

Empirical Assessment of Socioeconomic Determinants of Portfolio Investment Decisions of Civil Servants in Nigeria

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Abstract

Individual's financial decisions are of paramount importance for both households and the Economy in general. This paper is aimed at investigating and adjudging possible reasons for the impoverished state of most retired Civil servants in Nigeria and in so doing it explores how socio-economic variables such as Gender, Age, Years of Education, Net Worth (Income) and Savings affect Portfolio Investment decisions of civil servants in Nigeria, strategically using Edo State which is largely a civil service dominated State as our area of study. Questionnaires were randomly administered to a sample of civil servants in various Ministries and Government agencies and data obtained were analyzed first by percentages and empirically by Multiple Regression strategies. The findings were robust and indicate generally that very little attention is paid by our study population to investing on various portfolios assets available prominently for either lack of Savings, financial education or other economic exigencies. The empirical estimation revealed that Gender, and Savings in particular impacted positively on Portfolio investment decisions. It is also observed that individuals held homogenous assets in their portfolios, indicating lack of portfolio diversification which appeared to be due to either ignorance or difficulties of having easy access to financial assets such as fixed interest securities. Though, the study focused on Nigerian Civil servants, it has relevance and significance for all fixed income workers both in the public and private sectors of global economy. It also has implications for employers of labour, government agencies and public policies and its impact on nations' GDP is tremendous.

Keywords: *Socio-economic determinants, Portfolio investment decision, Investor behaviour, Civil servants, Nigeria.*

INTRODUCTION

Civil servants in Nigeria are predominantly public sector workers in various establishments, government agencies and institutions, particularly, in the three tiers of government. They are employed by government agencies and are entitled to monthly income which is relatively fixed except for some small annual increments that serves as incentive for recognized performance or promotion. Nigerian civil servant retirement after 35 years of service or at the attainment of 60 years of age is not negotiable. With a sudden drop in income, a large proportion of retired civil servants in Nigeria suffer hardship, now depending on some meager pension salary which often times the commencement of payment is delayed to the detriment of the suffering beneficiaries due to bureaucratic administrative processes. Unfortunately, it is often found that most of these persons do not have investment returns to smooth their consumption. Against this background, we attempt to investigate

how Socio-economic factors impact on investment decisions of Civil servants in Nigeria.

Socio-economic is a term used generally to signify the interaction of social life and economic activities or social and economic factors. It is concerned with how social processes or advancement in societies affect economic activities. Socio-economic also refers to social economics which Lutz (2009), described as 'a discipline that deals with the study of the reciprocal relationship between economic science on the one hand and social, philosophy, ethics, and human dignity on the other'. More often, socio-economic study seeks to explore how social elements interact with or influence economic factors in order to enhance and improve economic development generally in terms of Gross Domestic Product (GDP). The interaction between social and economic factors results in efforts to integrate social consideration into economic activities and to more fully integrate socio-economic considerations into investment decisions.

The term 'investment' may be defined generally as the accumulation and commitment of resources made in the hope of realizing benefits that are expected to occur over a reasonably long period of time in the future. Portfolio Investment Decision is about making choices, whether to save or spend my income? If the individual decides to save then the next decision would be what should be done with the Savings, whether to invest or expend it on vacation. These decisions may be determined by a host of external factors ranging from Individual awareness of investment options to social and economic factors. Thus, in this study, we attempt to investigate empirically how social factors like Gender, Age, and Years in Education interact with economic factors like Savings and Net-worth (Income) to influence or shape Investment decisions amongst Civil servants in Nigeria.

Throughout the life cycle of an individual, 'economic or financial security' is intrinsically linked to both his income and ownership of assets (investments). **This is fundamental to sustaining healthy standard of living. When an individual secures a steady income flow and build assets that are capable of meeting their own and their dependents liabilities outflows, financial security may be said to have been achieved.** Thus, financial security emphasizes family economic improvement and perhaps, community-level system transformation. Building assets or investments can help individuals, families and communities expand their economic horizon towards attaining economic security. Investments generate returns that generally improve aggregate life time consumption and household's wellbeing over an extended time horizon and thus constitute a source of security against contingencies. Various types of investment instruments are available both in the capital and money markets. Each individual decides where to invest and what portfolio of investment or assets to own. An investment portfolio may contain multiple assets, though, in some cases it may be a single asset. Investment decision is important because it transfers today's purchasing power to the future and enhances future cash inflows of the investor and hence better living standard.

STATEMENT OF PROBLEM

It is a generally observed trend that the gap between incomes earned or cash inflow during the periods of active service and after retirement of the Civil servant in Nigeria is considerably large. Perhaps, it is a reflection of the fact that most people do not accumulate supportive investments to augment their income while in service. The resultant effect is that most of them do not have investment returns to smooth their consumption at any time. Against this background, the study seeks to empirically explore socio-economic determinants of portfolio investment decisions of Civil servants in Nigeria. Specifically,

the study is aimed at determining whether Age, Gender, Years of Education, Savings and Net Worth (Income) have any significant relationship with Portfolio investment decisions of Civil servants in Nigeria.

LIMITATION OF STUDY

A research study of this nature has very important policy implications for the developing economies of the world and indeed for the economy of nations that desire to invest to boost future cash flows for a sustained better standard of living of its civil servants. However, focus is on the Nigerian Civil Service from whose employees the data for the research work is sourced.

STATEMENT OF HYPOTHESES

Pursuant to the goal of this research study, we formulated a null hypothesis (H_0) with respect to the underlying Socio-economic characteristics and Portfolio Investment Decision. The hypothesis is as follows:

H_{01} : There is no significant relationship between Portfolio investment decisions and Gender, Age, Years of Education, Savings and Income of Civil servants in Nigeria.

This paper is organised into five sections. Following this introductory section is section 2 which deals with the Review of related literatures. Section 3 is the Research Methodology while section 4 presented and analysed the results of our research survey and empirical estimations and section 5 discussed Summary, Conclusion and Recommendations.

REVIEW OF RELATED LITERATURES

In developed and developing economies, conventional models such as neoclassical models proved quite successful in explaining aggregate and individual investments decision making and investment performance overtimes. In the very recent times, attention has been shifted towards the role of Socio-economic factors in explaining investment across countries. McKinnon (1973) and Shaw (1973) offered a theoretical and empirical foundation for the relationship between monetary factors and investment. These authors advanced the hypothesis that investment in developing countries is positively associated with the accumulation of real money balances. The McKinnon-Shaw hypothesis is based on the assumption that limited access to credit in developing countries forces investors to accumulate enough real balances before they can initiate investment projects. However, this study pays particular attention to two categories of factors affecting investment decision making, namely Social and Economic factors. Specifically, the study is aimed at determining whether Social factors such as Gender, Age, Years of Education and Economic factors such as Savings and Net Worth (Income) have

any significant relationship with portfolio investment decision making amongst Civil servants in Nigeria.

The starting point for most neoclassical economic research on Saving, Asset accumulation and Investment has been the Life Cycle Hypothesis (LCH) (Ando and Modigliani, 1963). For the Nigerian Civil servants, Savings is the main source of funds for investment. Savings is fundamental to investment and investing towards retirement is of utmost importance in the life of every Civil servant in Nigeria and households globally. Modigliani and Brumberg (1954) postulated the Life Cycle Hypothesis (LCH) which contends that the propensity to save or consume is a function of an individual's stage in the life cycle and may be based on individual's behaviour and influenced by several other factors. From the Life Cycle Hypothesis we also understand that the average propensity to consume is greater in both young and aging individuals; that individual at the early stage of their working life saves less whereas during the middle stage of their working life they have a higher propensity to save and accumulate assets and a lower propensity to consume. We deduce from LCH that during the retirement stage when the inflow of funds is suddenly minimized, individuals have lower propensity to save and in the event that there are no other sources of funds to augment income and smooth consumption, it may usually leads to the disposal of assets in order to maintain a given standard of living. These variations of Savings lead to portfolio rebalancing over the life cycle.

According to Grable and Lytton (1999) income is an important determinant of individual investment attitude. Their research findings show that there is a positive relationship between income and risky portfolio investment, meaning that wealthy investors are more likely to hold a higher proportion of their portfolios in risky assets. However, Schooley and Worden (1999) argued that families with more financial responsibilities hold significantly higher percentages of equity in their portfolios than those with fewer financial commitments. The findings might be interpreted as an argument affirming that wealthy people appear to be more conservative with their money than people with low levels of personal wealth; that low income households may view risky investments as some sort of lottery ticket, and be more willing to bear the risk associated with such payoffs.

The gender attribute of persons (investor's sex) is one of the most researched factors that appear to determine the risk and investment attitude of individual investors. Jianakoplos and Barnesek (1998) contend that a far lower percentage of women than men are willing to take any financial risk at all. Lewellen et al. (1977) opined that sex was the third

most important determinant of investor style (after age and income). From theoretical and empirical studies, it has been affirmed that women tend to invest more conservatively and manage retirement account decisions more conservatively than men and that women, on the average, take less risk than men. However, there are contradictory evidences. Johnson and Powell (1994) argued that in specific circumstances women appear as risk loving as men or even more risk loving. Schubert (2006) shows that women appear less sensitive to probabilities and more pessimistic about gains than men.

The variable 'Age' is found to be the most important determinants of investor style or attitude (Lewellen et al, 1977). There are also several theoretical and empirical literatures that support the notion that young people are less risk averse than elder people in the same task context. Young investors, unlike old investors, can adjust their current consumption downward and use some leisure time (work more) to compensate for losses in their portfolios. Heaton and Lucas (2000) reported a positive relation between investor's age and the percentage of equities in portfolios, but when people retire, they reduce the weight of equities. According to Ando and Modigliani (1963), the Life Cycle Hypothesis (LCH) also postulates that the level of consumption and saving is a function of an individual's age in the life cycle. Young households are expected to have negative saving since they typically have relatively low earnings and incur debt for education, home purchase, and other expenses. In the middle period of the life cycle, saving is expected to be positive because individuals pay their debts and begin to save or invest for retirement. Upon retirement, households are expected to save less or begin to reap from the benefits or returns of their investments. Thus, differences in consumption and investment among households are believed to be partly the product of age differences, and the pattern of investment. However, Poterba and Samwick (2001), and Feng and Seasholes (2007) opined that there is no significant relationship between investor's age and the percentage of equities in investors' portfolios.

On another note, it is argued in theoretical literatures that an investors' educational level (Years of Education) is a measure of an individual earning power and is hypothesized as one of the determining factors of portfolio investment decisions. Schooley and Worden (1999) reported that American investors with high-school diplomas tend to hold more equity portfolios and are heavily biased towards fixed-income securities, which are seen as less risky than equities. Christiansen et al. (2006) affirmed that investors with higher education invest a larger fraction of liquid asset in stocks and bonds. While more evidences abound suggesting that increasing financial literacy leads to greater saving and smarter

investment choices, it is certainly likely that those who lack basic financial knowledge and skills have more trouble finding and using appropriate saving and investment vehicles

BEHAVIOURAL FINANCE THEORY

According to Lintner (1998), behavioural finance is 'the study of how humans interpret and act on information to make informed investment decisions'. The emergence of behavioural finance has presented a new realm for analyzing the ways in which investors make decisions that includes psychological factors; as well as providing new grounds upon which to question conventional methods of modeling determinants of investor behaviour. Brabazon (2000) suggests that the finite aspects of behavioural finance can be split into two different classification groups. The first is that of heuristic decision processes (a commonsense rule), where an individual investor through instinctive psychological processes can result in decisions that according to the standard finance model, are not rational. The second group includes what Kahneman and Tversky (1979), cited by Brabazon (2000), labels as 'Prospect theory' which provides a thicker structure of how individual investment decisions are made.

Brabazon (2000) explains that these decision processes are those with which humans attempt to make mental 'short cuts'. These short cuts have been vital for the survival of the human race, especially useful when decision making time is limited. Decision makers in this instance tend to form decisions by observing patterns that may not be relevant or even truly apparent (Brabazon, 2000). They may assume that a recent trend in price movements will definitely continue into the future. This may result in individual investors devoting too much attention to popular stocks that have recently been performing well. Statman (1999) explained that being duped into making investment decisions based upon this imperfect theory of small numbers is something that the standard finance investor would never do; that an investors regarding past performances of stocks as evidence of future returns is a realistic possibility contrary to the standard finance model of an investor. Nofsinger (2002) explains how this psychological factor affects individual investors' decisions and opined that regret aversion results in a 'disposition effect' where investors sell well performing stocks too soon and hold poorly performing stocks for too long. Regret aversion may also result in what is known as herding behaviour. An investor may feel more comfortable investing in a popular stock if everyone else believes that it is a good one. Responsibility of it failing will be shared with the other investors who originally expected it to do well also.

METHODOLOGY

Research Design and Data collection Technique

Collecting credible data for a research of this nature is a very tough task. 'Survey design' technique was considered most suitable to examine Socio-economic variables and Portfolio Investment decisions of Civil Servants in Nigeria. The sampling technique adopted is the Random sampling technique which gives a fair view of the population under investigation. In this vein, the survey instrument (structured questionnaire) was divided into four sections, namely, Demographic and Social) variables of Gender, Age and Years of education and Economic variables of Savings and Net worth (Income). The survey method of data collection involves administering the research instrument to a sample of the population under investigation.

The study is focused generally on the Civil servants in Nigeria. The Civil servants in Nigeria have generic characteristics such that the study of a section is of general application. Thus for this research work, Edo State which is largely a civil service dominated State was strategically picked as our area of study. Edo State, though rich in natural resources, lacks industries and the active participation of the private sector. According to Edo State Civil Service Commission Annual Report (2010) the population of Civil servants in Edo State was three, thousand five hundred and fifty-four (3,554) and consists of eighteen (18) Local Government Areas (LGA). Fifty (50) questionnaires were distributed to each of the eighteen (18) LGA in the state, representing a sample size of 900. However, 822 questionnaires were retrieved back representing a response rate of 91%. Some fundamental assumptions were made which include the following.

- 1) That, Civil servants are forward thinking individuals when making consumption decisions and considers life time economic resources and needs.
- 2) That the Years of education is related to access to financial information
- 3) That Savings is the core source of accumulating capital funds for investment and that all Savings are invested.
- 4) That, Civil servants have imperfect knowledge about financial matters.
- 5) That, Civil servants are rational and have rational expectation regarding portfolio investment.

Respondents were asked about their 'Awareness of Portfolio Investment options' on which decisions to invest could be made. The reasoning is that it is only individuals that have this awareness that are likely to make investment decisions and own investments. A binary option system having 'Yes' and 'No' options was adopted and responses were calculated first in percentages. The Respondents who indicate the 'Yes'

option are individuals that are aware of the availability of portfolio investment options and that are likely to make Portfolio Investment Decisions (PID) and own investments. Thus in this study, these responses represents data for the dependent variable (PID). These Respondents who indicated 'Yes' option of being aware of investment options were further asked in a follow-up question if they already own investments. 'Yes' option also in a binary system of Yes/No, indicates 'Ownership of investment'. Ownership of investment denotes 'effective awareness' of investment options and these responses for the various Socioeconomics characteristics were classified data for our independent variable. The obtained data were analyzed using Multiple Regression techniques. In estimating our data for analysis, we employed the IBM Statistical Package for Social Science, (SPSS) Version 20. In determining the existence of diversification of investment; another follow-up question was put forward to Respondents who indicated ownership of investment on 'what type of investments they own'. The types of investment were given in a four-point ordinal options comprising of: Certificate of Deposit (CD), Stocks and Shares (S&S), Bonds and Short-term-Securities (STS) like treasury bills and certificates. A Certificate of Deposit (CD) is a time deposit, a financial product commonly sold by banks in Nigeria and are insured, thus virtually risk free and has a specific, fixed term (often monthly, three months, six months, or one years) with a fixed interest rate and is usually held until maturity, at which time it may be re-fixed or the money may be withdrawn together with the accrued interest

THEORETICAL FRAMEWORK AND MODEL SPECIFICATION

To test our hypotheses in section one above we employed the Multiple Linear Regression (MLR) technique, a statistical technique that uses several explanatory or independent variables to predict the outcome of a response or dependent variable. The main objective of MLR is to model the relationship between a variable Y referred to as the dependent or explained variable and a set of other variables (say, X_1 ; X_2 ;; X_k) called the explanatory variables, and an unobserved random term referred to as stochastic disturbance or stochastic error term usually denoted by U". The theoretical form of linear regression model is given as:

$$Y = f(X_1, X_2, X_3, X_4, X_5) \quad (\text{Eqn 1})$$

Where Y = Dependent variable and

X_1, X_2, X_3, X_4 and X_5 = Independent variables

From the above, the general linear regression model for our empirical estimation is expressed relating Y to a function of X; β and U as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + U \quad \dots\dots\dots(\text{Eqn 2})$$

Where: Y = Awareness of Portfolio Investment Options (APIO)

X_1, X_2, X_3, X_4 and X_5 = Ownership of Investment (Decisions made) as per responses for the various categories of Socioeconomic variables X_1 = Gender; X_2 = Age; X_3 = Years in Education;

X_4 = Savings; X_5 = Income

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = The parameters (coefficients) of the independent variable

β_0 = The intercept (Value of Y when the independent variables assume zero as value. r

U = Random disturbance.

For the purpose of our empirical analysis, we re-specify below our empirical models

$$PID = \beta_0 + \beta_1 \text{Gender} + \beta_2 \text{Age} + \beta_3 \text{Yrs of Educ} + \beta_4 \text{Savings} + \beta_5 \text{Income} + U \quad \dots(\text{Eqn 3})$$

Where: PID = Portfolio Investment Decisions

The apriori expectations with respect to sign are:

$\beta_0 > 0$; $\beta_1 > 0$; $\beta_2 > 0$; $\beta_3 > 0$; $\beta_4 > 0$; and $\beta_5 > 0$

PRESENTATION AND DESCRIPTION OF RESULTS

Table 1 presents responses as per the categories of Socio-economic determinants and Portfolio Investment Decisions expressed in percentages. As earlier stated, the study sample size is 900; however, 822 questionnaires were retrieved back representing a response rate of 91%. For ease of analysis, we based our 'Total responses' on 822 and thus presumed a response rate of 100% as shown in the table. On the general note, of the 822 respondents, 765 representing 93% are aware of investment options and thus likely to or to have made investment decisions but 7% of them numbering 57 are not aware of investment options and could not be said to have ever made investment decisions. Again, of the 765 respondents that ticked 'Yes' of being aware of investment options, only a tiny proportion of 192 respondents representing 25% actually own investment. This small proportion of respondents could be said to have 'effectively awareness' of investment options to have made investment decisions and 573 respondents representing 75% though aware of investment options, never made decisions to invest. Our findings also revealed that the investment decisions of our study sample have their special characteristics as per the various categories of socioeconomic factors as discussed below.

Several theoretical literatures have lent support to the view that men are more proactive in making investment decisions than women and that women tend to invest conservatively and manage retirement account decisions more conservatively too. Against this backdrop, we made deliberate efforts to distribute equal number of questionnaires to both males and females to enable us draw independent and

reasonable inferences. For that reason, 450 questionnaires were conscientiously and painstakingly distributed to male and another 450 to female respondents. However, of the 822 questionnaires retrieved, 419 responses representing 51% were male and 403 responses representing 49% were female. Of the 419 male respondents, 402 are 'aware of investment options' and out of which only 166 representing 41% own investment, that is, made investment decisions. Comparatively, this outcome appear far better than that of the women in which out of the 403 responses retrieved, 363 representing 90% are 'aware of investment options' and out of which only 26 respondents represent 7% actually own investment, that is, made investment decisions. This result further affirmed the view that women appear to be more risk averse, exhibiting less confidence in their ability to make right investment decisions. The general poor investment behaviour exhibited in the result also reveal the reason for the inability of Civil servants in Nigeria to generate extra funds on retirement.

The early stage in the career of most Nigerian Civil servant is very demanding and challenging and it appears to be the most pressured period in their life cycle. There is the desire to start and equip a home, get married, run the family exigencies, develop a career and that of dependants, care for aging parents et cetera. All these activities take priority positions to investments and this is reflected in the survey outcome. For respondents between the age group of 20 – 35 years, 411 respondents representing 96% are aware of investment options. However, only 27 respondents representing 7% own investment. The situation appear better for the middle age group of between 36 – 50 years where of the 224 respondents that are aware of investment options, 142 representing 63% own investment – made investment decision. This also lends support to the view that in the middle period of the life cycle, saving is expected to be positive as individuals struggle to save and invest for retirement.

The social variable of 'Years in Education' serves dual purposes to investors. From theoretical literatures, the view holds that the more educated an individual is, the more likely he will be informed on financial matters. In Nigeria in particular, educational level is a measure of individual earning power. The power of information and the power of cash (available funds) have the ability to enhance individual chances of investing. This fact is conspicuously reflected in our result outcome as the percentage of respondents who own investment and made investment decisions graduate from 2%, 47%, 72% to 83% for respondents who had 12 years (Ordinary – level), 15 years (Bachelor), 16 years (Masters) and 18 years (Doctorate) respectively of education.

The impact of Savings and Income appear similar in the sense that the higher the level of Savings or Income, the higher the propensity to invest for most individuals. The proportion of respondents who own investments and thus made investment decisions for the three categories of Savings graduated from 6%, 66% to 73%. In the Income categories it graduated from 4%, 40% to 82% for N100,000 – N250,000; N250,001 – 1000,000 and N1000,001 & above categories respectively. These research results also lend support to the view that there is a positive relationship between investments and the level of Savings and Income.

Table 1: Responses as per the Categories of Socio-economic Characteristics and Portfolio Investment Decisions in Percentages

	Total Responses (Retrieved Questionnaires)	Awareness of Investment Options to make Decisions		Own Investments (i.e Made Investment Decisions)	
		YES %	NO %	YES %	NO %
No of Observations	822 100%	765 93%	57% 7%	192 25%	573 75%
Gender					
Male	419	402 96%	17 4%	166 41%	236 59%
Female	403 51%	363 90%	40 10%	26 7%	337 93%
Age (Years)					
20 - 35	427	411 96%	16 4%	27 7%	384 93%
36 - 50	224 52%	224 96%	22 4%	142 7%	82 37%
51 - 60	246 30%	224 91%	22 9%	142 63%	82 37%
	149 18%	130 87%	19 13%	23 18%	107 82%
Yearsof Education					
12yrs O-Level	469	415 88%	54 12%	8 2%	407 98%
15yrs (Bachelor)	278 34%	275 99%	3 1%	129 47%	146 53%
16yrs (Masters)	69 6%	69 100%	0 0%	50 72%	18 28%
18yrs (Doctorate)	1 1%	6 100%	0 0%	5 83%	1 17%
Savings (N)					
10,000 --	566	523 92%	43 8%	31 6%	492 94%
500,000 --	245 30%	231 94%	14 6%	153 66%	78 34%
1000,000 & above	11 1%	11 100%	0 0%	8 73%	3 27%
Income (N)					
100,000 --	440	398 90%	42 10%	16 4%	382 96%
250,000 --	310 38%	300 97%	10 3%	121 40%	179 60%
1000,001 & above	72 9%	67 93%	5 7%	55 82%	12 18%

Source: Research Survey, 2013

Table 2 presents a bivariate Relationship between Socio-economic Characteristics and the spread of Portfolio Investment owned by our studied sample. This is aimed at ascertaining whether or not there is diversification of investments among the respondents. Though, there are various types of investments both in the Capital and Money markets, Certificate of Deposit (CD), Stock and Shares, Bonds and Short-Term-Securities such as

Table 2: Bivariate Relationship between Socio-economic Characteristics and the Spread of Portfolio Investment Owned (Diversification of Investments)

	Own Investments ('Yes' Option)	Categories of investments owned			
		CD	S & S	BONDS	ST S
Gender					
Male	156	97	59	nil	nil
Female	36	62% 31 86%	38% 5 14%	nil	nil
Age (Years)					
20	27	16	11	nil	nil
35	142	59%	41%	nil	nil
36	23	80	62	nil	nil
50		56%	44%		
51		15	8		
60		65%	35%		
Years of Education					
12yrs O-Level	8	8	0	nil	nil
15yrs (Bachelor)	129	100%	-	nil	nil
16yrs (Masters)	50	83	46	nil	nil
18yrs (Doctorate)	5	64%	36%	nil	nil
		33	17		
		66%	34%		
		3	2		
		60%	40%		
Savings (N)					
10,000	31	17	14	nil	nil
500,000	153	55%	45%	nil	nil
500,001	8	85	68	nil	nil
1000,000		56%	44%		
1000,001		5	3		
& above		63%	37%		
Income (N)					
100,000	16	9	7	nil	nil
250,000	121	56%	44%	nil	nil
250,001	55	63	58	ni	nil
1000,000		52%	48%		
1000,001		23	32		
& above		42%	58%		

Source: Research Survey, 2013

KEY:

CD = Certificate of Deposit; **S & S** = Stock and Shares; **ST S** = Short-Term- Securities e.g. Treasury bills & certificate.

Treasury bills and certificates are the most patronized investments in Nigeria. From the table, it could be observed that a large proportion of Civil servants patronize Certificate of Deposit while only a few invest in Stock and Shares, none invested in Bonds and Short-Term-Securities such as Treasury bills and

Certificates. We conclude from the foregoing that there appear to be no proper diversification of investment amongst the Civil servants under investigation. These results are pointers to governments and investment managers of the necessity of adequate information dissemination to the general public and Civil servants in particular so that individuals can fully participate in the purchase of government securities and invest in assets such as Bonds, Treasury bills and certificates.

EMPIRICAL ANALYSIS OF RESULTS

The results of the empirical estimation are shown on tables 3, 4 and 5 and are explained as follows. The empirical results indicate that Gender impacted positively on Portfolio Investment decisions. The positive sign of the Gender coefficient is in conformity with apriori expectation indicating that the gender of an individual positively impact on Portfolio investment decisions. This is also in conformity with the results in table 1 as the percentile analysis indicates in which the proportion of male and female who own investment stood at 41% and 7% respectively. However, Gender coefficient of .811 failed the test of statistical significance at all significant levels appearing to suggest that Gender does not significant to Portfolio Investment Decision making.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.282 ^a	.080	-.432	198.829	2.311

a. Predictors: (Constant), Income, Gender, Savings, Age, Yrs in Educ

b. Dependent Variable: Aware of Inv. Options

Source: Regression Analysis Report using IBM SPSS Version 20; 2013

Table 4 ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	30748.458	5	6149.692	.156	.973 ^b
Residual	355797.542	9	39533.060		
Total	386546.000	14			

a. Dependent Variable: Aware of Inv. Options

b. Predictors: (Constant), Income, Gender, Savings, Age, Yrs in Educ

Source: Regression Analysis Report using IBM SPSS Version 20; 2013

Table 5: Coefficients

Model	Coefficients ^a			T	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
(Constant)	242.059	78.043		3.102	.013
Gender	1.052	1.297	.272	.811	.438
Age	-.027	1.528	-.006	.018	.986
Yrs in Educ	-.218	1.632	-.045	.134	.896
Savings	.212	1.412	.050	.150	.884
Income	-.007	1.704	-.001	.004	.997

a. Dependent Variable: Aware of Inv. Options

Source: Regression Analysis Report using IBM SPSS Version 20; 2013

The empirical results also showed that Savings variable positively impacted on Portfolio Investment decisions. This conforms too to apriori expectation as affirmed by theoretical views that the higher the level of Savings, the more likely the propensity to invest. However, the variable also failed the test of statistical significance at all significant levels with a coefficient of .150 and this cast doubts on its relevance to Portfolio Investment decisions.

The coefficients of Age, Education and Income variables from the empirical results showed -.081, -.134 and -.004 respectively, all indicating negative signs. This findings counter apriori expectation. It could however be an indication that the Civil servants under investigation are devoid of educational skills to manage financial activities and to invest or that their consumption rate is high or that a large proportion of them fall within the meager income bracket and are unable to make provisions for investment purposes. This may actually be true as evidenced by the low number of respondents that own investments. The survey results revealed that of the 822 responses retrieved, 765 representing 93% are aware of investment options but only 192 own investments or actually made investment decisions. Based on this empirical finding, it casts fear as to whether Age, Education and Income could be considered as being relevant to Portfolio Investment decisions. The model summary statistics, the coefficient of determination, R^2 , stood at .080 indicating that the explanatory variables accounted for only 8% of the systematic variation in dependent variable. The F – statistics of the Analysis of Variance (ANOVA) showed a coefficient of .158 indicating that empirically, the overall estimated model failed the test of overall

significance. However, these empirical findings counter apriori expectation.

SUMMARY

This paper seeks to explores Socio-economic determinants of Portfolio Investment decisions of Civil servants in Nigeria. The crux of the study was to ascertain if socio-economic factors such as Gender, Age, Years in Education, Savings and Income have any relationship with Portfolio Investment decisions of Civil servants in Nigeria. Edo State which is largely a civil service dominated State was strategically picked as our area of study. Questionnaires were randomly administered to a sample population consisting of Civil servants in Edo State, Nigeria and data obtained were first analyzed by percentages and multiple Regression strategies. The data for the research study were analyzed first by use of percentages and the empirical estimation was carried out with IBM SPSS version 20. Generally, the findings from the study were quite robust.

CONCLUSION

Our conclusion is drawn from our findings on both the percentile analysis and the empirical estimation. Generally, the findings revealed that though a large proportion of Civil servants in Nigeria are aware of investment opportunities, a very small proportion of them actually own investments, that is, made investment decisions. It means that a very large proportion of Civil servants in Nigeria do not make investment provisions to smooth consumption particularly after retirement. This certainly causes devastating fluctuation in their cash flows making them lean on a very meager pension salary which in some cases are not paid. Our findings also revealed that the investment decisions of our study sample have their special characteristics as per the socioeconomic factor we are exploring. In particular, it shows that men are more proactive in making investment decisions than women and that women tend to invest conservatively and manage retirement account decisions more conservatively too. Generally, we conclude from the outcome that the investment trend amongst civil servants in Nigeria is very poor revealing the reason why retired civil servants in Nigeria are unable to generate extra funds on retirement to smooth consumption and that is a contributory factor responsible for their very poor state.

On the other hand, our empirical findings were somewhat controversial as they counter apriori expectation on a number of grounds. Though the coefficients of Gender and Savings variables exhibited positive signs suggesting that they impacted positively on Portfolio Investment decisions, they failed the test of statistical significance at all significant levels with coefficients of .811 for Gender variable and .150 for Savings variable thus casting

doubts on their relevance to Portfolio Investment decisions. The coefficients of Age, Years in Education and Income variables showed negative coefficients of -.081, -.134 and -.004 respectively meaning that these variables do not impact on Portfolio Investment Decision. The model summary statistics, the coefficient of determination, R^2 , stood at .080 indicating that the explanatory variables accounted for only 8% of the systematic variation in dependent variable. The F – statistics of the Analysis of Variance (ANOVA) showed a coefficient of .158 indicating that empirically, the overall estimated model failed the test of overall significance. However, these findings counter apriori expectation and open doors for further researches.

Lastly, the findings revealed that a large proportion of Civil servants patronized Certificate of Deposit (CD) while only a few invested in Stock and Shares, none invested in bonds and Short-Term-Securities such as Treasury bills and Certificates. We conclude from the foregoing that the civil servants have limited knowledge on investments generally and investment options in particular and as a result, there is no meaningful diversification of investments.

RECOMMENDATION

The research findings brought to fore policy implications for Government, Management of government agencies and Investment managers. We therefore strongly recommend that Government via the Nigerian Stock Exchange (NSE) market should build up modalities that would effectively disseminate information on sale of government securities so that individuals can participate. Besides, the Nigerian Stock Exchange (NSE) owns the general public and investors in particular the responsibility of mounting up intensive education and training campaign. The greatest challenge to the (NSE) is to improve the level of knowledge of the individual investors. A program of continuous training of investors, the intermediaries, the issuers and the regulators is extremely of importance for the successful development of NSE. We also recommend that the educational campaign should involve the development of financial journalists. We earnestly suggest that the teaching of the interpretation of financial market publications in our daily business newspapers and on financial literacy generally should be introduced or strengthened in the secondary schools and particularly in the Universities. Radio and television should be used to reach more people explaining financial investments in securities in both English and local languages.

Encouraging individuals to invest in order to smooth their future consumption is a kind of empowerment against the future and indeed against poverty particularly at the retirement period. Thus, we recommend that government in conjunction with NSE should develop more Investment Trusts and

Funds. Again, the fact that a large proportion of investors in the Nigerian Stock Exchange (NSE) are small investors and unsophisticated points to the need to encourage Brokerage Managers to develop Investment Funds and Unit Trusts.

We also recommend the provision of incentives for market research and research cost reimbursement packages to brokerage firms and researchers. Greater access to quality research on information useful for investment analysis can be expensive. The introduction of research cost reimbursement packages to brokerage firms and other intermediaries providing such services will improve the availability of investment information, which will in turn make the market more efficient.

Lastly, there is the need for the Nigerian government to follow prudent macroeconomic policies. The high interest and inflation rates, budget deficits that have become persistent not only create financial instability, but also feed uncertainty, which negatively affects stock market development, performance of portfolios and returns on Investments.

REFERENCES

- Ando, A and F. Modigliani (1963). The Life Cycle Hypothesis of Savings: Aggregate Implications and Tests, *American Economic Review*. 53: 55-84.
- Brabazon, T. (2000). Behavioral Finance: A new Sunrise or a False Dawn, URL: <http://introduction.behaviouralfinance.net/Brab00.pdf>
- Christiansen, C. Joesen, J. S. and Rangvid, J. (2007). Genders, Marriage, and the Decision to Invest in Stock and Bonds: Do Single Women Invest More in Less Risky Assets?, D-CAF Working Paper No. 18. University of Aarhus, Denmark.
- David M. L. (2013) Introduction to linear regression, Online; Accessed December, 2013 Edo State Civil Service Commission (2010). Annual Report.
- Grable, J. E. and Lytton, R. H. (1999). Financial Risk Tolerance Revisited: The Development of a Risk Assessment Instrument”, *Financial Services Review*, 8 162-181.
- Heaton, J. and Lucas, D. (2000). Portfolio Choices and Asset Prices: The Importance of Entrepreneurial Risk. *Journal of Finance*, 55: 1163- 1198.
- Jianakoplos, N. and Bernasek, A. (1998). Are women More Risk Averse? *Economic Inquiry* 36, 620 -630.
- Johnson, J. and Powell, P. (1994). Decision Making, Risk, and Gender: Are Managers Different?, *British Journal of Management* 5, 153 – 138.

Kanheman, D. and A. Tversky (1979). Prospect Theory: An Analysis of Decision Under Risk, *Econometrica*, March.

Lewellen, W. L. and Schlarbaum, G. (1977). Patterns of Investment Strategy and Behaviour among Individual Investors, *Journal of Business*, 50: 296-333.

Lintner, G. (1998). Why Investors Make Bad Decisions, *The Planner*, 13 (1), pp. 7 - 8.

Lutz M. A. (2009) Social Economic; in Jan P. and Steven I handbook of Economics and Ethics. P516-522; Edward Elgar Publishing

Mckinnon, R. (1973). Money and Capital in Economic Development, Washington D. C. Brookings. *Journal of Economic and Social Studies*.

Modigliani, F. and Brumberg, H. (1954), Utility Analysis and the Consumption Function: An Interpretation of Cross-section Data, in Kenneth K. Kurihara, ed., *Post-Keynesian Economics*, New Brunswick, NJ. Rutgers University Press. Pp 388–436.

Modigliani, F. and Brumberg, H. (1990), Utility Analysis and Aggregate Consumption Functions: An Attempt at Integration, in Andrew Abel, ed., *The Collected Papers of Franco Modigliani: Volume 2, The Life Cycle Hypothesis of Saving*, Cambridge, MA. The MIT Press. Pp 128–197.

Nofsinger, J. R. (2002). *The Psychology of Investing*. USA: Prentice Hall.

Poterba, J. M. and Samwick, A. A. (2001). Household Portfolio Allocation over the Life Cycle. In: Ogura, S., Tachibanaki, T. and Wise, D., eds, *Aging Issues in the U.S. and Japan*. Chicago: University of Chicago Press. Pp. 65- 103.

Schooley, D. K. and Worden, D. D. (1999). Investors' Asset Allocations Versus Life-Cycle Funds, *Financial Analysts Journal*, 5: 37- 43.

Schubert, R. (2006). Analyzing Managing Risk- On the Importance of Gender Differences in Risk attitudes, *Managerial Finance*, 9: 706- 715.

Shaw, E. S. (1973). *Financial Deepening in Economic Development*. London: Oxford University Press.

Statman, M. (1999). *Behavioural Finance: Past Battles and Future Engagements*. URL: www.investopedia.com Accessed, December 2013