Article

ENHANCING PENSIONERS' FINANCIAL LITERACY FOR SUSTAINABLE SAVINGS AND INVESTMENTS: A CASE STUDY OF EBONYI STATE IN THE ELECTRONIC AGE

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Abstract

This study investigates the impact of financial literacy on pensioners' attitudes towards savings and investments in Ebonyi State. Utilizing a mixed-methods approach, data was collected from 300 civil servants approaching retirement and 300 pensioners aged 40-70 and above 70 years from thirteen Local Government Areas over a ten-year period (2012 - 2023). Factors such as financial knowledge, influence, behavior, and fund availability were analyzed through frequency, percentage, factor analysis, and regression analysis, supplemented by face-to-face semi-structured interviews. Findings reveal a positive correlation between financial literacy and pensioners' savings and investment practices. However, financial attitude and fund accessibility did not exhibit statistically significant relationships with savings and investment behaviors. Pensioners demonstrated awareness of financial literacy components such as Retirement Savings Accounts (RSA), Personal Identification Numbers (PIN), and the role of entities like the National Pension Commission (PenCom) and Pension Fund Administrators (PFA). These results underscore the importance of enhancing financial literacy among civil servants, particularly in the context of retirement planning. Practical implications are discussed for government policymakers, pensioners, and civil servants, emphasizing the need for comprehensive financial education to foster sustainable savings and investment practices, crucial for retirees' financial security and well-being.

Keywords: Financial Literacy, pensioners, savings, investment, sustenance, Electronic Age, Nigeria

Introduction

In the pursuit of financial stability, economic development and growth aided by financial inclusion, financial literacy is the major tool to enhance this achievement. (Falahati, Sabri, Paim, 2012). There is need for prosperous financial management in every stage of human life (Halmond, Mitchel, Utkus, 2017) and in the life of every business organization. It is not arguable that when one grows old the level of apprehension and ability to solve problems in novel situations degenerates. Bernard (2015) observed that adults at the age of 80 suffer dementia or any other type of health problem that affect the cognitive potentiality. Unfortunately, old age of a person does not reduce the volume of one's responsibility. Changes in the pension schemes are plainly drift responsibility of saving, investing, and harnessing of assets to workers and retirees; formerly workers relied mainly on government for pension fund and retirement

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benefits, (Foster, Sukono; Johansyah, (2022). This shift, nevertheless, demands that people of various age should know how and where to save, invest or even borrow as the need arises. This will enhance the preparation of retirement to avoid outliving of wealth in the course of active life. Lack of financial literacy can affect pensioners' income, savings, wealth, and other assets (Lisa Servon and Robert kaestner, 2008). Serious attention has not been given to the issue concerning retirees and other civil servants towards retirement and their ability to make informed financial decisions, especially in emerging economy where someone's future is not certain, the payment of pension irregular, reduction in the standard of living and high rate of inflation inclusive. These decisions must be made despite lack of financial literacy (Agnew et al., 2013). Many civil servants find it difficult to prepare for their old age, as a result suffer the negative outcome as pensioners. According to Organization for Economic Co-operation and Development, "Financial Literacy is the process by which consumers/investors improve their understanding of financial products, concepts, risk and through information, instruction and/or objective advice, develops the skill and confidence to become more aware of the financial risks, opportunities to make informed choices to know where to go for help and take other effective actions to improve their financial wellbeing".

Again, the use of Information Technology in all the facet of business has increased greatly in every corner of the world (Zakari, 2021)). The growth and spread of new financial products and services globally remains a mirage to many people and to pensioners in particular. Alan Greenspan (2020) said, "As market forces continue to expand the range of providers of financial services, consumers will have much more choice and flexibility on how they manage their financial matters". This opportunity will be for those who have the financial knowledge and skill. The Financial services like, saving, investment, tax matters, loan, wealth management services, advisory services, point of sale, Automated teller machine and more are the services offered by the financial sectors even pension services like pension contributory fund

enhanced by use of technology; which many pensioners may not have the knowledge. Many pensioners have been defrauded in their quest for help in the use of ATM due of lack of knowledge of electronic banking and the inability to use it. In Nigeria, pensioners suffer a lot and seem to be the poorest set of people in the society due inconsistency in the payment of pension. AS a result, civil servants have little or less to save. Sonia, Jan and Marek (2021) commented that stunted productive retirement age prelude old-age poverty. Based on this background, this study is set to identify the level of financial literacy among pensioners, access to financial services, attitude towards saving and investment of their fund amidst electronic age.

Problem of the Study
Financial literacy is important to all and would give a pensioner an upper hand in making financial or investment decisions. In dynamic business environment economy are faced with many challenges which can be overcome by acquiring financial knowledge and many studies show that pensioners who are financially educated maintain high standard of living than those with no financial knowledge and such studies are lacking in Ebonyi State context. Indeed, most of the civil servants and pensioners are financially illiterate and with little or no basic education and many civil servants and pensioners have no savings, invested nowhere and have little knowledge of financial literacy. Thus, it is interesting to investigate whether financial literacy has an impact on civil servants and pensioners addressing the research question, "How does financial literacy influence the attitudes of civil servants and pensioners towards savings and investments amidst electronic age.

Justification
Over the last two decades, scholars and policymakers in both developed and developing countries have accepted that financial literacy is critical for the establishment and survival of small businesses (Wise, 2013). It entails the knowledge of proper decision-making pertaining to certain personal finance areas like real estate, insurance, investment, saving, tax planning and retirement. It also involves intimate knowledge

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of concepts like interest rates, financial planning, time value of money, borrowings and savings, profit and loss, assets and liabilities etc. In fact, the empirical literature reveals that the majority of civil servants/ pensioners as well as individuals in the informal sector are financially illiterate and with little or no basic education. Many civil servants keep no books of accounts or any record at all and do not know the difference between income and profit or the basic financial concepts. Thus, in the world all over, financial literacy has been given a significant attention and is believed to be a key element to personal finance success which is relevant to anyone who makes a decision about money. Thus, this study is helpful to existing and potential civil servants and pensioners since it aids the effect of financial literacy on the management of personal finances in order to plan and to understand the importance of financial literacy hence improving their wellbeing and contribute to the growth of the society as well. At the policy level, the Government should understand that retirees need to be financial literate and suppose to formulate policies focusing on the combined roles of financial literacy, financial access and transaction costs on improving their standard of living. Further, the government can take steps to include basic financial education course into curricular at school levels and can implement special training programmes on financial education having understood the significance of financial education to succeed in making financial decision. In addition, a considerable number of researches have studied the effect of financial knowledge on business performance in both developed and developing countries but no direct study on financial literacy and pensioners' way of saving and investing in Nigeria context. Thus, this study is the first to investigate areas in personal finances, such as financial behavior, attitude, influence and knowledge on pensioners' attitude towards saving and investment in Nigeria amidst electronic age using a factor analysis which is more suited with the data. Therefore, the results of this study fill all these empirical and methodological gaps.

Literature Review:
This section reviews the existing empirical literature on the effects of financial literacy on the savings and investments attitude of civil servants/pensioners. Civil servants should be concerned in the deciding on how to save and invest for the future purpose. For sustainability and enhanced standard of living, it is assumed that every pensioner must be financially literate which implies that the ability to read, record, analyze, save, invest and harness finance as required. Therefore, the Civil servants /pensioner level of financial literacy can easily be translated into their ability to save and invest for future purposes.

Empirical Framework
Numerous studies have been conducted on financial literature and the use of electronic banking. For instance, (Mwangi Isaac Wachira, Evelyne, 2012). Martinson, Ankrah Twumasi Yuansheng Jiang, Pengcheng Wang, Zhao ding, Nadia Frempong, Monica Owusu, Acheampong, (2022) examined the determinants of financial literacy and its impact on access to financial services, using data collected from rural area in Ghana. The results revealed that financial literacy is significant and positively related to AFS, but its square shows an inverse relation with saving mobilization. This indicated a non-linear relationship between financial literacy and access to financial services. Ramadhani and Nugroho (2019) surveyed the effect of electronic money on the amount of money circulating in Indonesia. The trend of electronic money in society has a significant effect on money circulation but has no significant effect on the inflation rate. Similar studies were conducted by Raji, Zameni, &Abdulwakil, (2021), who investigated the effect of electronic banking on customer satisfaction in Nigeria's banking industry, specifically, in Kwara State. The study determined the attributes of e-banking services that are crucial to customers, and examined the impact of e-banking attributes on customers' satisfaction using correlation and regression analyses. Similar studies were also conducted by Chimaobi, Jane, and Jacinta, (2020) on the impact of electronic banking on customer satisfaction in commercial banks in Imo State.

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Andreou, Panayiotis and Anyfantaki, Sofia, (2021) examined the level and predecessor of financial literacy and investigates its influence on consumers' internet banking behavior, focus is Cyprus. The findings highlight the crucial interplay of digital and financial sophistication, and their positive influence on consumers' usage of digital financial services. Henry, Anam, Megan, Yuanyuan, Mona (2021) conducted a research that examined how financial literacy of informal careers impacts accommodation payment decisions made by residential aged care in Australians. It reveals that aged care providers had a greater impact on using a financial adviser than financial literacy. Similar research was conducted by Joelle, Fonga, Benedict, Kohb Olivia, mitchellc, Susann, Rohwedderd (2021), on the effect of financial literacy among older persons in the Singapore with Life Panel and its association with timely credit card debt repayment. The findings disclosed that a one-unit higher financial literacy score is associated with a greater propensity to timely pay off credit card balances. Anne and Karina (2019) also examined the extent to which financial literacy is an important determinant of financial protection in the older pre-retirement population in Ireland. Using data from the Irish Longitudinal Study on Ageing (TILDA), the result showed significantly higher levels of financial literacy among men, those with higher levels of education and cognition, and the self-employed. Financial literacy is in turn associated with higher total household wealth, lower financial stress and higher expected retirement income. Hauff, Carlander, Gärling, *et al.* (2020) conducted research on the Retirement Financial Behavior: How Important Is Being Financially Literate on the citizens of Swiss. Item Response Theory was used to analyze survey data that measured the fact-based financial literacy or confidence, and age, gender, and income. The study shows significant impact of fact-based and subjective financial literacy on three time-ordered stages of individuals' retirement behaviour: planning, saving, and investment management. Agunga, Jagongo & Ndede Fredrick (2013) investigated the effects of financial literacy on financial preparedness for retirement amongst permanent and pensionable employees in state owned corporations in Kenya. The study elucidates that financial literacy positively affects financial preparedness for retirement. Conversely, Knowledge of financial instrument was found to be insignificant while computation capability for retirement was significant. It was shown that demographic features and financial elements have significant positive effect statistically. Buchholtz, Sonia, Jan, aska, and Marek (2021) examined Myopic Savings Behavior of Future Polish Pensioners. It revealed that retirees seldom amass savings for long period. Civil servants find it difficult to maintain savings account. Savings are accumulated by the rich and enlightened pensioners. Based on the description above, the research in this paper was carried out by referring to Andreou, Panayiotis and Anyfantaki, Sofia, (2021) and Joelle, Fonga Benedict, Kohb Olivia Mitchellc Susann Rohwedderd (2021), Although their research did not specifically analyze the effect of financial literacy and the use of Automated teller machine on the pensioners life style. Therefore, this paper intends to analyze the effect of financial literacy on pensioners' attitude towards savings and investment amidst electronic banking.

Literature Gap
The above detail literature review highlights that empirical studies have been conducted on the influence of financial literacy on the pensioners' attitude towards saving and investment amidst electronic banking. These studies have produced mixed results. Although a good number of researchers have studied the effect of business knowledge on SMEs, but none has been conducted on financial literacy and pensioners. Different methodologies have been used by scholars such as multiple regression, correlation tests etc. However, authors have not applied factor analysis. As this study investigates financial literacy and pensioners' attitude towards saving and investment amidst electronic banking many statements relating to each pillar of financial literacy is required. In order to get reduced the number of meaningful factors, factor analysis is best suited. Therefore, this study fills this gap in pensioners' financial literacy and brings a novelty.

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## Theoretical Framework

Life cycle theory:
The theory postulated that people make informed choices about the amount to allocate for expenses for each period of their life. However, these decisions are limited by the availability of resources that individuals can access during their life.

This study is a perfect match to this theory because a civil servant with financial knowledge will be in a better position to take an informed decision. Prior to his retirement, the amount to save or invest for future purpose will be determined. As a retiree, the management of income from savings and investment will equally be enhanced by the financial knowledge. As a result this study is underpinned in this theory.
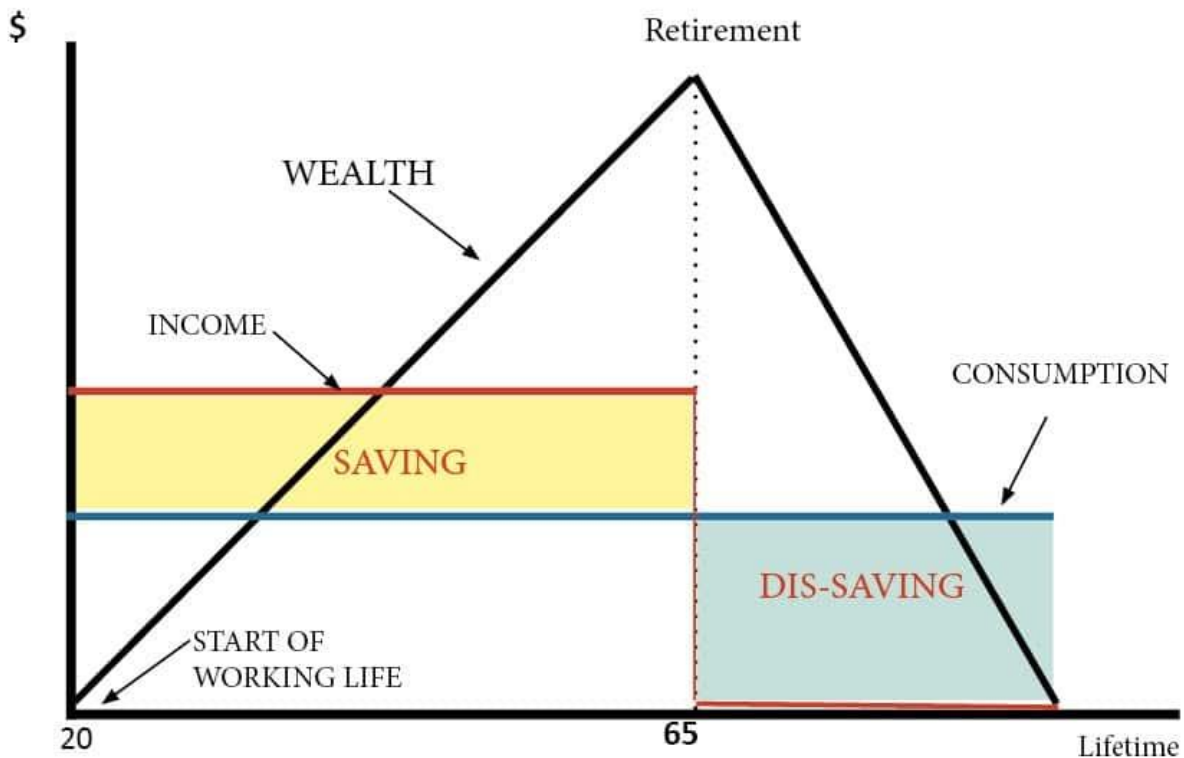
Tejvan Pettinger, 2024.

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Methodology

Research Design
The study adopts a descriptive research design and uses information concerning the various statuses of the phenomena to describe opinion, behavior, and attitudes with respect to variables or events in a situation. This type of research design is best matched with this study as it involves the respondents' opinion on various scenarios by means of the survey method. Thus, it encompasses selection or development of instruments for collecting information, identification of target population and determination of sampling procedure and the design of procedure for information collection.

Target Population
The study attempts to investigate the financial knowledge of pensioners that might be influenced by their financial behavior on saving and investment that stems from individuals and aimed to identify which aspects of financial literacy do they consider as of utmost importance to them in order to ascertain their attitude towards saving and investing in order to prepare for the retirement days. Thus, the population for this study comprised all the civil servants from the age of 50 and those who retired 5 years ago and the data collection is done in a single time period rather than multiple time periods.

Sample and Data
The study investigates the effect of financial literacy on civil servants and pensioners in Ebonyi State. The study selected only the civil servants of 50 years of age and retirees of 5years ago. 300 civil servants and 300 retirees were selected by employing the sample size determination formula developed by Krejcie and Morgan (1970) with 95 percent confidence level and 5 percent margin of error. Then, the sample is distributed according to the percentage share of the civil servants and pensioners located in each Local Government Area and determine the number of civil servants and pensioners to represent all the Local Government Area in Ebonyi State. Next, civil servants and pensioners of each Local Government Area were selected

using a stratified sampling method to represent all the civil servants and pensioners. In order to collect data, a semi-structured questionnaire is constructed covering seven areas namely personal information of respondents, financial behavior, financial influence, financial attitude, and financial knowledge, and savings, investments, availability of finance. Along with demographic information, the survey participants were asked questions and opinion of different aspects of financial literacy. Proper care has been taken to ensure that the facts needed a match with the objectives, which in line with the data collected through the questionnaire. Moreover, attention paid in designing the questionnaire using simple and clear words, the logical and sequential arrangement of questions with regards to four pillars of financial literacy. Thus, the entire questionnaire was based on numerous scenarios of financial knowledge. Financial behavior, financial influence, financial attitudes, and financial sustainability and asked their level of agreement. The questionnaire was structured into six parts: Demographic factors, financial knowledge, financial behavior, financial influence, and financial attitudes towards savings, investment and availability of finance.

Part 1: sought to capture the general data about the age of civil servants and pensioners, his/her gender, marital status, education, and monthly income, years of experience. This information guides the researcher to the background information of the civil servants and pensioners. Part II covered their financial knowledge covering thirteen questions. Part III was devoted to cover the financial behavior of civil servants and pensioners which contains nineteen statements under three main dimensions, while Part IV covers the financial attitudes towards savings and investments of civil servants and pensioners containing nine main statements. The last section corresponded to the availability of finance of civil servants and pensioners with three statements relating to their civil servants and pensioners. For all the above sections the respondents were asked to indicate the degree of influence of each of the items on the five-point

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Likert scale. The 5 points in the scale are respectively from 1 to 5: extremely disagree, disagree, neutral, agree and extremely agree. The drafts of the questionnaire were tested by two academics. The pilot test was conducted among thirty civil servants and pensioners respectively and opinions of two academics from the University were taken to refine and finalize the questionnaire.

Validity and Reliability of Survey Instruments

Cronbach's alpha: this is used to test the internal consistency of measurements that indicate the consistency of a specific sample of respondents across a set of variables. Helms, Henze, Sass & Mifsud, (2006), state that it can help to estimate the reliability of participants' responses to the measurements. As a rule, a coefficient greater than or equal to 0.5 is regarded as acceptable and a good sign of construct reliability (Nunnally, 1978).

Variables: In order to formulate the hypotheses, the researcher considered several aspects of financial literacy and civil servants/retirees attitude towards savings and investments' proxies. The study attempts to measure the effect of these attributes on retirees' attitude towards savings and investments. Saving and Investment are measured by three aspects namely; volume of savings /investments, income from savings and investment, increase in standard of living is taken as dependent variable. The independent variables of interest are the four pillars of financial literacy namely, financial behavior, financial influence, financial attitude towards savings and investments, financial knowledge as applied by Fatoki, (2014) and Thapa and Raj, (2015).

Data Analysis

Before processing the data, the completed questionnaires were edited for completeness and consistency and the data were then being coded to enable the analysis of the responses. First, a descriptive analysis is employed to analyze data. This includes the use of tables, charts, graphs, percentages, and frequencies. The collected data were processed and analyzed by SPSS and STATA software. At first, the collected questionnaires were cleaned by removing incomplete ones. Then, a series of statistical techniques are used to achieve the objectives of the research including Cronbach Alpha test, Frequency analysis, Factor Analysis, and multiple regression technique. The study examines the financial literacy of civil servants/pensioners on their attitude towards savings and investments covering thirty-two items which are structured on a five-point Likert scale, hence factor analysis is needed to reduce the number of variables which impact on respondent's attitude towards savings and investments. Ghauri and Gronhaug, (2010), explain that the factor analysis helps to analyze the structure of correlations among many variables by identifying a set of core dimensions, called factors. The factor analysis identifies the items of the questionnaire that belong to homogeneous domains which represent similar characteristics. The study employs an explanatory factor analysis to explore the common factors that the items of financial literacy and Pensioners attitude towards savings and investment of the questionnaire belong to and the following criteria of the exploratory factor analysis (EFA) are applied: Factor loadings, KMO, total variance explained, Eigenvalue and scree plot. Here, the factor loadings measure the correlations of each item with the factor to which it belongs. The Kaiser-Meyer Olkin Measure of Sampling Adequacy (KMO) defines the level of suitability of using EFA for the collected data. The total variance explained is applied to discover the number of retained factorsin which the last factor represents a small proportion of the explained variance. The Eigen-value and Scree plot are attributes of factors which are defined as the amount of variance in all variables explained by a given factor.

Factor Analysis. The main purpose of factor analysis is to describe, if possible, the covariance relationships among many variables, in terms of a few underlying, but unobservable, random quantities called factors. Basically, the factor model is motivated by the following argument: suppose, variables can be grouped by their correlations. That is, suppose that all variables

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within a particular group are highly correlated among themselves but have a relatively small correlation with variables in different groups. Then it is conceivable that each group of variables represents a single underlying construct or factor that is responsible for the observed correlations.

The Factor Model (Orthogonal) The $p-$ random variables B1, B2, … ,Bp has mean $\boldsymbol{\mu}$ and a covariance matrix . The factor model postulates that B1, B2, … , Bp is linearly dependent upon a few unobservable random variables $F1, F2, …$, Fm called common factors, and p additional sources of variations, $\epsilon1, \epsilon2, …$, ϵp, called errors or, sometimes, specific factors. Factor model can be written as, B1 $- \mu1 = l11F1 + l12F2 + … + l1mFm + \epsilon1$

$$B2 - \mu2 = l21F1 + l22F2 + … + l2mFm + \epsilon2 ..$$

.
.
..

$$Bp - \mu p = lp1F1 + lp2F2 + … + lpmFm + \epsilon p$$

In matrix notation,

$$\mathbf{B} - \boldsymbol{\mu} = \boldsymbol{LF} + \mathbf{E} - - - - - - - - - - - - - -$$

The coefficient lij is called the loading of the ith variable on the jth factor, so the matrix L is the matrix of factor loadings. The ith specific factor ϵi is associated only with the ith response (variable). The p deviations B1 $- \mu1$,B2 $- \mu2, … ,$ B$p - \mu p$ are expressed in terms of $p + m$ random quantities $F1, F2, … , Fm$ and $\epsilon1, \epsilon2, … , \epsilon p$, which are unobservable.

Assumptions

$E[\boldsymbol{F}] = \mathbf{0}$, $Cov(\boldsymbol{F}) = E[\boldsymbol{FF}T] = \boldsymbol{I}$

$[\mathbf{E}] = $,$(\mathbf{E}) = E[\mathbf{EE}T] = \Psi = [\ \psi1 \ \cdots \ 0 \ \vdots \ddots \vdots \ 0 \ \cdots \psi p\ ]$

and$\boldsymbol{F}$ and $\mathbf{E}$ are independent, so $(\mathbf{E},) = [\mathbf{E}\boldsymbol{F}T] = \mathbf{0}$

With these assumptions, the orthogonal factor model (1) can be written as,

$$\mathbf{B} = \boldsymbol{\mu} + \boldsymbol{LF} + \mathbf{E}$$

where,

μi = mean of the variable i

$\epsilon i = ith$ specific factor
$Fj = jth$ common factor
lij = loading of the ith variable on the jth factor.
From this model, the covariance structure of B1, B2, … ,Bp can be written as,
$\Sigma = $ (B1, B2, … ,Bp) $= E[$B$ - \boldsymbol{\mu}][B - \boldsymbol{\mu}]\ T$
$= E[\boldsymbol{LF} + \mathbf{E}][\boldsymbol{LF} + \mathbf{E}]\ T$
$= \boldsymbol{LL}T + \Psi$
This implies that (B)
$= li1\ 2 + li2\ 2 + . . . + lim\ 2 + \psi i$
(B ,Bk) $= li1lk1+ . . . +limlkm$
(B ,) $= lij$

Principal component solution to factor model
The principal component factor analysis of the covariance matrix (or the correlation matrix) is specified in terms of its eigenvalue - eigenvector pairs $(\lambda1, \boldsymbol{e}1$), $(\lambda2, \boldsymbol{e}2$), …, $(\lambda p, \boldsymbol{e}p)$ where $\lambda1 \geq \lambda2 \geq \cdots \geq \lambda p \geq 0$. Let $m\ (<p)$ be the number of common factors, then the matrix of estimated factor loading $\{lij\}$ is given by,
$L = [\sqrt{\lambda1}\boldsymbol{e}1 \ \vdots \ \sqrt{\lambda2}\boldsymbol{e}2 \ \vdots \cdots \vdots \ \sqrt{\lambda2}\boldsymbol{e}2\ ]$
The estimated specific variances are provided by the diagonal elements of the matrix $\Sigma - \boldsymbol{LL}T$, so
$\Psi = (\ 1 \cdots 0 \ \vdots \ddots \vdots \ 0 \cdots \psi p\ )$ with $\psi i = \sigma ii - \sum lijm\ 2$
$j{=}1$
The principal component factor analysis of the correlation matrix is obtained by commencing with in place of Σ.

This criterion is used for determining the appropriate number of common factors. Hence, the number of common factors retained in the model is increased until a "suitable proportion" (for example 85% or more) of the total variance has been explained.

Factor Scores
The main interest in factor analysis is identifying the unobservable factors (common factors) and using them for inputs in subsequent analysis. In this research, these common factors have been used in multiple linear regressions to identify the relationships between financial literacy and savings and investments attitudes of civil servants and pensioners for this purpose, the estimated values of the common factors are needed, and are called factor scores. These scores can be estimated based on the weighted least square method or regression method.

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Results and Discussion

Sample Characteristic Description.
The study gathered data which include opinions from civil servants/ pensioners by administering a structured questionnaire and is more focused on collecting data from diversified groups of civil servants/ pensioners in Ebonyi State.

Survey questionnaires were directly distributed and interviewed among 600 civil servants/ pensioners. Table 1 provides the summing up of descriptive statistics of the demographic summary of the respondents of the survey. It gives a clear-cut picture of characteristics of the civil servants/ pensioners surveyed for this study.

Table 1: Sample Characteristics

Title	Category	Frequency	Percentage
Gender	Male	390	65
	Female	210	45
Age	40-50 years	110	18
	51-60 years	320	53
	61-70 years	150	25
	Over 70 years	20	4
Educational	Advanced Level	220	37
Qualification	Ordinary Level	118	20
	Bachelor	211	35
	Masters	51	8
Experience (Years) 5	5 or Under 5 years	210	35
	6-15	118	19.6
	16-25	120	20
	26-35	82	13.6
	Over 35	70	11.7

Source: Survey Data

The sample respondents consisted of 390 males and 210 female civil/servants pensioners and the age distribution in the sample was categorized as four subheadings; 40-50, 51-60, 61-70 and over 70 years. The mean age of the civil/servants pensioners are 45 years and the respondents are in the age range between 40-50, (18%) followed by 51-60 (53%) age group who are the middle age civil/servants pensioners. All other age ranges accounted for 53% and they are mature civil servants/pensioners above 50 years. In terms of the gender of the respondents, about 65% of the surveyed civil servants/pensioners were male and remaining 45% of the sample respondents were female which indicates that females' civil servants/pensioner is yet very low compared to their male counterpart. This is a signal of overconfidence of the males regarding their abilities to carry out their services. This

may also be attributed to the fact that some female civil servants may resign before they reach their retirement while some do not save because they are busy using the money for their family affairs.

The education level of the respondents was categorized into four groups and the highest fraction of the respondents was 37% which belonged to advanced level followed by ordinary levels (20%). Among the sample respondents, the lowest percentage of respondents was 5% which belonged to masters and bachelors (35%). This confirms that the respondents sampled in this study have an adequate level of education and they are able to play a key role with respect to saving and investment in the country. The years of experience in the service are categorized into five groups and 19.6% of the civil

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servants/pensioners have 6-15 years of experience in civil servants/pensioners while 20% of the civil servants/pensioners belong to 16-25 years. A fewer number of civil servants/pensioners show a small percentage of 13.6% with 26- 35 years and the least number is more than 35 years of experience with 11.7% civil servants/pensioners.

Factor Analysis

The study gathered data from 600 civil servants/pensioners by administering a structured questionnaire and focused on obtaining an opinion about the financial literacy of the civil servants/pensioners and factor analysis was carried out in order to identify the common factors. Table 2 shows the Cronbach's Alpha for the five groups, namely, financial knowledge, financial influence, financial behavior, financial attitudes of civil servants/pensioners as 0.71, 0.84, 0.70, 0.64 and 0.74 respectively which are bigger than 0.6 of marginally acceptable reliability (Gliner and Morgan, 2000). Further, scales' content validity was assessed with the help of eight experts, two academics. Accordingly, necessary changes were made on the survey instrument in terms of eliminating, adding /rewording some of the items included in it. The Table 2 which shows the sample adequacy criteria, Kaiser-Meyer-Olkin (KMO) value at 0.828 with a Barlett's value at 2750.789 (P < 0.00) are found to be .

satisfactory, hence, the factor analysis is appropriate for further analysis.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.828
Bartlett's Test of Sphericity	Approx. Chi-Square	2750.789
	df	516
	Sig.	.000

The factor analysis was employed for the financial literacy variables to discover the factors to which these variables belong. So as to determine, how many meaningful factors are retained for interpretation, the Eigen value-one criterion and the proportion of variance accounted for were taken into consideration (Cattell, 1966, Stevens, 1986). As per the eigen value one criterion, any factor with an eigen value greater than 1.00 was retained for rotation and interpretation factors that appear before the break are considered as meaningful and kept for rotation. Finally, the factors which account for a cumulative percentage of variation explained at least 60% is suggested to retain enough factors. It qualified five factors which are interpretable and enough to explain above 65% of total data variance

Table 3: Factors and Variance Explained

Serial Number	Factor	Eigen Value	% of Variance Explained	Cumulative Variance %
1.	Factor 1	13.557	26.023	26.023
2.	Factor 2	8.302	15.935	41.959
3.	Factor 3	4.001	2.928	2.739
4.	Factor4	7.681	5.621	5.257
5.	Factor 5	49.640	55.260	60.518

The Table 3 show that only five factors were extracted from the factor analysis and are adequate to keep for rotation and further interpretation. It is given that all these factors were eligible the criteria of the Eigen value-one, the variance accounted for (or the cumulative variance above 65%). The eigenvalue started to decrease after the break from the fifth factor

onwards (Figure 1). It also demonstrates that all the factor loadings of the questionnaire items on a factor are greater than 0.6 which guarantees that factor analysis is in line with the analyzed data (Hair et al., 1998). The presented factor loadings of each dimension show that a common meaningful interpretation for each financial literacy variable has arrived. All the financial

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literacy variables are categorized into four factors; financial knowledge, financial influence, financial behavior, and financial attitudes to which they belonged. Some of the variables were eliminated from the analysis as their factor loadings are not at a satisfactory level. As revealed in Table 3, three of the seven original variables in the financial knowledge dimension are retained after the factor analysis while only three of six original items of financial influence variables, three of all twelve original financial behavior items and three of six financial attitudes dimension are accepted by factor analysis. Factor analysis retained all the three original items of attitude of saving and investment of civil servant/pensioners dimension. Thus, the above factor analysis confirms that the financial knowledge, financial influence, financial behavior, and financial attitudes variables influence civil servants/pensioners.

Table 4: Factor Analysis for Financial Literacy and civil servants/pensioners attitude towards savings and investment.

Factors	Variable			Factor	Loadings	
		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Financial behavior	I plan financially: savings and investment.	0.76				
	I consider family needs before saving or investing	0.96				
	I source for information to improve my personal knowledge on financial matters	0.95				
Financial Influence	I have learned how to keep Record of personal financial matters			0.93		
	My Superior always instruct me to handle finance matters			0.98		
	I learn from their experience how to deal with financial matters			.93		
Financial Knowledge	The volume of savings/investment is ascertained as the difference between gross earning and expenses		0.74			
	The statement which is prepared to calculate savings and investment is investment/saving analysis		0.93			
	The final account shows the volume of savings and investment on a date.		0.97			
Financial Performance	I feel that the amount I saved/invested is encouraging				0.98	
	My saving/investment is increasing gradually				0.83	

	I receive my salary consistently				0.79	
Financial Attitudes	I am well prepared for the future risk (Already taken an insurance policy)					0.73
	I usually save/invest part of my income					0.69
	I always prefer to talk about savings/investment matters with my close friends					0.82
Cronbach's Alpha		0.72	0.86	0.75	0.68	0.78

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. .

Financial literacy is seen as an important instrument for the enhance standard of living as it helps to understand and evaluate the information needed to make day to day decisions that have impacts in the personal day-to-day financial management and improve standard of living. Thus, this part of the study assesses the financial literacy of pensioners and analyzes the relationship between financial literacy and pensioners' attitude towards savings and investment. The explanatory factor analysis extracted twelve financial literacy variables under four dimensions in which the multiple regression analysis was performed. The result of the multiple regression analysis is presented in Table 5.

Financial Knowledge
As can be seen in the above table, all four pillars of financial literacy had a positive impact on civil servants/pensioners attitude towards savings and investment. Respondents were asked 12 questions from basic to advance level of finance. Covering retirement savings accounts (RSA) maintained with a Pension Fund Administrator (PFA), Personal Identification Number (PIN), National Pension Commission (PenCom) and monthly contributions of employer and employee, savings, investment, compound interest, time value of money, share market, banking, insurance, loans, and finding is presented in Table 4 and 5.

Table 5: Statistics of the Fitted Multiple Regression

Financial Literacy Variable	Coefficient	P Value
Constant	3.308	0.000**
Financial Knowledge	0.345	0.000**
Financial Influence	0.228	0.001**
Financial Behavior	0.102	0.090*
Financial Attitudes	0.009	0.891
R-Sq = 20.6%		

Note: ** and * indicate significance at 1% and 10% respectively.

Overall financial knowledge was divided into basic and advanced categories. Basic financial literacy is related with saving and investment, National Pension Commission (PenCom), compound interest rate, inflation, time value of money and money illusion questions (Rooij et al., 2007) and advance financial literacy is related with financial statements, insurance, banking, taxes, loans, and share markets. Factor analysis extracted only three variables which are related to financial knowledge of saving and investment. The regression results show that

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civil servants' knowledge of financial literacy on the advanced category is positively statistically significant on the civil servants/pensioners' attitude towards savings and investment. It further reveals that they are aware of how to calculate interest on savings and income on the investment. This shows that civil servants/pensioners were found knowledgeable in advance level of finance and this finding is consistent with the finding of Nidar and Bestari (2012) and Fernandes (2015), in which they found a positive relationship between financial knowledge and pensioners attitude towards savings and investment.

Financial Behavior
This consists of maintaining records, use of saving; managing money in a turbulent situation, financial services taken, spending habits, planning of income and expenditure, searching for better financial institutions that can offer higher interest rate, and gathering of information on financial knowledge and use of extra income are major aspects of financial behavior pillar. Notwithstanding the different level of civil servants/pensioners' financial knowledge, most of them are maintaining their financial records, deposit their savings into bank account, use their

Financial Influence
Financial influence covers areas of cash management, learning of forecasting, record keeping, tax, investment alternatives, savings, insurance and control of finance function. All the influential variables affect somehow civil servants/pensioners attitude towards savings and investment. However, they follow guidance of their colleagues, their life experience and what they have learned on how to save to improve their volume of savings and Investment. Moreover, friends, media and internet are the least influential factors especially ATM and POS. Most civil servants/pensioners learn about saving and budgeting while the least number of respondents learn about taxes and insurance at home. The extracted factors through factor analysis prove that financial influence impacts positively on the civil servants/pensioners which is statistically significant at 1% level. This reveals that finance is discussed openly in the family of most of the civil servants/pensioners

savings at the time of low income, plan for future, collect information to improve financial knowledge and prefer to deposit into saving invest in some businesses when they have excess money. The results also show that civil servants/pensioners do not like to use their money extravagantly; instead they lend to friends and invest in business. In the time of crisis, some do not like to take a loan from bank. Among the five different financial services, bank saving was taken by most of the civil servants/pensioners while investment and insurance were least taken. The factor analysis extracted three variables of financial behavior pillar and the Table 5 also shows that the financial behavior of civil servants had a positive significant impact on their attitude towards savings at 10 % significant level. This reveals that they are very eager to acquire knowledge on financial literacy. In overall, more knowledgeable civil servants/pensioners mostly plan and implement regular saving/ investment and spend economically. The finding is compatible with the findings of Fernandes (2015) and Jorgensen (2007) in which they found a positive relation between financial behavior and civil servants/pensioners attitude towards savings and investment.
and parents do argue about finance in the family. In addition, the knowledge gained through record keeping influenced immensely for financial plan and proper maintenance of transactions which leads to improving the standard of living through the increase in the income derivable from the savings and investment. This result confirms the findings of Mwambia (2014) and Chamwada (2015) who also found that financial literacy positively reacts to civil servants/pensioners attitude towards savings/investment.

Financial Attitudes
Financial attitude is one of the most important factors affecting financial literacy and thereby wellbeing of the civil servants/pensioners. All factors of financial attitude are somehow true for them and they are at a satisfactory level. Among eight items, most of the civil servants/pensioners opined that they give priority to saving followed by a capacity to use future income to achieve

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their financial goals which include enhancing standard of living. However, they feel that they save a portion of income, they mainly discuss with their colleagues on financial matters and they are at a high level of insurance attitude. However, the extracted factor through factor analysis as the financial attitude which includes three variables do not show any statistically significant relationship with civil servants/pensioners attitude towards savings and investment. In overall, the positive relation between financial literacy and civil servants/pensioners attitude towards savings and investment is in line with the findings of many studies (Hilgert et al., 2003; Huston, 2010; Kidwell and Turrisi, 2004; Lusardi, Mitchell, and Curto, 2010; Piprek and Coetzee, 2004; Pearl and Eileen (2014). The findings relate to that of Gikomo (2013) and Sagana (2014) who also established that financial literacy and efficient financial management influenced greatly how the civil servants/pensioners improve their save and investment.

Conclusion

This study analyzed the civil servants/pensioners financial literacy namely, financial behavior, financial influence, financial attitude and financial knowledge of savings and investment. A questionnaire was surveyed among 600 respondents of 13 Local Government in Ebonyi State. Collected data were described by frequency, percentage and factor analysis and regression analysis. The study found that civil servants/pensioners are more knowledgeable in basic finance concepts like savings, investment, and pension contribution while they are less familiar with share markets for their investment. The study concludes that there is a strong positive effect of three pillars of financial literacy on the civil servants/pensioners attitude towards savings and investment. Financial knowledge, finance attitudes, and financial behavior had a positive influence while financial influence could not show any statistically significant impact on civil servants/pensioners attitude towards savings and investment. The results reveal that civil servants /pensioners maintain high standard of living when they are financially literate and understand key financial concepts that include debt management, how to save and investment for future income, record keeping, and budgetary skills. Financial literacy of the civil servants/pensioners regarding the budgeting skills and planning assist in reducing poverty and low standard of the living of the civil servants/pensioners but increases income. In addition, the direction by colleagues and friends on financial matters empowers them to improve their financial literacy skills that the ability to save, invest, manage and write about financial statue for better management of their cash to ensure a proper channeling of resources to enhance better living condition. Financial literacy facilitates accumulation of savings, diversifying assets, and purchasing insurance, decision making processes such as timely payment of debts, proper debt management which improves the creditworthiness of potential borrowers to support livelihoods, economic growth, poverty reduction, growth, and expansion. It can be concluded that financially literate civil servants/pensioners tend to have improved standard of living than those with a low level of financial knowledge.

Implications

At the policy level, Government can recognize that civil servants/pensioners contribute to the economic growth through their purchasing power. Formulation of policies should focus on the need for financial literacy, savings, investment and financial access on improving the standard of living of civil servants/pensioners. The government can take steps to include basic financial education course units into curricular at school levels so that servants/pensioners can understand financial literacy early in life and understand the need for preparing for retirement by saving for the rainy day. Government should arrange with financial institutions to offering training on financial literacy to all civil servants to enable imbibe the idea of saving from their salaries. They should attend training programmes organized by universities and other institutes in managing finance and establishing small business so that they will not rely on their salary alone.

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