Bond Investment and Future Sustainability of Potential Retirees among Nigerian Academics in Selected Tertiary Institutions

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Abstract— Life after retirement is what many employees look forward to. However, the dependence on government pension scheme has failed majority of the senior citizen overtime hence the need for complementary source of fund to keep the future safe. Most studies on retirees were generalized on workers but not potential retirees that are lecturers in Nigeria. The study was carried out to determine the impact of bond investment on the retirement investment goals of steady income stream of potential retirees in Nigeria academia. The study adopted survey research design. The population of the study was 5,805 lecturers for both public and private tertiary institutions that were Universities and Polytechnics. A sample of 487 which was determined using Taro Yamane formula was used. Validated questionnaire was used in collecting primary data with Cronbach’s alpha reliability coefficients ranged from 0.70 to 0.75. The study recorded retrieval rate of 83.4%. The study adopted descriptive and inferential statistics for data analysis. The study showed that Bond Investment had significant effect on future sustainability of potential retirees that are lecturers because the result showed that there was a significant relationship between Bond investment and retirement investment goals ($β_1 = 0.529$, $R^2 = 22.4%$, $p< 0.05$). The study concluded that Bond Investment lead to future sustainability of potential retirees that are lecturers and equally recommended that government should encourage every individual to map out means to invest in financial asset in addition to the pension scheme to aid sustainability of every employee.

Keywords— Cronbach’s Alpha Reliability Coefficients, Phase of Life, Professionals, Retirement plan, Potential Retirees, Universities and Polytechnics.

1. INTRODUCTION

Fungi Life after retirement is what many professionals or employees look forward to; however, retirement should be planned in a way to guarantee easy means of life after a successful and productive career service. By implication, what should be of paramount importance is the ability to guarantee regular earnings for future sustainability of potential retirees. Starting from the developed world, the study of Wade and Wade (2015) revealed that it is good to bear in mind that employees have not sufficiently taking into consideration the issue of rethinking retirement plan. The study opined that there is the need for employees to determine the best finance option that will enhance the future and save potential retirees from income stress.
Meanwhile, Abraham and Harris (2014) had disclosed that the shift in the United States of America (U.S.A.) retirement system away from company pensions and movement towards individual retirement accounts has placed greater responsibility on workers for ensuring the adequacy of their saving and efficient management of those savings. The study of Wade and Wade (2015) added that, employees are only taking into consideration their present state of life or place more importance on the current sustainability.

Coming to the developing world, the work of Reynaud, (2000) as cited by Masinde and Olukuru (2014) had affirmed that over the past three decades in Kenya, the living condition of older persons has deteriorated as a result of the erosions of their economic power, changes in the family structures and roles, particularly on the care of older members of the immediate family and unsustainability of the pension schemes together with failure of government to justify her anticipated role in the upkeep and support of older persons in the community. Moreover, in Nigeria, the work of Amune, Aidenojie and Obinyan (2015) disclosed that the idea of retirement is perceived differently by different people. That is, some persons vision it positively and expect it with pleasure while others have negative attitude towards retirement as they relate that phase of life with dullness, economic distress, ill health and death. As a result, such personalities experience a sense of isolation and loss of prestige.

Meanwhile, to enhance future sustainability and eliminate loss of prestige, Garland, Hadfield, Howarth and Middleton (2009) disclosed the need for expansion that meet the needs of the present without jeopardizing the capacity of future age group to meet theirs. The study opined that adequate investment plan must be thought out. Garland, Hadfield, Howarth and Middleton (2009) added that defining the basic idea of sustainability is straight-forward but the actual problem is about knowing what to be sustained, how to sustain it, and for how long. In other words, the agitation is all about the type of investment needed and time horizon of the investment. However, investment which can be viewed as the act of living certainty for uncertainty was defined by Bhalla (2009) as the sacrifice of certain present value for the uncertain future reward. Bhalla (2009) opined that more often than not, people set aside for future use notwithstanding that the future being prepared for may not be totally guaranteed.

**The Problem, Objective and the Hypothesis of the Study**

The study was embarked upon to determine financial investment that can enhance future sustainability of potential retirees in the academics. The major problem of the study shall be, ‘how future of potential retirees can be sustained using bond investment’. The main objective was to determine the impact of bond investment on the retirement investment goals of steady income stream of potential retirees in Nigeria academia. The research hypotheses of this work are quoted in null terms as follow; bond investment has no significant impact on retirement investment goals of steady income stream of potential retirees in Nigeria academia.

**II. REVIEW OF RELATED LITERATURE/THEORETICAL UNDERPINNING**

This aspect of the study showcases the work of different scholar with the view to understand their opinion in order to adequately situate the current research work. The variables of concern for review are financial investments and retirement sustainability.

*Review of Concepts and Variables*
Bhalla (2009) viewed investment as the sacrifice of certain present value for the uncertain future rewards. The study reveals that investment choices are factors of three decisions, namely; informational or factual premise which is all about the information related to investment. In other words, you are able to venture into the investment base on the information available to you. Also, expectational premise, which relates to the outcome of alternative, will guide in the selection of one investment against the other, and finally, valuational premise relates to the value of the investment from time to time because an investor will prefer to have investment that is of high value which is determined through its marketability.

However, Dwivedi (2012) considered investment as activities that involve the spending of resources to create assets that can generate income over a long period of time or that can enhance the returns on the existing assets. The study proposed that investment should be categorized in three ways as; Investment in financial assets, investment in physical assets and investment in human capital.

Akintoye (2016) added that project or investment is the commitment of available economic resources with the belief of having a quantifiable rewarding output or benefit with a higher magnitude to the commitment in a future period that is full of uncertainty. The study added further that investment can be described as the use of limited or scarce resources at a particular time to enhance the generation of future economic benefits.

On the other hand, Bur (2001) stated that retirement is the act of leaving the service either voluntarily or compulsorily where such an employee has completed a specified period of service years or is removed from office by way of compulsory retirement, lay-off, dismissal (for acts of insubordination or misconduct), death, illness, or by voluntary withdrawal from service.

Iyortsuun and Akpusugh (2013) referred to retirement as an exciting time because it is the period when one becomes disposed to the leisure and freedom to travel and do other things of interest freely. The study added that, however, retirement for many people, can be challenging because it is not easy to adjust to the current situation of life such as; loss of stable work, lack of new meaningful activities to replace work, risk of world-weariness and sense of insignificance that can lead to depression and health problems.

Amune, Aidenojie and Obinyan (2015) viewed retirement as a situation where individual is formally or officially stopped from active work role and it is often perceived as the realization of a life goal. The study opined that it represents one of the happiest time of one’s life because it is a mark of honor and appreciation from one’s employer which is usually complemented with financial appreciation referred to as gratuity and other retirement benefits. Retirement is apparently an old practice in both private and public service in Nigeria.

**Theoretical Review**

This study is anchored on life-cycle theory which was developed by Franco Modigliani and his student Richard Brumberg in 1957, under the assumption that everyone plans consumption and saving behavior over the entire lifecycle. The theory opined that everyone intends to spread out consumption in the best possible manner over entire lifetime by accumulating when earns and discontinues savings when retires. The main postulation is that everyone choose to
maintain stable lifestyles. This reveals that people customarily save up a lot in one period to spend thoughtfully at another time, keeping their consumption levels approximately the same at all times \((C&S=f(\text{Income, Needs, Taste (Value & Alternatives), Economic Environment})\).

This theory expects that the life style should remain same over time which can only be sustained through the availability of the factors listed above.

This theory supports this study basically because every retiree will prefer to earn more than enough today in order to save the excess with the view to still have access to fund in the usual manner in future. The theory creates opportunities for individual to plan on the creation of regular stream of inflow to sustain the financial stability of retirees in future. This can only be possible by making adequate plan to invest in viable asset(s) that is sufficient to pay back return in future to enhance future sustainability.

**Empirical Review of Related Studies**

Kaplan and Strömberg (2000) considered how venture capitalists (VCs) choose or screen investments by studying the contemporaneous investment analyses produced by 10 venture capital firms for investments in 42 portfolio companies. The study aligned with most academic and anecdotal accounts and discovered that it is common for VCs to consider explicitly the desirability of the opportunity, which include; the market size, the tactic, the technology, customer acceptance, and competition – the management team, and the deal terms. Kaplan and Strömberg (2000) also provided evidence on how the venture capitalists are expected to monitor those investments. In at least half of the investments, the VC are expected to undertake prominent role in recruiting management. Additionally, Kaplan and Strömberg (2000) complemented the investment analyses with information from the financial contracts for the investments and consider the relation of the analyses with the contractual terms and with subsequent performance. In both analyses, the evidence disclosed that the VC’s original evaluation of the management team is important. Stronger management teams obtain more attractive contracts and are more likely to take their companies public.

Dehning and Richardson (2002) disclosed that the understanding of the return on investments in information technology (IT) has turn to the emphasis of a large and emergent body of research and hence carried out a study with the view to synthesize a research and introduce a model to monitor future research in the estimation of information technology investments. Dehning and Richardson (2002) focused on archival studies that employ accounting or market measures of firm’s performance and emphasized studies where accounting scholars with specialization in markets level analysis of systems and technology problems may hold a competitive advantage over traditional Information Systems (IS) scholars. The study proposed abundant prospects for future research which concern, the analysis of the relationship between IT and business practices, business and general firm enactment, understanding the effect of contextual factors on the IT-performance relation, examination of IT-performance relation in an intentional context, and observing the interactive effects of IT expenditure and IT control on firm performance.

Forte and Brandão (2008) carried out analyses to discover whether the foreign administration can encourage the multinational firm’s repositioning decision, through signaling the amount of subvention it can award. The study discovered that overseas country is
one of two possible types which differ on their asset conditions. Through comparison, the outcomes obtained showed a contrary selection model with the upshots of a signaling model. The study concluded that repositioning is more likely and the essential subvention is smaller in the signaling model than with adverse selection. The study opined that this can explain the proliferation of Investment Support Agencies worldwide.

Emerson, Freundlich and Berenbach (2008) equally disclosed that the way to improved system relies on both improved governance by funds and government support. The study stated that funds must strive for improved governance along best-practice lines and that Governments should improve clarity with respect to fiduciary responsibilities by introducing comply or explain codes, or safe harbor provisions. The study opined that this would help governments to reinforce governance standards and lend support to the concept of institutional investor’s social responsibility. Especially, since, governments are indispensable for sending correct market signals through appropriate pricing of externalities; hence the sustainable investing in the model advocated is healthy to legal challenge for pension and sovereign funds. This is proven in the fact that it conveys fairer results in a prudently well-organized structure that is both frugally superior to traditional investment models and affirmative to society.

Urwin and Woods (2009) opined that the global financial crisis is the latest event to bring the investment industry under scrutiny because the crisis has drawn attention to the question of whether the industry’s priorities should be realigned to be more sustainable to better enhance the long-term needs of the funds and their recipients, especially, the society as a whole. Funds’ fiduciaries have to date occupied limited account of sustainability with sub-optimal performance of the result which is believed to have been caused by combinations of governance limitations, behavioral traps and legal framing, particularly with respect to fiduciary duty.

Addessi and Saltari (2012) questioned the impression that the subtraction of debt interest is always an effective policy instrument to spur firm investment. The study analyzed the investment decision in presence of a borrowing restraint on the amount of debt that the firm can gather. Addessi and Saltari (2012) added that if the debt interest rate decreases in the firm’s capital accumulation and another financial resource more expensive than debt is available, that is, levels of debt lesser than the upper bound. The deduction of the debt interest from taxes on capital income may lessen firm investment. The study postulated that the result of the theory is germane for economic policy decisions when financial mediators are not willing to finance more than a certain benchmark but firms have access to other sources of finance.

Reeder and Colantonio (2013) disclosed that impact investing is a form of investment that has risen to prominence in recent years. Compared to other methods of socially accountable investment, the most important feature of impact investing is fixated on evaluating the societal and environmental return that it produces. The study revealed that considerable effort has been undertaken to establish effective measurement systems, but significant confusion remains around the notions of non-financial return and impact and their assessment in practice. This made Reeder and Colantonio (2013) to draw on a range of relevant literature as well as the authors’ previous practical experience to provide a preliminary overview of underlying concepts. The study added that it becomes paramount to cast a critical eye on the roles and
responsibilities within measurement, making more explicit the subjective interpretation of social and environmental return (SER) by investors, and the clash of suppositions taken from other older measurement traditions.

Reeder and Colantonio (2013) disclosed that this has enabled them to investigate some of the tensions around breadth of coverage, participation and objectivity, rigor and flexibility, attribution of impact, and the very concept of ‘a return’ itself which currently surround practical measurement. In this framework, the study showed how measurement does not yet appear to have found a pragmatic, participative, systematic way forward, and concluded by identifying key research areas that needed to be addressed to advance knowledge in this field.

Tsoutsoura (2015) provided contributing proof on the effect of succession taxes on firm investment decisions and handover of control. The study used a 2002 policy amendment in Greece that significantly reduced the tax on intra-family handovers of businesses and showed that succession taxes led to a more than 40% degeneration in investment around family clans, slowed sales growth, and caused a depletion of cash reserves. Tsoutsoura (2015) added that succession taxes powerfully affect the choice to sell or retain the firm in the family and concluded by deliberating on implications of findings on firms in the United States and Europe.

Fullwiler (2015) revealed that traditional financial theory is motivated by a narrow set of values, the study opined that only financial risk and financial return matter. It affirmed further that investments produce a much broader set of outcomes while the investors are people with broader sets of concern. The study argued that the up-and-coming field of sustainable finance provides an opportunity to build a more universal theory of finance that incorporates reality and equally demonstrate that traditional financial theory is only a special case of the more general theory. The study deliberated on four (4) important recent trends that determine the growth of sustainable finance, which are: investing; recognition of risk factor, that is, systematic risk; financial innovation; and infrastructure development for sustainable finance. The study equally pointed out areas for further research such as: risk, diversification, and time. It opined that these are all within the perspective of sustainability with the view to develop a more general theory of finance through sustainable finance.

Bao, Chen, Hou and Lu (2015) documented a strong positive cross-sectional relationship between corporate bond yield spreads and bond return volatilities. The study revealed that as corporate bond prices are generally attributable to both credit risk and illiquidity as discussed in Huang and Huang (2012), Bao, Chen, Hou and Lu (2015) apply a decomposition methodology to quantify the relative contributions of credit and illiquidity. Overall, the credit and illiquidity proxies can explain almost three quarters of the yield spread-bond volatility relation with credit and illiquidity contributing in a 70:30 ratio. Furthermore, the study disclosed that the credit portion of the yield spread-bond volatility relation is important even after controlling for equity volatility and established that the relation between yield spreads and volatilities is robust to different sample periods, including the financial crisis. Bao, Chen, Hou and Lu (2015) affirmed the ratio to be smaller for the investment-grade sub-sample which is consistent with credit risk being relatively more important for understanding the yield spread-volatility relation in speculative-grade bonds.
Bao and Hou (2017) studied the consequence of a bond’s place in its issuer’s maturity structure on credit risk through the use of a structural model as stimulus and argued that bonds due relatively late in their issuers’ maturity structure have greater credit risk than bonds that get due fairly early. The study empirically discovered strong evidence that these later bonds have larger yield spreads and greater co-movement with equity and added that magnitude of the effects is in order with ideal expectations for investment-grade bonds. The outcomes of the study highlighted the significance of bond-specific credit risk for accepting corporate bond prices.

Park (2018) analyzed the human rights significance of impact investing with the view to establish positive social and environmental effects in addition to financial yields. The study revealed the rising consciousness of the ability of the global capital markets in order to set up sustainable development for companies and institutional investors that are looking forward to a new financial instruments and strategies. Park (2018) focused on social bonds which is a known and enlightening example of the occurrence. Social bonds are debt securities sold to investors whose proceeds are used to finance projects with a definite social benefit such as cheap housing, education, food security and availability of healthcare. In analyzing social bonds in the context of human rights, Park (2018) proposed a structure for assessing human rights factors in impact investing and uses it in social bond market, which led to the exposed that current standards and practices do not satisfactorily account for the human rights suggestions of social bonds. Due to these, the study suggested restructurings to the social bond market that can improve investor valuation, external assurance and impact-maximizing leverage.

III. METHODOLOGY

Survey design was adopted for the study due to the nature of the study and type of data needed. The study evaluated the impact of bond investment on the future sustainability of potential lecturers in tertiary institutions within Southwestern Nigeria. This is supported by the work of Masinde and Olukuru (2014) in Kenya. This study focused on 5,805 lecturers in the selected institutions. Stratified and purposive random sampling methods were employed in the selection of 484 sample for the study by applying Taro Yamane formula. Stratified sampling was adopted because the study chose to select only lecturers among academia and purposive sampling in the selection of public and private institutions in southwestern Nigeria because they are assumed to be good representative of others because they have homogenous features.

Functional Equation and Model

The study applies the functional relationship and model as follow;

RITSUS= Retirees sustainability
IB= Investment in Bond

Functional Relationship
RITSUS = F (INVBOND1) +μ1

Model
RITSUS= α0 + α1INVBOND1 +μ1
IV. RESULT AND DISCUSSION OF FINDINGS

The study on bond investment and future sustainability of potential retirees in academics was carried out using primary data with the aim to establish the relationship between Bond Investment and potential retirees’ sustainability in academics.

Table 1: Bond Model

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.473a</td>
<td>224</td>
<td>222</td>
<td>.56894</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2019

Table 2: Bond ANOVA*

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>37.688</td>
<td>1</td>
<td>37.688</td>
<td>116.432</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>130.772</td>
<td>404</td>
<td>.324</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>168.460</td>
<td>405</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey, 2019

Table 3: Bond Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.701</td>
<td>.198</td>
<td>.473</td>
<td>.000</td>
</tr>
<tr>
<td>AVBINV</td>
<td>.529</td>
<td>.049</td>
<td>8.600</td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey, 2019

Inferential Analysis

This is an aspect of the research work that validates the objective, research question and hypothesis of the study. The main objective of the study was to determine the impact of bond investment on the retirement investment goals of steady income stream of potential retirees in Nigeria academia, known as future sustainability of potential retirees in academics. The related research question was to what extent can bond investment guarantee the retirement investment goals of steady income stream of potential retirees in Nigeria academia? The null research hypothesis stated that, bond investment has no significant impact on future sustainability of potential academics retirees in Nigeria.

Result Interpretation

\[ y = \alpha_0 + \alpha_1 \text{INVBOND} + \mu_1 \]
\[ \text{RITSUS} = 1.701 + 0.529 \text{INVBOND} + \mu_1 \]
According to table 3, AVBINV has statistical significant impact on the retirement investment goal of steady income stream of potential retirees in Nigeria academia ($\beta=0.529$, $t=10.790$, $p < 0.05$). Hence, an increase in Bond investment will result to 52.9% increase on retirement investment goal of steady income of potential retirees in Nigeria academia. Therefore the null hypothesis was rejected and concluded that Bond investment guarantee the retirement investment goals of steady income stream of potential retirees in Nigeria academia. Moreover, the figure of $R^2$ in table 1 that showed 22.4% revealed that changes in sustainability of retirees can be explained to the tune of 22.4% by investment in bond.

V. DISCUSSION OF FINDINGS

The $R^2$ of 22.4% which signifies positive relationship and that sustainability can be explained by the extent of investment in bond is a good predictor. This supports the study of Bao, Chen, Hou and Lu (2015) which documented a strong positive cross-sectional relationship between corporate bond yield spreads and bond return volatilities. The study opined that bond investment will reduce the fluctuation in return and hence promise a stable income for potential retirees, which will thereby guarantee the future sustainability. This is equally supported by 0.529 result of the coefficient of average bond investment. This connotes that a percentage change in bond investment will lead to 52.9% change in sustainability of potential retirees in Nigerian academia. In the same vein, the p-value of 0.000 equally confirmed that the result submitted is significant which indicated that the bond investment has significant influence on the level of sustainability of potential retirees in Nigeria academia.

1. Implication to Research and Practice

The study has been able to expand the frontier of knowledge on the effect of bond investment and future sustainability of potential retirees in Nigerian academia with the area of specialization being lecturers. The positive relationship that existed between bond investment and future sustainability of potential retirees in academics has called for awareness that will encourage every lecturer to think about complementary income to enhance sustainability. The study has been able to create further awareness about why potential retirees should think more about future than now.

2. Conclusion and Recommendations

Viewing from the positive relationship established by the variables, we can hereby support the work of Fullwiler (2015) that revealed that only financial risk and financial return matter. The study which assumed that traditional financial theory is driven by a narrow set of values. By implication we can thereby conclude that the interest on bond investment is sufficient to enhance the expected sustainability focused by potential retirees to make future spending safe. Also, the findings supported the study of Bao, Chen, Hou and Lu (2015) that documented a strong positive cross-sectional relationship between corporate bond yield spreads and bond return volatilities. In other word, bond yield is sufficient to make the future of potential retirees safe. The study hereby recommends the following:
(i. Government should encourage every individual to map out means to invest in financial asset in addition to the pension scheme to aid sustainability of every employee.
(ii. Orientation must be given to individual about the significant effect of bond investment and how the investment yield can be controlled.

3. Future Research
During the course of the research, some respondents suggested that investment in real property can enhance future sustainability of potential retirees in academics in addition to the bond investment. We hereby recommended that future research can look into this area to confirm the relevance and the effect of real property investment on the sustainability of the potential retirees that are lecturers.

REFERENCES


