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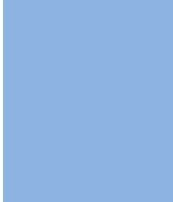
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# The Risk Level of Viet Nam Software Industry under Financial Leverage during and after the Global Crisis 2007-2011

By Dinh Tran Ngoc Huy  
*Banking University, Japan*

**Abstract** - After the financial crisis 2007-2009, this research paper evaluates the impacts of external financing on market risk for the listed firms in the Viet nam software industry.

First, by using quantitative and analytical methods to estimate asset and equity beta of total 6 listed companies in Viet Nam software industry with a proper traditional model, we found out that the beta values, in general, for many institutions are acceptable.

Second, under 3 different scenarios of changing leverage (in 2011 financial reports, 30% up and 20% down), we recognized that the risk level, measured by equity and asset beta mean, decreases when leverage increases to 30% and it increases if leverage decreases down to 20%.

Third, by changing leverage in 3 scenarios, we recognized the dispersion of risk level, measured by equity and asset beta var, increases slightly if the leverage increases to 30%.

Finally, this paper provides some outcomes that could provide companies and government more evidence in establishing their policies in governance.

**Keywords** : *equity beta, financial structure, financial crisis, risk, external financing, software industry.*

**GJMBR-C Classification** : *JEL Code: G010, G100, G390*



THE RISK LEVEL OF VIETNAM SOFTWARE INDUSTRY UNDER FINANCIAL LEVERAGE DURING AND AFTER THE GLOBAL CRISIS 2007-2011

*Strictly as per the compliance and regulations of:*



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## I. INTRODUCTION

During many recent years, Viet Nam software industry is considered as one of active economic sectors in local financial markets, which has some positive effects for the economy.

This paper is organized as follow. The research issues and literature review will be covered in next sessions 2 and 3, for a short summary. Then, methodology and conceptual theories are introduced in session 4 and 5. Session 6 describes the data in empirical analysis. Session 7 presents empirical results and findings. Next, session 8 covers the analytical results. Then, session 9 presents analysis of risk. Lastly, session 10 will conclude with some policy suggestions. This paper also supports readers with references, exhibits and relevant web sources.

## II. RESEARCH ISSUES

We mention some issues on the estimating of impacts of external financing on beta for listed software industry companies in Viet Nam stock exchange as following:

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*Issue 1* : Whether the risk level of software industry firms under the different changing scenarios of leverage increase or decrease so much.

*Issue 2* : Whether the disperse distribution of beta values become large in the different changing scenarios of leverage estimated in the software industry.

## III. LITERATURE REVIEW

Goldsmith (1969), Mc Kinnon (1973) and Shaw (1973) pointed a large and active theoretical and empirical literature has related dfinancial development to the economic growth process.

Black (1976) proposes the leverage effect to explain the negative correlation between equity returns and return volatilities. Diamond and Dybvig (1983) said banks can also help reduce liquidity risk and therefore enable long-term investment.

Next, Brennan et all (1984) pointed that a firm's capital structure is dynamic. Aghion et all (1999) stated debt instruments can reduce the amount of free cash available to firms and thus managerial slack. And Graham (2000) suggest that optimal leverage is likely to be in the region where marginal tax benefits begin to decline.

Peter and Liuren (2007) mentions equity volatility increases proportionally with the level of financial leverage, the variation of which is dictated by managerial decisions on a company's capital structure based on economic conditions. And for a company with a fixed amount of debt, its financial leverage increases when the market price of its stock declines. Then, Penman et all (2007) documented a negative association between leverage and future returns, after controlling for conventional risk proxies.

Reinhart and Rogoff (2009) pointed the history of finance is full of boom-and-bust cycles, bank failures, and systemic bank and currency crises. Adrian and Shin (2010) stated a company can also proactively vary its financial leverage based on variations on market conditions. Goerge and Hwang (2010) argue that leverage may be negatively correlated with futre returns because high (low) leverage firms are less (more) exposed to systematic distress risk. Mikhail (2012) stated that dynamic leverage depends on the level of fund volatility, time horizon and distance in terms of NAV to a pre-defined critical liquidation level for a fund.

Then, Vijitha (2013) found in Sri Lanka, the degree of financial leverage has a significant positive correlation with financial risk.

Finally, financial leverage can be considered as one among many factors that affect business risk of consumer good firms.

#### IV. CONCEPTUAL THEORIES

##### a) *The impact of financial leverage on the economy*

Financial development and economic growth are positively interrelated. The interaction between these two (2) fields can be considered as a circle, in which good financial development causes economic growth and vice versa. A sound and effective financial system has positive effect on the development and growth of the economy. Financial institutions and markets can enable corporations to solve liquidity needs and enhance long-term investments. This system include many channels for a firm who wants to use financial leverage or FL, which refers to debt or to the borrowing of funds to finance a company's assets.

In the economy, financing, investment and production decisions link together. And in a specific industry such as consumer good industry, on the one hand, using leverage with a decrease or increase in certain periods could affect tax obligations, revenues, profit after tax and technology innovation and compensation and jobs of the industry. Reasons for using high leverage include factors such as: long term investment goals.

During and after financial crises such as the 2007-2009 crisis, there raises concerns about the role of financial leverage of many countries, in both developed and developing markets. On the one hand, lending programs and packages might support the business sectors. On the other hand, it might create more risks for the business and economy.

#### V. METHODOLOGY

For calculating systemic risk results and leverage impacts, in this study, we use the live data during the crisis period 2007-2011 from the stock exchange market in Viet Nam (HOSE and HNX and UPCOM).

In this research, analytical research method is used, philosophical method is used and specially, leverage scenario analysis method is used. Analytical data is from the situation of listed software industry firms in VN stock exchange and curent tax rate is 25%.

Finally, we use the results to suggest policy for both these enterprises, relevant organizations and government.

#### VI. GENERAL DATA ANALYSIS

The research sample has total 6 listed firms in the software industry market with the live data from the stock exchange.

Firstly, we estimate equity beta values of these firms and use financial leverage to estimate asset beta values of them. Secondly, we change the leverage from what reported in F.S 2011 to increasing 30% and reducing 20% to see the sensitivity of beta values. We found out that in 3 cases, asset beta mean values are estimated at 0,445, 0,360 and 0,501 which are negatively correlated with the leverage. Also in 3 scenarios, we find out equity beta mean values (0,725, 0,724 and 0,725, almost the same) are also negatively correlated with the leverage. Leverage degree changes definitely has certain effects on asset and equity beta values.

#### VII. EMPIRICAL RESEARCH FINDINGS AND DISCUSSION

In the below section, data used are from total 6 listed software industry companies on VN stock exchange (HOSE and HNX mainly). In the scenario 1, current financial leverage degree is kept as in the 2011 financial statements which is used to calculate market risk (beta). Then, two (2) FL scenarios are changed up to 30% and down to 20%, compared to the current FL degree.

Market risk (beta) under the impact of tax rate, includes: 1) equity beta; and 2) asset beta.

##### a) *Scenario 1 : current financial leverage (FL) as in financial reports 2011*

In this case, all beta values of 6 listed firms on VN software industry market as following:

*Table 1* : Market risk of listed companies on VN software industry market

Order No.	Company stock code	Equity beta	Asset beta (assume debt beta = 0)	Note	Financial leverage (F.S reports)
1	<u>FPT</u>	0,976	0,364		62,7%
2	<u>CMG</u>	0,949	0,348		63,4%
3	<u>SRB</u>	1,051	1,019		3,1%
4	<u>VLA</u>	0,125	0,111	SRA as comparable	11,4%
5	<u>HIG</u>	1,112	0,740		33,4%
6	<u>SRA</u>	0,137	0,088		36,1%
				<b>Average</b>	<b>35,01%</b>

b) Scenario 2 : financial leverage increases up to 30%

If leverage increases up to 30%, all beta values of total 6 listed firms on VN software industry market as below:

Table 2 : Market risks of listed software industry firms (case 2)

Order No.	Company stock code	Equity beta	Asset beta (assume debt beta = 0)	Note	Financial leverage (30% up)
1	FPT	0,976	0,180		81,5%
2	CMG	0,949	0,167		82,4%
3	SRB	1,051	1,009		4,0%
4	VLA	0,121	0,103	SRA as comparable	14,9%
5	HIG	1,112	0,629		43,5%
6	SRA	0,137	0,073		46,9%
<b>Average</b>					45,5%

c) Scenario 3 : leverage decreases down to 20%

If leverage decreases down to 20%, all beta values of total 6 listed firms on the software industry market in VN as following:

Table 3 : Market risk of listed software industry firms (case 3)

Order No.	Company stock code	Equity beta	Asset beta (assume debt beta = 0)	Note	Financial leverage (20% down)
1	FPT	0,976	0,486		50,2%
2	CMG	0,949	0,468		50,7%
3	SRB	1,051	1,025		2,5%
4	VLA	0,128	0,116	SRA as comparable	9,1%
5	HIG	1,112	0,814		26,7%
6	SRA	0,137	0,098		28,9%
<b>Average</b>					28,0%

All three above tables and data show that values of equity and asset beta in the case of increasing leverage up to 30% or decreasing leverage degree down to 20% have certain fluctuation.

## VIII. COMPARING STATISTICAL RESULTS IN 3 SCENARIOS OF CHANGING LEVERAGE

Table 4 : Statistical results (FL in case 1)

Statistic results	Equity beta	Asset beta (assume debt beta = 0)	Difference
MAX	1,112	1,019	-0,093
MIN	0,125	0,088	-0,037
MEAN	0,725	0,445	-0,280
VAR	0,2148	0,1343	-0,081

Note : Sample size : 6

Table 5 : Statistical results (FL in case 2)

Statistic results	Equity beta	Asset beta (assume debt beta = 0)	Difference
MAX	1,112	1,009	-0,103
MIN	0,121	0,073	-0,049
MEAN	0,724	0,360	-0,364
VAR	0,2157	0,1422	-0,074

Note : Sample size : 6

Table 6 : Statistical results (FL in case 3)

Statistic results	Equity beta	Asset beta (assume debt beta = 0)	Difference
MAX	1,112	1,025	-0,087
MIN	0,128	0,098	-0,030
MEAN	0,725	0,501	-0,224
VAR	0,2142	0,1370	-0,077

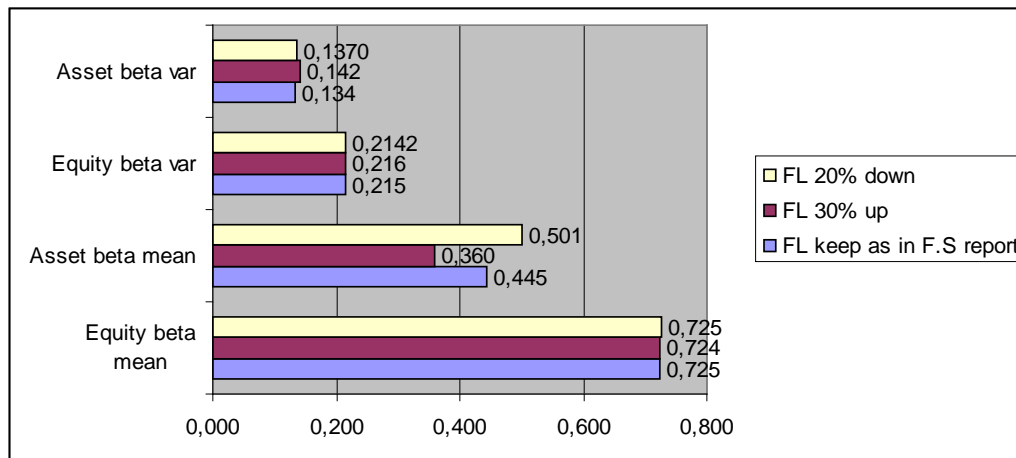
Note : Sample size : 6

- Based on the above results, we find out  
Equity beta mean values in all 3 scenarios are low ( $< 0,8$ ) and asset beta mean values are also small ( $< 0,6$ ) and max equity beta values in few cases are higher than ( $>$ ) 1. In the case of reported leverage in 2011, equity beta value fluctuates in an acceptable range from 0,125 (min) up to 1,112 (max) and asset beta fluctuates from 0,088 (min) up to 1,019 (max). If leverage increases to 30%, equity beta moves in a range from 0,121 to 1,112 (max unchanged) and asset beta moves from 0,073 (min) up to 1,009 (max). Hence, we note that there is a decrease in asset beta min value if leverage increases. When leverage decreases down to 20%, equity beta value moves in a range from 0,128 to 1,112 (max unchanged) and asset beta changes from 0,098 (min) up to 1,025 (max). So, there is a small increase in equity beta min value when leverage decreases in scenario 3.

Beside, Exhibit 5 informs us that in the case 30% leverage up, average equity beta value of 6 listed firms decreases down to 0,001 while average asset beta value of these 6 firms decreases little more to 0,085. Then, when leverage reduces to 20%, average equity beta value of 6 listed firms goes up to 0,0004 and average asset beta value of 6 firms up to 0,056.

The below chart 1 shows us : when leverage degree decreases down to 20%, average equity beta values are almost unchanged while asset beta values increase slightly (0,725 and 0,501) compared to those at the initial reported leverage (0,725 and 0,445). Then, when leverage degree increases up to 30%, average equity beta decreases little more and average asset beta value also decreases more (to 0,724 and 0,360). However, the fluctuation of equity and asset beta values (0,216 and 0,142) in the case of 30% leverage up is higher than ( $>$ ) the results in the rest 2 leverage cases.

Chart 1 : Comparing statistical results of three (3) scenarios of changing FL



## IX. RISK ANALYSIS

In short, the using of financial leverage could have both negatively or positively impacts on the financial results or return on equity of a company. The more debt the firm uses, the more risk it takes, or the financial leverage is associated with financial risk. Beside, the increasing interest on loans might drive the earning per share (EPS) lower.

On the other hand, in the case of increasing leverage, the company will expect to get more returns. The financial leverage becomes worthwhile if the cost of additional financial leverage is lower than the additional earnings before taxes and interests (EBIT). Considering risk vs. return, FL becomes a decisional variable for managers. And the maximum risk that a firm accepts will ask for the maximum financial leverage.



## X. CONCLUSION AND POLICY SUGGESTION

In general, the government has to consider the impacts on the mobility of capital in the markets when it changes the macro policies. Beside, it continues to increase the effectiveness of building the legal system and regulation supporting the plan of developing electric power market. The Ministry of Finance continues to increase the effectiveness of fiscal policies and tax policies which are needed to combine with other macro policies at the same time. The State Bank of Viet Nam continues to increase the effectiveness of capital providing channels for software companies as we could note that in this study when leverage is going to increase up to 30%, the risk level decreases much whereas the asset beta var increases slightly, compared to the case it is going to decrease down to 20%.

Furthermore, the entire efforts among many different government bodies need to be coordinated.

Finally, this paper suggests implications for further research and policy suggestion for the Viet Nam government and relevant organizations, economists and investors from current market conditions.

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EXHIBIT

Exhibit 1 : Interest rates in banking industry during crisis

Year	Borrowing Interest rates	Deposit Rates	Note
2011	18%-22%	13%-14%	Approximately (2007: required reserves ratio at SBV is changed from 5% to 10%) (2009: special supporting interest rate is 4%)
2010	19%-20%	13%-14%	
2009	9%-12%	9%-10%	
2008	19%-21%	15%-16,5%	
2007	12%-15%	9%-11%	

(Source : Viet Nam commercial banks)

Exhibit 2 : Basic interest rate changes in Viet Nam

Year	Basic rate	Note
2011	9%	Approximately, fluctuated
2010	8%	
2009	7%	
2008	8,75%-14%	
2007	8,25%	
2006	8,25%	Approximately, fluctuated
2005	7,8%	
2004	7,5%	
2003	7,5%	
2002	7,44%	
2001	7,2%-8,7%	Approximately, fluctuated
2000	9%	

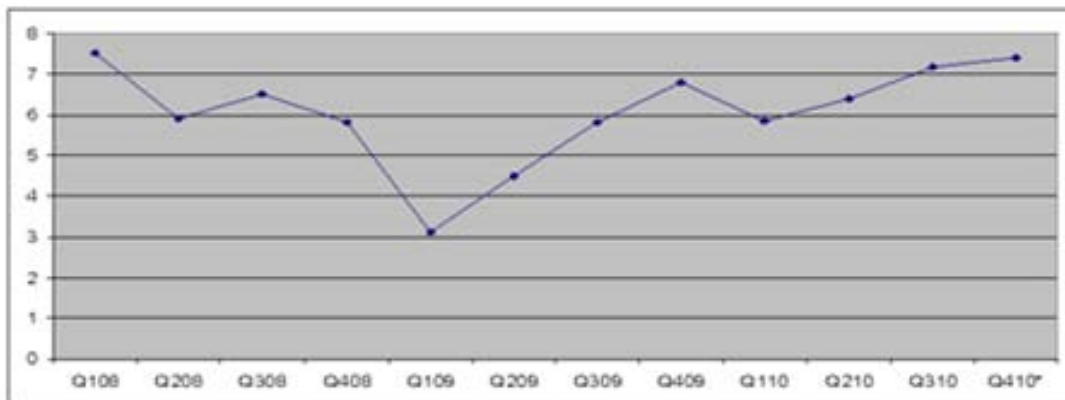
(Source : State Bank of Viet Nam and Viet Nam economy)

Exhibit 3 : Inflation, GDP growth and macroeconomics factors

Year	Inflation	GDP	USD/VND rate
2011	18%	5,89%	20.670
2010	11,75% (Estimated at Dec 2010)	6,5% (expected)	19.495
2009	6,88%	5,2%	17.000
2008	22%	6,23%	17.700
2007	12,63%	8,44%	16.132
2006	6,6%	8,17%	
2005	8,4%		
Note		approximately	

(Source : Viet Nam commercial banks and economic statistical bureau)

Exhibit 4 : GDP growth Việt Nam 2006-2010



(Source : Bureau Statistic)

Exhibit 5 : Increase/decrease risk level of listed software industry firms under changing scenarios of leverage : in 2011 F.S reports, 30% up, 20% down in the period 2007– 2011

Order No.	Company stock code	FL keep as in F.S report		FL 30% up		FL 20% down	
		Equity beta	Asset beta	Increase /Decrease (equity beta)	Increase /Decrease (asset beta)	Increase /Decrease (equity beta)	Increase /Decrease (asset beta)
1	FPT	0,976	0,364	0,000	-0,184	0,000	0,122
2	CMG	0,949	0,348	0,000	-0,180	0,000	0,120
3	SRB	1,051	1,019	0,000	-0,010	0,000	0,006
4	VLA	0,125	0,111	-0,004	-0,008	0,002	0,005
5	HIG	1,112	0,740	0,000	-0,112	0,000	0,074
6	SRA	0,137	0,088	0,000	-0,015	0,000	0,010
		<b>Average</b>		-0,001	-0,085	0,0004	0,056

Exhibit 6 : VNI Index and other stock market index during crisis 2006-2010

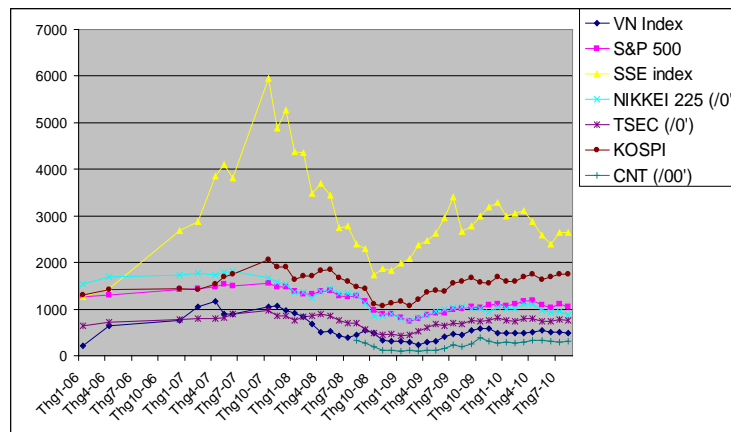
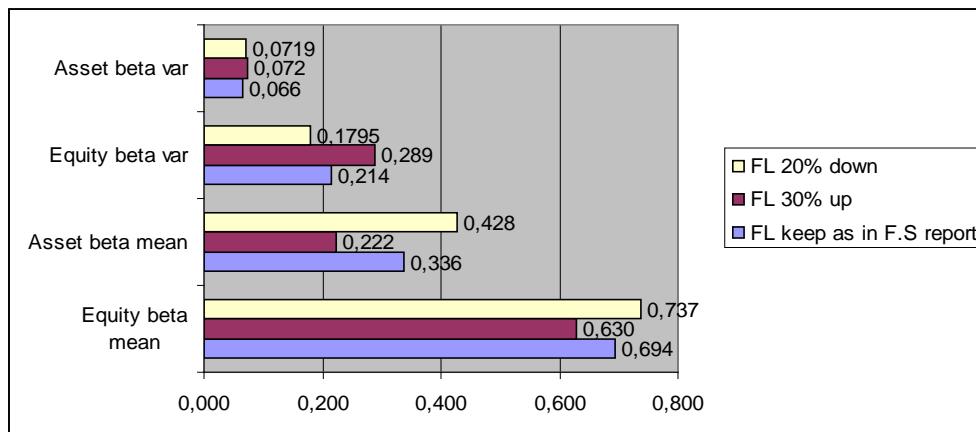


Exhibit 7 : Comparing statistical results of three (3) scenarios of changing FL of 121 listed firms in the consumer good industry



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# Value Added Tax Remittance: Observations from Developing Country

By Okoyeuzu Chinwe

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*Abstract* - Taxation is one of the most important revenue generation in any given economy and as such should receive due attention. The need for taxation in an emerging economy cannot be over-emphasised. Taxation is one source of government revenue that could be reliable in terms of certainty. Government has the mandate to impose tax via its numerous regulations. Emerging economies are nations that have large territories and populations, and are saddled with the responsibility of developmental projects that call for new infrastructure, such as power-generating plants and telecommunications systems. Value Added Tax, usually abbreviated as VAT, could be a mega means of funding such projects. This research adopted. Survey research design because of its ability to view comprehensively and in detail the major question raised in the study: Has Vat maintained an increase in revenue yield since inception? Our finding was a continuous decrease in revenue returns. The increasing revenue loss on VAT proceeds is mind bogging. Vat has a good chance of working in Nigeria if it receives the cooperation of tax collectors. We recommend that the Nigerian government should make adequate provision for retrieving the proceeds of VAT from companies and other agents of collection.

*GJMBR-C Classification* : JEL Code: H29, F24



*Strictly as per the compliance and regulations of:*



# Value Added Tax Remittance: Observations from Developing Country

Okoyeuzu Chinwe

**Abstract** - Taxation is one of the most important revenue generation in any given economy and as such should receive due attention. The need for taxation in an emerging economy cannot be over-emphasised. Taxation is one source of government revenue that could be reliable in terms of certainty. Government has the mandate to impose tax via its numerous regulations. Emerging economies are nations that have large territories and populations, and are saddled with the responsibility of developmental projects that call for new infrastructure, such as power-generating plants and telecommunications systems. Value Added Tax, usually abbreviated as VAT, could be a mega means of funding such projects. This research adopted Survey research design because of its ability to view comprehensively and in detail the major question raised in the study: Has Vat maintained an increase in revenue yield since inception? Our finding was a continuous decrease in revenue returns. The increasing revenue loss on VAT proceeds is mind boggling. Vat has a good chance of working in Nigeria if it receives the cooperation of tax collectors. We recommend that the Nigerian government should make adequate provision for retrieving the proceeds of VAT from companies and other agents of collection.

## I. INTRODUCTION

Inherent in the financing of public goods is always a problem of free riding. Taxes are the major tools required to overcome such and also to control other market imperfections, and achieve social justice by wealth redistribution. Tax is a major player in every society of the world. It is a major issue due to its consistency and constancy. It is that compulsory payment imposed on the citizens of a country by its government. It is an ingredient to development in different parts of the world as it is an opportunity for government to collect additional revenue used to provide for the needs of the people (Yahaya, c.2007; Ogbonna & Appah, 2012a). (Gloria, 2012) observe that although taxes may not be the most important source of revenue to the government in terms of magnitude of revenue derivable from it as compared to revenue from petroleum proceeds, fines and royalties, grants and advances, et cetera, its importance stems from the point of view of certainty and consistency.

The most important role of a tax system is its revenue-raising function. Government therefore, impose taxes to finance the expenditures they undertake. Tax systems also have an important income distribution

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function. This recognises a general perception that the tax system imposes a fair tax burden across taxpayers, which is essential to the effective operation of a voluntary compliance system of taxation. The Nigerian tax law is the embodiment of rules and regulations relating to tax revenue and various kinds of taxes. Such laws are continuously reviewed. Kiabel (2009) identified these laws to include fiscal administration between the three tiers of government-the federal, state and local government. Other expectations of the Nigerian tax system according to the Presidential Committee on National tax policy (2008) include:

- Encourage economic growth and development.
- Generate stable revenue or resources needed by government to accomplish laudable projects and or investment for the benefit of the people.
- Provide economic stabilization.
- To pursue fairness and distributive equity.
- Correction of market failure and imperfection. Abiola and Asiweh (2012).

Under the current tax laws, the three tiers of the government has specific areas of emphasises. SOME OF THE RELEVANT TAX REGULATIONS emphasised the following: Capital Gains Tax, Value Added Tax (VAT), Education Tax, Petroleum Profits Tax, Nigerian Social Investment Trust Fund (NSITF), Stamp Duties, Withholding Tax, Double Taxation Agreements/Treaties, Personal Income Tax, Companies Income Tax. Anyanwu (1993) viewed VAT as a consumption tax on economic operations including imports except those exempted as par the provision of the decree. VAT being the main focus of this paper was introduced following a study group set up by the federal government in 1991 to review the nation's tax system so as to help boost the government revenue, which has been dwindling for many years. It was this group that proposed VAT. As a follow up, another committee was set up to conduct feasibility study on the implementation of the VAT (Thacker, 2009). There is a growing recognition among developing countries of the crucial role of value added tax revenue as an instrument of economic development. Value added tax (VAT) revenues are increasingly accounting for significant proportion of government revenue to finance the required level of public expenditure both at federal, state and local government levels. Value added tax as a consumption tax has been embraced by many countries worldwide Owolabi and Okwu (2011). Many developing



countries have effectively used Vat as a major source of revenue. Examples of such countries include Benin, Guinea, Kenya, Togo Senegal.et cetera. Vat recorded an impressive performance in those areas where they were used hence Nigeria's interest in adopting VAT in 1994. VAT is a self-assessment tax hence, it is a fairly precise measurement of the growth of an economy since purchasing power (which determines yield) increases with economic growth that is paid when returns are being rendered. An observation of the Federal Inland Revenue Service (FIRS) was that Vat being a consumption tax obviously its administration will be easy as evasion will be more challenging.

The primary objective of this study, therefore, is to evaluate the performance of VAT as Revenue earners in Nigeria .To assess the revenue generated from VAT since inception to see if it has been on a steady increase or decrease. It is hoped that the insight to be gained from this analysis provide a useful guide to the policy makers. The rest of the paper is as follows: section two discusses the principles of VAT, section three dwells on analysis of Vat performance between 2005 -2011.The fourth section provides the way forward while section five provides the conclusion of the paper.

## II. PRINCIPLES OF VAT IN NIGERIA

Soyode and Kajola (2006) defined VAT as a consumption tax on all VAT able goods and services. Value Added Tax, usually abbreviated as VAT, was first adopted in France in 1954. In France, it is the most important source of state finance accounting for nearly 50% of state revenue (Thacker, 2009). The introduction of VAT in Nigeria through Decree 102 of 1993 marks the phasing out for the Sales Tax Decree No. 7 of 1986. The Decree took effect from 1<sup>st</sup> December, 1993, but by administrative arrangement, invoicing for tax purpose did not commence until 1st January, 1994. According to the decree, a VAT able organization is an existing firm engaged in the manufacture, distribution, importation or supplying of goods and services. Theoretically under VAT, a supplier, manufacturer, producer or seller of Vat able goods or services returns a percentage of the price he charges his customers to the Vat directorate at regular intervals. This percentage is 5% and it is the rate. This is the output. Assuming the seller paid Vat on the VAT able goods and services when they were purchased for resale, then the vat paid by him is input tax.

The Nigerian vat history could be traced to the Two great financial institutions the international monetary Fund (IMF) and the world Bank. The intention was towards helping Nigeria to increase its non-oil revenue. The value added tax Act is a federal statues and the tax is administered by the Federal Inland Revenue Service (an arm of the Federal Board of Inland Revenue on behalf of the federal, state and local Governments. while

the VAT revenue is shared by all levels of government. Thus it can be assumed that VAT revenue is not sterilized but injected into the economy through increased government final consumption expenditure. The proceeds are shared among the three tiers of government in accordance with a formulae determined from time to time by the federal legislature. This is always subject to review.

Notably emerging economies have large territories and populations, and they are undertaking extraordinary development projects that call for new infrastructure, such as power-generating plants and telecommunications systems. Value added tax (VAT) is one of the ways of funding such infrastructural developments. Nigeria happens to be an emerging economy whose export product is mainly crude oil. Her other natural resources asserted by Economy Watch (2011) include: Natural gas, tin, iron ore, coal, limestone, lead, zinc and arable land. Her land mass covers about 923, 768 sq km and she have a population of about 149,229,090.The need for revenue generated from VAT in this country cannot be over emphasised. VAT is paid on virtually all goods and services, with the exception of the following:

- Medical and pharmaceutical products;
- Basic food items such as peas, beans, yam, cassava, maize, rice, wheat, milk and fish;
- Infant food items;
- Books, newspapers and magazines;
- Educational materials (laboratory equipment);
- Baby products such as carriages, clothes and napkins, as well as sanitary towels;
- Commercial vehicles and spare parts, tractors, public transport passenger vehicles, motorcycles, tanks and other armoured fighting vehicles, and bicycles;
- Agricultural equipment such as those for soil preparation or cultivation, harvesting or threshing, milking and dairy machinery, and poultry keeping machinery;
- Veterinary medicine equipment; and
- Fertilizers and farming transportation equipment.
- All imports are VAT able, whether imported raw materials or finished goods.

The Value Added Tax is imposed on the net sales value of non-exempt, qualifying goods and services in Nigeria. It is levied on any individual, corporation sole, group, body corporate or organization that consumes buys, procures or imports taxable goods or services. During direct sales or open market transactions, the buyer or consumer pays the tax to the seller together with the cost of the goods or services bought. The seller then nets off the VAT paid at the time of purchase of the stocks sold from the VAT collected on the stocks sold and credit the balance to the Federal Inland Revenue Service (FIRS). Where the goods or

services were supplied to a government Ministry, Department or Agency (MDA) or a company engaged in oil operations, the VAT payable by the MDA or oil company is deducted or withheld at source (at the point of payment). It is then credited directly to FIRS on behalf of the supplier. VAT payments are made on a monthly

basis not later than 21 days of every subsequent month. The tax rate for the VAT is set at 5% in Nigeria (FIRS, 2013).

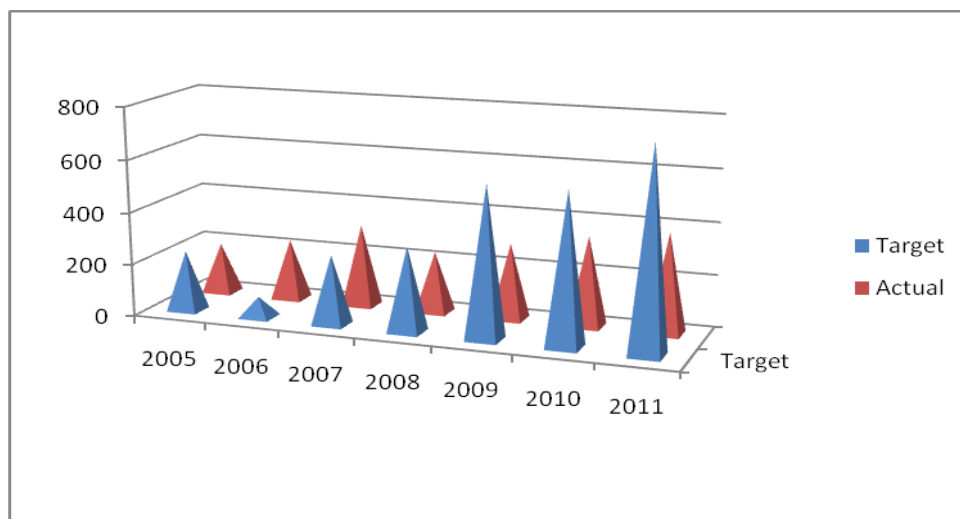
Nevertheless, even with the seeming inescapable nature of VAT, the VAT still remains evaded (if not the most evaded).

### III. ANALYSIS OF VAT PERFORMANCE 2005-2011

*Table 1 : VAT Revenue in ₦ Billions  
(Target Versus Performance)*

Year	Target	Actual
2005	231	192.70
2006	77.8	232.70
2007	265	314.50
2008	323	234.50
2009	580	291.40
2010	580	345.10
2011	770.09	382.10

*Source : FIRS Gauge (2011) and compiled from the federal Inland Revenue service chat*



Both the table and the chart above are quite revealing.

What could be responsible for revenue generated from Vat not to be on a steady increase? The table shows there is always a shortfall between the target and the actual. Several factors were observed to have played a major role.

Avoidance of tax payment is not only an international problem or issue but has equally assumed deeper dimension especially in a country like Nigeria. For instance, The Federal inland Revenue arrested the managing Director of Air Nigeria for alleged failure to remit taxes amounting to N4,868,496,152.00 billion. The arrest was geared towards recovering arrears of taxes accruing to government from withholding tax and value Added Tax. (www.thenigeria voice 2012 June 19<sup>th</sup>. Air Nigeria has failed to deduct and pay taxes accruing to

government from Withholding Tax and Value Added Tax (VAT) from 2007 to 2010, totalling N4.86 billion (John, 2012). The airline had illegally obtained a Tax Clearance Certificate (TCC) with the intention to frustrate the recovery of tax arrears accruing to government from Withholding Tax (WHT) and Value Added Tax (VAT).

Another similar incidence was the arrest of Chief executive officers of seven companies in Lagos for failure to remit taxes totalling N2.17 billion. (www.sharpedge.com 2012 June).

The federal Inland Revenue service again clamped down on the hospitality industry in Abuja arresting about nine managers that failed to register as taxpayers and had not been filing annual returns as mandated by law. Most of the companies have never attempted to remit the value Added Tax. James Emejo (2011). The attitude of Nigerians towards taxation is

worrisome as many prefer not to pay tax if given the opportunity. Government's ability to adequately and effectively retrieve the proceeds from companies and other agent of collection remains a problem. It does not appear as if there is adequate machinery for effectively monitoring the remittance of tax withheld to the relevance tax authority. Tax Evasion apart from being morally wrong also amounts to a breach of the tax law.

One major areas of reform in recent years has been towards tax administration. However, the reform seems not to have been impressive in its implementation. It is an unwritten law in Nigeria, that people who are rich and well connected evade taxes either directly or indirectly. They are further assisted in these crime by the under developed and inefficient tax collections system in the country.

Inefficient tax collection is a failure that has not yet been addressed by the various tax reforms in the past. Obviously one can rightly describe this type of tax system as showing an imbalance or being unfriendly to the poor masses. Olasunkanmi 2011 commented that our tax system allows corruption amongst top government functionaries. Taxpayers also perceive government as not being responsive enough to the needs of the citizens; they largely hold the view that tax revenues are either misapplied and or misappropriated.

Tax payment in various parts of the economy is easily manipulated. Tax officials double as consultants. They aid corrupt people to evade tax by helping them to compromise the books and they collect a handsome fee for this type of service rendered. (Olatunde Sanni 2010). The outcome of such dishonest practices by some tax officials is that it ends up having demoralizing effect on the honest tax payers. In an attempt to facilitate adequate and effective collection of taxes, Government designed and designated many collection points. This turned back to pose a challenge .Accountability from these collection points always poses a challenge as the proceeds most times are diverted to wrong channel. The rate of corruption on the part of tax officials is alarming as largely many of them connive and collude with supposed-tax- payer to evade and avoid tax. According to Uwabuike (1998), the success or failure of any tax system depends largely on the extent to which it is properly managed. When some people do not pay and others do, the equity of tax is eroded. The issue of the upsurge of corruption in Nigeria is troubling. Corruption from all indication is endemic in all governments.

A common feature of many developing countries is lack of resources, expertise and capacity for building up and improving efficient civil service. While citing (Ola 1998) Kiabel and Nwokah (2009:532) observe that many employers of labour are now using the tax deducted from their employee's emoluments on either their personal acquisitions or business expansion

The distribution system of VAT in Nigeria is enough to demoralise tax payers. How much does the Federal government give back to the state? Sharing of Vat proceeds is not strictly based on derivation. This is not proper, the sharing ought to be done according to derivation, this will help to develop and encourage the state where the bulk is generated from.

Nigeria has a problem of adequate record keeping and tax assessments. An agency with very poor statistics can never function right because data management becomes challenging. For proper audit, statistical data are crucial. Detailed data collection and enforcement ought to be timely and sufficient. Without these basic data, it becomes very difficult, for example, to accurately calculate the amount that the Government loses annually through non-filing, under reporting and late remittance.

VAT-retail trade in Nigeria is incredibly large but substantially informal. VAT collection at this stage is bound to be a logistical nightmare; this situation does not provide much input to policy process.

The Nigerian economy to a large extent is dominated by a good number of informal sectors. In fact, income from the self-employed or informal sector activities is grossly unexploited. Inefficiency in tax collection mechanism poses a big problem. That is the reason that makes the quality of their tax collection systems weaker than is the case with more developed economies. The consequence of such is that the economy continues to lose huge amount of revenue through the unwholesome practice of tax avoidance and remittance.

#### IV. THE WAY FORWARD

Tax authorities need to be meticulous in ensuring remittance of all Vat revenues. If possible there could be a legislation that will authorise FIRS to look into account books of all vatable organizations account books .The books are a lot more revealing of the true cash flow of organisations than audited reports that are largely manipulated. It is only such legislation that will enable them get the real position of various firms.

The global world is a digital world. Computer acquisition is a priority to efficient tax system. Computer technology can help in developing a master file system. There is every need to introduce efficient computer technology. Such must be combined with the political will to enforce tax collection if it is to yield potential for greater revenue. Enforcement procedures are crucial in increasing revenue. Technology without accompanying enforcement procedures will not help in increasing revenue. With all these advanced technology, the System is able to detect potential avoiders and sanction them.

From all indications, there is every need to improve the collection pattern and maximize tax

revenue. An answer to this lies with availability of honest and capable tax administrators. Revenue officials should display good example and as well be responsible. Tax authorities should recruit well trained and honest personnel to handle tax matters. The remuneration accrued to tax officials should be enhanced so as to enable them live above poverty line and resist all tempting offers from citizens.

We cannot advance meaningfully if we, as a nation fail to foster respect for law and a feeling of common purpose and joint obligations towards a common goal. Firm and reliable corporate governance is recommended. Lapses in the system could be credited to poor and inexperienced staffing of the tax-collecting organisation, poor funding, bad access road to the interior of the rural areas, poor enlightenment and many more. An urgent need to address these weaknesses is a positive move.

Tax education is a necessary tool to engender the citizens to carry out their obligations voluntarily. To achieve this, there is need for periodic education of staff of Federal Inland Revenue Service, Economic and Financial Crime Commission and Joint Tax Force on Taxation. There should be functional VAT offices in every council area to coordinate a vigorous campaign to educate people and seek their cooperation. This without reservation will erode the negative attitude that some of the consumers have developed towards VAT.

We further recommend an establishment of operational vat tribunal as a matter of urgency. This tribunal will mete out punishment relating to tax evasion and similar offences as soon as such cases are established. The knowledge of the existence of such a Special Tribunal would make defaulters change their behaviour.

Vat revenue ought to be disbursed for specific development programmes that will impact on the lives of the citizenry. Channelling the revenue accruing from VAT into areas such as the education and Health sectors will definitely benefit the masses.

Proceeds from VAT must be retrieved. The burden is on the Government to make adequate plan towards such.

Government will keep losing the revenue that ordinarily will come from VAT if there is no business data. There is need to embark on business enumeration in each state with a view to having data base on business.

## V. CONCLUSION

The escalating revenue loss being experienced in Nigeria is mind boggling. There is embezzlement of government revenue, if it is not billions in subsidy rip-off; it is in tax evasion or no remittance of VAT deductions by organisations. The experts in economy have observed that more than 50% of collectible revenue was lost

annually in Nigeria due largely to inefficiencies in the tax system VAT inclusive. The custom has always been to pour invectives on the leaders with less consideration on the poor masses. As a direct consequence of this attitude of government, a good number of Nigerians are equally unresponsive to public concerns. The big question is how has this state of affairs rubbed off on the economy? The result of lack of commitment is evident in the lack of a healthy tax system which makes the rudiments of our economy fragile. This development has contributed to the inability of the government to raise sufficient revenue that should guarantee the provision of adequate infrastructure for the citizens. (Babangida 2012).

The Nigerian tax system comprises the laws governing the tax administration. There is every need for the nation to carry out a detailed, honest and comprehensive reform of the tax system including that of value added tax, to ensure the emergent of a system that will plug all the loopholes in the current tax system and ensure meaningful revenue generation through taxation in the country. The success of the scheme will contribute positively to the attainment of economic goals of the nation and as such enhance the social and economic well being of all Nigerians. Observations suggests that there is social disconnect between the people and their government presently, the new tax reform will positively address this.

To a large extent, most developing countries will always have need for supports from its taxed Environment. Nigeria therefore requires not just enforcement of tax law alone to bring compliance. Other factors also count, better supervision in the part of tax authorities, more demand for transparency and introduction of incentives for officials that excel in meeting as well as exceeding tax collection targets. Gaps exist in the administration of the tax especially in the Provision of the VAT laws and practice. This has to be corrected.

Due to poor economic activities and general poverty index in the country, when people are not highly motivated salary wise there will be no self actualization, one may not be encouraged to put in his best in the performance of a given task. Conditions beyond their control compels them take bribe. Government officials especially politicians should not just be concerned about their own jumbo salary but that of other workers in the economy.

Can the expectations of VAT be realized in Nigeria? The answer is yes if VAT receives the cooperation of tax collectors. If, however people evade tax colluding with tax collectors, no meaningful achievement would be made.

Though the Nigerian tax system has undergone several reforms, one of the major setbacks faced by the economy is the tax system presently in operation



(Adedeji & Oboh, 2012). This tax system/administration is defective in terms of procedures, machinery and approaches adopted in collection and assessment of tax (John & Olabisi, 2012) as numerous cases of tax evasion and aversion still pervades the country. The tax system in Nigeria is inadequate as it is characterized with non-voluntary compliance of tax payers, tax evasion and avoidance, and record falsification which accounts for the consistent low tax yields. Due to ineffective tax regimes and ineffective tax legislations (aiding tax evasion and avoidance by national and international corporate organizations), Nigeria loses several billions of naira in tax avenue every year (Adedeji & Oboh, 2012; John & Olabisi, 2012; Yahaya, c.2007).

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# Performance Evaluation of Prime Bank Limited in Terms of Capital Adequacy

By Md. Abdullah Al Mamun

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*Abstract* - The study aims at evaluating performance of prime bank. Data of the bank is analyzed using capital adequacy ratio, debt equity ratio and advance to asset ratio for the period 2008 to 2012. The study finds, though high debt equity ratio bank maintains capital above regulatory requirement. This will help the researcher and bank to further improvement in capital adequacy to meet regulatory requirement and enhance bank performance.

*Keywords* : capital, capital adequacy ratio, performance.

*GJMBR-C Classification* : JEL Code: G21



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## I. INTRODUCTION

Bank is a financial institution (Khan). It require fund to carry out business. Fund may come from deposit and non deposit. One of the non-deposit source of found is capital. Capital can be defined as long term fund coming from debt and equity that support a banks long term assets and absorb earning losses (Rose). Lack of capital increases uncertainty to the depositors. Capital performs several indispensable jobs in the operation of a bank, such as supplying resources to get a new bank started, providing a base for growth and expansion, defending a bank against risk and maintaining public confidence in the bank's management and stockholders (Mishkin and Eskin). Regulators concerned with systematic risk of a bank runs do not like to rely on exclusively reserve requirement, deposit insurance because of the potential moral hazard (Berger, et al.1995). As a result regulators aiming at minimizing the moral hazard requiring equity capital as a fraction of bank risk weighted asset. An international standard which recommends minimum capital adequacy ratios has been developed to ensure banks can absorb a reasonable level of losses before becoming insolvent. Applying minimum capital adequacy ratios serves to protect depositors and promote the stability and efficiency of the financial system (Reserve Bank of New Zealand, 2007). In past years, the world has witnessed 'the crack' and in some cases, total collapse of major financial institutions, which before then, had made and declared significant and sometimes enviable returns. Following these collapse, there was a need to review the contradiction that played out in some of these cases, between declaration of significant returns and sudden death. This informs the evaluation of banks' performance from a risk adjusted basis. Banks are among the most leveraged businesses

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with substantial proportion of their assets in loan and advances exposing them to considerable risk. There is also an established fact of risk – return relationship whereby the higher the risk taken the higher the return expected. In essence, banks by the nature of their operations may make substantial profit from loans and advances but without commensurate level of capital to cushion unanticipated losses may fail (Onaolopo and olufemi 2012). Prime Bank ltd operating its business in Bangladesh over a decade. It is perfect time to measure performance how well the bank meeting regulatory requirement. The study organized as Capital Standard in Bangladesh, Literature Review, Objective of the Research Work, Research Methodology, Financial indicators for capital adequacy, Conclusion.

## II. CAPITAL STANDARD IN BANGLADESH

In order to calculate CAR, banks are required to calculate their Risk Weighted Assets (RWA) on the basis of credit, market, and operational risks. Total RWA will be determined by multiplying the amount of capital charge for market risk and operational risk by the reciprocal of the minimum CAR and adding the resulting figures to the sum of risk weighted assets for credit risk. The CAR is then calculated by taking eligible regulatory capital as numerator and total RWA as denominator. Minimum capital requirement in Bangladesh is 10% of total risk weighted asset or 4 billion as capital whichever is higher of which 5% should be core capital(BRPD Circular No. 10).

## III. LITERATURE REVIEW

Generally financial performance of banks and other financial institution measured by using combination of financial ratio analysis, benchmarking, measuring performance against budget or mix of these methodologies(Avkiran,1995). The comparative financial performance of banking sector conducted by using CAMELS rating system (Nimalathan, 2008). The performance of Malaysian Islamic bank carried out by using financial ratios(Samad and Hassan).The south African commercial banks performance measured by financial ratios analysis(kumbiari and Webb,2010). Performance of selected Indian commercial banks has done by view growth in asset, profit, revenue, investment and deposit (Jaladhar, Anchula and Achari, 2011). EVA (Economic Value Added) is modern financial

measurement tool that determines if a business is earning more than its true cost of capital (Gabriela et al, 2009). While analyzing performance of AXIS bank in terms of capital adequacy ratios and correlation analysis is used (Shrivastava et al, 2011). The analysis includes CAMELS rating and multivariate regression analysis for comparing financial performance commercial banks (Jha and Hui, 2012). The financial performance of commercial bank measured in terms of capital adequacy and methodology used as ordinary least square method (Onaolopo and olufemi 2012). Using data for Taiwan Province of China, Lin, Penm, Garg, and Chang (2005) study the direct effects of capital regulations and capital requirements. More specifically, they study three areas: (i) the relation between capital adequacy and the bank insolvency risk index, (ii) the relation between capital adequacy and financial performance, and (iii) the interaction and relationship between the insolvency risk of banks and financial performance.

IV. OBJECTIVE OF THE RESEARCH WORK

Banks is a special form of financial institution. Most of it fund coming from depositors. Owner's contribution is infinitesimal. Banking business depends on trust of the depositors on a bank. The measure of this trust is the strength and soundness of a bank. Specific objectives of the study are as follows.

- To analyze the adequacy of capital by using capital adequacy ratios;
- To identify the financial strength and soundness of the bank and provide suggestions:

V. RESEARCH METHODOLOGY

In order to evaluate performance prime bank different capital adequacy ratios are used. They are capital adequacy ratio (CAR), advance to asset ratio and debt equity ratio. At last t test is applied to test hypothesis. Secondary data have been collected from annual report books, journals, magazines and newspapers for the period of 2008 to 2012.

VI. FINANCIAL INDICATORS FOR CAPITAL ADEQUACY

a) Capital Adequacy Ratio

Capital adequacy gives insights of overall financial position of the bank (Shrivastava.et al). Bank capital is a focal issue of financial soundness and safety of a bank. In fact the ultimate strength of a bank lies in its capital funds given its significance as a tool for meeting liabilities in a financial crisis and as a cushion for absorbing losses(Rose). From the table we see that capital adequacy ratio above 10% i.e. Prime Bank Ltd maintained adequate capital in study period. In addition

to capital adequacy ratio there is a high positive correlation of risk weighted asset and capital fund  $r_{xy}=0.99$ .

Year	Capital Fund(X)	Risk Weighted asset(Y)	Capital Adequacy Ratio	Tier -i
2007-08	7859	72253	10.88	8.67
2008-09	12168	82710	14.71	10.95
2009-10	21483	183747	11.69	8.60
2010-11	24229	194380	12.46	9.64
2011-12	25916	205103	12.64	10.08

Source: Annual Report of Prime Bank Ltd (2008-2012)

Here  $r_{xy}=0.99$ (using MS Excel). Now test of hypothesis, two hypotheses are

$H_0$ : There is no significance difference between risk weighted asset and capital fund

$H_1$ : risk weighted assets have increased with an increase in capital fund.

$$t = \frac{r * \sqrt{n - 2}}{\sqrt{1 - r^2}}$$

$$= \frac{0.99 * \sqrt{5 - 2}}{\sqrt{1 - (0.99)(0.99)}}$$

$$= 12.15$$

Tabulated value for 3 degrees of freedom at 5% level of significance is 3.18. Since the calculated value is greater than tabulated value it is highly significant. Hence the null hypothesis is rejected and we conclude that risk weighted asset increased with an increase in capital fund.

b) Advance To Total Asset

The ratio is the total advance to total asset. Advance to asset ratio shows a bank position and risk taking ability in lending funds. The higher the ratio indicates that bank is aggressive in lending (Shrivastava.et al). There is a link that the higher the ratio more capital requires to absorb losses as risk weighted asset increases. For prime bank was the highest in year 2009-10 and lowest at 2008-09 and 2011-12 which is below to industry average.

Year	Total Asset	Total Advance	Ratio
2007-08	110437	75156	0.68
2008-09	124806	89252	0.72
2009-10	154342	116057	0.75
2010-11	199950	138848	0.69
2011-12	236833	160890	0.68

Source: Annual Report of Prime Bank Ltd (2008-2012)

### c) Debt Equity Ratio

The ratio indicates the degree of leverage of a bank. It shows how much of a bank business is financed through debt and how much through equity (Maheswari). The ratio is arrived at by dividing total borrowing and deposit by shareholders net worth which includes equity capital, reserve and surplus. Bank capital can absorb financial shock. In case asset value decrease or loans are not repaid bank capital provides protection against those loan loss. A lower debt equity ratio is good sign for a bank. (Samad and Hasan). The below table indicates high debt equity ratio of prime bank ltd. The table shows that the ratio was highest in 2007-08 and lowest in 2009-10.

Year	Debt Equity Ratio
2007-08	93.55
2008-09	89.41
2009-10	87.70
2010-11	89.44
2011-12	90.38

Source: Annual Report of Prime Bank Ltd (2008-2012)

## VII. CONCLUSION

From above table we see that prime bank manages regulatory requirement in terms of capital adequacy. The capital adequacy ratio is above 10% in each year. Loan to asset ratio is satisfactory. But a debt equity ratio is very high. Since bank financial institution is highly levered and different from other firms and lion portion of bank fund coming from deposit. The suggestion for the bank to increase equity contribution for sustainability. Finally we can conclude that prime is performing well.

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# An Empirical Analysis of Trends in Financial Intermediation and Output in Nigeria

By Andrew O Agbada & Osuji C.C.

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**Abstract** - Financial Intermediation, as a process involves the transformation of mobilized deposits liabilities by financial intermediaries such as banks into bank assets or credits such as loans and overdraft. This paper seeks to analyze empirically the trends in Financial Intermediation and Output (GDP) in Nigeria from the banking crises period beginning from 1981 to 2011. In doing so, the study used the endogenous components of financial intermediation such as Demand Deposits (DD), Time/Savings deposits (T/Sav) and Credits (Loans and Overdraft) as explanatory variables to predict the outcome of our dependent variable Output (GDP). Data were sourced from CBN statistical Bulletin, 2011 and regression estimation was carried out using IBM SPSS statistics 20. The findings suggests that though there exist a positive growth relationship between financial intermediation and output in Nigeria, there also exist elements of negative short-run growth relationship, especially for the periods that suffered financial shocks resulting from the global financial crisis and perhaps, numerous bank failures. These findings may serve to buttress existing research outcomes and will be relevant to regulatory authorities in formulating policies that are capable of positively enhancing financial intermediation and output growth in the economy.

**Keywords** : *financial intermediation, output (GDP), demand deposit, time and savings deposit, bank credits, nigeria.*

**GJMBR-C Classification** : *JEL Code: G01, F65*



ANEMPIRICALANALYSISOF TRENDSINFINANCIALINTERMEDIATIONANDOUTPUTINNIGERIA

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## I. INTRODUCTION

The attainment of a steady, viable and speedy economic development in any nation is essentially a function of the availability of monetary assets in the economy. Sanusi (2002), opined that the 'availability of investible funds is a key factor in the growth process of any economy. Although not a sufficient condition, resource availability is certainly a necessary condition for output and employment growth. Indeed, there is ample evidence to show that countries that have enjoyed or are enjoying economic prosperity have been linked with an efficient mechanism for mobilizing financial resources and allocating same for productive investment.' Efficiently managed financial intermediation process contributes immensely to a vibrant financial system, higher levels of output, employment, and income and through that enhances the living standards of the citizenry. This no doubt explains why special attention is being focused on financial intermediation by

economic players in recent times. By definition, Financial Intermediation is a process whereby a financial intermediary such is a bank mobilizes and con-solidates bank deposits and transforms the mobilized or consolidated deposit money into bank credits, usually loans and overdraft. It is simply the process of taking in money from depositors and then lending same out to borrowers for investment and other economic development purposes. The process allows financial institutions acting as intermediaries channel funds from surplus economic units (individuals and firms having surplus savings) to deficit economic units (firms and businesses in need of funds to carry out desired business activities). Relatively, it involves the conversion of bank largest liabilities (deposit liabilities) to bank largest interest earning assets (bank credits which includes majorly loans and overdrafts).

It is very obvious that the definitions of financial intermediation above are structured around financial Institutions commonly referred to as 'financial intermediaries' and from that, we deduce that the intermediaries are central institutions for economic growth and development. This brings to fore their importance. In its broad sense, the term 'financial intermediary' does not only refer to banks as it is often being misconstrued, may be, for reason that overwhelming proportion of business funds financed externally comes from banks but also integrates all financial institutions that play intermediary roles in an economy. This rather new scholarly thinking is the fallout of the financial crisis of 2008 – 2009 that compelled management scholars to attempt to redefine financial intermediation in a more comprehensive manner to embrace all and sundry institutions. According to Nicola, Benjamin and Lindsay (2012), a new narrative has emerged, describing intermediation as a decentralized rather than a bank-centered system, one in which the matching of the supply of and demand for funds occurs along an extended credit intermediation chain, with specialized markets and non-bank institutions playing a part along the way'. What is common and of great interest in these definitions is the determinant of the endogenous components of the process; the deposits mobilized in the form of Demand Deposit, Time deposits and Savings deposit as well as funds application or allocation in the form of Loans and Overdraft. From the foregoing were financial intermediation variables derived which include Demand

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Deposit (DD), Time/Savings deposits (T/Sav) and Loans/Overdraft (L/O).

The concept of Output is absolutely important in the field of macroeconomics, essentially, as it relates to the economy of nations. Output is defined as the quantity of goods and services produced in a country at a given period of time, whether consumed or used for further productive investments. It may also be defined as the total value of all goods and services produced in a country in a given period of time, usually a year. Officially, Gross Domestic Product (GDP) is the most popular measure of the output of a country. GDP indicates the market value of all officially recognized final goods and services produced within a nation at a specified time period. The relevance of GDP in every economy cannot be overemphasized because it is the major indicator of a country economic growth and the living standard of its citizens. Indeed, the best index to understand a country's economy is by looking at its output in terms of Gross Domestic Product (GDP). By global standard, it is output that shows how rich and viable a country is economically, thus a country may be said to be in recession if its output (GDP) growth is negative for three consecutive years and when critically assessed, three consecutive quarters.

#### a) *Statement of the Problem*

There seems to be a consensus in theoretical and empirical literatures that financial development can influence and foster output development, that there is a visible correlation between financial intermediation and economic growth, economic growth being synonymous to Output or GDP growth and that financial intermediation facilitates the efficiency of the financial system of any nation. These core economic facts appear to be eluding the Nigerian situation because the Nigerian banking industry in recent times has undergone series of financial turbulence and capital adequacy problems, the consequences of which appear to cast doubts on the role of financial intermediation on the economy. From the foregoing, this paper seeks to analyze empirically the trends in Financial Intermediation and Output (GDP) in Nigeria from the banking crises period beginning from 1981 to 2011. In doing so, the study used the endogenous components of financial intermediation such as Demand Deposits (DD), Time/Savings deposits (T/Sav) and Credits (Loans and Overdraft) as explanatory variables to predict the outcome of our dependent variable Output (GDP).

#### b) *Limitation of Study*

The study though has implications for global economy as a result of the interplay between economics aggregates such Deposits, Savings, Credits and Output in every nation's economy, it is however limited to the Nigerian economy as data employed in our regression estimations sourced from the Statistical Bulletin of the

Central Bank of Nigeria (CBN), 2011 relates solely to the Nigerian economy.

#### c) *Hypothesis*

To enable us make justifiable inferences, the following null hypothesis will be tested using our regression estimation results.

Ho1 : There is no significant relationship between Financial Intermediation and Output (GDP) in the Nigerian.

This concludes the introductory aspect of this study and the rest of this paper is organized as follows. Section 2 reviews related literatures to the study, section 3 presents the research methodology and model specification, section 4 deals with data presentation, graphic representation and analysis of empirical results while section 5 is summary, conclusion and recommendations.

## II. REVIEW OF RELATED LITERATURES

Deductions from theoretical and empirical literatures have vividly evidenced that financial development can influence output development and that financial intermediation is crucial to the functioning of the financial system of any nation, acting as a pivotal instrument of economic growth. Thus the efficiency of the financial system of every nation could be said to hinge largely on financial intermediation process because it plays very vital and proactive roles in ensuring capital accumulation necessary for productive investments and development. As a matter of fact, the global financial system and the business of banking in particular flourishes on financial intermediaries' abilities to receive deposit at low interest rate and lend them at a pretty higher rate of interest to businesses. Precisely, this is the fundamental function of financial intermediation. The economic role of financial intermediaries in acting as conduit for the conversion of deposit liabilities mobilized at low interest rates into monetary assets for financing productive investments obtained at relatively high rates of interest is crucial for economic development and growth, particularly that it creates a wide profit margin that allows for the sustenance of banking business and serve as a source of funding for businesses. According to Nieh et al (2009), financial intermediation drives economic growth. Ho (2005) reinvigorates McKinnon (1973) and Shaw (1973) argument that financial development can foster economic growth by raising savings, efficiently improving the allocation of loanable funds and promoting capital accumulation. Yours truly, the concept of financial intermediation has attracted discussions at various sphere of financial studies that there appear to be a consensus in theoretical and empirical literatures that it has some underlying economic functions at both the macro-economic and microeconomic levels.

A number of research studies that have been focused on financial intermediation and economic growth; economic growth being synonymous to growth in output or GDP, evidenced a positive correlation between the duos. For instance: Shittu (2012) referring to Schumpeter (1911), concurred that the services provided by financial intermediaries --- mobilizing savings, evaluating projects, managing risk, monitoring managers, and facilitating transactions are essential for technological innovations and economic development. On his part, Odedokun (1998), in his analysis of seventy one Less Developed Countries (LDCs) for the period 1960 to 1980 contend that even though financial intermediation promotes economic growth, the growth-promoting effects are more pronounced in the low-income countries. To what extent this finding is justified is not intended to be argued here but the underlying fact is that financial intermediation influences output positively in terms of economic growth. Levine, Loayza, and Beck (2000) appear to re-invigorate the debate on the relationship between financial intermediation and economic growth on a new path. In their research study on the impact of the endogenous component of financial intermediation on economic growth which consisted of two models, they vehemently affirmed that there is a strong positive relationship between the endogenous components of financial intermediation and economic growth but noted that countries with high priority for creditors' protection, strong will to enforce contracts, and unambiguous accounting standards have the potential for a developed financial intermediation.

Financial intermediation provides a range of portfolio options for savers with surplus funds and financial intermediaries as well. Financial intermediaries are able to augment their capacity to finance businesses and contribute positively to the economy in general through the process. The economics of financial intermediation are structured and based on the fundamental roles of financial intermediaries. Besides pooling the resources of small savers and efficiently allocating same to deficit economic units for productive investments, financial intermediaries provide safe-keeping modalities for real money balance in deposit accounts and facilitate transaction, exchange and specialization. They provide liquidity and operate the payments system of nations. Liquidity defined as the readiness of an asset to be easily and cheaply converted to a means of payment; provision of liquidity is said to arise when financial intermediaries transform various financial assets into a means of payment through the use of debit/ATM cards and negotiable instruments such as cheques employed as payment device. From these roles of financial intermediaries endue by financial intermediation process, we may want to conclude that financial intermediation supplies recourses to brace the provision of liquidity to business

firms and so acting, rejuvenates the entire economy. In the words of Holmstrom and Tirole (1998), financial intermediation stimulates the funding of liquidity needs through credit lines.

Benston and Smith (1975) posit that financial intermediation mitigates the costs associated with information acquisition and the conduct of financial transactions. Information acquisition and the conduct of financial transactions are some other excellent roles of financial intermediaries operating within the financial systems of nations. Financial Intermediaries role in reducing costs associated with information acquisition and the conduct of financial transaction may come in several ways. For instance, a banking institution investigates a potential firm's credit proposal and financial statement before lending and since that is an area of specialization for banks, there is the likelihood that the cost of obtaining such information will reduce drastically, their expertise being brought to bear. Again, Banks have the duty of monitoring credit facilities granted and once the loan is granted, the bank has the responsibility to ensure that the borrower does not engage in risky activities that could lead to default and in this way financial loss is being mitigated. Besides, requesting potential borrower to pledge assets as collateral security to fall back on or cushion the effect of default does not only scale down credit risk but also protects the bank from total financial loss and eliminate or reduce moral hazard problems. Moreover, financial intermediaries, especially banks, ethically act prudently as experts in collecting and processing information in order to accurately gauge the operational and allied risks of various transactions and investments and to price them accordingly. Expressly or impliedly, these economic roles of financial intermediaries performed through the process of financial intermediation are aimed at influencing or enhancing output in a number of ways.

Basically, the relationship between the endogenous component of financial intermediation, particularly the Deposit elements and Output can best be explained from the fact that deposit funds are the primary source of capital accumulation. The magnitude of mobilized deposits available as capital funds influences and determines the level of investments; boosts economic activities and subsequently causes growth in the level of output. Quijano and Quijano (2003) put it this way; the interactions between output and capital have two important relations in the long run: the amount of capital determines the amount of output being produced and the amount of output determines the amount of saving, investment and accumulated capital. The other endogenous component of financial intermediation that strongly influences output is banking credits (loans and overdraft). Based on theoretical evidences, they contribute immensely to the productive capacity of an economy in several ways. In developed

and emerging economies banking system credits spurs innovative economic development by financing productive investments, provides real money balance which constitutes a major source of liquidity that facilitates and lubricates business transactions and perhaps, specialization. Agbada (2010) opined that banking system credit plays a very significant role in businesses and even in financing government investment. Credits are used to facilitate commerce, manufacturing, construction, and mining and provide capital for Small and Medium Enterprises (SMEs) in an attempt to enhance growth in the economy.

### III. RESEARCH METHODOLOGY

#### a) *The Model Variables*

It may be necessary to reiterate here that the Nigerian banking industry in the last three decades has undergone series of financial turbulences: capital adequacy problems, distresses, liquidations, global financial crisis, rescue mission, outright buyout, merger and acquisitions, the consequences of which appear to cast doubts on the role of financial intermediation in the economy. Thus, in this study, we attempt to analyze empirically the trends in Financial Intermediation and Output (GDP) in Nigeria from the banking crises period beginning from 1981 to 2011. It used the endogenous components of financial intermediation such as Demand Deposits (DD), Time/Savings deposits (T/Sav) and Credits (Loans and Overdraft) to predict the outcome of our response variable Output (GDP).

From the foregoing were our independent or explanatory variables adopted which are the endogenous components of financial intermediation, namely, Demand Deposit (DD), Time/Savings deposits (T/Sav) and Loans/Overdraft (LOD). The dependent or explained variable is Output measured in terms of Gross Domestic Product (GDP). Universally, GDP is the indicator of the market value of all officially recognized final goods and services produced within

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + u \quad (2)$$

Where: Y = Dependent variable representing Output (GDP) in this study  $\beta_1; \beta_2 \dots \beta_n$  = Independent variables' coefficient, in this study, the parameters for DD, TSav and LOD representing the endogenous components of financial inter-mediation.

$\beta_0$  The intercept. The intercept represents the expected value of the dependent variable (Output) when all the independent variables assume zero as value.

u = Random disturbance.

Our empirical analysis formula in this study is modeled after equation 2 above, In it, we attempt to use our explanatory variables, the endogenous components of financial intermediation, namely, Demand Deposits (DD), Time/Saving deposit (TSav) and Loans and Overdraft (LOD) to predict the outcome of our response

a nation at a given period of time. The data obtained for these variables were analyzed or computed using IBM Statistical Package for Social Science (SPSS) Statistics 20.

#### b) *Theoretical Framework and Model Specification*

We utilized Multiple Linear Regression (MLR) equation to provide the formula for the line of best fit for our empirical model. Our choice of MLR is borne from the fact that it is a statistical technique that uses several explanatory variables to predict the outcome of a response or dependent variable and it models the relationship between the explanatory and response variables. In general terms the relationship between the variables may be stated as shown in equation 1 below.

$$Y = f(X_1, X_2, X_3) \quad (1)$$

Where: Y = The dependent variable; representing Output (GDP) and

$X_1; X_2; X_3$  = The independent variables being represented by the endogenous components of financial intermediation namely; Demand Deposit (DD), Time/Savings deposits (TSav) and Loans/ Overdrafts (LOD) respectively.

From theories, we deduce that MLR model takes a group of random variables and tries to find a mathematical relationship between them, creating a linear relationship in the form of a straight line that best approximates or fit all the individual data points. Oaikhenan and Ojamieruaye; (2001;53) opined that there exist a stochastic relationship between a variable Y and a set of other variables (say,  $X_1; X_2; X_3 \dots \dots \dots X_n$ ); that the Y referred to as the dependent variable could be explained in terms of other observed variables, ( $X_1; X_2; X_3; \dots \dots \dots; X_n$ ) known as the independent variables, and an unobserved random disturbance term usually denoted by u'. From the foregoing, a general Multiple Linear Regression (MLR) model may be written as shown below in equation 2.

or dependent variable Output (GDP). For ease of discussion, these explanatory variables have been classified into two broad groups --- 'Deposits and Credits'; 'Deposits' combines Demand deposit, Time deposit and Savings deposits and Credits refers majorly to Loans and Overdraft. Deposits and Credits are vital and effective ingredients of Output growth as here under evaluated.

From theoretical literatures, we deduced that Deposits have extremely strong impact on Output, though the relationship appeared indirect in the sense that Deposits and Output relates in terms of the interaction between Output and accumulated Capital needed to finance the productive sector of the economy. While it is agreed that Demand Deposit is

essentially meant to serve the liquidity needs of businesses, the unused proportion of it together with Time and Savings deposits constitute the primary sources of accumulated Capital funds for entrepreneurs. The magnitude of accumulated Capital available for productive purposes positively influences the magnitude of Output that could be produced. In other words, the higher the accumulated Capital, the higher the Output produced. Reciprocally, in a cyclical manner, it is also true that the magnitude of Output produced has positive impact on the amount of Savings and other economic activities and subsequently on capital accumulation, and in turn, further higher Output. This phenomenon is responsible for the gradual, steady and continuous economic growth of emerging and developed economies. Okorie and Uwaleke (2010) argued that the financial systems that are more effective at pooling the savings of individuals can profoundly affect economic development; better savings mobilization impact positively on capital accumulation and that can improve resource allocation and boost technological innovation.

On the other hand, availability of banking system credits in the form of advances, loans and overdraft have profound impact on the real economy. Emerging modern economies of the world are credit economies. Advancement in technological innovations and complexity of modern businesses have made transactions to be facilitated by a number of credit instruments such commercial papers, documentary

letter of credit, leases, bonds, banker acceptance, bill discounting, electronic credit cards et cetera. For its ability to boost economic activities and facilitates transactions, banking system credit is now being regarded as the oil in the wheels of commerce and industry. It constitutes a major source of liquidity for financing businesses in general and aids households in their bid to satisfy their consumption needs. Theoretical and empirical evidences exist to affirm that a significant change in the volume of credit has the ability to cause a positive and significant change in Output produced. Nzotta (2004) was affirmative on this and concludes that bank credits influence positively the level of economic activities in any country. It influences what is to be produced, who produces it and what quantity is to be produced. Banking system credit affects and alters the level of money supply in an economy. It is the most important source of bank income and it promotes the activities of bank and non-bank financial institutions, thus, it influences the level of growth of the financial system. It also affects aggregate output and productivity, the pattern of production, the efficiency of entrepreneurship and the realization of aggregate economic performance, development and growth.

Based on the foregoing we specify an empirical model to link our dependent or explained variable, Output (GDP) and our independent or explanatory variables; Demand Deposit (DD) Time/Savings deposit (TSav) and Loans and Overdraft (LOD) as below:

$$GDP = \beta_0 + \beta_{1DD} + \beta_2 TSav + \beta_3 LOD + u \quad (3)$$

Where: GDP = Gross domestic product (Output)

DD = Demand Deposit; TSav = Time/Savings deposit; and LOD = Loans/Overdraft

$\beta_1$ ;  $\beta_2$ ;  $\beta_3$  = Independent variables' coefficient, that is, the parameters for DD, TSav and LOD representing the endogenous components of financial intermediation.

$\beta_0$  The intercept. The intercept represents the expected value of the dependent variable (Output) when all the independent variables assume zero as value.

$u$  = Random disturbance;

The apriori expectations with respect to signs are:  $\beta_0 > 0$ ;  $\beta_1 > 0$ ;  $\beta_2 > 0$  and  $\beta_3 > 0$

#### c) *Statistical Parameters for the Interpretation of our Empirical Results*

The empirical results obtained from the regression estimation were interpreted using;

- i. The Pearson Correlation coefficient which serves to measure the strength of linear relationship between variables.
- ii. The t-test coefficients of the independent variables which attest to the individual significance of the independent variables,
- iii. The adjusted R square (R<sup>2</sup>) referred to as the coefficient of determination. Barenson and Levine (1998), affirmed that R<sup>2</sup> measures the proportion of variation that is explained by the independent variables in the regression model and

- iv. The F-statistics of the Analysis of Variance (ANOVA). The F-statistics indicates the overall significance of the model, that is, it shows the general or overall effect of all the independent or explanatory parameters on the dependent or explained variable. According to Oaikhenan and Udegbanan (2005), F – statistics enables us compare the magnitude of the difference between two quantities. The question we seek to answer in ANOVA is: is the magnitude of this difference enough to lead us to dismiss the null hypothesis as untrue?



#### IV. DATA PRESENTATION AND EMPIRICAL ANALYSIS

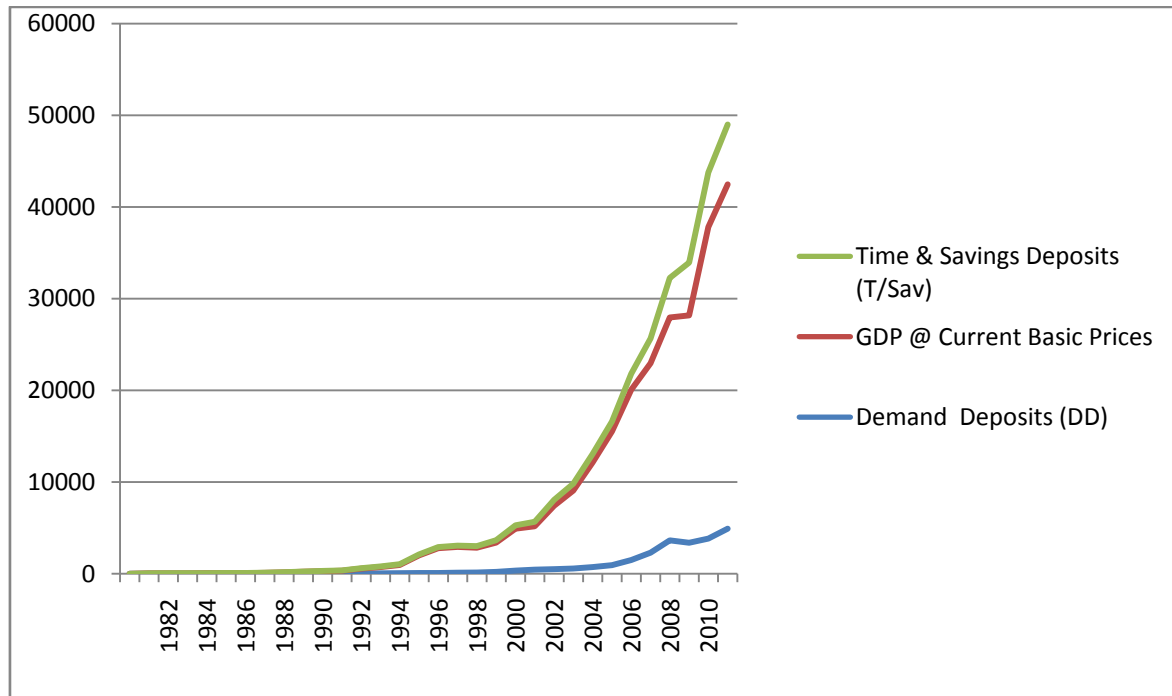
##### a) Data Presentation

Our data are presented on a tabular form as per table 1 in the appendix and subsequently patterned graphically to showcase the trends in financial intermediation endogenous variables and Output (GDP) as per figures 1 and 2 below.

##### i. Graphic Representation of Data

Our empirical model in equation 3 above has altogether four variables, namely, GDP, Demand

deposit, Time/Saving deposit and Loans and Overdraft. The data for these variables are as presented in table 1 above. Owing to the limitation of our computer software (window 7 ultimate) used for computing the graphic representation, all four variables could not be presented at once, but three of the four variables are displayed on each graph at a time. Thus, we present two graphs to comprehensively drive home our views.

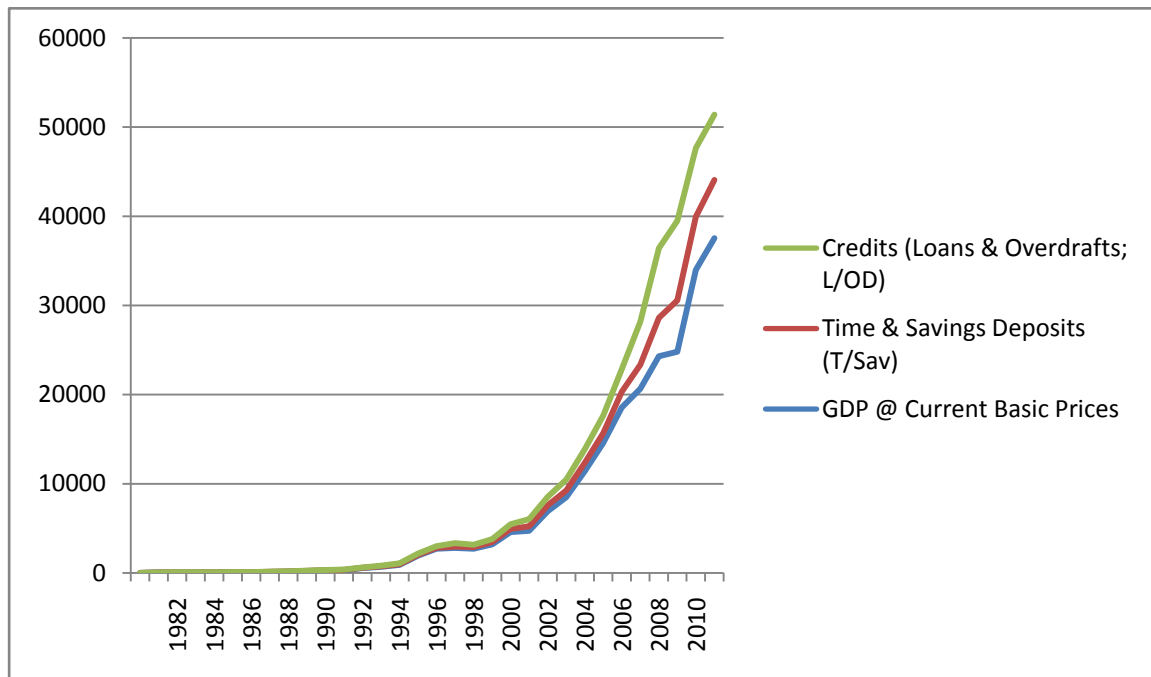


Source : Author's graphical representation, 2013

Figure 1 : GDP; Demand Deposit and Time/Savings Deposit

The graphic representations of data obtained yielded robust results that stimulated interest and discussion on two fundamental economic view points. First, it reflects the true state of the Nigerian economy for the period under review. Umoh (2005) ascertained that the banking sector in Nigeria experienced severe distress in the late 80s and early 90s and that the prolonged oil glut that started in mid 1981 resulted in economic down turn such that the financial condition of firms and individual worsened. The resultant consequences were that firms were unable to honour their contractual obligations of loan repayment to banks, thus impairing bank's portfolio quality, leading to asset impairment and write-offs'. This low state of the economy between 1981 and 1994 is clearly visible in figure 1 as all the variables on zero dragged along x-axis indicating that financial intermediation and output growth were also impaired during this period. The boom

in the activities of banks took effect with the implementation of some economic reforms. Umoh (2005, 8/9) contends 'that The Structural Adjustment Programme (SAP) introduced in 1986 led to the robust growth rate of the Gross Domestic Product (GDP) which averaged 6.8 percent annually from 1988 to 1992. By 1999, the total assets crossed the trillion naira mark while deposits crossed same mark in 2001. By the end of 2004, total deposits stood at N1.8 trillion while total assets had significantly increased to N4.04 trillion.' Umoh's assertion perfectly conformed to the simultaneous upward movement of all variables in the graphs from 1999, depicting that increased economic activities culminated into higher amounts of mobilized deposits and that transformed into higher amount of accumulated capital funds most needed to boost the level of investments and subsequently cause growth in the level of Output.



Source : Author's graphical representation, 2013

Figure 2 : GDP; Time/Savings deposit (TSav) and credits (loans/Overdraft (LOD))

In addition to the aforementioned economic scenario, the 2004 re-capitalization reform also reinvigorated competitiveness in banking business that resulted in rapid growth of financial intermediation, vis a vis, growth in Deposits and Credits with the ultimate goal of achieving corresponding growth in Output. As a matter of fact, one variable that experienced awesome growth but whose growth was threatening to economic realities was Credits granted by banks. The gains of re-capitalization appeared to have been utilized to advance credits channeled majorly to the private sector for consumption. This is evidenced by the growth characteristics of credits which as figure 2 shows grew faster than other variables in the model. CBN Statistical Bulletin (2007) revealed that the aggregate credit (net) disbursed by Banking Service Providers (BSPs) to the domestic economy in Nigeria grew from N171,071.00 million in 1992 to an astronomically high figure of 5,857,572 million, with credit to the Federal Government standing at on a negative balance of N9,954,984 million in 2007. Specifically, the records showed that an inconceivable large sum of N15,558,801 million (over 15 trillion in real terms) representing the largest proportion of total credits was channeled to the private sector alone. In economic forum, funds channeled to the private sector are usually for consumption, thus portraying that the Nigeria economy is consumption based. Agbada (2010, 34) observed from available records that Nigerian banks presently find solace in lending to private salary earners rather than lend to companies and SMEs operating under stress of

inadequate infrastructures, poor roads, epileptic power supply, inadequate water supply et cetera. As a result, majority of bank products these days are aimed at individuals. These come in the form of personal loans, utility loans auto loans, asset acquisition loans, LPO finance, Cash-Overdraft-Against-Salary-Treasure (COAST) et cetera. Consumption centered economy negates Cobb-Douglass production function and cannot influence Output or economic growth favourably. This may explain why GDP had the smallest growth rate in figure 2. It may be noted that the variables in figure 2 completely reflects the trend in financial intermediation and output in Nigeria and from their simultaneous growth characteristics, we may deduce that financial intermediation influences Output in Nigeria.

Secondly, the graphic representations conformed excellently to the theoretical literature reviewed. We stated earlier that demand deposits are essentially to meet liquidity needs of businesses and for that reason; its contribution to accumulated capital is minimal. This coupled with the frequency of demand; DD exhibited dwindling growth characteristics all through the period under review as shown in figure 1. The non concurrent growth characteristic of DD and GDP may be interpreted to mean the exclusion of DD from funds utilized as capital funds for investment and productive purposes, thus having minimal effect on Output (GDP).

Finally, on a critical survey, it is observed that all the variables in the graphs exhibited slight distortion, downward movement in 2008, picking again in 2010.



This no doubt, reflects the recessional effect of the global financial crises commonly referred to as 'global meltdown'. It indicates that the slight downward growth of financial intermediation caused by the global financial crisis influenced a downward growth in output also; asserting the responsiveness of the effect of changes in financial intermediation on Output. From the foregoing, we deduce again that financial intermediation has significant and positive influence on Output (GDP) in Nigeria.

b) Empirical Analysis

i. Pearson Correlation Coefficient Matrix

Table 2 below presents Pearson correlation coefficient matrix for all the variables. Correlation coefficients serve to measure or attest to the strength of the linear relationship between the variables.

Table 4. 2 : Pearson Correlation Coefficient Matrix of variables

	GDP	DD	TSav	LOD
GDP	1.000			
DD	0.975	1.000		
TSav	0.962	0.988	1.000	
LOD	0.943	0.974	0.980	1.000

Source : Author's computation using IBM SPSS Statistics 20; 2013

The correlation coefficients of all the variables are very high, indicating that there exists a strong linear relationship between them. These statistics suggests the existence of a strong linear relationship between Output and the independent variable, Demand Deposit (DD), Time/Savings deposits (TSav) and Loans/Overdrafts (LOD) on one hand and there also exists a strong linear relationship between the independent variable on the other hand . The least of the coefficients is that between Loans/Overdraft (LOD) and Gross Domestic Product (GDP). It stood at .943, meaning that the linear

relationship between LOD and GDP is 94.30%. This conforms to apriori expectation and suggests that a significant change in the volume of credit has the ability to cause a positive and significant change in Output produced.

The most outstanding and probably the most significant correlation coefficient is that between Time/Saving deposits and Demand deposit. This remarkable coefficient stood at .988 indicating that these two endogenous variables of financial intermediation are strongly related and 98.80% interwoven, meaning that their interaction is significant to capital accumulation and thus to output growth. Between the least coefficient of .943 and the outstanding coefficient of .988 lie all other coefficients and these statistics indicate the existence of strong linear relationship between the variables. Based on these relatively high correlation coefficients between the variables, we reject the Null hypothesis of no relationship and accept the Alternative hypothesis of a relationship. We therefore conclude that there is a strong linear relationship between financial intermediation and Output (GDP) in Nigeria.

ii. Regression Analysis: Hypothesis Testing

The empirical results for this study are as displayed below in tables 4.3 to 4.5. In our regression estimation, Output (GDP) was regressed on its determinants, the endogenous components of financial intermediation, namely, Demand Deposit (DD), Time/Savings deposits (TSav) and Loans/Overdrafts (LOD). As earlier mentioned, the t-test coefficients, the coefficient of determination, R square (R2) and F-statistics parameters serves to test our hypothesis. It states thus:

Ho1: There is no significant relationship between financial intermediation and output (GDP) in the Nigerian.

Table 4. 3 : Coefficients (a)

Model	Unstandardized coefficients		Standardized coefficient	T	Sig.
	B	Std Error	Beta		
1(constant )	1398.621	522.133		2.679	.012
DD	8.452	2.199	1.073	3.843	.001
TSav	.153	1.771	.027	.086	.932
LOD	-.506	.852	-.128	-.594	.557

Source : Regression Analysis Report using IBM SPSS Statistics 20 Dependent variable: GDP

Table 4. 4 : Model Summary (b)

Model	R	R. squared	Adjusted R Squared	Std Error of the Estimate	Durbin Watson
1	.975 a	.951	.946	2481.056	.814

Source : Regression Analysis Report using IBM SPSS Statistics 20

- a. Predictor (constant), LOD, DD, Tsav
- b. Dependent Variable GDP

Table 4. 5 : ANOVA (a)

Model	Sum of Squares	df	Mean Squares	F	Sig.
Regression	3250953790.603	3	1083651263.534	176.042	.000 b
1 Residual	166202234.171	27	6155638.303		
Total	3417156024.774	30			

Source : Regression Analysis Report using IBM SPSS Statistics 20

The empirical results obtained from our regression estimation showed overall significance of the model; however, the parameters of some of the explanatory variables appear controversial. The coefficient of Demand Deposit (DD) at 8.452 is the best in the model but it is in a way controversial in the sense that it is theoretically believed that a large proportion of demand deposit is essentially meant to meet liquidity needs of business firms. The coefficient exhibited a positive sign and it is greater than zero in value. That result coupled with a t-test parameter of 3.843 suggests that it could be considered as being very relevant to policies that are formulated to affect Output (GDP). Never-the-less, the result has its significance and that may be derived from the fact that the Management of banks seldom employs the Pool-of-funds strategy in allocating available resources to the various classifications of bank assets. The fundamental principle of this strategy is that funds from all available sources are gathered together to form a pool and from the pool, allocations are made to various economic units or asset groups. The implication of this is that since the Pool-of-funds strategy emphasizes priorities stated in general terms, the proportion of DD in the pool may have contributed immensely to accumulated capital utilized for investment purposes and this may be significantly huge enough to influence Output positively.

The coefficient of Time/Savings deposits variable exhibited a positive sign and with a positive t-test parameter of .086, suggests that Time/Saving deposit (T/Sav) can be considered as being relevant to policy formulated to affect Output. Indeed, the positive sign conforms to apriori expectation, thus affirming the theoretical assertion that Time deposit and domestic Savings are the primary source of Capital accumulation. However, the variable failed the test of statistical significance at all significant levels and thus casting doubts on its relevance to policies that are formulated to affect Output (GDP).

More controversial is the empirical result exhibited by Loan/Overdraft (LOD) variable. The coefficient of LOD variable and the t-test parameter of -.594 exhibited negative signs in this regression estimation suggesting that Loans and Overdraft cannot be relevant to policy that are formulated to affect Output. This empirical finding counters apriori expectation absolutely. The result brought to fore the implication of inefficient allocation of bank resources particularly mobilized deposit funds being transformed to loans through the process of financial intermediation. CBN

Statistical Bulletin (2007) indicated that the banking system credits granted to only the Private sector of the Nigerian economy grew from 76,098.7 million in 1992 to a tremendous sum of N15,558,801 million in 2007, that is, over fifteen trillion naira. This represents the largest proportion of total credits disbursed to the domestic economy in Nigeria. The private sector in Nigeria consists mainly of private companies, Small and Medium Enterprises (SMEs) and households and since private companies and SMEs lack necessary collateral to secure bank loans, it could be deduced that over fifteen trillion naira credits were channeled to households who are salary earners for consumption. This portrays the Nigeria economy as consumption based. From theoretical literatures, a consumption centered economy negates Cobb-Douglass production function and cannot influence Output or economic growth favourably. Viewed from this perspective, there are therefore ample reasons why the LOD variable failed the test of statistical significance at all significant levels. The results may be the subtle reflection of the Nigerian economy and that calls for policy reforms to correct the trend. With the t-statistics of -.594 in this regression estimation, LOD cannot be considered as being relevant to policies that are formulated to affect Output (GDP).

However, we found solace in the empirical results exhibited by the coefficient of determination, the R square (R<sup>2</sup>). The R<sup>2</sup> coefficient of the model stood at .951 and that indicates that the explanatory variables accounted for 95.10% of systematic variations in Output GDP. In other words, 95% of the dependent variable, GDP, was explained by the independent variables namely, Demand Deposit (DD), Time/Savings deposits and Loan/Overdraft (LOD). This outstanding result is complemented by an equally good F-Statistics result. The F-statistics shows the overall significance of the estimated model and for this study, the F – statistics of the model stood at 176.042, the magnitude of which is considered huge enough to reject the null hypothesis of no relationship and accept the alternate hypothesis of a relationship. Based on the R square (R<sup>2</sup>) and F-Statistics results, we conclude that the estimated model passed the test of overall significance at all significant levels.

## V. SUMMARY, CONCLUSION AND RECOMMENDATION

This research study is an empirical analysis of the trends in Financial Intermediation and Output in Nigeria from the banking crises period beginning from 1981 to 2011. As an economic phenomenon, the

process of financial Intermediation involves the transformation of mobilized deposits by financial intermediaries such as banks into credit facilities such as loans and overdraft for productive purposes. Thus, the study explained the impact of financial intermediation on Output (GDP) using the endogenous components of Financial intermediation such as Demand Deposits (DD), Time/Savings deposits (T/Sav) and Credits (Loans and Overdraft) as explanatory variables. Data for the empirical estimation were sourced from CBN statistical Bulletin, 2011, presented first in a tabular form and subsequently patterned graphically to visibly showcase the trends in the variables and the regression estimation was carried out using IBM SPSS statistics 20. Generally, the findings from both the graphic representation and the empirical analysis were quite robust; however some parameters of our explanatory variable especially, LOD counters apriori expectation which appear to cast doubts as to LOD relevance in formulating policy that could affect Output (GDP). However, viewed from another angle, LOD variable though failed the test of statistical significance at all significant levels may be the subtle reflection of the Nigerian economy which calls for policy reform. That-notwithstanding, the R2 coefficient of the model stood at .951 and that indicates that the explanatory variables accounted for 95.10% of systematic variations in Output (GDP) and the F-statistics which shows the overall significance of the estimated model stood at 176.042, the magnitude of which is considered huge enough to reject the null hypothesis of no relationship and accept the alternate hypothesis of a relationship.

In conclusion, these empirical findings clearly indicate that there is significant relationship between financial intermediation and Output (GDP) in Nigeria but whatever strategy that is being adopted for the allocation of resources in the form of credit facilities must be reviewed. The implication of the lopsided distribution of banking system credit to favour households in the Nigerian economy negates the principle of Cobb-Douglass production function because credits targeted at consumption do not impact or influence Output or GDP growth as other factors of production do.

Based on the forgoing, we strongly recommend that all economic stakeholders, monetary and regulatory authorities in particular should combine efforts and formulate policies aimed at improving financial intermediation process and entrench modalities for reversing the consumption-based economy in order to achieve favourable productive-based economy and viable growth of GDP. Such policies must include ways and means of effective implementation, monitoring and sanction on erring operators particularly with respect to credit allocation. The need for government to ensure the existence of a vibrant and an efficient financial system

that promote financial intermediation process cannot be overemphasized. Besides, with the advent of modern technologies in businesses, the workforce must consistently be trained and retrained to brace up with new and innovative ideas on modalities and methodology of allocating available recourses for productive purposes.

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## APPENDIX

*Table 4. 1* : Output (GDP), Demand deposit, Time/Savings deposit and Loan/Overdraft data; 1981 - 2011

Years	Demand Deposits (DD) N' Billion	GDP @ Current Basic Prices N' Billion	Time & Savings Deposits (T/Sav) N' Billion	Credits (Loans & Overdrafts; L/OD) N' Billion
1981	4.88	47.62	5.80	8.58
1982	5.18	49.07	6.84	10.28
1983	5.86	53.12	8.08	11.09
1984	6.34	59.62	9.39	11.50
1985	7.05	67.91	10.55	12.17
1986	6.65	69.15	11.49	15.70
1987	7.99	105.22	15.09	17.53
1988	10.67	139.09	18.40	19.56
1989	10.19	216.80	16.98	22.01
1990	15.59	267.55	23.19	26.00
1991	22.05	312.14	30.36	31.31
1992	33.26	532.61	41.78	42.74
1993	49.92	683.87	60.53	65.67
1994	65.35	899.86	77.19	94.18
1995	79.47	1933.21	99.49	144.57
1996	95.90	2702.72	118.46	169.44
1997	128.16	2801.97	141.68	385.55
1998	142.25	2708.43	172.05	272.90
1999	202.15	3194.02	274.20	322.77
2000	345.00	4582.13	357.10	508.30
2001	448.02	4725.09	499.16	796.17
2002	503.87	6912.38	653.24	954.63
2003	577.66	8487.03	759.63	1210.03
2004	728.55	11411.07	932.03	1519.24
2005	946.64	14572.24	1089.45	1976.71
2006	1497.90	18564.60	1747.25	2524.30
2007	2307.92	20657.32	2693.55	4813.49
2008	3650.64	24296.33	4309.52	7799.40
2009	3386.53	24794.24	5763.51	8912.14
2010	3830.28	33984.75	5954.26	7706.43
2011	4920.85	37543.66	6531.91	7312.73

Source : Central Bank of Nigeria (CBN) Statistical Bulletin,; Volume 22; Pages 44 – 50; 51 & 122 – 123; (2011)



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## Evaluation of Effective Factors on Auditing Fees

By Reza Daneshvar Bondari

*Payame Noor University, Iran*

*Abstract* - As one of the biggest challenges of auditing firms is to determine the auditing fees, evaluating the factors effective on their remunerations is of high importance.

The final results of this research show a meaningful relationship between the firm's size (scale), tenure (ownership) and consultancy services with the auditing fee.

*Keywords* : auditing fee, firm's size, tenure, consultancy services.

*GJMBR-C Classification* : JEL Code: M40



*Strictly as per the compliance and regulations of:*





# Evaluation of Effective Factors on Auditing Fees

Reza Daneshvar Bondari

**Abstract** - As one of the biggest challenges of auditing firms is to determine the auditing fees, evaluating the factors effective on their remunerations is of high importance.

The final results of this research show a meaningful relationship between the firm's size (scale), tenure (ownership) and consultancy services with the auditing fee.

**Keywords** : auditing fee, firm's size, tenure, consultancy services.

## I. RESEARCH HYPOTHESES

Following hypotheses are compiled to answer the questions under consideration:

- a) There is a meaningful relationship between the consultancy services and auditing fee.
- b) There is a meaningful relationship between the firm's size and auditing fee.
- c) There is a meaningful relationship between the tenure (ownership) and auditing fee.
- d) There is a meaningful relationship between the firm's size, ownership (tenure) and consultancy services with auditing fee.

## II. STATISTICAL POPULATION

The statistical population of this research is companies holding stocks in Tehran's Stock Exchange Hall.

The statistical population is selected by systematic omission and according to the following circumstances:

- a) These companies should have held stocks in Tehran's Stock Exchange at least since 1999.
- b) They should not be any financial institutions or investing companies.
- c) The selected companies should not have a change in their fiscal year between 1999 and 2008.
- d) The companies should have been engaged in dealing during the period they are being processed.

## III. METHODOLOGY

This research concerning classification is on the basis of purpose and its type is applicable research and inferential. Also, in this study, historical data are used to test the hypotheses; therefore, it is a type of quasi-experimental research. After calculating the independent and dependent variables and pre-processed data, research hypotheses based on linear regression analysis using SPSS software to be tested.

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### a) Independent Variants

#### i. Firm's size

The firm's size is measured in different ways, which here it is scaled by sale revenue. It is a main variant in explaining auditing fee changes in regression models that is shown by (sale).

#### ii. Ownership

According to representative theory, Chan et al. believe that the firm's different ownerships must conform to a broader and a better-quality auditing that is necessary for the least regulations. The ownership control is mostly considered when the sum of the subscribed and unsubscribed capital stocks exceeds the 5% of the published common stock. As there is no preferred stock in Iran, in this paper ownership (tenure) is defined as: in sampling, the companies whose stockholders possess 5% of the stocks are qualitatively shown by 1 and those that have a holder of less than 5% are shown by 0. Ownership variant is shown by (TOTsh) in this research.

#### iii. Consultancy Services

Although there is a threat in giving non-auditing services (consulting) to companies being audited and to the auditor's independence, auditing companies earn a large amount of their income by giving services to other companies. This income is an excess to the legal remuneration fees being received. However, it is assumed that the companies being audited may benefit from giving auditing services and fees out of information overlap. As Deburg et al believe "the total amount of the expenses of a company who provides services of both auditing and non-auditing is less than the expenses spent by one of the services of another auditing company." The consultancy fee paid to the auditor is shown by (cfee).

### b) Dependent Variant

The auditing fee is shown by (afee). The auditors provide services for the companies in return for their fees. There is a committee of non-pensioned members of the board of directors far from the auditing system of the firm. In their negotiation for auditing fees, auditors accept distinct responsibilities of the financial invoices effecting on revealing. The company's commitments are determined administrated in accordance with the regulations. These regulations are so important for the auditors as they highlight their responsibilities for the financial issues. This paper aims to evaluate the effect of above-mentioned factors on auditing fees when it is hard to determine. Here the

required data which are as follows are investigated: the firm's size (selling income), tenure (ownership), consultancy fee, auditing fee of the 4 fiscal years of 64 companies.

As the fee of all companies is easy to access these days, it is better to use in between the data to earmark r and s. So, according to percentiles we have:

Percentile	2006		2007		2008		2009		Average of 4 years	
	average	Regarding the 50 <sup>th</sup> percentile	average	Regarding the 50 <sup>th</sup> percentile	average	Regarding the 50 <sup>th</sup> percentile	average	Regarding the 50 <sup>th</sup> percentile	average	Regarding the 50 <sup>th</sup> percentile
10%	117	55%	128	55%	180	63%	187	56%	144	57%
20%	140	65%	163	70%	207	73%	220	66%	174	68%
30%	164	76%	183	79%	221	78%	245	73%	197	77%
40%	192	89%	198	85%	238	83%	268	81%	219	85%
50%	215	100%	232	100%	285	100%	333	100%	260	100%
60%	271	126%	285	123%	322	113%	424	127%	327	122%
70%	318	148%	343	148%	377	132%	499	150%	387	145%
80%	342	159%	385	166%	471	165%	595	179%	441	167%
90%	412	192%	461	199%	639	224%	710	213%	528	207%

As the table shows, we can consider the minimum of the triangular function as about 50% with the maximum of 2 times bigger than the values, which means:

#### IV. THE TEST OF RESEARCH HYPOTHESES

To test the research hypotheses, regression is used and to stabilize foundational circumstances the fee logarithm is used. Moreover, the unusable amount of the residual of the regression is recognized and deleted.

##### a) First Hypothesis

To examine the hypothesis, a fitting of the regression model of the consulting fee variant as well as the variant of the auditing fee is required. So, a model like what follows should be examined:

$$Afee_{it} = \beta_0 + \beta_1 Cfee_{it} + \varepsilon_{it}$$

In which we have:

$Afee_{it}$  : The auditing fee of the company in t year

$Cfee_{it}$  : The consultancy fee of the company in t year

$\varepsilon_{it}$  : The residual of the regression equation of the company in t year

The hypothesis can be rewritten as follows:

$H_0$  : In companies the consultancy fee does not have any effect on auditing fee

$H_1$  : In companies the consultancy fee does affect the auditing fee

To examine the hypothesis, according to the meaningfulness test of the regression and the regression equation coefficient, we will editorialize after giving the regression equation. The replacing hypothesis will be accepted if the zero hypothesis is refuted.

$$Afee_{it} = 5.674 - 0.140 Cfee_{it} + \varepsilon_{it}$$

According to the model above, the increase in consultancy fee has a direct influence on the increase in

auditing fee; but before it is extended to the sample whether it can be accepted must be evaluated.

The Klomogorov-Smirnoff test confirms the relative normality of the data. (K-S=0.608 P=0.853) and as there are two groups of independent variants, the variances stability is approved. (f=0.555 p=0.457). The Durbin-Watson statistic (D=1.51) also shows no-correlation of the residual.

##### i. First hypothesis test result

According to the probable values of the model's meaningfulness and the independent variant coefficient and comparing it with the level of meaningfulness ( $\alpha = 0.05$ ), it can be said that the zero hypothesis, i.e. "in companies the consultancy fee does not affect the auditing fee" is refuted with 5% probability. So, 95% we can say that:

In companies the consultancy fee does affect the auditing fee.

##### b) Second Hypothesis

The firm's size affects the auditing fee.

To examine this hypothesis, we need a fitting of variant regression model of the firm's scale with the variant of auditing fee. Therefore, a model like this is needed:

$$Afee_{it} = \beta_0 + \beta_1 Size_{it} + \varepsilon_{it}$$

In which we have:

$Afee_{it}$  = the auditing fee of the company in t year

$Size_{it}$  = the size of the company in t year

$\varepsilon_{it}$  = the residual of regression equation of the company in t year

This hypothesis can be rewritten like this:

$H_0$  = The size of the firm does not affect the auditing fee

$H_1$  = The size of the firm affects the auditing fee

In which, to examine the hypothesis according to the meaningfulness test of the regression and the

regression equation coefficient we will editorialize after giving the regression equation. If the zero hypothesis is refuted, the replacing hypothesis can be accepted.

$$Afee_{it} = 2.191 + 0.277 Size_{it} + \epsilon_{it}$$

According to the model above, the increase in consultancy fee has a direct influence on an increase in auditing fee; but before it is extended to the population whether it can be accepted must be evaluated.

c) *The Examination of the Model Relativity*

The Klomogorov-Smirnoff test confirms the relative normality of the data (K-S=0.558 p=0.914) and according to the diagram of estimations against the residual, the relative stability of the variance is approved. Furthermore, Durbin-Watson statistic (D=1.55) also shows no-correlation of the rest.

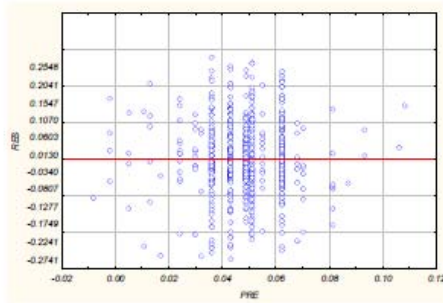


Diagram of estimate against residual for examining the variance stability

i. *Second hypothesis test result*

According to the probable values of the model's meaningfulness and the independent variant coefficient and comparing it with the level of meaningfulness (= 0.05) it can be said that the zero hypothesis, i.e. "the size of the company does not affect the auditing fee" is refuted with 5% certainty. So, with 95% of certainty we can say that:

The size of the company affects the auditing fee.

d) *Third Hypothesis*

The ownership (tenure) of the companies affects the auditing fee.

To examine this hypothesis we need a fitting of regression model of tenure variant with the variant of auditing fee; therefore, a model like what follows needs to be examined:

$$Afee_{it} = \beta_0 + \beta_1 TOTsh_{it} + \epsilon_{it}$$

in which we have:

$Afee_{it}$  = the auditing fee of the  $i^{th}$  company in t year

$TOTsh_{it}$  = the tenure of the  $i^{th}$  company in t year

$\epsilon_{it}$  = the rest of regression equation of the  $i^{th}$  company in t year

This hypothesis can be rewritten like what follows:

$H_0$  = The kind of tenure of companies does not affect the auditing fee

$H_1$  = The kind of tenure of companies affects the auditing fee

In which, to examine the hypothesis according to the meaningfulness test of the regression and the regression equation coefficient we will editorialize after giving the regression equation. If the zero hypothesis is refuted, the replacing hypothesis can be accepted.

According to the model above, the increase in tenure has a direct influence on an increase in auditing fee; but before it is extended to the population whether it can be accepted must be evaluated.

e) *The Examination of the Model Relativity*

The Klomogorov-Smirnoff test confirms the relative normality of the data. (K-S=0.583 p=.885) and as there are two groups of independent variants, the stability of variances can be accepted using Lonz test.(f=0.189 p=0.664). Furthermore, Durbin-Watson statistic (D=1.54) also shows no-correlation of the rest.

i. *Third hypothesis test result*

According to the probable values of the model's meaningfulness and the independent variant coefficient and comparing it with the level of meaningfulness (= 0.05) it can be said that the zero hypothesis, i.e. "the tenure of the company does not affect the auditing fee" is refuted with 5% certainty. So, with 95% of certainty we can say that:

The tenure of companies affects the auditing fee

f) *Fourth Hypothesis (Complementary Test)*

Here we will examine a model with all the variants like:

$$Afee_{it} = \beta_0 + \beta_1 Cfee_{it} + \beta_2 Size_{it} + \beta_3 TOTsh_{it} + \epsilon_{it}$$

In the meaningful model the variants of tenure and size are in the level of 5%, and the variant of consultant fee stays at the level of 10%. The model shows the ability of 33% of paying the auditor fee.

$$Afee_{it} = 2.221 - 0.107 Cfee_{it} + 0.274 Size_{it} + 0.166TOTsh_{it} + \epsilon_{it}$$

V. CONCLUSION

According to the first hypothesis, it can be said that the consultancy fee affects the auditing fee. In the companies with a high level of consultancy fee, the level of auditing fee is lesser, and it is expected that for each unit of consultancy fee increase a counter-effect of 0.14 unit will be put on auditing fee. As a matter of fact, this

parameter will not be more than 0.28 and lesser than 0.07.

According to the second hypothesis, it can be said that the size of the firm affects the auditing fee. In the companies with a high level of scale (higher selling rate), the level of auditing fee is higher. It is expected that for each unit increase of the firm size, an effect of 2.19 units will be put on auditing fee. According to the fuzzy model, this parameter will not be more than 4.38 and lesser than 1.09.

According to the third hypothesis, it can be said that the tenure affects the auditing fee. In the companies with a high level of tenure, the level of auditing fee is higher. It is expected that for each unit of increase in tenure, an effect of 0.187 unit will be put on the fee. Furthermore, according to the fuzzy model this parameter will not be more than 0.374 and lesser than 0.094.

All in all, the highest level of examining the auditing fee refers to the size of the firm, and the least level of examining of this fee refers to consultancy fee.

We can editorialize about the auditor fee by using the size of the firm, tenure and consultant fee; but the level of correlation is not enough for further estimations.

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# Liquidity Constraints and Entrepreneurial Financing in Nigeria: The Fate of Fresh Graduate Entrepreneurs

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**Abstract** - The paper justifies the establishment of entrepreneurship development centres in Nigerian Universities by showing the relevance of entrepreneurship development programme on overall national development of the country. And then focuses on liquidity constraints which fresh graduate entrepreneurs may likely face in an attempt to establish small businesses of their own, after acquiring entrepreneurship training as part of their overall university training. The paper reiterates the importance of financial market development and personal wealth in driving entrepreneurship in a country. It contends that fresh graduate entrepreneurs cannot escape from liquidity constraints in entrepreneurial financing, due largely to the high level of poverty and the underdeveloped nature of the financial market in Nigeria. For the objective of the entrepreneurship development programme to be achieved, the paper recommends that fresh graduate entrepreneurs and indeed startups should possess five strong-will- powers such as mind power, planning power, people power, knowledge power and gearing power. In addition and more importantly, the government should carry out more vigorous reform in the financial market with a view to bringing it to international standards and also establish a special financial institution solely responsible for giving grants to fresh graduates after their National Youth Service Corps (NYSC) year, to start businesses of their choice.

**Keywords** : *liquidity constraints, entrepreneurship, financing, fresh graduate entrepreneurs, nigeria.*

**GJMBR-C Classification** : *JEL Code: J23, J24, L26, M13*



*Strictly as per the compliance and regulations of:*





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## I. INTRODUCTION

There exists evidence that suggests a strong correlation between entrepreneurship development and employment generation and hence wealth creation. Academic training, to achieve academic excellence devoid of technical and entrepreneurial content is sterile and is gradually becoming obsolete in the world of the 21st century. It is an indisputable fact that the youths constitute a very vibrant segment in every society and the future of every society to a large extent is dependent on the quality of the youth segment of the population.

In Nigeria today, the prevalence of moral decadence and high rate of criminality among the youths is alarming. Vices like prostitution, drug trafficking, armed robbery, hostage taking, militancy, terrorism etc., are common features in our social life. This rot in our society to a large extent is traced to

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unemployment. The rising rate of unemployment is in turn attributed to the sterile pattern of our educational curriculum that neglects technical and entrepreneurial education; thus producing school leavers and graduates who are only groomed for white-collar jobs which are now grossly inadequate.

Following the contemporary development trends across the world, particularly the fast developing nations of Asia referred to as "Asian Tigers" whose nationals are empowered with entrepreneurial skills "to drive enterprises for greater productivity and increased technical efficiency in diverse entrepreneurial areas" with the ultimate objective of achieving rapid and sustainable development; and because of the positive externalities that accompany entrepreneurship, many countries have deemed it imperative to establish policy programs and agencies directly aimed at encouraging entrepreneurship. In consonance with this recent trend, the Federal government of Nigeria has given directives to all Federal Universities in the country to establish Entrepreneurship Development Centers in their various campuses to incorporate vocational, technical and entrepreneurship education in their curricula; to complement other existing vocational and entrepreneurial skills acquisition centers in the country. This reform is aimed at rebranding Nigerian Universities as not only traditional "Ivory Towers" that seek to achieve academic excellence but also centers for entrepreneurial skills acquisition. The objective of the centers is to equip university graduates with technical and entrepreneurial skills to drive enterprises and become self employed and employer of labour on graduation. Rather than remaining unemployed for so many years waiting for white-collar jobs.

However, to kick start a business does not only end in skills acquisition, another major requirement is capital to finance it. Liquidity constraint, to a large extent is a paramount challenge that fresh graduate entrepreneurs may likely face. It is this challenge that is the primary concern of this paper. The paper is therefore structured in the following sequence: Section 1 has been the introduction. Section 2 explores theoretical issues and relevant literature. Section 3 examines the relevance of entrepreneurship training. In section 4 the requirements for financing entrepreneurship are



analyzed while section 5 summarizes and concludes the paper.

## II. THEORETICAL ISSUES AND LITERATURE REVIEW

The literature on financial development provides some theoretical explanations on liquidity constraints and entrepreneurial financing. Metrics of financial market development explicates the ease or otherwise with which entrepreneurs and would-be-entrepreneurs in need of external finance can access the required capital and finance their businesses. The role of finance in entrepreneurship is aptly captured in Schumpeterian concept of "innovation financing" where by entrepreneurs with "new ideas and technologies displace incumbents with old technologies, leading to a continued increase in productivity and economic growth" (Kerr and Nanda, 2009). This theoretical construct is akin to what Patrick (1966) termed "supply-leading hypothesis".

According to the supply-leading( finance-led growth) hypothesis, the existence of "financial institutions and the supply of their financial assets, liabilities and related financial services in advance of demand for them would provide efficient allocation of resources from surplus units to deficit units, thereby leading the other economic sectors in their growth process" (Patrick 1966). Two functions performed by the supply leading hypothesis stand out clearly. First, it transfers resources from traditional (non growth) sectors to modern sectors. Second, it promotes and stimulates an entrepreneurial response in the modern sectors and increases the expectation of the entrepreneurs as well as opens new horizons of possible investment alternatives to explore. This however presupposes that the financial market is well developed.

A number of studies have argued in favour of the finance-led growth approach (Cameron, 1963; King and Levine, 1993a; King and Levine 1993b; Levine, 1997). This contrasts with the position held by Robinson (1952) and others, as contained in the demand following hypothesis which maintains that development of financial sectors and institutions simply follow economic growth. That is, "where enterprise leads, finance follows" (Meier, 1984).

It is worthy, of note to point out that, whether supply-leading or demand-following, the quest of entrepreneurs to have access to adequate capital to start up a business venture or finance an existing one, is not without constraints. Given the relevance of entrepreneurship in fostering economic growth, a lot of research interest has been aroused in recent times, to examine the sources of friction in the financial market and possibly attempt to alleviate liquidity constraints in entrepreneurial financing.

A major determinant in the ability of fresh entrepreneurs to raise sufficient capital to kick start their businesses is the depth of the financial market, quantified as the ratio of broad money supply (M2) to GDP; or from the perspective of the stock market, the ratio of stock market capitalization to GDP. The depth of the financial market or financial deepening measures financial market development in a country. The deeper the financial market, the more it is alive to its responsibility of meeting business financing needs of fresh entrepreneurs and vice versa.

A number of studies have emphasized the relevance of financial deepening in boosting entrepreneurship, whether fresh or existing. For instance Fisman and Love (2003) document how fresh or startup firms struggle with overcoming weaknesses in financial market development, even where existing or established firms are able to use trade credit as a substitute for formal financing. In the same vein, Comin and Nanda (2009) provide evidence that shows a positive correlation between financial market development and entrepreneurship. Using historical data on banking sector development and technology diffusion, they discover that capital intensive technologies are adopted with a greater speed than less capital intensive technologies in countries that are over a certain threshold in banking sector development. The synopsis of their finding is that constraints faced by fresh entrepreneurs or startups in raising capital might adversely impact on the commercialization of new technologies. Still on the emphasis of financial deepening, Rajan and Zingales (1998) maintain that industrial sectors with a greater need for external finance develop faster in countries with deeper capital markets.

It is obvious that the depth of the financial market is not uniform across countries. While some countries have deeper financial markets (especially developed countries) others have very shallow financial markets, as in the case of underdeveloped countries. Be that as it may, no financial market is completely immune from frictions. These frictions militate against high quality entrepreneurs with good entrepreneurial ideas and make such ideas not to come to fruition as the entrepreneurs are unable to access adequate capital to start a new business.

Frictions in the financial markets have been blamed on a number of factors which among others include restrictive banking legislations, religious barriers against loans and interest charges and above all, imperfections in the operation of the market mechanism (Meier, 1984). On financial legislation, La Porta et al (1997, 1998) and Beck et al (2001) trace the association between legal origin of financial market laws across countries and relate them to the degree of investor protection and hence the ability of financial intermediaries to raise and lend capital. In the context of

directed lending programme in India, Banerjee and Duflo (2008) maintain that banks not only face frictions in their access to external financing, but that they are equally prevented from undertaking profitable investment opportunities in the real economy by these frictions. Similar conclusions are also reached by Paravisini (2008) in Argentina.

Aside the depth of financial market which tremendously influences the ability of prospective or potential entrepreneurs to finance new businesses, the competition between financial intermediaries also has profound impact on liquidity constraints and entrepreneurial financing. For example, Levine (1997), cited by Kerr and Nanda (2009) asserts that the level of competition between financial intermediaries can impact on the terms of credit to startups as well as the degree to which capital is allocated to the highest-quality projects. Banerjee et al (2003) and Cole (2009) agree with Levine (1997) and maintain that the issue is particularly acute in developing, countries where the banking system may be subject to political capture.

Apart from financial development and financial friction, the literature also provides evidence that suggest a positive correlation between individual wealth and the propensity to become an entrepreneur. Evans and Jovanovic (1989) develop a model which explains that the propensity of individuals to become entrepreneurs is a function of their personal wealth. According to the model, the amount an individual can borrow to fund a new business is a function of the collateral that he or she can post, which in turn is a function of personal wealth. If the amount the entrepreneur needs to borrow is sufficient to cover the capital required to start the business, then the entrepreneur is said to be unconstrained but if on the other hand, the entrepreneur needs to invest more than he or she can borrow, then a liquidity constraint leads to sub-optimal investment for the project at hand (Kerr and Nanda, 2009).

Other studies that also emphasize the relationship between personal wealth and entrepreneurship are those of Evans and Leighton (1989), Failie (1999), Quandrini (1999), Gentry and Hubbard (2001). In a related study, Andersen and Nielsen (2011) use natural experiment to investigate why financial constraints appear to limit firm formation. Exogenous variation in wealth that results from unexpected inheritance due to sudden death allows them to identify 304 constrained entrepreneurs, who start a business after receiving windfall wealth. They then compare the performance of these ventures with that of a matched sample of individuals who form businesses at the same time to test whether financial barriers to entrepreneurship are caused by market failure or low entrepreneurial ability. Their finding indicates that constrained entrepreneurs' ventures have significantly, lower survival rates and are

less profitable than those of unconstrained entrepreneurs.

In like manner, Kerr and Nanda (2009) express the view that liquidity constraints are one of the highest concerns impacting on potential entrepreneurs around the world. They review two major streams of research examining the relevance of financing constraints for entrepreneurship, namely, financial market development and personal wealth. They then introduce a framework that provides a unified perspective on these research streams.

The underlying prediction of the personal wealth-entrepreneurship model is that the propensity to become an entrepreneur is a function of personal wealth if potential entrepreneurs are credit constrained. Given the fact that collateral is a significant requirement by credit or financial market for granting of credit to fund entrepreneurial ventures, wealthy individuals are less likely to be constrained for a given venture, since collateral is a function of personal wealth.

### III. RELEVANCE OF ENTREPRENEURIAL DEVELOPMENT TRAINING IN NIGERIA

An entrepreneur is a person who perceives a need and then brings together manpower, material and capital required to meet that need. In other words, an entrepreneur is an individual or team that identifies the opportunity, gathers the necessary resources, creates and ultimately responsible for the performance of the organization. An entrepreneur is the decision taker, the risk bearer, co-coordinator and the organizer of a business venture.

To this end, an entrepreneur is required to possess the qualities of adventurism, willingness to face risks, innovative urge and creative power. Without these qualities the chances of individual venturing into entrepreneurship to be successful are very slim. It is on this premise that proper entrepreneurial development training becomes imperative. Entrepreneurial development training provides individuals with insights into entrepreneurship and enterprise; it aims to help them realistically consider the options of starting a business or of self employment (Awogbenle and Iwuamadi, 2010). The relevance of entrepreneurial development is viewed in terms of its positive correlation with economic development. To a large extent, economic development in any country depends on the quantum of material and human resources available in that country. But economic development cannot be achieved without the coordination and organization of these resources into productive uses, which is the function of entrepreneurs. Specifically entrepreneurial development training becomes important in Nigeria because it is geared towards achieving the following:

*a) Job Creation*

Creating employment opportunities for graduates and other school leavers is one of the greatest things the entrepreneurial development training is designed to achieve. The role of government in providing employment opportunities for graduates and school leavers in Nigeria is fast shrinking. Paving the way for acute unemployment problem in the country. Entrepreneurial development training has the advantage of making graduates to become self employed and in turn create jobs for other school leavers. In the words of King and Levine (1993a, 1993b) "entrepreneurship plays an important role in job creation and economic growth". Thus entrepreneurship is the best way to fight the evil of unemployment in Nigeria.

*b) Wealth Creation and Poverty Eradication*

The poverty level in Nigeria is alarming. According to national Bureaus of statistics (2010), the percentage of Nigerians living in absolute poverty rose from 27.2 percent in 1980 to 60.9 percent in 2010. Again, BBC news report of February 13, 2012 maintains that poverty has risen in Nigeria with almost 100 million people living on less than \$1 (one US Dollar) a day. This is indeed worrisome. Entrepreneurial development training can help people become self employed, create wealth and hence fight poverty. According to Kerr and Nanda (2009), entrepreneurs tend to be significantly wealthier than those who work in paid employment. Not only are entrepreneurs wealthier, but also the wealthy are more likely to become entrepreneurs. In the same vein, Gentry and Hubbard (2004) observe that entrepreneurs comprise just fewer than 9 percent of households in the U.S., but they hold 38 percent of household assets and 39 percent of the total net worth. Entrepreneurial development training can help create wealth and fight poverty in Nigeria.

*c) Balance Regional Development*

Entrepreneurial development programme helps in creating small and medium scale entrepreneurs whose businesses are established across the length and breadth of the country and right into the remote areas unlike large-scale enterprises which require large capital out lay and are often established in urban centres, small and medium scale enterprises require relatively small capital resources and can be set up both in the urban and rural areas. Thus entrepreneurial development training will inculcate in Nigerian graduates the skills to spread industrial establishment in every nook and cranny of the country, reduce concentration of economic power in a few individuals and ultimately foster balanced regional development.

*d) Economic Independence*

Entrepreneurial development brings about economic independence to a country. Entrepreneurs produce goods and services in response to both

domestic and foreign demand. They produce in the domestic economy goods that were hitherto imported, for domestic consumption; and they also produce for the export market. To this end, entrepreneurship encourages import substitution industrialization and export promotion which are cardinal for economic independence of a country.

*e) Reducing Unrest and Social Tension Among Youth*

Unemployment among youth to a large extent contributes to many problems associated with youth and social tensions the world over. Every young person gets frustrated if he or she does not get employment after completing his/her education. In the face of dwindling wage employment provided by government and other large-scale private businesses, self employment obtained through entrepreneurial development training is the only viable option. In Nigeria today, social vices like youth militancy, hostage-taking and kidnapping, prostitution and "Boko-haram" insurgency are all blamed on unemployment. As the saying goes "the idle mind is the devil's workshop" given this ugly trend, it becomes imperative for Nigeria, through entrepreneurship development programme to divert the youth attention away from wage career to self employment career. This will go a long way in defusing social tension and unrest among youth.

*f) Capital Formation*

Entrepreneurship results in capital formation. Entrepreneurs engage in the production of goods and services through the use of factors of production. These factors of production would be ineffective and useless without being coordinated and harmonized by the entrepreneurs for productive purposes. Thus entrepreneurs are the organizers of productive resources who use their own and borrowed funds to establish new ventures and hence contributes to the process of capital formation.

*g) Improvement In Living Standards*

Entrepreneurial development training inculcates in entrepreneurs the skills with which to explore and exploit new opportunities which lead to productive use of factors of production for enhanced output, employment and wealth creation. Enhanced production of goods and services reduces costs and widens consumers' choice with the ultimate positive effect of improvement in living standards.

*h) Encouraging inward-looking and Local Harnessing of Resources*

Entrepreneurial development training has the advantage of developing local crafts which would require local sourcing of resources at relatively lower costs. Nigeria is one of the most blessed nations on earth, bestowed with vast human and material resources. These resources are cardinal to any

meaningful industrialization of a country. In as much as technological transfer is desirable, the real strength of industrialization, in an underdeveloped country like Nigeria depends on the involvement of local entrepreneurship in such industrialization process.

*i) Innovations and Competition in Enterprises*

The importance of innovation has been stressed by Schumpeter (1912). Business enterprises have to be innovative for their survival and better performance. Healthy competition among firms would also make them to be innovative and increase their productivity. Entrepreneurial development training in Nigeria would assist in training fresh graduate or potential entrepreneurs to acquire innovative and competitive skills to drive their enterprises.

*j) Facilitating Overall Development*

Entrepreneurs create a motivating environment for economic development of a country. They use the country's limited resources in conjunction with their acquired skills to create business friendly environment and opportunities for accelerated economic development. Entrepreneurial development training therefore would create entrepreneurs in Nigeria to serve as agents of rapid economic development.

#### IV. FINANCING ENTREPRENEURSHIP IN NIGERIA

For enterprises to kick start and blossom, capital is cardinal. Entrepreneurs need start up capital to invest in their projects as well as operating capital to finance everyday expenses. Acquiring the entrepreneurial skills is a necessary condition but a sufficient condition entails that capital must be available for the conceived business idea to come to fruition. Presumably, individuals with very high levels of wealth should have enough finances to cover both these capital needs. However, individuals with moderate amounts of wealth may have enough finances to cover start up capital needs but lack necessary fiancé to cover operating capital needs. Given this scenario, the lofty business idea that is well conceived and initiated tantamount in a fiasco. More pathetic is the case of individuals with merely entrepreneurial skills but lack capital. They are worse off and seriously constrained. In this case, the conceived business idea never

materializes. Most fresh graduates entrepreneurs in Nigeria are likely to fall in this category given the high level of poverty in Nigeria. Table 1 shows trend in poverty incidence in Nigeria between 1980 and 2010. The percentage of Nigerians living in absolute poverty rose from 27.2% in 1980 to 60.9% in 2010 (table 1). With this alarming poverty level in the country, it is obvious that most Nigerian fresh graduate entrepreneurs are likely to be poor and cannot afford to finance their enterprises out of their personal wealth.

*Table 1* : Trend in Poverty Incidence in Nigeria, 1980-2010

Year (1)	Poverty Incidence (%) (2)	Total Population (Million) (3)	Population In Poverty(Million) (4)
1980	27.2	73,698,099	17.1
1985	46.3	83,901,572	34.7
1992	42.7	100,592,242	39.2
1996	65.6	111,166,210	67.1
2004	54.7	135,999,250	68.7
2010	60.9	159,707,780	112.47

*Sources* : (I) World Bank Group (2013) for column 3.

(II) Nigeria's National Bureau of Statistics for column 2 and 4

The ability to access capital for short and medium term needs is cardinal for the success of small businesses and entrepreneurs. To a large extent, it depends on the level of development of the financial market. A lot of studies in the literature have provided evidence that shows a positive correlation between financial market development and entrepreneurship. A common measure of financial market development is the ratio of stock market capitalization to GDP. Table 2 presents market capitalization of listed companies as a percentage of GDP for 5 emerging markets, Nigeria, South Africa, Malaysia, Singapore and Korea Republic between 2003 and 2012. For the period under review, Nigeria has the lowest market capitalization – GDP ratio. This indicates that the financial market in Nigeria is relatively not deep enough to successfully drive entrepreneurship. Given this development, startups or fresh graduate entrepreneurs are seriously constrained (table 2).

*Table 2* : Market Capitalization of Listed Companies (% of GDP) for Selected Countries, 2003-2012

Year	Nigeria	South Africa	Malaysia	Singapore	Korea Republic
2003	14.0	159.2	152.8	245.6	51.2
2004	16.5	207.9	152.3	253.4	59.4
2005	17.2	228.9	126.3	256.4	85.0
2006	22.6	273.9	144.7	198.8	87.8
2007	52.0	291.3	168.3	209.5	107.1
2008	24.0	179.9	81.0	100.6	53.1
2009	19.8	248.2	126.6	160.1	100.3



2010	22.3	174.9	166.3	170.4	107.3
2011	16.1	130.2	137.2	125.8	89.2
2012	21.5	159.3	156.9	150.8	104.5

Source : The World Bank (2013) <http://www.world-bank.org/indicator/>

Entrepreneurs face regular cash outflows such as rent and utility bills, vendor bills and salaries for employees. But cash inflows for such small and fresh businesses or startups are characterized by uncertainty. In other words such fresh and small businesses are characterized by more of cash outflows than cash inflows. This is the major liquidity constraint which the fresh graduate entrepreneurs will face. Because of the importance attached to short term capital by small enterprises to meet immediate business needs entrepreneurs may strive hard to get this capital even at higher rates to balance any observed discrepancies

between cash outflows and cash inflows, depending on their ability to provide collateral required for such external funds. The cost of capital in Nigeria is very high compare with other emerging markets. Table 3 shows bank lending rate that usually meets the short-term financing needs of private sector in 5 emerging markets, Nigeria, South Africa, Malaysia, Singapore and Korea Republic. From the table, it is crystal clear that the lending interest rates in Nigeria are the highest, posing a serious liquidity constraint on fresh and small-scale businesses in their quest to use external funds from financial institutions to finance their enterprises.

Table 3 : Lending Interest Rate (%) For Selected Countries, 2003-2012

Year	Nigeria	South Africa	Malaysia	Singapore	Korea Republic
2003	20.7	15.0	6.3	5.3	6.2
2004	19.2	11.3	6.0	5.3	5.9
2005	17.9	10.6	6.0	5.3	5.6
2006	16.9	11.2	6.5	5.3	6.0
2007	16.9	13.2	6.4	5.3	6.6
2008	15.5	15.1	6.1	5.4	7.2
2009	18.4	11.7	5.1	5.4	5.6
2010	17.6	9.8	5.0	5.4	5.5
2011	16.0	9.0	4.9	5.4	5.8
2012	16.8	8.8	4.8	5.4	5.4

Source : World Bank (2013) <http://www.world-bank.org/indicator/FR.INR.LEND>

Generally speaking, the task before the entrepreneur is a herculean one. After conceiving a business idea, he or she needs money to cover the business expenses such as;

- Pre-operation expenses which include payment for legal/registration of business and payment for consultancy services.
- Initial working capital used for the payment of consumable factors/inputs.
- Operating cash flow for the day to day running of the business.
- Payment for fixed assets which may include land, land development, furniture, equipment etc.

However, it is worthy to note that the expenses required are dependent on the level of sophistication of the enterprise in question. Having identified the various types of expenses incurred by businesses, a vital question to ask is, how do entrepreneurs source for funds in Nigeria? The answer of course is not far fetched. Entrepreneurs can source for funds through the following ways:

- a) Owner's Equity
- b) Loans and
- c) Grants

#### a) Owner's Equity

This is the most reliable source of funding in business. Because it puts less pressure on the entrepreneur even if the business fails. It is essentially the owner's fund contribution in the business. Owner's Equity to a large extent depends on the personal wealth of the entrepreneur.

#### b) Loan

This is a facility granted to the entrepreneur with obligation to pay both the principal and the accrued interest at an agreed date. Loans can be granted either by private sources or financial institutions. Loans may be short term, medium term and long term. Others are overdraft, syndicated loans, trade credit, loan from credit/thrift co-operative societies and equipment leasing. Loans are dependent on the entrepreneur's personal wealth and the level of development of the financial market.

#### c) Grant

This refers to an allowance that a government or an organization gives to support small business in the county.

The processes involved before an entrepreneur accesses a loan, especially from financial institutions are cumbersome. And in most cases the interest rates at



which such loans are given are high as shown by table 3 in the Nigerian case. These constitute serious constraints to startup ventures in Nigeria. For example an entrepreneur is expected to present the following: The profile of the enterprises, description of products or services being rendered, technical profile of the business, marketing profile, and manpower structure and accounting/profitability index.

## V. SUMMARY AND CONCLUSION

The paper has attempted first to justify the establishment of the entrepreneurship development centers in Nigerian Universities by showing the relevance of entrepreneurship development program on overall national development of a country, and second, to examine the difficulty which the fresh graduate entrepreneurs may likely encounter in the area of financing startup enterprises.

As the saying goes, "when there is a will, there is a way". In spite of the identified difficulties or liquidity constraints, the paper concludes by recommending that the objective of the entrepreneurship development scheme is achievable if the small businesses embrace and inculcate in them five strong-will-powers as their business anthem. These powers are:

### a) Mind Power

The success of any business starts first in the mind. The mind is the master power that moulds and make things work.

### b) Planning Power

Entrepreneurs optimize business performance by preparing for the future and show a high level of future orientation necessary for achieving a higher goal and making their dreams come true.

### c) People Power

No single entrepreneur has all that it takes to make a business successful. He or she needs people as associates, business partners, consultants etc. the right choice of such categories of people matters.

### d) Knowledge Power

Business requires a set of skills and knowledge for optimum performance. This is what the entrepreneurship development centre will provide.

### e) Gearing Power

Finance or money is what accelerates business enterprises to optimum performance and success. It is the most important determinant of entrepreneurship. But the fresh graduate entrepreneurs in Nigeria may not be able to raise all the money they need for the optimization of the potential of their businesses given the high level of poverty in the country and the underdeveloped nature of the Nigerian financial market. To this end, the government should come in, first, by carrying out more

vigorous financial market reform aimed at developing the Nigerian financial market to international standards. In this respect, the series of reforms in the financial sector since 1987 are seen as a step in the right direction. Second by establishing a financial institution akin to the Nigerian Industrial Development Bank (NIDB), that was set up to cater for the needs of industrialists in Nigeria. This financial institution will be solely responsible for giving grants to fresh graduates at the end of their National Youth Service Corp (NYSC) year, to start businesses of their choice. To prevent diversion of the grants, the financial institution should adopt the method of equipment leasing, where the business materials or inputs are supplied to the entrepreneurs rather than giving them physical cash. This of course should be after when the business plan has been examined and certified feasible. Thereafter, a certain percentage should be given to them in cash to take care of the business day to day operating expenses, depending on the level of sophistication of the business.

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# Remittances and Income Mobility in the Rural Areas of Nigeria

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**Abstract** - In Nigeria, an issue that is discussed less is intertemporal income mobility – who is getting ahead, who is falling behind, who is standing still, and why. This article examines the effects of remittances on rural households' income mobility. We used the living standard survey (NLSS), Harmonised living standard survey (HNLSS) and balance of payments on remittance data set produced by the government of Nigeria to help track Inequality and income mobility progress. The unit of analysis was the household, upon which information on remittances was analysed. Average Quintile Immobility Rate (AQIR) and the Average Quintile Move Rate (AQMR) were estimated to determine the status of intertemporal income mobility with and without remittances while the progressive index (P-value) was estimated to ascertain whether income mobility has contributed to long-term income equality. From the results, remittances pushed up rural households' income mobility and had long-term contribution to income equality.

**Keywords** : *income mobility, income inequality, remittances, rural nigeria, household.*

**GJMBR-C Classification** : *JEL Code: P36, F24*



*Strictly as per the compliance and regulations of:*



# Remittances and Income Mobility in the Rural Areas of Nigeria

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## I. INTRODUCTION

Nigeria persistently ranks among the most unequal in the world in terms of distribution of earnings and wealth. Discussion of this problem has produced agreement on some of its causes: the Country's disappointing distributive performance has been due to pervasive levels of macroeconomic vulnerability, inequality in political voice and problems of social exclusion that are rooted in history. However, the notion of mobility has not yet taken a central place in this discussion. An issue that is discussed less is inter-temporal income mobility – who is getting ahead, who is falling behind, who is standing still, and why?

As a concept advanced by [1], income mobility describes changes in the income of an individual or a set of individuals in the overall income distribution of a defined group. The focus in income mobility studies is to observe movements in income levels by employing relevant methods to estimate and analyze dynamic changes of a targeted position in the income distribution. Income mobility has already become a crucial part of income distribution analysis [2, 3,4,5,6,7,8, and 9]. For reasons of data availability, empirical studies of income mobility began with cases pertaining to developed countries [10, 11, 12, and 13] and just a few developing countries [14].

Over the last decade, Nigeria is the single largest recipient of remittance in Sub-Saharan Africa [15]. Nigeria receives between 30 percent and 65 percent of remittance to the region and Two percent of global flow [16]. Remittance from Nigerians in various parts of the world was USD 2.8 billion in 2004 [17], ranking second only to oil exports as a source of foreign exchange earnings. Nigeria was among the top 20 developing countries recipients of remittance in 2003 (Ratha, 2005). Commercial bank executives reports that in 2006 the recorded flows were estimated at US\$4.2 billion dollars, representing 700,000 transactions and a Thirty percent increase from 2005 (Orozco and Millis, 2007). According to Nigeria Muse (2008), Remittances from Nigerians abroad hit \$17.9 billion in 2008.

Though Nigeria is a high remittance-receiving country, yet, there are evidences in the literature that points to the increasing level of poverty and income inequality in Nigeria over the last two decades (e.g. Addison and Cornia, 2001; Kanbur and Lustig, 1999). More likely, only a small proportion of the population is having access to receiving remittances and thus increasing remittances does not have effect on inequality. The increasing income inequality has been pervasive in the rural areas and has also been a concern to policy makers for a long time. Canagarajah et al, (1997) reported increasing level of income inequality between 1980s and 1990s as shown by an increase in the Gini-coefficient from 38.1% in 1985 to 44.9% in 1992. World Bank (2003) found that in 1997, the Gini index of income inequality was 0.506. Using the 2004 National Living Standard Survey (NLSS) data, Oyekale et al, (2006) found that the overall Gini index for Nigeria was 0.580. In sectorial sense, the study found income inequality to be higher in rural areas (Gini – 0.5808) as compared to urban areas (Gini – 0.5278), and that employment income increases income inequality while agricultural income decreases it. On the contrary, however, Awoyemi and Adeoti (2004), found that agricultural income is inequality increasing while wage and self-employed income are inequality decreasing. In short, it is a general belief that inequality is higher in rural than urban Nigeria (Oyekale, et al, 2006). This level of inequality according to Awoyemi and Adeoti (2004) may be partly explained by the neglect of the rural sector, where majority of the people reside. In literature, income inequality has been associated with income mobility (Fields 2007).

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High and persistent inequality is consistent with lower mobility, although the causal relationship still requires an empirical investigation. Some studies related to income mobility have been carried out in other Climes (Gottschalk 1997; Wodon 2001; Maasoumi and Trede 2001; Fields 2007), where the outcomes reveal that income mobility contributed to income equality and urban households' income mobility appeared to be stable or changing slowly over time. Studies related to the direct and indirect effects of the remittances on rural households' income have been conducted in Nigeria (Osili, 2004, Chukwuone, et al, 2007, Odozi, et al, 2010 and Olowa and Shittu, 2012). To the best of our knowledge, no study has considered the impact on income mobility of remittances among rural dweller, a gap which this paper seeks to fill. To achieve this, the paper provides answer to following questions: what effect has remittance income on income mobility in rural areas of Nigeria? What is the contribution of remittances to long-term income inequality?

## II. CONCEPTS/LITERATURE REVIEW

In contrast to the voluminous theoretical and applied income inequality literature, the literature on the measurement and interpretation of mobility is more limited and generally more ad hoc (Fields and Ok, 1999). Important distinctions are made between relative and absolute mobility. The former examines changes in rank of households between two periods and is thus mainly concerned with the ability of individuals to move up (and down) in the rankings of incomes while the latter examines absolute changes in income between two periods and thus is additionally concerned with changes in absolute well-being (and poverty). For these reasons, we reported on both in this paper.

As far as measures of mobility are concerned, one first needs to distinguish between what Cowell and Schluter (1998a) call single-stage and two-stage indices. Single-stage indices consider the entire distribution in both years and examine mobility using that entire distribution, while two-stage indices first allocate individuals to income groups (either exogenously fixed income groups or endogenously determined ones like quintiles) and then examines mobility between these groups. Examples of single stage indices are the correlation coefficient of incomes between two periods, Shorrocks' rigidity index, Fields and Ok's measures, and King's measure (Fields, 2001; Cowell and Schluter, 1998a). They have the advantage of using all available information inherent in the actual distributions and thus give the most comprehensive assessment of mobility. They have the disadvantage, however, of being particularly sensitive to measurement error which is a particular problem when data from only two waves are available, as happens to be the case here.

Regarding two-stage indices, the most commonly used measure is the transition matrix and indices derived from it. For a transition matrix, the data are divided into  $n$  equally sized income classes (e.g. deciles or quintiles) which are endogenously determined for each year. Let  $P$  be a matrix of  $n \times n$  transitions, the  $ij$  element of which,  $P_{ij}$ , is the percentage in the income class  $i$  at time  $t_0$  of those who at time  $t_1$  were in class  $j$ . The units which moved from one income class to another ( $i \neq j$ ) between time  $t_0$  and time  $t_1$  refer to as "mobiles". Those who remain in their original income class will be called "immobiles". Mobiles who experienced a positive change in relative well-being ( $i < j$ ) will be referred to as "winners" as opposed to "losers" ( $i > j$ ).

While sometimes the brackets of a transition matrix are exogenously fixed income classes, the more common method are endogenously determined income groups based on quantiles of the distribution in a given year (such as quintiles or deciles). The advantage of the transition matrix is that it can nicely summarize mobility at various points in the distribution which is harder to gauge from a single index. It also turns out to be more robust to measurement error (Cowell and Schluter, 1998). There are serious costs as well, including the disregard of important information, such as income changes within a bracket and the different absolute income changes that underlie a change in income bracket (Fields and Ok, 1999). In order to off-set this shortcoming we proceed to estimate the progressive index (P-value) to compare the extent of income distribution equality during different periods with and without remittances; if the P-value in the period  $i$  outweighs that in the period  $j$ , the average income distributions in the period  $i$  are more equal than that in the period  $j$ ; if the P-value in the period  $i$  is less than that in the period  $j$ , the average income distributions in the period  $i$  are more unequal than that in the period  $j$ ; if the P-value in the period  $i$  equals that in the period  $j$ , the average income distributions in the period  $i$  are as equal as that in the period  $j$ . We adopted this method in analysis of remittances on Income Mobility.

The International monetary fund (IMF) defines workers' remittances as international transfers of funds sent by migrant workers from the country where they are working to their countries of origin (Kihangire and Katarikawe 2008). However, in most studies, remittances have been defined as that portion of migrants' income sent from the migration destination to the place of origin either in cash or in kind and can be across borders or within borders (Quartey 2006; Chukwuone et al., 2007). There are three views of the effect of remittances on development. The first view, the developmental optimism of the 1950s and the 1960s sees migration as a major engine of development through the diffusion of ideas, technology and skills.



The pessimist view of the 1970s and 1980s, influenced by dependency theory, argues that migration and remittances create dependent relationships between migrants and non-migrants and between sending and receiving countries. The third view is the new economics of labour migration (NELM), which emerged in the 1990s as a response to the optimistic and pessimist views. This view is based on a neo-liberalist functionalist perspective that links decisions to migrate to household survival and the quest to raise income and/or obtain capital for investment. This study posits that income mobility indicators will be expected to improve if the poor have access to migration and remittances opportunities. That is, the level of income mobility is better among households with remittances than households without remittances.

There are relatively few studies on income mobility in developing countries and even fewer that are roughly comparable. This is partly due to the paucity of reliable panel data sets although increasing numbers of such data sets are becoming available. Unfortunately many of these panels have very few waves where issues of measurement error are particularly pertinent (Deaton, 1997). Moreover most analyses focus, for obvious reasons, particularly on poverty dynamics rather than on household income mobility more generally (e.g. Jalan and Ravallion, 2000; Dercon and Krishnan, 2000; Scott, 2000; Justino and Lichfield, 2002, McCulloch and Calandrino, 2002).

The studies that exist generally suggest that income mobility in developing countries is higher than in industrialized countries, particularly at the bottom end of the distribution (e.g. Dercon and Krishnan, 2000; Fields, 2001). They also seem to suggest increasing mobility over time in most places. Panel data from Peru based on expenditures points to increased mobility in the 1990s (Fields, 2001). Data from rural China point towards rapidly increasing mobility from very low levels in the 1980s (Nee, 1994) and generally very high mobility at the low end of the distribution (McCulloch and Calandrino, 2002).

a) Data

This study uses the Nigeria living standard survey (NLSS) database collected 2004 and the 2009/2010 Harmonized Nigerian Living Standard Survey. The NLSS database was specifically produced to help track poverty reduction progress in Nigeria. The National Bureau of Statistics employed a stratified random sampling technique for the selection of households and individuals. It consists of a total of 92,613 individual observations and 19,158 household-head observations. The unit of analysis is the household because migration and other decisions relating to allocation of labour to economic activities are taken at the household level. The variables measuring remittances are the amount of remittances, their frequency

types, and sources all extracted from the income transfer file. Also contained in this file is the code to identify households with and without migrants, identified as migrant households and non-migrant households. To link remittances with other household characteristics, such as sources of income, the files were merged using household identifiers. This study aggregated household earnings into the following sources: wages and salaries, agriculture, nonfarm business, rental and remittances. Of 1704 total household observations contained in the income transfer file, 75% are non-migrant households while 25% are migrant households. We augment the two waves of NLSS with the balance of payments data on remittance flows received by Nigeria over the period 1975-2010. The intermittent year, 2005-2008 were provided for from the balance of payments data to determine the Progressive index (P-Value) used to compare the extent of income distribution equality during different periods.

Total income and remittances of sample households were deflated using the rural consumer price index from the Nigerian Statistical Yearbooks, published by the National Bureau of Statistics.

III. ANALYTICAL TECHNIQUE

a) Transition Matrix and Indices Derived from it

Let P be the transition matrix of  $m \times m$  transition

$$P := [P_{ij}], \text{ with } \sum_{j=1}^m P_{ij} = \sum_{i=1}^m P_{ij} = 1 \quad (1)$$

If the possible values of variable  $X_n$  have  $m$  kinds of status and they are arranged into a probability matrix P after one period:

$$P = \begin{bmatrix} P_{11} & P_{12} & \dots & P_{1m} \\ P_{21} & P_{22} & \dots & P_{2m} \\ \dots & \dots & \dots & \dots \\ P_{m1} & P_{m2} & \dots & P_{mm} \end{bmatrix} \quad (2)$$

The  $m \times m$  transition matrix  $P := [P_{ij}]$  is called one step transition probability matrix, obviously,

$$P \geq 0 \text{ and } P_{ij} = P_{ji} \quad (3)$$

If variable is in state  $i$  at period  $T_n$ , but shift to state  $j$  by  $t$  steps, we then call this probability of transition  $t$  step transition probability, which is:

$$P(X_{n+k} = j / X_n = i) = P_{ij}(K), i, j = 1, 2, \dots, m \quad (4)$$

For  $P := [P_{ij}]$ ,  $i, j = 1, 2, \dots, m$ , it could be written as:

$$P_{ij}(K) = \begin{bmatrix} P_{11}(K) & P_{12}(K) & \dots & P_{1m}(K) \\ P_{21}(K) & P_{22}(K) & \dots & P_{2m}(K) \\ \dots & \dots & \dots & \dots \\ P_{m1}(K) & P_{m2}(K) & \dots & P_{mm}(K) \end{bmatrix} \quad (5)$$

The element  $P_{ij}$  indicates the probability of number  $i$  rural household in the base year shifting to number  $j$  income group in the final year. The matrix is full mobility matrix with  $P_{ij} = 1/n$ , which has absolute time-independent and acts as the frame of reference.

b) *Calculating the Average Quintile Immobility Rate (AQIR) and the Average Quintile Move Rate (AQMR):*

AQIR and AQMR are indices derived from transition matrix. Because rural household income mobility is not easily observed from income mobility transition matrix, it is necessary to calculate the Average Quintile Immobility Rate (AQIR) and the Average Quintile Move Rate (AQMR). Reflecting the income mobility of rural households, the AQIR is the average proportion of rural households that have the same income at  $t$  period after the initial income, which is the average of the diagonal values in the matrix. The equation is:

$$AQIR = \frac{i}{m} \sum_{i=1}^m P_{ij} \tag{6}$$

The AQIR estimates the average proportion of rural households at the same position. The higher the rate means the less the mobility. The AQIR of the full mobility matrix is  $n/1$ . The AQMR is the weighted average of transition probability and the weight is the shift between different groups.

$$AQMR = \frac{1}{n} \sum_{j=1}^n \sum_{k=1}^n |j - k| P_{jk} \tag{7}$$

The AQMR is the scale of the overall rural household income mobility, and the higher the value means the higher the mobility.

We arrange all sample rural households into five quantities according to the income levels and then create a 5\*5 matrix.

c) *Progressive Index (P-value)*

To determine Progressive Index (P-value) it is imperative to first determine the Gini coefficient for rural income with and without remittances thus we use the following formula to measure Gini coefficient for sample rural household income with and without remittances:

$$G = \frac{1}{2n^2 \bar{x}} \sum_{i=1}^n \sum_{j=1}^n |x^i - x^j| \tag{8}$$

Where:  $\bar{x}$  is the arithmetic mean income corresponding to  $x$ .

The progressive index (P-value) is written as:

$$P = 1 - \frac{G(x_1)}{G(x_1^0)} \tag{9}$$

In the above equation,  $(\bar{x}_1)$  is the arithmetic income of rural households for a certain period; is the income of the number  $i$  rural household in the initial year;  $G(.)$  is the Gini coefficient. If  $P > 0$ , the average income distribution is more equal than the original distribution; if  $P < 0$ , the average income distribution is more unequal than the original year; if  $P = 0$ , the average income distribution remains the same as the initial year.

#### IV. RESULTS

a) *Descriptive*

Table 1: Presents The Summary of Continuous Socio-Economic Household Characteristics

Characteristics	2004		2009	
	Mean	Standard Deviation	Mean	Standard Deviation
Age of Household head(year)	47.325	11.121	42.324	13.111
Household size	4.876	3.665	4.222	4.421
Credit	1936.214	211.000	2003.213	432.233
Tax	496.444	0.000	785.512	1.000
Per capita Expenditure	28442.322	1232.611	29333.231	
Per capita income	8688.911	5467.332	9874.203	5107.444
Educational group(years)	2.59	1.32	3.12	1.61
Poverty Rate*	54.6		73.2	

\*in Percentage

Average household size decreased from 4.8 persons in 1995 to 4.2 persons in 2009 (Table 1). Similarly, the age of household head also decreased over time. Poverty rose by about 27 percentage points

while mean income rose considerably as well. Furthermore, the average amount of credit available to rural households was ₦1938.10 but rose slightly to ₦2003.213. This is rather low and a higher proportion of

them could not even access this. Transfer to Government (Tax) followed similar trend as it increased from ₦496.44 in 2004 to ₦785.52 in 2009. This may not be unconnected with the recent drive for tax collection by most state government in Nigeria.

*b) Gini Coefficient*

The Gini coefficient of rural households was estimated with and without remittances from 2004 to 2009. Table 2 indicates that the Gini coefficient of inequality decreases by 7 % from 0.896 to 0.833 when total remittances were included in income 2004, but increased from 0.787 to 0.853 in 2005. Gini coefficient also decreases by 6.58% from 0.866 to 0.837

remittances were included but remain unchanged from 0.800 to 0.800 when remittances were included 2007. Gini coefficient went down from 0.745 to 0.735 in 2008, but rebounded from 0.832 to 0.894 in 2009 when remittances were added; indicating that there are linkages between remittances and income inequality. The rising inequality generated by remittances is to be expected given that the educated and upwardly mobile rural dwellers are likely to benefit more quickly from migration following the new labour economic theory on remittances than poor and uneducated rural dwellers (Taylor et al, 2005).

*Table 2 : Gini Coefficients of Per Capita Income with and without Remittances*

	2004	2005	2006	2007	2008	2009
Gini Coefficient of Income Excluding Remittances	0.896	0.787	0.866	0.800	0.745	0.832
Gini Coefficient of Income Including Remittances	0.833	0.853	0.837	0.800	0.735	0.894

*Source : Author's Calculations from NLSS (2004) HNLSS and World Development Indicators (2012).*

*c) Income Mobility*

Table 3 shows the result of the calculated AQIR and AQMR for rural Nigeria with and without remittances by year.

*Table 3 : AQIR and AQMR with and without Remittances*

Year	AQIR		AQMR	
	With Remittances	Without Remittances	With Remittances	Without Remittances
2004	0.90	0.92	0.54	0.56
2005	0.80	0.85	0.87	0.95
2006	0.59	0.63	1.39	1.23
2007	0.87	0.90	0.70	0.70
2008	0.60	0.56	1.36	1.10
2009	0.62	0.69	1.32	0.99

As table 3 shows income mobility was low with or without remittances in 2004, but Income mobility from 2005 to 2006 was higher than that of the previous year with inclusion of remittances. Except for 2007, mobility for 2008 and 2009 follows similar pattern with 2005 and 2006 as AQMR (1.36 and 1.10) was higher with the inclusion of remittances in household income. A cursory examination of AQIR and AQMR reveals that inclusion of remittances had positive effects on these indices. For instance, except for 2004, inclusion of remittances reduced AQIR by between 5 and 15 percentage point indicating reduction in immobility rate while inclusion of remittances in AQMR increased the indices by between 8 and 20 percent point indicating increase in move rate. Generally, the sample rural households' income mobility was higher with remittances than without remittances

inspite of the slightly unequalising effect of remittances in rural Nigeria.

*d) Income Mobility and Long-Term Income Inequality*

*Table 4 : P-value for Rural Household Income Mobility*

Year	P-Value
2004	0.04
2005	0.05
2006	0.07
2007	0.10
2008	0.11
2009	0.13

Table 4 shows that P-value progressively increased from 0.04 in 2004 to 0.13 in 2009. These empirical results indicate that income mobility has contributed to long-term income equality.

## V. CONCLUSION

The study employed standard income mobility analytical technique to determine rural households' income mobility with and without remittances. It also evaluated long term income inequality effect of income. Using the NLSS (2004), HNLSS (2009) and the balance of payments data on remittance, found Gini coefficient of inequality decreases by 7 % from 0.896 to 0.833 when total remittances were included in income 2004, but increased from 0.787 to 0.853 in 2005. Gini coefficient also decreases by 6.58% from 0.866 to 0.837 when remittances were included but remain unchanged from 0.800 to 0.800 when remittances were included in 2007. Gini coefficient went down from 0.745 to 0.735 in 2008, but rebounded from 0.832 to 0.894 in 2009 when remittances were added; indicating that there are linkages between remittances and income inequality. In addition, the sample rural households' income mobility was higher with remittances than without remittances while the P-value shows inclusion of remittances in rural house has contributed to long-term income equality thus, Remittances have reduced the rural households' income inequality (P-value) and helped Income mobility in rural Nigeria over time.

Notwithstanding the limitations of the adopted approach in this paper, the simplistic and misleadingly accepted notion of dominating income immobility in rural Nigeria is rejected. This paper is the first attempt towards uncovering the role of remittances in income mobility. Further modeling efforts and the construction of appropriate panel data will be critical in providing the mechanisms through which it operates.

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- (f) Results should be presented concisely, by well-designed tables and/or figures; the same data may not be used in both; suitable statistical data should be given. All data must be obtained with attention to numerical detail in the planning stage. As reproduced design has been recognized to be important to experiments for a considerable time, the Editor has decided that any paper that appears not to have adequate numerical treatments of the data will be returned un-refereed;
- (g) Discussion should cover the implications and consequences, not just recapitulating the results; conclusions should be summarizing.
- (h) Brief Acknowledgements.
- (i) References in the proper form.

Authors should very cautiously consider the preparation of papers to ensure that they communicate efficiently. Papers are much more likely to be accepted, if they are cautiously designed and laid out, contain few or no errors, are summarizing, and be conventional to the approach and instructions. They will in addition, be published with much less delays than those that require much technical and editorial correction.



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It is vital, that authors take care in submitting a manuscript that is written in simple language and adheres to published guidelines.

## Format

*Language: The language of publication is UK English. Authors, for whom English is a second language, must have their manuscript efficiently edited by an English-speaking person before submission to make sure that, the English is of high excellence. It is preferable, that manuscripts should be professionally edited.*

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Abbreviations supposed to be used carefully. The abbreviated name or expression is supposed to be cited in full at first usage, followed by the conventional abbreviation in parentheses.

Metric SI units are supposed to generally be used excluding where they conflict with current practice or are confusing. For illustration, 1.4 l rather than  $1.4 \times 10^{-3} \text{ m}^3$ , or 4 mm somewhat than  $4 \times 10^{-3} \text{ m}$ . Chemical formula and solutions must identify the form used, e.g. anhydrous or hydrated, and the concentration must be in clearly defined units. Common species names should be followed by underlines at the first mention. For following use the generic name should be constricted to a single letter, if it is clear.

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### Optimizing Abstract for Search Engines

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### Key Words

A major linchpin in research work for the writing research paper is the keyword search, which one will employ to find both library and Internet resources.

One must be persistent and creative in using keywords. An effective keyword search requires a strategy and planning a list of possible keywords and phrases to try.

Search engines for most searches, use Boolean searching, which is somewhat different from Internet searches. The Boolean search uses "operators," words (and, or, not, and near) that enable you to expand or narrow your affords. Tips for research paper while preparing research paper are very helpful guideline of research paper.

Choice of key words is first tool of tips to write research paper. Research paper writing is an art. A few tips for deciding as strategically as possible about keyword search:



- One should start brainstorming lists of possible keywords before even begin searching. Think about the most important concepts related to research work. Ask, "What words would a source have to include to be truly valuable in research paper?" Then consider synonyms for the important words.
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- One should avoid outdated words.

Keywords are the key that opens a door to research work sources. Keyword searching is an art in which researcher's skills are bound to improve with experience and time.

Numerical Methods: Numerical methods used should be clear and, where appropriate, supported by references.

*Acknowledgements: Please make these as concise as possible.*

#### References

References follow the Harvard scheme of referencing. References in the text should cite the authors' names followed by the time of their publication, unless there are three or more authors when simply the first author's name is quoted followed by et al. unpublished work has to only be cited where necessary, and only in the text. Copies of references in press in other journals have to be supplied with submitted typescripts. It is necessary that all citations and references be carefully checked before submission, as mistakes or omissions will cause delays.

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Even though low quality images are sufficient for review purposes, print publication requires high quality images to prevent the final product being blurred or fuzzy. Submit (or e-mail) EPS (line art) or TIFF (halftone/photographs) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Do not use pixel-oriented software. Scans (TIFF only) should have a resolution of at least 350 dpi (halftone) or 700 to 1100 dpi (line drawings) in relation to the imitation size. Please give the data for figures in black and white or submit a Color Work Agreement Form. EPS files must be saved with fonts embedded (and with a TIFF preview, if possible).

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**26. Go for seminars:** Attend seminars if the topic is relevant to your research area. Utilize all your resources.



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**28. Make colleagues:** Always try to make colleagues. No matter how sharper or intelligent you are, if you make colleagues you can have several ideas, which will be helpful for your research.

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**33. Report concluded results:** Use concluded results. From raw data, filter the results and then conclude your studies based on measurements and observations taken. Significant figures and appropriate number of decimal places should be used. Parenthetical remarks are prohibitive. Proofread carefully at final stage. In the end give outline to your arguments. Spot out perspectives of further study of this subject. Justify your conclusion by at the bottom of them with sufficient justifications and examples.

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- Fundamental goal
- To the point depiction of the research
- Consequences, including definite statistics - if the consequences are quantitative in nature, account quantitative data; results of any numerical analysis should be reported
- Significant conclusions or questions that track from the research(es)

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- Present a justification. Status your particular theory (es) or aim(s), and describe the logic that led you to choose them.
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The page length of this segment is set by the sum and types of data to be reported. Carry on to be to the point, by means of statistics and tables, if suitable, to present consequences most efficiently. You must obviously differentiate material that would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matter should not be submitted at all except requested by the instructor.



## Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
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- Explain results of control experiments and comprise remarks that are not accessible in a prescribed figure or table, if appropriate.
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- Do not present the similar data more than once.
- Manuscript should complement any figures or tables, not duplicate the identical information.
- Never confuse figures with tables - there is a difference.

### Approach

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- All figure and table must be adequately complete that it could situate on its own, divide from text

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- Give details all of your remarks as much as possible, focus on mechanisms.
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- Recommendations for detailed papers will offer supplementary suggestions.

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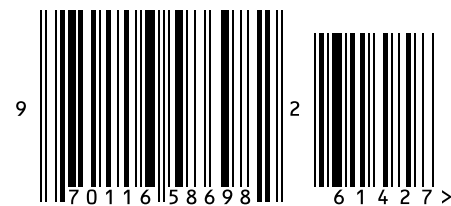


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