational performance using flour producing companies in Kenya as their case study. Primary data were collected from a sample of 10 respondents selected through random sampling out of 42 target population and analyzed using descriptive statistic. The study identified some problems of applying Lean production system in order to reduce waste to the barest minimum. The study however recommended that as Lean production system is fully integrated management philosophy, the issue of improving on it on a continuous basis should be equally given to those functional areas of the firm which complements production operations. In essence, all functional areas of organization should be made to know their role in the Lean application and transformation process and this can be achieved through establishing a good interaction between internal customers and suppliers. Also, the top level management should encourage and back up with better leadership approach in order for the firm to benefit from it.

Qureshi et al. (2013) empirically examined elements involved in incorporating and adopting Just in Time management in cement industry of Pakistan using primary data sourced from four hundred operations managers of cement industry to elicit information about benefits cement industry have derived through adoption of Just in Time. Factor analysis was employed in investigating the relationship between the parameters linear functions and findings reveal that incorporating elements of Just in Time into their production process improves the competitiveness of cement industry considerably in Pakistan. Though the research realized the fact that incorporating Just in Time elements into the production processes faced some problems, findings suggested that product quality design, quality control, and management of stock effectively, planning of production processes and chain of product supply can help to solve those problems identified.

Theoretical Framework

The theoretical foundation of this study is rooted in the

Theory of Constraint (TOC) propounded by Goldratt and Cox (1992) in their publication on the title, 'The Goal' that was aimed at helping firms attain their organizational objectives repeatedly. The theory is an administrative or organizational criterion or model that sees any possible or achievable structure as being restricted in attaining most of its objectives by some problems. Their view was that there exists consistently a problem or factor militating against a firm's objectives and TOC developed a fascinated procedures in identifying the problem and reconstituting the other functional areas of organization around it. The TOC makes use of a familiar term "a chain is no stronger than its weakest link", meaning that procedures, operations, firms etc..... are endangered as a result of fragile and delicate person or segment that can consistently harm or smash them harmfully.

TOC is premised on the belief that firms can be evaluated and administered or manage by three different indices; throughput, operational expense, and inventory. The theory of constraint therefore supports this study in that it is relevant in the evaluating of how Just in Time affects financial performance of manufacturing firms because it helps to identify the constraint (inventory) and thereby restructuring the organization around the constraint.

METHODOLOGY

Research design

This research adopts survey method. 99 questionnaire items were distributed to a sample selected from the target population out of which 81 were returned and analyzed accordingly from which conclusions were drawn. Therefore, the response rate was 81.82% which is very acceptable for such research.

Population of the study/ sample size

The target study's population is the entire staff strength of selected units of Unilever Plc that work closely with inventory related activities. The sample size selected was by purposive sampling techniques in the inventory related division.

Sources of data

Adopted data for this research was sourced through the administration of questionnaires on personnel in store, production, purchasing and accounts departments totaling 99 out of which 81 were returned for analyses.

Research variables

Research variables in this study are the JIT and the financial performance. The study is testing the effect of JIT (independent variables) on the financial performance (dependent variables) in manufacturing firms in Nigeria.

Model/ analytical method

The analytical technique employed in this research is regression

analysis. The Classical Linear Regression Model (CLRM) can be written in terms of the k-variable Population Regression Function (PRF) model involving the dependent variable Y and k-1 explanatory variables X_2, X_3, \dots, X_k as:

$$Y_i = \beta_1 + \beta_2 X_{2i} + \beta_3 X_{3i} + \dots + \beta_k X_{ki} + u_i, \quad (1)$$

$$i = 1, 2, 3, \dots, n$$

Where, β_1 = the intercept, β_2 to β_k = partial slope coefficients, u = stochastic disturbance term, and

i = i^{th} observation, n being the size of the population.

This equation identifies k-1 explanatory variables (regressors) namely X_1, X_2, \dots, X_k and a constant term that is taken to influence the dependent variable. The essence of regression in econometrics is to generalize for the population from what we get from the sample.

Also considered along with regression analysis technique are the associated validity tests such as:

1) Coefficient of determination (R^2) measures the success of the regression in predicting the variation in the values of the dependent variable within the sample.

$$R^2 = 1 - \frac{SSE}{SST} \quad (2)$$

2) The adjusted R^2 (\bar{R}^2) penalizes R^2 for the addition of regressors which do not contribute to the explanatory power of the model.

The adjusted R^2 is computed as:

$$\bar{R}^2 = 1 - (1 - R^2) \frac{T-1}{T-K} \quad (3)$$

Where, T = Total sample size and K = Number of predictors....

3) The Akaike information criterion (AIC):

$$AIC = -2l/T + 2K/T \quad (4)$$

Where, l = likelihood of the model T = data likelihood with the given model and K = number of parameters in the model.

The Schwarz criterion (SC) is an alternative to the AIC that imposes a larger penalty for additional coefficients and it is given as:

$$SC = -2l/T + (K \log T)/T \quad (5)$$

Where, l = represents the likelihood of the model tested given the data; T = sample size and K = number of parameters which the model estimates.

F-statistic is a test of the hypothesis which helps in affirming that all of the slope coefficients (excluding the constant or intercept) in a regression are zero.

$$F = \frac{R^2/(K-1)}{(1-R^2)/T-K} \quad (6)$$

Model specification

For the purpose of this research, our response variable shall be represented by information of question 16, while the predictors are designated by questions 1 to 15 for the three models proposed for

Table 1. Variables entered/removed^a.

Model	Variables entered	Variables removed	Method
1	Cost Reduction (CR), Carrying/Holding Cost (HC), Ordering Cost (OC), Stockout Cost (SOC) ^b	.	Enter

^aDependent Variable: JIT benefit; b. All requested variables entered.

Table 2. Model summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.628 ^a	0.394	0.363	0.722

^aPredictors: (Constant); CR, Cost Reduction; HC, Carrying/Holding Cost; OC, Ordering Cost; SOC, Stockout Cost.

Table 3. ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.841	4	6.460	12.378	0.000 ^b
	Residual	39.665	76	0.522		
	Total	65.506	80			

^aDependent Variable: JIT benefit.

^bPredictors: (Constant); CR, Cost Reduction; HC, Carrying/Holding Cost; OC, Ordering Cost; SOC, Stockout Cost.

this research. Thus, model 1 becomes,

$$JIT = \alpha + \beta_1 Q1 + \beta_2 Q2 + \beta_3 Q3 + \beta_4 Q4 + \varepsilon \quad (7)$$

Where, $\alpha, \beta_1, \beta_2, \beta_3, \beta_4$ and β_5 are estimable parameters and ε_i = Random Error term which is assumed to be NIID $\sim (0, \sigma^2)$ while Q1, Q2, Q3 and Q4 are research questions that represent the predictor variables ordering cost (OC), holding cost (HC), stock out cost (SOC) and cost reduction (CR), respectively.

Model 2 can be expressed as;

$$JIT = \alpha + \beta_1 Q6 + \beta_2 Q7 + \beta_3 Q8 + \beta_4 Q9 + \beta_5 Q10 + \varepsilon \quad (8)$$

Here, Q6, Q7, Q8 and Q9 and Q10 are research questions representing the predictor variables customer's satisfaction (CS), control of market shares (CSH), returns on capital employed (ROCE), return on investment (ROI) and reduces wastages (RW), respectively.

RESULTS

Data presentation

The results of the analysis carried out on SPSS are depicted in Tables 1 to 8.

Explanation of the first 4 Tables

The intercept of -0.943 represents the estimate for the overall negative effect of JIT on cost reduction in manufacturing industry when all the inventory cost components are kept constants. That is, when the entire inventory cost components are not effective. All the remaining estimates of 0.284, 0.104, 0.515 and 0.142 show a unit improvement towards achieving benefits of JIT in manufacturing organizations based on reduction in ordering cost, holding cost, stock out cost and general cost reduction respectively. The R-squared values of 0.394 imply that only 39.4% of the variation in JIT benefit is jointly explained by the inventory cost components of ordering cost, holding cost, stock out cost and general cost reduction. The overall test of significance for the model is presented by F-statistic result of 12.378 with probability value of 0.0000. This implies that at 5% level of significance, we would reject the null hypothesis of no significance and assumes that the administration of inventory cost component has therefore contributed significantly as a tool for measuring the impact of JIT in manufacturer's cost reduction.

The model specification of Table 1 is written as:

$$JIT\ Benefit = f(OC, HC, SOC, CR) \quad (9)$$

Table 4. Coefficients^a.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	-0.943	1.355		-0.696	0.489
1 Ordering Cost (OC)	0.284	0.144	0.186	1.967	0.053
Carrying/Holding Cost (HC)	0.104	0.262	0.036	0.396	0.693
Stockout Cost (SOC)	0.515	0.108	0.471	4.771	0.000
Cost Reduction (CR)	0.220	0.142	0.153	1.549	0.125

^aDependent Variable: JIT benefit.

Table 5. Variables Entered/Removed^a.

Model	Variables Entered	Variables Removed	Method
1	Reduce Wastages (RW), Customer Satisfaction (CS), Returns on Capital employed (ROCE), Control of Market Shares (CSH), Return on Investment (ROI) ^b		Enter

^aDependent Variable: JIT benefit.

^bAll requested variables entered.

The OLS model of this functional relationship is given as:

$$JIT\ Benefit = \alpha + \beta_1(OC) + \beta_2(HC) + \beta_3(SOC) + \beta_4(CR) + \varepsilon_i \tag{10}$$

Substituting the coefficients, we have;

$$JIT\ Benefit = -0.943 + 0.284(OC) + 0.104(HC) + 0.515(SOC) + 0.220(CR) \tag{11}$$

Table 4 specified the OLS model results in respect of objective 1 and the model fitted into the table given as Equation (11) signifies that the overall model fitted is significant at 5% level based on the predictor variables considered in this research. However, it is also observed that only two explanatory variables namely, OC (statistically significant at 10% since Sig. p = 0.053 < α = 10%) and SOC (Statistically significant at 1% since Sig. p = 0.000 < α = 1%). All other variables are not statistically significant (Sig. p > 10%) and therefore must be eliminated from the model.

The final model becomes:

$$JIT\ Benefit = -0.943 + 0.284(OC) + 0.515(SOC) \tag{12}$$

Explanation of the second 4 Tables (Tables 5 – 8)

The intercept of -0.97 represents the estimate for the benefits of JIT in manufacturing industry at constant values of returns on investment. All the remaining estimates of -0.206, 0.828,-0.129, -0.112 and 0.116 show both unit improvement and reduction towards achieving

benefits of JIT on investment returns of manufacturing industry. These factors are customer’s satisfaction, control of market shares, returns on capital employed, and returns on investment and wastages reduction respectively. The R-squared value of 0.163 implies that only 16.3% of the variation in JIT benefits is jointly explained by the company’s returns on investment. The overall test of significance for the model is presented by F- statistic result of 2.924 with probability value of 0.018. This implies that at 5% level of significance, we would reject the null hypothesis of no significance and assume that the administration of JIT had contributed significantly as a tool for measuring the impact of JIT in getting adequate returns of investment in manufacturing industry. The model specification of Table 5 is written as:

$$JIT\ Benefit = f (CS, CSH, ROCE, ROI, RW) \tag{13}$$

The OLS model of this functional relationship is given as:

$$i \tag{14}$$

Substituting the coefficients, we have;

Table 6. Model summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.404 ^a	0.163	0.107	0.855

^aPredictors: (Constant), Reduce Wastages (RW), Customer Satisfaction (CS), Returns on Capital employed (ROCE), Control of Market Shares (CSH), Return on Investment (ROI).

Table 7. ANOVA^a.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.687	5	2.137	2.924	0.018 ^b
	Residual	54.819	75	0.731		
	Total	65.506	80			

^aDependent Variable: JIT benefit.

^bPredictors: (Constant); CR, Cost Reduction; HC, Carrying/Holding Cost; OC, Ordering Cost; SOC, Stockout Cost.

Table 8. Coefficients^a.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-0.097	0.738		-0.131	0.896
	Customer Satisfaction (CS)	-0.206	0.349	-0.131	-0.590	0.557
	Control of Market Shares (CSH)	0.828	0.366	0.539	2.264	0.026
	Returns on Capital employed (ROCE)	-0.129	0.350	-0.087	-0.368	0.714
	Return on Investment (ROI)	-0.112	0.324	-0.083	-0.346	0.730
	Reduce Wastages (RW)	0.116	0.168	0.110	0.690	0.492

^aDependent Variable: JIT benefit.

$$JIT\ Benefit = -0.097 - 0.206(CS) + 0.828(CSH) - 0.129(ROCE) - 0.112(ROI) + 0.116(RW) + \epsilon \tag{15}$$

Note that only one variable, Control of Market Shares (CSH) is statistically significant with Sig. $p = 0.026 < \alpha = 5\%$, while all others are not statistically significant therefore must be removed from the equation. Then the model becomes:

$$JIT\ Benefit = -0.097 - 0.828(CSH) + \epsilon \tag{16}$$

CONCLUSIONS AND RECOMMENDATIONS

The study investigates the effect of JIT system on the financial performance of manufacturing firms in Nigeria. Primary data were collected and analyzed and conclusions were drawn from the results as follows:

According to the inferences deduced from the models

specified in this research work, it reveals that each of the cost components employed to measure the effect of JIT on cost reduction and returns on company's investment shows appreciable level of significance. For instance, the empirical results of model (11) reveal that for a one thousand production units, JIT benefits in terms of reduction in ordering costs, carrying costs, stock-out costs and general cost will respectively be increased with a value of ₦284,000, ₦104,000, ₦515,000 and ₦220,000.

Empirical results reveal in the research analysis that all the cost reduction components (OC, HC, SOC and CR) have jointly brought about 39.4% variation in the operational costs of manufacturing firms due to JIT impact, and this has been found to be highly significant and therefore contributed significantly as tools for effective monitoring of JIT impact on cost reduction.

Considering the impact of JIT on returns on

investments as specified in model (15); the results have depicted a unit improvement towards achieving benefits of JIT by control of market shares and wastages/reduction components. Thus, a thousand unit increase in customers' satisfaction (CS), control of market share (CSH), returns on capital employed (ROCE) and return on investment (ROI) will impact JIT benefits with respective values of ₦206,000, ₦828,000, ₦129,000, ₦112,000 and ₦116,000. In essence, empirical results revealed that JIT implementation impacted significantly investment returns in manufacturing industry.

Thus, empirical results reveal that all the returns on investment components (CS, CHS, ROCE, ROI and RW) have jointly brought about 16.3% variation in the manufacturing company's returns on investment due to JIT impact, and this has been found to have contributed significantly as tools for effective monitoring of JIT impact on returns on investment.

Recommendations

The study recommends the following:

- 1) Manufacturing firms should adopt JIT to cut their costs, achieve greater efficiency, eliminate waste from the entire supply chain and improve product quality continuously in line with the reviewed literature and theoretical framework.
- 2) Application of JIT system will also enhance financial performance of manufacturing firms as confirmed in the findings and complimented by reviewed literature.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

REFERENCES

- Adeyemi SL (2000). Just-in-time: How workable is it in Nigeria. *Journal of Advances in Management* 1(1):19-27.
- Adeyemi SL (2010). Just-in-time production systems (JITPS) in developing countries: the Nigerian experience. *Journal of Social Sciences* 22(2):145-152.
- Ahmad A, Mehra S, Fletcher M (2002). The perceived impact of JIT implementation on firms' financial/growth performance. *Journal of Manufacturing Technology Management* 15(2):118-130.
- Akbar JK, Babu KN, Talari HF (2013). Just-in-time manufacturing system: from introduction to implement. Nagendra and Talari, Hamid, Just-In-Time Manufacturing System. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2253243
- Botchkarev A, Andru P (2011). A Return on Investment as a metric for evaluating information systems: taxonomy and application. *Interdisciplinary Journal of Information, Knowledge and Management* 6:245-270.
- Broyles D, Beins J, Franko J, Bergman M (2005). Just-In-Time Inventory Management Strategy and Lean Manufacturing. *Business Operations Management* P 78.
- Callen JL, Facher C, Krinsky I (2000). Just-in-time: a cross-sectional plant analysis. *International Journal of Production Economics* 63(3):277-301.
- Damanpour F, Walker RM, Avellaneda CN (2009). Combinative effects of innovation types and organizational performance: A longitudinal study of service organizations. *Journal of Management Studies* 46(4):650-675.
- Dreyfus LP, Ahire SL, Ebrahimpour M (2004). The impact of just-in-time implementation and ISO 9000 certification on total quality management. *IEEE Transactions on Engineering Management* 51(2):125-141.
- Gavrea C, Ilies L, Stegorean R (2011). Determinants of organizational performance: The case of Romania. *Management and Marketing* 6(2):285-300.
- Goddard WE (1986). Just-in-time: Surviving by breaking tradition. O. Wight Ltd.
- Goldratt EM, Cox J (1992). *The goal: a process of ongoing improvement*. North River Press, New York.
- Kaneko J, Nojiri W (2008). The logistics of Just-in-Time between parts suppliers and car assemblers in Japan. *Journal of Transport Geography* 16(3):155-173.
- Kannan RV, Tan CK (2005). Just in time, total quality management, and supply chain management: understanding their linkages and impact on business performance. *Omega* 33(2):153-162.
- Keitany P, Riwo-Abudho M (2014). Effects of lean production on organizational performance: a case study of flour producing company in Kenya. *European Journal of Logistics Purchasing and Supply Chain Management* 2(2):1-14.
- Lebas M, Euske K (2002). A conceptual and operational delineation of performance. *Business performance measurement: Theory and practice* pp. 65-79.
- Mahesh UD (2016). Total Quality Management (TQM): A strategy for competitive advantage. *International Journal of Research in IT and Management* 6(9):51-55. Available at: <http://euroasiapub.org/wp-content/uploads/2016/10/5IMSept-4033.pdf>
- Mazanai M (2012). Impact of just-in-time (JIT) inventory system on efficiency, quality and flexibility among manufacturing sector, small and medium enterprise (SMEs) in South Africa. *African Journal of Business Management* 6(17):5786-5791.
- Melek E, Fikri P (2008). The effect of competition, just in time production and total quality management on the use of multiple performance measures: an empirical study. *Journal of Economic and Social Research* 10(1):35-72.
- Obamiro JK (2009). Exploring the Relationships Between Just-in-time Technique and Manufacturing Performance: Empirical Evidence from selected Nigerian firms. *Manager (University of Bucharest, Faculty of Business and Administration)* 10:165-176.
- Ohno T (1982). How the Toyota production system was created. *Japanese Economic Studies* 10(4):83-101.
- Pillai NR (2010). Inventory management performance in machine tool SMEs: What factors do influence them?. *Journal of Industrial Engineering and Management* 3(3):542-560.
- Qureshi MA, Iftikhar M, Bhatti MN, Shams T, Zaman K (2013). Critical elements in implementations of just-in-time management: empirical study of cement industry in Pakistan. *SpringerPlus* 2(1):645.
- Raouf A (1994). Improving capital productivity through maintenance. *International Journal of Operations and Production Management* 14(7):44-52.
- Sakakibara S, Flynn BB, Schroeder RG (1993). A framework and measurement instrument for just-in-time manufacturing. *Production and Operations Management* 2(3):177-194.
- Sanner L, Wijkman PM (2005). Benchmarking business practices in Swedish manufacturing firms. Working paper No 3.
- Schonberger RJ, Gilbert JP (1983). Just-in-time purchasing: a challenge for US industry. *California Management Review* 26(1):54-68.
- Singh G, Ahuja IS (2012). Just-in-time manufacturing: literature review and directions. *International Journal of Business Continuity and Risk Management* 3(1):57-98.
- Wafa MA, Yasin MM (1998). A conceptual framework for effective implementation of JIT: An empirical investigation. *International Journal of Operations and Production Management* 18(11):1111-1124.
- Wruck KH, Jensen MC (1998). The two key principles behind effective TQM programs. *European Financial Management* 4(3):401-423.

Full Length Research Paper

The influence of tax amnesty programme on tax compliance in Nigeria: The moderating role of political trust

Francis Okoye

Lagos Business School, Pan-Atlantic University, Lagos, Nigeria.

Received 29 May, 2019; Accepted 16 July, 2019

The paper examined the influence of tax amnesty programme on tax compliance in Nigeria moderating the effect of political trust. The survey research design was employed to understand the taxpayer's perception of the Voluntary Assets and Income Declaration Scheme (VAIDS). We collected the data through the administration of questionnaires to taxpayers across the most commercial states in Nigeria. The data obtained were analysed using the frequency table, the Cronbach alpha test, and the binary logistic regression technique. The survey showed that the compliance rate was about 22%. The study showed that the primary driver of tax compliance in Nigeria is unannounced ad hoc tax audit; this implies that tax compliance will increase when taxpayers are aware there is an unannounced ad hoc tax audit. It is evident from this study that the low tax compliance was as a result of the moderating effect of political trust of the taxpayers as indicated by the amnesty*trust and trust showed a negative relationship with tax compliance in Nigeria. Based on the empirical analysis, the paper concludes that the Tax Amnesty Programme VAIDS has a significant influence on tax compliance in Nigeria. The paper recommended that the government should build and strengthen the institutions, which give a sense of accountability and perception of good governance to the taxpayers, which will encourage voluntary tax compliance in the long run.

Key words: Tax amnesty, tax compliance, political trust, Voluntary Assets and Income Declaration Scheme (VAIDS).

INTRODUCTION

The Nigerian Government has recognised that the revenues from the oil sector can no longer sustain the economy; the issue bothering the government is how it plans to fund the economy from internally generated revenue. Raising revenue to meet expenditure is a vital function of any tax administration. In the absence of

taxes, the government's ability to fulfil their obligation to society can severely be impaired. According to PricewaterhouseCoopers (PwC) report (2018), only 4% of people in the tax net file returns as businesses or high net worth individuals, 96% were employees who paid their taxes via Pay as you earn tax (PAYE), and this

E-mail: fokoye@lbs.edu.ng.

Author(s) agree that this article remain permanently open access under the terms of the [Creative Commons Attribution License 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

accounted for about 75% of total internal generated revenue (IGR). The Federal Inland Revenue Service (FIRS) observes that Nigeria has one of the lowest tax collection rates in the world at about 6% of GDP and that the reliance on crude oil has made the Nigerian government to forsake other revenue collection systems. Over the years, taxes have not played a major role in running the affairs of Nigeria's administration. With proceeds from oil, Nigeria became over-dependent on the commodity and little attention to taxes. Not paying taxes has gradually become a culture of Nigerians, as they do not see taxes as a sustainable source of revenue to Nigeria. As a result, most citizens do not see any need to pay taxes. The Nigerian government launched the Economic Recovery and Growth Plan (ERGP) 2017-2020 in which growth is expected to be strengthened in the medium term, reaching about 2.8% by 2019. As part of the plan the Voluntary Assets and Income Declaration Scheme (VAIDS) a tax amnesty programme was introduced by the Federal Government of Nigeria to revive the Nigerian economy. VAIDS is expected to transform the Nigerian tax system and ensure sustainable funding for the government at all levels. VAIDS provides a second chance for taxpayers in default of prior years' taxes, to regularise their tax status and avoid interest, penalty and criminal prosecution. The scheme should positively influence the country's tax revenue (KPMG report, 2018).

From the extant literature on tax compliance, some studies have argued that tax amnesty has a positive relationship with tax compliance (Ashman et al., 2011; Mikesell and Ross, 2012; Orrenius and Zavodny, 2012; Yuesti et al., 2016; Yuesti et al., 2018). Some other studies have argued that tax amnesty no significant impact on tax compliance as the government only collects previously evaded taxes in the form of tax liabilities (Aim et al., 1990; Luitel and Sobel, 2005). Hence, offers for tax amnesty therefore only boost the tax collection during the amnesty period and do not affect the compliance of other taxpayers. Other empirical research argues that tax amnesty has a significant negative relationship on tax compliance (Malik and Schwab, 1991). They argue that offering tax amnesties to taxpayers reduces voluntary compliance as the previously compliant adopt a wait and see the strategy. Aim and William (1993) explained that the anticipatory behaviour of taxpayers for future amnesties makes them evade tax payments during the current period with the hope of been forgiven in the future.

The mixed findings from the existing literature have led to a call for further empirical investigations. To the best of our knowledge, most studies do not take into consideration political trust in moderating the effect of tax amnesty on tax compliance. The paper extends the Allingham and Sandmo (1972) model on taxpayers behaviour by moderating the relationship between tax amnesty and tax compliance with political trust integrated

into the model to stimulate the relationship. Therefore, the objective of this paper is to examine the influence of tax amnesty on tax compliance in Nigeria with emphasis on the moderating effect of taxpayers political trust.

LITERATURE REVIEW

Tax compliance

The notion of tax compliance can be seen in various dimensions. Its dimension varies from law enforcement to the economic ambit. Tax compliance is the zeal of individuals and other chargeable bodies to behave in conformity with the provisions of tax laws without being forced or compelled (James and Alley, 2002). In other words, it is the extent to which a taxpayer obeys the provisions of tax rules and mandates. Three categories of compliance are identified by McBarnett (2003). They are: committed compliance, capitulative compliance, and creative compliance. Committed compliance exists when the taxpayer pays tax willingly without any form of coercion. Capitulative compliance, on the other hand, has to do with reluctance in the payment of tax liability by the taxpayer. While creative compliance is an effort by the taxpayer directed at cutting down his tax liability by re-computing income and allowable expenses within the scope of tax canons. The scope of compliance might also be expanded to accommodate voluntary and enforced compliance (Kirchler, 2007). Voluntary compliance is made possible by the ensuing trust and partnership between tax bodies and chargeable persons. It is the positive enthusiasm of the chargeable persons to adhere to tax mandates. Furthermore, tax compliance can also be classified into Administrative compliance and Technical compliance. Administrative compliance relates to adhering to reporting rules and procedures. Technical compliance on the other hand is concerned with fulfilling the operational demands of tax mandates in the calculation of taxes (Organisation for Economic Cooperation and Development (OECD, 2010). Tax adherence does not only pertain to accurate reporting of the taxable income, it also involves accurate estimate and prompt submission of tax returns in addition with on-time payment of the tax liability. Actions by taxpayers which do not conform to the above represent noncompliance (Franzoni, 2000; Chatopadhyay and DasGupta, 2002). However, the level of non-compliance may be measured by way of the tax gap, that is, the variance between the actual revenue collected and the amount that would be obtained if there were compliance to a maximum rate of 100%.

Tax amnesty

According to Baer and Le Borgne (2008), tax amnesty

can be seen as a limited-time offer by the government to taxpayers to pay an amount of tax, to forgive their tax liability which includes the interest and penalties for the previous tax year. Tax amnesties generally fall into two categories: financial and legal. In the financial, a tax amnesty implies a reduction of taxpayers' declared or undeclared tax liabilities as established by law. This reduction can be achieved through a variety of measures: by a decrease or cancellation of interest and penalties owed on the undeclared taxes or tax liabilities. The legal includes a waiving of civil and criminal penalties. Tax amnesties can be designed to cover all taxpayers including corporate income tax and personal income tax. According to Franzoni (1996), tax amnesty regulations are executed in three ways. First, Revision Amnesty offers taxpayers the platform to modify the income return of specific tax years with lower punishments. Acceptance of the pardon does not exempt taxpayers from the scrutiny and auditing activities of tax bodies. Secondly, Investigation *Amnesty* exempts chargeable persons from tax audits on specific periods on when an amnesty fee is paid. Lastly, Prosecution amnesty partly waives the punishment for taxpayers who face charges of tax offences and eases the judicial process. The government may also discontinue its court proceedings with respect to certain tax-periods in place of a gross-sum of money.

Tax amnesty programmes and tax compliance

Fox and Murray (2011) explored the effects of amnesties on tax revenues and filing rates using a Bayesian empirical framework. The results indicated that an initial amnesty adopted by a country improved the country's revenue and filing rates from tax. But although subsequent amnesties enhance revenue performance, the effects diminish compared to the first amnesty, ultimately pushing filing rates below their pre-amnesty levels. According to the United States Congress (1998), some individuals believe that tax amnesties are only fair to the loyal taxpayer because they bring in tax revenues that would not have been collectable which can finance additional public services without raising taxes, or can be used to reduce taxes for law-abiding taxpayers. However, the views of these critics are dependent on the long-run revenue from an amnesty being positive. Becourtney (2010) confirmed that the attraction of future tax reprieve might encourage taxpayers' dishonesty. An honest taxpayer will not make an intentional decision to default in his tax payment but may be caught off guard if indicted for a false filed tax return. Thus, for the honest taxpayer, the amnesty is a previously inaccessible platform to lessen punishments meted out, or expected to be enforced as a result of tax default (Mello e Souza, 2006). Borgne (2006) also discovered that tax amnesties are instituted more in countries with increasing debts. Tax amnesties are, therefore, viewed as a source of

generating funds or revenue by the government. Tax amnesty and compliance in developing countries have hardly been analyzed empirically in literature (Torgler et al., 2003).

Torgler et al. (2003) further stated that the granting of a second amnesty gave honest taxpayers the feeling that the state cannot be relied upon because of increased expectations of additional tax pardons by tax evaders. Mattiello (2005) described the impacts of proposing tax amnesties. Firstly, granting tax reprieves could increase the adherence rate by conceding citizens to divulge their taxable income. Secondly, in the long term, tax amnesties might reduce the taxpayers' will to fulfil their tax duties with the State. According to Fjeldstad et al., (2012) and Ali et al. (2014), confidence in the government is seen to be pertinent when it is applicable for the good of everyone. It is normal to expect that taxpayers' reliance on their government will make them voluntarily abide by the mandates set by such government and institutions, and this influences tax adherence decisions (Tyler, 1990; OECD, 2010). Researchers such as Picur and Riahi-Belkaoui (2006) observed that taxpayers in countries with a high curb of corruption comply with tax regulations. Richardson (2008) suggests the need for governments to improve their reputations, as a means of gaining the taxpayers' loyalty. Closely linked with political legitimacy are the issues of national pride and political affiliations. Tyler (1990) argued that national pride has an effect on peoples' tax morale (Torgler and Schneider, 2005; McKerchar and Evans, 2009). Palil (2010) also noted that support of the ruling government administration and its policies also has an impact on tax compliance.

Political trust and tax compliance

Extant works of literature have shown that when citizens discern government to be credible, they are more likely to comply with their mandates and decisions (Levi and Stoker, 2000). As such, a strong link between citizens' conformity and the dependability of government has been established; the findings from this confirmation, however, have produced mixed results. Several studies have interpreted political trust in different ways: some studies have viewed it from the angle of scrutiny of government affairs and ensuring that the government does not misuse its authority over citizens (Majone, 1997). Other studies focus on the cognitive inter change between the ruled and the rulers. It was revealed that continuous communication fosters trust amongst individuals (Scholz and Lubell, 1998). Many of the studies agree that public servants with trusting manners are more likely to elicit compliance and trustworthy behaviour from citizens (Levi and Stoker, 2000). Esaiasson and Ottervik (2014) developed a theoretical measure of compliant behaviour that comprises abiding tax regulations, and conformance

with an unbiased government. Their study found a strong country-level correlation between citizens' support and compliance. Furthermore, the results of the study give proof that there is a positive association between political trust and tax compliance. Chargeable persons are only encouraged to make tax payment if they perceive the government to be credible. Trust is also based on the notion that government representatives endeavour to be morally upright and they do not squander taxpayers' money. Nangih et al. (2018) examine the challenges facing VAIDS implementation in Nigeria. Their study revealed that inadequate data, corruption of some revenue staff, delay in our judicial process, capacity issues and lack of political will on the part of the government have a significant negative effect on VAIDS implementation. Nangih et al. (2018) examined the effect of voluntary asset and income declaration scheme on tax compliance in Nigeria using the Spearman's rank order correlation. Their study found that VAIDS implementation has a positive correlation with voluntary tax compliance and enforced tax compliance through persuasion or taxpayers' inducement.

MATERIALS AND METHODS

This research used a survey research design to understand the perception of taxpayers on VAIDS and the factors that are likely to influence compliance. The data were obtained through the distribution of questionnaires. The questionnaire was distributed to one thousand taxpayers across the most commercial states in Nigeria. The states include Lagos (West), Awka (East), Port-Harcourt (South) and Kaduna (North). The questionnaire used well-structured close-ended questions comprising twenty-five statements using a Likert Scale ranging from one to five. Cronbach's Alpha test was used to check the reliability of the research instrument. The Cronbach's Alpha test is reliable when the coefficient is at 0.7 (70%) or higher. The binary logistic regression technique was adopted dichotomous nature of the dependent variable which lies between one and zero. One representing taxpayers that have VAIDS declaration certificate and zero for taxpayers who do not have VAIDS declaration certificate issued. The data collected from the field were analysed using STATA 15.

Theoretical framework and Model specification

We adopted the work of Allingham and Sandmo (1972) which is known as the A-S model and a model of tax compliance. We adopted this theoretical perspective of this study because our study focuses on some of the determinants that influence the likelihood of the compliance of tax payers in Nigeria. The theory explores the relationship between risk appetite of the tax payer and the willingness to pay tax. The A-S Model, the decision to declare tax to the tax authority is associated with a lot of uncertainties. They opined that when an individual does not disclose his taxable income fully to the relevant tax authorities it does not immediately imply sanctions in such as interest and other forms of fines or penalties imposed by the relevant tax authority. As a result, the taxpayer has two strategic choices: First, the taxpayer may declare his actual income or secondly the taxpayer may report an income lower than what it ought to be. If the taxpayer decides to report lower than the real income then he has to consider if he will be audited by the relevant tax authorities which will determine his payoff. If the

taxpayer will be audited, then he adopts the first strategy otherwise, he will be worse-off.

The A-S model assumes that the behaviour of the taxpayers follows Von Neumann-Morgenstern assumptions of behaviour under conditions of uncertainty. Ceteris paribus, a rational taxpayer is usually not willing to take risk that is the taxpayer is usually tax adverse. Mathematically, the model can be explained below:

Let I will be the total income of the taxpayer. There is a direct relationship between the tax paid and the tax rate (t). To further explain this using the Absolute Income Hypothesis (AIH), According to consumption is a function of the level of disposable income.

$C = f(Y^d)$ where, Y^d is disposable income = Income(Y) – Tax(T) ($Y^d = Y - Tax$).

In Nigeria, there are two kinds of income: disclosed income and undisclosed income. The undisclosed income is usually higher than the disclosed income, which is the income usually, communicated to the relevant tax authorities and this, which is generally under-reported. The amount of income under-reported, is U , hence the reported income is represented by $I-U$.

If the tax authority does not detect the income not disclosed, the net income of the taxpayer is,

$$Y = I - t(I - U) \quad (1)$$

Expanding Equation 1, then

$$\begin{aligned} Y &= I - t(I - U) \\ Y &= I - tI + tU \\ Y &= (1-t)I + tU \end{aligned}$$

Where, the tax authority finds out that the taxpayer has reported less than his actual income then he is going to be charged a penalty for non-disclosure. He is going to pay a penalty tax rate of p , which is charged on the income not disclosed. This can be expressed mathematically as:

$$Y = (1-t)I + tU + pU \quad (2)$$

A-S model suggests that if the additional tax rate is high, it will encourage taxpayers not to fully report their total income savings from withholding the total income from the tax authority. The A-S model posits the tax rate increases when there is a significant difference increase between the rate of penalty and the normal rate of tax.

Recall that from the theory, the taxpayer has a decision to declare or not declare under conditions of uncertainty, hence the taxpayer may declare or not declare his total income. This means that under a tax amnesty programme (VAIDS) the taxpayer may declare or not declare their assets and income to the relevant tax authority. Thus,

$$\text{Tax compliance} = f(\text{Tax Amnesty Programme}) \quad (3)$$

Adapting from the A-S Model, there is a likelihood that the taxpayer will be detected for not disclosing his total income; he will likely disclose but if he is not detected he will likely not declare. This implies that tax audit will likely increase tax compliance. Thus,

$$\text{Tax compliance} = f(\text{Tax Audit}) \quad (4)$$

The A-S model also suggests that if the tax authority discovers that the taxpayer did not fully declare his total income, a tax penalty will be imposed on the income not declared. Thus:

$$\text{Tax compliance} = f(\text{Tax Penalty}) \quad (5)$$

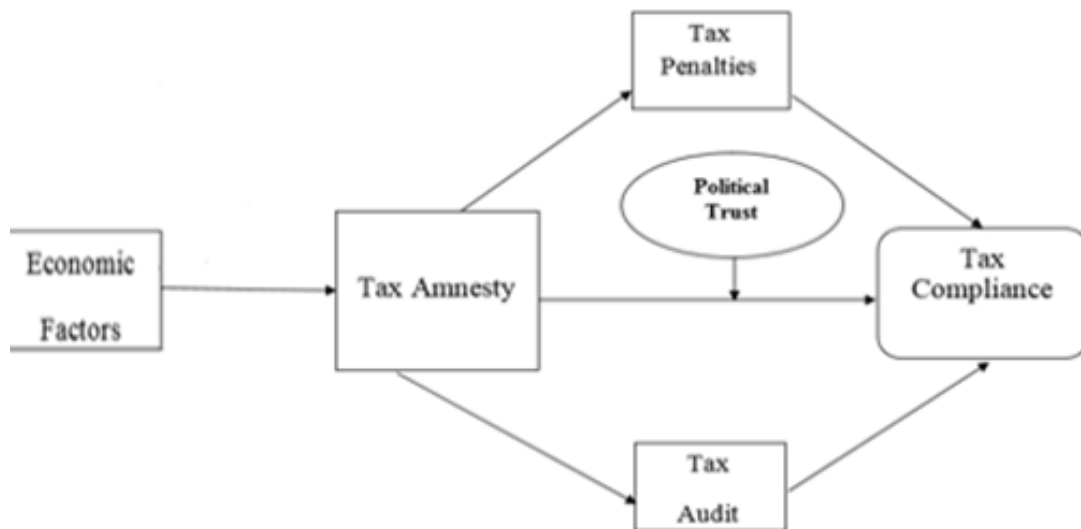


Figure 1. Schematic representation of tax compliance framework
 Source: Researcher's compilation (2019)

Table 1. Operationalization of variables.

Variable	Code	Questions	Studies	Apriori
Tax Compliance	TCOMP	Q1-Q5	Brooks (2001)	Positive
Tax Amnesty	AMNESTY	Q6-Q9	Baer and LeBorgne (2008), Franzoni,1996)	Positive
Tax Audit	AUDIT	Q10-Q15	Shanmugam (2003), Dubin (2007).	Positive
Political Trust	TRUST	Q16-Q18	Fjeldstad et al., (2012)	Positive
Tax Penalty	PENALTY	Q19-Q22	Doran (2009)	Positive
Economic Factors	ECO	Q23-Q25	Ali, Fjeldstad and Sjursen (2014)	Positive

Source: Researcher's compilation (2019).

From the existing literature Cullen et al. (2018) argue that when the citizens have a positive perception of the government, many will be willing to comply with government regulations and will be more likely comply to the tax authority. Gerber and Huber (2009) argued that a taxpayer would usually decide about his taxpaying behaviour by how the taxpayer perceives overall government spending and this may affect taxpayers' affiliation toward the government. Based on these views, we propose a functional relationship between tax amnesty and political trust.

$$\text{Tax compliance} = f (\text{Political Trust}) \tag{6}$$

The schematic relationship is represented in Figure 1. By linearising equation (3 - 6) into the econometric model, we introduced the moderating variable political trust and a control variable economics factors. The econometric form of the model is specified thus (Table 1):

$$TCOMP_i = \delta_0 + \delta_1 AMNESTY_i + \delta_2 AMNESTY_i * TRUST_i + \delta_3 PENALTY_i + \delta_4 AUDIT_i + \delta_5 ECO_i + \delta_6 TRUST_i + \epsilon_i$$

RESULTS AND DISCUSSION

A preliminary analysis was carried out using the

Cronbach Alpha test, and also the regression analysis was carried out. In conducting this research, one thousand copies of the questionnaire were administered to taxpayers in the major commercial cities in Nigeria which include Lagos (West), Awka (East), Port-Harcourt (South) and Kano (North). Seven hundred and sixty-eight copies were retrieved, representing a 76.8% response rate. A summary of the results from the analysis are presented in Tables 2 to 4.

Table 2 shows the reliability statistics using Cronbach's alpha test. The acceptable reliability coefficient is 0.70 or higher in most social science research. Hejase and Hejase (2013) contend that the generally agreed upon lower limit for Cronbach's alpha is 0.70. Values between 0.70 and 0.80 are labelled good while values between 0.80 and 0.90 are very good. Thus, the majority of the variables had a score of at least 0.75, which implies that the research instrument is reliable since their degree of internal consistency is high.

A total of 768 taxpayers have responded to the questionnaires. In our survey, the question asked to determine their compliance was "Do you have a VAIDS

Table 2. Reliability statistics.

Variable	Questions	Cronbach Alpha	Explanation
TCOMP	Q1-Q5	0.788	Reliable
AMNESTY	Q6-Q9	0.755	Reliable
AUDIT	Q10-Q15	0.8	Reliable
TRUST	Q16-Q18	0.832	Reliable
PENALTY	Q19-Q22	0.78	Reliable
ECO	Q23-Q25	0.895	Reliable

Source: Researcher's computation (2019).

Table 3. Frequency analysis.

Compliance	Frequency	Percent	Cumulative
0	596	77.60	77.60
1	172	22.40	100.00
Total	768	100.00	-

Source: Researcher's computation (2019).

declaration certificate issued by the relevant tax authority between July 1, 2017, and June 30, 2018"? It was observed that 172 of the taxpayers have filled and complied with VAIDS while 596 taxpayers did not fully comply with VAIDS indicating that the compliance rate was about 22% (Table 3). The low compliance rate could be that most of the taxpayers believe that there will still be another tax amnesty in the future which is in tandem with the findings of Alm and Martinez-Vazquez (2003). They found that there is a reduction in the level of tax compliance where taxpayers believe that there will be another tax amnesty programme in future. To examine the factors that explain the low tax compliance of VAIDS, we carried out a regression analysis using the logistic regression analysis. The result of the analysis is presented in Table 4.

The regression analysis was carried out to examine several factors that were associated with tax compliance more specifically the influence of tax amnesty programme (VAIDS) on tax compliance in Nigeria. The predictor variables in the model include tax audit, political trust and economic factors to explain the likelihood of compliance by taxpayers. The LR Chi2(6) with a p-value (Prob >Chi2 = 0.0000) indicates that the overall model has a good fit since it is statistically significant at 1% level of significance. The empirical analysis showed that the tax amnesty programme (VAIDS) has a significant positive association with tax compliance in Nigeria. The implication of this finding is that the tax payer believes that VAIDS will improve voluntary tax compliance. However, there is a 20.9% chance that tax amnesty programme will likely increase tax compliance in Nigeria. This agrees with the findings of Gerger (2012) which

suggests that voluntary tax compliance behavior has declined over the series of tax amnesty programmes in Turkey.

It is evident from the result that the low tax compliance is as a result of the moderating effect of political trust of the tax payers as indicated by the amnesty*trust and trust showed a negative relationship with tax compliance. However, amnesty*trust relationship is statistically significant at 5% standard error while trust relationship is statistically significant at 10% standard error. The result suggests that tax amnesty programme should improve tax compliance but due to the inability of the tax payers to trust the Government as it has not fulfilled its promises on providing security, infrastructural development and fighting corruption. Thus, as the level of trust increases there is a 63% likelihood that will lead to a decrease in the level of compliance as it reduces the willingness to pay taxes and thus prevent voluntarily tax compliance. This is as a result of the inability of the government to secure the commitment of its citizens in policy implementation; it indicates that there is something fundamentally wrong with government-citizen relations. The mistrust of government reinforces certain anti-social behaviours like tax evasion and political apathy. Therefore, it is one of the major reasons tax payers will not voluntarily comply with the tax amnesty programme (VAIDS) because they have not seen the revenue from oil and other sectors used in the development of the economy. This is also evident from result which shows that trust had a negative relationship with tax compliance. This is in tandem with the findings of Frey and Feld (2002); Bloomquist (2003); Torgler (2004); Kirchler et al. (2008) and Birskyte (2014).

Table 4. Logistics regression analysis.

Number of obs	768					
LR Chi2(6)	125.16					
Prob >Chi2	0.0000					
Psedudo R2	0.1716					
log Likelihood	-302.10605					
Compliance	Coef.	Std. Err.	Z	P> z 	[95% Conf. Interval]	
Amnesty	0.2085699	0.0946973	2.2	0.028	0.0229665	0.3941733
Amnesty*Trust	-0.6365979	0.1388376	-4.59	0.000	-0.9087146	-0.3644812
Penalty	-0.1335632	0.1402013	-0.95	0.341	-0.4083528	0.1412263
Audit	0.4808389	0.0908789	5.29	0.000	0.3027196	0.6589582
Eco	0.227767	0.1056867	2.16	0.031	0.0206249	0.4349092
Trust	-0.2434882	0.1310735	-1.86	0.063	-0.5003876	0.0134111
Constant	0.6550913	0.6150486	1.07	0.287	-0.5503819	1.860564

Source: Researcher's computation (2019).

These also suggest from their studies that political trust has a significant influence on the likelihood of voluntary tax compliance. The study also agrees with the finding of Fareg et al. (2016) who showed that there is a significant relationship of political instability on tax noncompliance among Libyan self-employed taxpayers. They argue that taxpayers trust in government tends to contribute towards tax compliance. However, political instability is likely to reduce trust in government due to rapid change government policies. This causes noncompliance as tax payers have little confidence in political governments. The voluntary compliance of VAIDS will also decline.

It was observed that penalty had no relationship with tax compliance, however the relationship was not significant. This agrees with the findings of several studies such as those of Sapiei and Kasipillai (2013); Mohd et al. (2014); and Mohdali et al. (2014) which also found an insignificant relationship between tax penalties rate and tax compliance. The result shows an insignificant inverse relationship between tax penalties and tax compliance. This implies that an increase in penalty will likely lead to a 13.3% chance of a decrease in tax compliance. The corrupt tax officials are an explanation for this finding as the taxpayers believe that a penalty can be negotiated illegally and thus reduce the level of tax compliance. As a result of the level of corruption in the government, any form of corruption even when investigated never gets punished. Thus, the tax-payers and tax officials are usually involved in corrupt practice which significantly contributes to a culture of corruption. Taxpayers when interacting with the relevant tax authorities face a risk of corruption. The taxpayers are usually expected to pay a bribe or give gifts even when the penalty has been imposed; the taxpayer gives illegal payments to the tax authority in exchange for being charged lower tax rates. Thus, the level of compliance will be low irrespective of the tax penalties after the expiration of VAID. Also, another possible reason is the lack of political will to

eradicate corruption within tax administration; the taxpayer deliberately refuses to comply as an act rebellion towards the government.

Results also showed that the tax audit had a significant positive relationship with tax compliance. This implies that an increase in an unannounced ad hoc tax audit will likely lead to a 48% chance of an increase in tax compliance. This is in line with the findings of Slemrod et al. (2001); Alm and McKee (2006); Mittone (2006); and Kastlungera et al. (2009). This could be that when there are unannounced ad hoc tax audits, business activities will be put on hold, and this can cause an embarrassment. Therefore they will likely increase compliance to avoid such embarrassment. This implies that tax compliance increases when taxpayers are aware they will be audited. From our survey, it shows that taxpayers believe that tax audits will be conducted after the VAIDS. This indicates an increase in the tax compliance level. Further result showed that macroeconomic factors have a significant positive relationship with tax compliance. During the recession in Nigeria between 2017 and 2018, when the VAIDS scheme was launch, the timing of the tax amnesty programme could also have accounted for the low compliance level. When the economy is contracting recession, the growth rate becomes negative for two consecutive quarters, arising from the rapid decline in income. Hence, when there was a decreased level of consumer purchases and investment from the private sector, the government invariably pursues policies to stimulate aggregate demand. The government can reduce the effect of recession by cutting taxes and increasing spending, but attempting to increase revenue through taxation by introducing VAIDS when the economy was experiencing a period of recession and gradually recovering from economic shock. The level of tax compliance decreased as taxpayers were under pressure to pay for taxes; thus, a decrease in the economic factors will likely lead to a 22% chance of tax

compliance. This suggests that when taxpayers observe the government is not providing goods and service it may lead to low compliance which is in line with the findings of Moore (2005).

Conclusions

In order for Nigeria to grow rapidly and sustainably, the ratio of non-oil tax to GDP will have to be increased from its current level of six per cent to about fifteen per cent by the year 2020. The current state of the Nigerian economy in the face of dwindling revenue and growing budget deficit, and also increase in the cost of servicing Nigeria's debt, these issues have to led to changing the revenue model by focusing on the non-tax revenue especially as it relates to taxation. It is in pursuit of this economic agenda to diversify its revenue streams that the Federal Government of Nigeria introduced its tax amnesty called the Voluntary Assets and Income Declaration Scheme (VAIDS).

VAIDS gave Nigerians a time frame within which their taxes were expected to be regularised and all penalties and interests which have been overdue were forgiven and not expected to face any procession for the offences as it relates to tax matters. It raises a series of concerns as the real success for VAIDS is not the amount of money that would be collected by the government in the short term. Therefore, the major objective of this paper is to examine the influence of tax amnesty programme (VAIDS) on tax compliance in Nigeria moderating the effect of political trust. And based on the empirical analysis the study concludes that tax amnesty programme (VAIDS) has a significant influence on tax compliance in Nigeria. However, political trust has a significant negative influence on tax compliance in Nigeria. The paper also concludes that the main driver of tax compliance in Nigeria is the tax audit which implies that an increase in unannounced ad hoc tax audit will likely lead to a 48% chance of an increase in tax compliance.

Contribution

This study contributes to the existing wealth of literature by providing evidence from a developing country's perspective, as well as extending prior studies that merely examined the relationship between tax compliance and tax amnesty programmes to explore the moderating effect of political trust in the relationship between tax amnesty programmes and tax compliance using a larger sample size.

Policy implications

The findings of the paper have several policy implications:

This study shows that the level of compliance has increased however not as high as expected. We recommend that Federal Inland Revenue Service should continue with its tax awareness efforts and also it should build tax systems, which are sustainable in order to make tax compliance much more easier for the taxpayers in Nigeria.

Political trust has been seen to be a major driver of tax compliance, thus the government needs to genuinely fight against corruption and also ensure that the utilisation of nations resources is transparent and there is accountability. When Nigerians have a positive perception of the government they are more likely to comply with the government regulations in general and taxes in particular. We therefore recommend that government should build and strengthen the institutions. We have seen from the research that the major driver of tax compliance in Nigeria is tax audit rather than tax penalty. Therefore, we recommend that the FIRS should carry out unannounced ad hoc tax audit on a regularly basis. This will keep the taxpayers in check and get them ready to regularize their taxes.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

REFERENCES

- Ali M, Fjeldstad O, Sjurseth I (2014). To pay or not to pay? Citizens' attitudes toward taxation in Kenya, Tanzania, Uganda, and South Africa. *World Development* 64:828-842.
- Allingham MG, Sandmo A (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics* 1(3-4):323-338.
- Alm J, Martinez-Vazquez J (2003). Institutions, paradigms, and tax evasion in developing and transition countries. In: Martinez-Vazquez J, Alm J (eds.), *Public finance in developing and transitional countries* pp. 146-178.
- Alm J, McKee M (2006). Audit certainty, audit productivity, and taxpayer compliance. *National Tax Journal* 59(1):801-816.
- Alm J, McKee M, Beck W (1990). Amazing grace: Tax amnesties and compliance. *National Tax Journal* 43(1):23-37.
- Alm J, William B (1993). Tax amnesties and compliance in the long run: A time series analysis. *National Tax Journal* 46:53-60.
- Ashman S, Fine B, Newman S (2011). Amnesty international? The nature, scale and impact of capital flight from South Africa. *Journal of Southern African Studies* 37(1):7-25.
- Baer K, LeBorgne EL (2008). Tax amnesties: Theory, trends and some alternatives. Washington D. C.: International monetary fund.
- Becourtney NB (2010). Do tax amnesty programs really work? *New Jersey CPA*. pp. 14-16.
- Birskytė L (2014). The impact of trust in government on tax paying behavior of nonfarm sole proprietors. *Annals of the Alexandru Ioan Cuza University-Economics* 61(1):1-15.
- Bloomquist KM (2003). Income inequality and tax evasion: A synthesis. *Tax Notes International* 31(4):347-367
- Borgne L (2006). Economic and political determinants of tax amnesties in the US States (No. 6-222). *International Monetary Fund*.
- Brooks N (2001). Key issues in income tax: Challenges of tax administration and compliance. In *Tax Conference*. Asian Development Bank.
- Chatopadhyay S, Das-Gupta A (2002). The personal income tax in

- India: Compliance costs and compliance behaviour of taxpayers. New Delhi: National Institute of Public Finance and Policy.
- Cullen JB, Turner N, Washington EL (2018). Political alignment, attitudes toward government and tax evasion (No. w24323). National Bureau of Economic Research.
- Doran M (2009). Tax penalties and tax compliance. *Harvard Journal on Legislation* 46(1):111.
- Dubin JA (2007). Criminal investigation enforcement activities and taxpayer noncompliance. *Public Finance Review* 35(4):500-529.
- Essaiasson P, Ottervik M (2014). Does compliance correlate with political support?. working paper series. Available at: https://qog.pol.gu.se/digitalAssets/1551/1551582_2014_01_essaiasson_ottervik.pdf
- Fareg MA, Zaimah ZA, Natrah S (2016). Role of Political Factors for Fiscal Destabilization in Oil Dependent Economies: Implications for Tax Compliance Behavior in Libya. *World Journal of Management and Behavioral Studies* 4(1):20-30.
- Fjeldstad OH, Schulz-Herzenberg C, Hoem Sjursten I (2012). People's views of taxation in Africa: a review of research on determinants of tax compliance. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2411424
- Fox WF, Murray MN (2011). Bayesian analysis of the effect of amnesties on tax revenues and filing rates using a longitudinal data model with endogenous switching. Center for Business and Economic Research University of Tennessee pp. 1-47.
- Franzoni LA (1996). Punishment and grace: On the economics of tax amnesties. *Journal of Public Finance* 5:353-368.
- Franzoni LA (2000). Amnesties, settlements and optimal tax enforcement. *Economica* 67(266):153-176.
- Frey BS, Feld L (2002). Trust breeds trust: How taxpayers are treated. *Economics of Governance* 3(2):87-99.
- Gerber AS, Huber GA (2009). Partisanship and economic behavior: do partisan differences in economic forecasts predict real economic behavior? *American Political Science Review* 103(3):407-426.
- Gerger GC (2012). Tax amnesties and tax compliance in turkey. *International Journal of Multidisciplinary Thought* 2(3):107-113.
- Hejase A, Hejase H (2013). Research methods: a practical approach for business students (2nd edition). Philadelphia, PA, USA: Masadir Inc.
- James S, Alley C (2002). Tax compliance, self-assessment and tax administration. *Journal of Finance and Management in Public Services* 2(2):27-42.
- Kastlungera B, Kirchlera E, Mittone L, Pitters J (2009). Sequences of audits, tax compliance, and taxpaying strategies. *Journal of Economic Psychology* 30(3):405-418.
- Kirchler E (2007). *The economic psychology of tax behaviour*. Cambridge University Press.
- Kirchler E, Hoelzl E, Wahl I (2008). Enforced versus voluntary tax compliance: The "slippery slope" framework. *Journal of Economic Psychology* 29(2):210-225.
- KPMG Report (2018). 2018 KPMG International Transparency Report. Available at: <https://home.kpmg/xx/en/home/campaigns/2018/12/2018-transparency-report.html>
- Levi M, Stoker L (2000). Political trust and trustworthiness. *Annual Review of Political Science* 3(1):475-507.
- Luitel S, Sobel R (2007). The revenue impact of repeated tax amnesties. *Public Budgeting and Finance* 27(3):19-38.
- Majone G (1997). From the positive to the regulatory state: Causes and consequences of changes in the mode of governance. *Journal of Public Policy* 17(2):139-167.
- Malik A, Schwab R (1991). The economics of tax amnesties. *Journal of Public Economics* 46(1):29-49.
- Mattiello G (2005). Multiple tax amnesties and tax compliance. Available at: http://www.unive.it/media/allegato/DIP/Economia/Working_papers/Working_papers_2005/0506.pdf
- McBarnet D (2003). When compliance is not the solution but the problem: From changes in law to changes in attitude. *Taxing democracy: Understanding tax avoidance and evasion* P 229.
- McKerchar M, Evans C (2009). Sustaining growth in developing economies through improved taxpayer compliance: Challenges for policy makers and revenue authorities. Available at: https://heinonline.org/hol-cgi-bin/get_pdf.cgi?handle=hein.journals/ejotaxrs7§ion=14
- Mikesell J, Ross J (2012). Fast money? The contribution of state tax amnesties to public revenue systems. *National Tax Journal*, 65(3):529-562.
- Mittone L (2006). Dynamic behaviour in tax evasion: An experimental approach. *Journal of Behavioral and Experimental Economics* 35(5):813-835.
- Mello e Souza CA (2006). All Returns Great and Small: Measuring the Impact of Issues and Repurchases on Stock Returns. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=921259
- Mohd Yusof N, Ming Ling L, Bee Wah Y (2014). Tax non-compliance among SMCS in Malaysia: Tax audit evidence. *Journal of Applied Accounting Research* 15(2):215-234.
- Mohdali R, Isa K, Yusoff SH (2014). The impact of threat of punishment on tax compliance and non-compliance attitudes in Malaysia. *Social and Behavioral Science* 164:291-297.
- Moore D (2005). Slovakia's 2004 tax and welfare reforms (No. 5-133). International Monetary Fund.
- Nangih E, Idatoru AR, Kumah LJ (2018). Voluntary Assets and Income Declaration Scheme (VAIDS) Implementation in Nigeria: A Case of an 'Executive Order' with Many Faces. *Journal of Accounting and Financial Management* 4(6):1-12.
- OECD (2010). *Offshore Voluntary Disclosure: Comparative Analysis, Guidance and Policy Advice*. Available at: https://books.google.com.ng/books/about/Offshore_Voluntary_Disclosure.html?id=0U-jwEACAAJ&redir_esc=y
- Orrenius PM, Zavodny M (2012). The economic consequences of amnesty for unauthorized immigrants. *Cato Journal* 32(1):85-106.
- Pail MR (2010). Tax knowledge and tax compliance determinants in self assessment system in Malaysia (Doctoral dissertation, University of Birmingham).
- Picur R, Riahi-Belkaoui A (2006). The impact of bureaucracy, corruption and tax compliance. *Review of Accounting and Finance* 5(1):174-180.
- Price waterhouse Coopers (2018). PwC Nigeria: Transparency report. Available at: <https://www.pwc.com/ng/en/assets/pdf/pwc-nigeria-transparency-report-2018.pdf>
- Richardson G (2008). The relationship between culture and tax evasion across countries: Additional evidence and extensions. *Journal of International Accounting, Auditing and Taxation* 17(2):67-78.
- Sapiei NS, Kasipillai J (2013). External tax professionals' views on compliance behaviour of corporation. *American Journal of Economics* 3(2):82-89.
- Scholz J, Lubell M (1998). Trust and taxpaying: Testing the heuristic approach to collective action. *American Journal of Political Science* 42(2):398-417.
- Shanmugam S (2003). Managing self assessment: An appraisal. *Tax Nasional*, first Quarter pp. 30-32.
- Slemrod J, Blumenthal M, Christian C (2001). Taxpayer response to an increased probability of audit: Evidence from a controlled experiment in Minnesota. *Journal of Public Economics* 79(3):455-483.
- Torgler B (2004). Beyond punishment: A tax compliance experiment with taxpayers in Costa Rica. *Revista de Analisis Economico* 18(1):27-56.
- Torgler B, Schaltegger C, Schaffner M (2003). Is forgiveness divine? A cross-culture comparison of tax amnesties. *Swiss Journal of Economics and Statistics* 139(3):375-396.
- Torgler B, Schaltegger CA (2005). Tax amnesties and political participation. *Public Finance Review* 33(3):403-431.
- Torgler B, Schneider F (2005). Attitudes towards paying taxes in Austria: An empirical analysis. *Empirica* 32(2):231-250.
- Tyler TR (1990). *Why people obey the law*. New Haven: Yale University Press.
- United States Congress (1998). The Joint committee on taxation congress of the United states. Available at: <https://www.jct.gov/publications.html?func=startdown&id=2936>
- Yuesti A, Julianti L, Suryandari NA, Astuti PS (2018). Challenges of Bali economic export development in changing global environment. *International Journal of Contemporary Research and Review* 9(1):36-41.
- Yuesti A, Novitasari LG, Rustiarini NW (2016). Accountability of non-

government organization from the perspective of stakeholder theory. International Journal of Accounting and Taxation 4(2):98-119.

Yuesti A, Novitasari LG, Rustiarini NW (2016). Accountability of non-government organization from the perspective of stakeholder theory. International Journal 4(2):98-119.

Related Journals:

