

Determinants of Investment Behaviour in The Nigerian Stock Market: Survey of Households in Nigerian Universities in Abia State, Nigeria

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Abstract

The capital market plays a vital role in mobilizing long-term funds from surplus units and channeling the same to deficit units to boost investment in real physical assets, thereby leading to sustained economic growth and poverty alleviation. However, how efficient and effective the capital market is in discharging this all-important function of fund mobilization depends on whether capital market operators understand and identify the parameters and factors that influence and shape the investment behavior and actions of surplus units in the economy. The objective of this research project was to examine and identify the factors that influence the investment behavior of households in the Nigerian University Communities with emphasis on Universities in Abia State namely, Abia State University, Uturu (ABSU) and Michael Okpara University of Agriculture, Umudike (MOUA). Data for the project were sourced from a sample of households in Abia State University, Uturu and Michael Okpara University of Agriculture, Umudike using structured questionnaire. The data analysis techniques employed for the project include descriptive statistics, correlation and regression analysis, and factor analysis. Based on the analysis of the research using different analytical techniques, the findings of the research reveal, among others, that (i) Corporate earnings have a positive and significant influence on the behaviour of households in taking share investment decisions, (ii) Declared corporate dividends positively influence the behaviour of households in making decisions concerning investment in shares. (iii) Past trends in stock prices positively influence the behaviour of existing and potential shareholders. (iv) A person's attitude to risk negatively influences the person's behaviour towards share investment. (v) a negative but insignificant relationship exists between household income and share investment (x) a positive but insignificant relationship exists between government monetary and fiscal policies and stock investment. Lastly, (xii) Land acquisition was rated the most critical investment asset, followed by real estate. Interestingly, stock ownership was rated third and higher than treasury bill and bank deposits. The authors recommended that policymakers should create necessary incentives for existing and potential shareholders to patronize the market and strengthen corporate governance measures to eliminate corruption and other unethical practices among firms as well as The Nigerian Stock Exchange should intensify public enlightenment on its activities in the Universities, particularly in those geo-political zones such as south-east where share investment is not widespread.

Keywords: stock market, shares, investment determinants, investment behaviour, financial institutions

1.0 Introduction

The financial system represents the set of financial assets, financial markets, financial institutions and the rules and regulations churned out from time to time that mutually interact in the process of bringing together surplus and deficit units in the economy resulting in the

creation, custodianship and exchange of securities between suppliers and users of funds in the system (Okafor, 1983). Financial institutions represent the various deposit and non-deposit financial arrangements that serve as intermediaries and as conduit pipes between the surplus and deficit units and whose activities primarily influence the efficiency of the financial system. The financial markets on the other hand provide not only physical space but also all the facilities both virtual and non-virtual that aid the interaction between the surplus and deficit units.

The Nigerian Stock Exchange (NSE) which was established in 1961 has recorded phenomenal growth since its inception. For instance, the market capitalization (All instruments) has increased steadily from N5.0 billion in 1981 to N16, 875.1 billion in 2014, N21,128.90 billion in 2017 and N25,890.2 billion in 2019 while value of transactions grew from N316.6 million in 1985 to N14,072.0 million in 1999, N961,221.5 million in 2015 and N931.5 billion in 2019. The NSE All Share Index (ASI) which stood at 127.3 in December 1985 increased to 5266.4 by the end of the year 1999, 38,243.2 as at December, 2017 and 26,842.07 as at December, 2019.

The above statistics taken on its face value appear impressive and cheery. However, when stated in relation to the size of the Nigeria economy or compared to the developments in the capital markets of other emerging economies, the statistics paint a very gloomy picture. For example, the market capitalization of the NSE in 1981 measured as a ratio of GDP in 1981 is a mere 5.05% and in 2017 was 19.9% and fell to 17.8% in 2019. These low ratios vividly indicate very thin market penetration by the NSE and low patronage of its activities by the investing public.

The decision to invest in one form of financial asset or the other in the stock market, as earlier stated, is usually influenced by a plethora of factors some of which include availability of investible surplus, expected return on the investment, past market trends, investment horizon of the investor, risk profile as well as the investment need of the investor. However, these factors do not impact uniformly on the investment decisions of savings-surplus units so much so that in real life some factors may exhibit some disproportionate influence on the investment behavior of investors depending on the circumstances of the investor while some factors may even appear to have no significant influence on investment behavior.

Given the vital role which capital markets play in mobilizing idle funds from diverse surplus units which are ultimately channeled to deficit units in boosting investments in real physical assets and hence drive economic growth, it is important that capital market operators understand the factors that influence and shape the behavior of surplus units in parting with their surplus funds. No doubt, such vital information will help capital market operators understand better their clients and hence serve them better.

Be that as it may, there is as yet no consensus among academics as well as capital market operators and regulators as to the exact factors that influence investment behavior of savings-surplus economic units in the economy as well as the magnitude of the impact of the factors. For example, Obamuyi (2013), Tabassum Sultana and Pardhasaradhi (2012), Jagongo and Mutswenje (2014), Lodhi (2014), Farooq and Sajid (2015) have all examined in their various studies the determinants of investment behavior in financial assets by households and savings-surplus units and their results have been varied and mixed. This provides ample justification for the present study.

It is in the light of the above scenario that a study such as this becomes very imperative to unravel the factors that actually motivate individual households to invest in financial assets in the capital market especially now that the country is facing severe fiscal stress and is in dire need of investible funds that can be deployed to grow fixed capital formation in different productive sectors of the economy.

The main objective of the study is to examine the factors that influence the investment behavior of households in financial assets in the Nigerian Stock market with reference to individual households in Nigerian Universities in Abia State.

2.1 Literature Review

The financial system represents the set of financial assets, financial markets, financial institutions and the rules and regulations churned out from time to time that mutually interact in the process of bringing together surplus and deficit units in the economy resulting in the creation, custodianship and exchange of securities between suppliers and users of funds in the system (Okafor, 1983). Financial institutions represent the various deposit and non-deposit financial arrangements that serve as intermediaries and as conduit pipes between the surplus and deficit units and whose activities largely influence the efficiency of the financial system. The financial markets on the other hand provide not only the physical space but also all the facilities both virtual and non-virtual that aid the interaction between the surplus and deficit units.

It is within the capital market, a segment of the financial market-that long-term financial assets are created and exchanged thus providing the platform for diverse groups of savers and investors (surplus units) and issuers of financial assets (deficit units) to consummate their transactions in accordance with their risk-return preferences. Thus, the capital market comprises the market for negotiated capital funds which describes all transactions in capital funds that are not covered by negotiable instruments and the long-term securities market (LSM) which is the market for bonds, shares and preference shares. The Nigerian Stock Exchange stands out as the hallmark financial institution of the capital market.

The controversy as to what factors exert significant impact on the investment decisions of savings-surplus units in the economy has been quite engaging and intense. The broad range of theories that attempt to explain the determinants of investment behavior include the Fundamentalist approach (Roll and Ross, 1986) the Technicalist approach (Tobin, 1958), the Efficient Market Hypothesis (EMH) (Fama, 1965, 1970; Fama and French, 1993, 1996), the Modern Portfolio Theory (Markowitz, 1952; Lintner, 1965; Sharpe, 1964;), the Arbitrage Pricing Theory (Ross, 1976) and the theory of Behavioral Finance (Tversky and Kahneman, 1974, 1986; Kahneman and Tversky, 1979; Tapia and Yermo, 2007); Some writers opine that expected return and risk are the two most important determinants of investment behavior, while others in the Technicalists and Chartists camp believe that past market trends and investor sentiments play a significant role in explaining investment behavior. The controversy is yet to abate.

2.2 Empirical Review

Extensive empirical research has been undertaken over the years focusing on the determinants of investment behavior by the investing public. While some of the studies focused on the general public scope, others targeted specific groups with varying results. For example, Jagongo and Mutswenje (2014) conducted a study to investigate the factors influencing investment decisions at the Nairobi Stock Exchange. The study was conducted on 42 out of 50 investors that constituted the sample size and the researcher used structured questionnaires that were personally administered to the respondents. The researchers employed frequencies, mean scores, standard deviations, percentages, Friedman's test and Factor analysis techniques in analyzing their data. Findings showed that the most important factors that influence individual investment decisions were: reputation of the firm, firm's status in industry, expected corporate earnings, profit and condition of statement, past performance of firm's stock, price per share, feeling on the economy and expected dividend by investors.

Lodhi (2014) examined the impact of financial literacy, high experience, use of accounting information, importance of analyzing financial statements and age on the investment decision of any individual by applying a survey in Karachi, Pakistan. By using SPSS, correlation analysis was performed in order to determine the relation between the aforementioned variables. According to the empirical results, financial literacy and accounting information were considered to be significant in lowering information asymmetry and allowing investors to invest in risky instruments. Additionally, it was verified that investors' preference for risky investments decreases, as age and experience increase.

In his study, Obamuyi (2013) examined the socio-economic factors influencing investment decisions of investors in the Nigeria capital market through a modified questionnaire developed by Al-Tamimi (2005). By employing independent t-test, analysis of variance and post-hoc tests, past performance of the company's stock, expected stock split/capital increases/bonus, dividend policy, expected corporate earnings and get-rich-quick were found to be the most significant factors influencing investment decisions of investors in Nigeria. When taking investment decisions, non-economic factors such as religion, rumors, loyalty to the company's products/services, and opinions of members of the family were found to be insignificant among investors.

Farooq and Sajid (2015) also investigated the impact of behavioral factors such as heuristics, risk aversion, use of financial tools and firm-level corporate governance on investment decision making. The researchers used the questionnaire technique for primary data collection from equity fund managers and individuals who invested in commercial banks, insurance companies and stock exchanges of Pakistan. The study collected 100 responses from individuals and equity fund managers and the data analysis techniques adopted were correlation and regression analysis. Findings of the study concluded that heuristics, use of financial tools and firm level corporate governance have positive and significant impact on investment decision making, whereas risk aversion has negative and significant impact on investment decision making. Moreover, all behavioral factors, firm level corporate and investment decision making have positive and significant relationship with each other.

In a recent study, Cao, Nguyen and Tran (2021), investigated the influence of behavioural factors on individual investors' investment decisions and investment performance on the Vietnam stock market. The authors surveyed 250 individual investors using the Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM) analytical techniques. The research results indicate that heuristics, prospect, market, and herding directly and positively affect investment decision-making. In addition, the above factors reveal a direct and positive effect on investment performance with the prospect factor having the strongest influence on investment decision-making and investment performance.

Uslu, Dıvanoglu and BAĞCI (2018) carried out a study to identify the stimuli that affect individual investors' financial investment decisions within the framework of behavioural finance. The authors employed the survey research methodology in which a sample of 200 individual employees working in private and public banks, operating in Aksaray region of Turkey was drawn from the population. The results of the study revealed that minimizing the risk of return, risk exposure and diversification are the most important variables in choosing investment instruments or alternatives.

In the study by Rekik and Boujelbene (2013), the researchers examined whether some psychological and demographic factors affect individual investors' behaviour in the Tunisian stock market. Using the survey approach in which the authors developed a questionnaire having sixty-three items dealing with six biases and adopting the factorial analysis technique, the empirical findings show that Tunisian investors' behaviours are subject to five behavioural biases: representativeness, herding attitude, loss aversion, mental accounting, and anchoring.

With respect to demographic variables, the results reveal that for Tunisian investors, gender, age, and experience have an interaction with behavioral financial factors in investment decisions.

Exploring the factors that influence individual investors' decision to select stocks in the capital market, Ogbebor et al. (2020) in their study examined the factors that investors consider in stock selection in the Nigerian Stock Exchange. Using the methodology of validated questionnaire, regression analysis, correlation analysis and ANOVA, findings indicate that foreign investment flows, inflation rate, earnings, dividends, three-month treasury bill rate, range of products, board composition, public image, long history of existence as well as personal preferences/biases of individual investors significantly affected stock price behaviour of companies listed on the Nigerian Stock Exchange. The authors thereafter recommended that companies listed on the Nigerian Stock Exchange and policymakers should focus attention more on the explanatory variables in the above study as these factors were jointly significant in explaining stock price behaviour in Nigeria. This will enhance the share price of the companies hence, boost investors' wealth maximization. This is due to the finding in this research that heuristics play a significant role in the behaviour of stock prices of companies listed in Nigeria.

In another study, Riaz, Ahmed, Parkash and Ahmad (2020) investigated the determinants of stock market investors' behavior in Pakistan during the period of COVID-19 pandemic. Employing survey methodology, data were collected from various individual investors with a high response rate of about 86.5% from 167 respondents surveyed. Findings from the empirical analysis indicated that significant influencing determinants on investment decisions in the Pakistan Stock Markets are 'getting rich quickly', loss aversion, fear of losses, expected corporate earnings and dividends, gut feelings on the economy, previous performances of firm's stock and opinions of its majority shareholders and the recommendations of brokers and family/friends. These findings, the authors opined, would assist in understanding the most common behavioral patterns of investors in the Pakistan stock markets.

Pahlevi and Oktaviani (2018) examined the determinants of individual investors' behaviour in the Indonesia Stock Exchange. The authors employed descriptive analysis technique and inferential analysis using Structural Equation Model (SEM) with the aid of Partial Least Square (PLS) software. The population of the study consists of individual investors (students in Yogyakarta area) who actively transact on the Indonesia Stock Exchange and the sample used in the research consisted of investors who were members of the Capital Market Study Group (KSPM) at several universities in Yogyakarta. The results of the study show that attitude, subjective norm, perception of behaviour control, overconfidence, excessive optimism, herd behaviour have positive effect on investors' decision to invest and that there is no significant influence between psychology of risk to investor attitude in investing.

Rana (2019) also investigated the factors associated with individual investors' stock investment decision in the Nepal stock market. The researcher used a sample of 106 individual investors obtained through structured questionnaire survey during the period January to April, 2019 and employed the exploratory factor analysis to extract the common factors affecting stock investment decisions of the sample investors. Findings of the study revealed that six factors, namely earnings and image factors, corporate governance and positioning factors, goodwill and marketshare factors, industry competition and size factors, fundamental market factors and decision-making factors are the common factors affecting stock investment decision of the sample investors in Nepal. In addition, the results show that among the six factors extracted,

fundamental market factors have high relative importance as perceived by the sampled investors.

Patil and Bagodi (2021) also undertook a study to investigate the factors that influence the investor's investment decision in the Indian stock market consisting of 10 sectors with 30 companies listed on BSE-30 SENSEX. A research instrument consisting of 14 attributes was designed by the researchers and sent to 2100 respondents out of which 467 responses were collected over a period of 6 months and KANO model was developed to classify the information into 'must be', 'linear', and 'delight' attributes according to which 'must be' attributes include condition of financial statements, current economic indicators, and the result of technical analysis and 'insider information' is a 'delight' attribute. The study revealed that all the factors significantly affect the individual investors' decision-making.

The brief empirical literature survey above shows that there is no consensus on the factors that significantly impact investment decision-making and household behaviors in the economy. The present research seeks to fill this gap.

3.0 Methodology

The study adopted the survey research design because of the nature of the phenomenon of interest. The explanatory and cross-sectional survey utilized a self-reporting questionnaire to elicit data from the respondents. The study used both primary and secondary data. Primary data, as provided by the respondents, were critical to understanding their experiences. In line with research design and number of respondents, questionnaire was used to elicit responses from a sample of households drawn from Abia State University, Uturu. and Michael Okpara University of Agriculture, Umudike. The questionnaire has both structured and open-ended questions that elicited individual opinions. The structured questions ranged from 3 point to 5-point Likert scales.

3.1 Study Population and Sample size: Since the population was known, the sample size was derived based on the Krejcie and Morgan (1970) table for calculating sample size. Given that the staff strength of the two universities as at December 2019 was **2425** (Abia State University - **1123** and MOUAU - **1302**), the corresponding sample size based on the Krejcie and Morgan table for a population of **2425** is **331**. The sample was chosen based on stratified and convenience sampling techniques. The stratified method ensured even spread among the different faculties and ranks of the academic staff. In order to ensure effective coverage of the faculties and ranks, convenience sampling was used in selecting the individual respondents. The convenience sampling method ensured that only those personnel available on the agreed-upon visit days were issued with the questionnaire. In addition, as agreed with the respondents, the questionnaires were collected after several visits.

3.2 Reliability and Validity of Survey Instrument: A pilot study was conducted among ten lecturers chosen from Abia State University and the outcome was used in determining the validity and reliability of the survey instruments. The test-retest technique was employed to test for the reliability of the test instrument while the entire process of preparing and constructing the questionnaire was subjected to expert evaluation to achieve both content and construct validity. The instrument was modified in line with the comments of the experts. In addition, construct validity was determined based on past research works and extant theory. This is in line with Moser and Kalton's (1997) observation that the essence of construct validity is its dependence on theory and the examination of the observed associations is as much a test of the theory as of the scale's validity. Another factor that strengthened the validity of the instrument is the fact that the topic variables have general applicability and some of the variables of interest had been investigated in the past.

3.3 Data analysis technique: The data analysis techniques employed in this research included descriptive statistics, frequency distribution, graphs, weighted average index, and charts. In addition, correlation, regression (binary and ordinal), and a generalized linear model were used to test the hypotheses using the SPSS software package.

4.0 Data Presentation and Empirical Results

4.1.1 Questionnaire distribution

Out of 331 copies of the questionnaire that were administered, only 221 representing 67percent were returned. In terms of distribution by area of specialization represented by faculty, while Business lecturers had the highest number of respondents (62) law lecturers had the lowest number of respondents (7). The distribution of the questionnaire return rate is illustrated with a pie chart as figure 4.1.

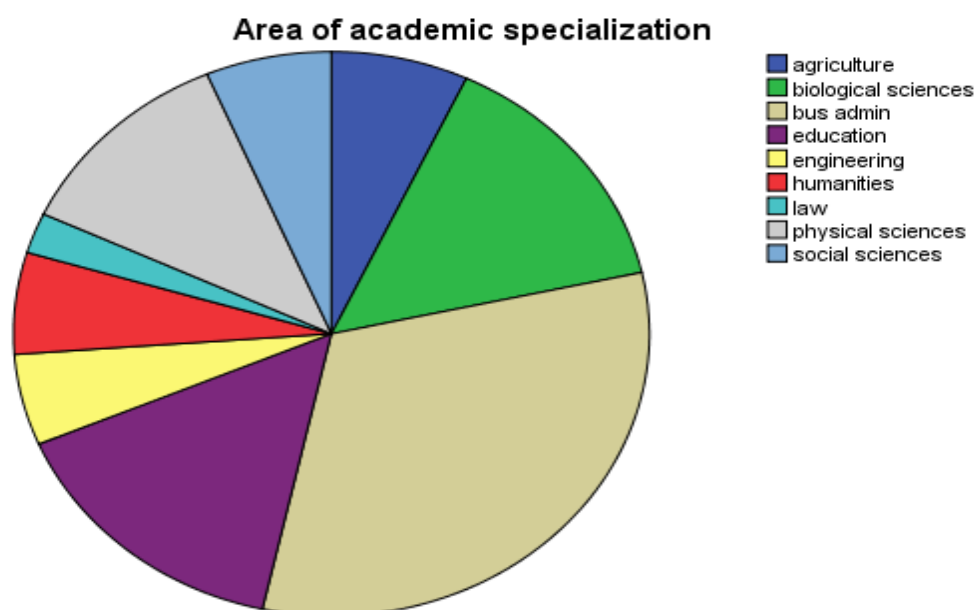


Fig 4.1: Pie-chart of questionnaire return rate

In recognition of the fact that the focus of this study is on investment in shares/stocks, a critical requirement of respondents is that they must be shareholders in firms listed in the Nigerian Stock Exchange. Consequently, we had to identify the respondents who met this criterion from among the returned questionnaire as shown in Table 4.2.

Table4.2: Shareholding status of respondents

		Frequency	Percent
Response			
Valid	YES	172	77.82
	NO	47	21.26
	Total	219	
Missing	777.00	2	0.92
Total		221	100.0

Source: Fieldwork 2019

Table 4.2 shows that of the 221 returned questionnaire, 172 or 78 percent of the respondents were shareholders. We therefore discarded the questionnaire of non-shareholders and focused on the one hundred and seventy-two copies of duly completed questionnaires.

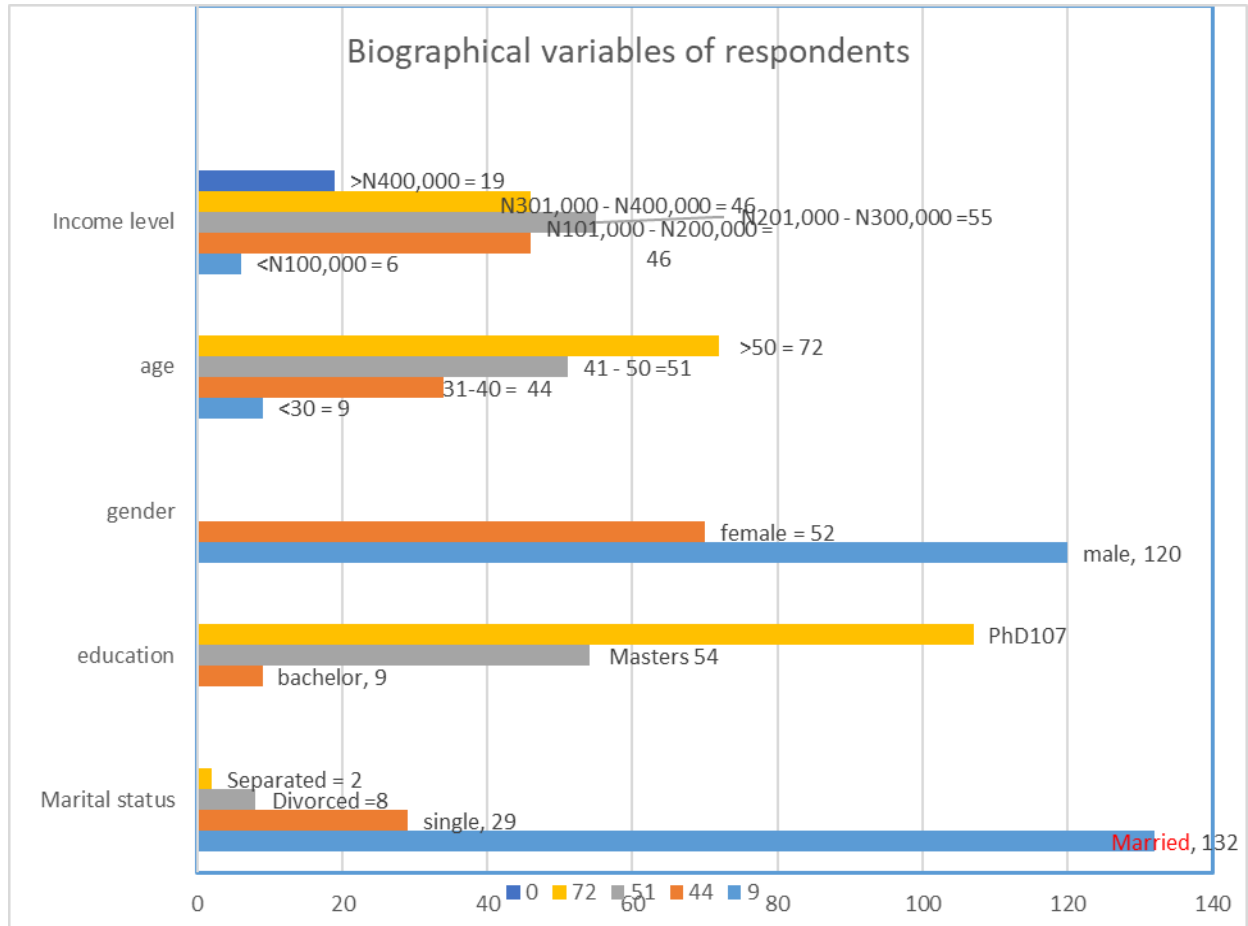


Fig 4.2: Bar chart of biographical variables of respondents

Figure 4.2 shows the five biographical variables of the respondent, viz, gender, age, marital status, income level and highest educational qualification. In terms of gender, 70 percent or 120 of the respondents were males and 30 percent or 52 were female. The age distribution showed that of the four categories, those above fifty years were 72 or 42.3percent; they were followed by those between 41 -50 years who were 51 or 30%. While those between the ages of 31-40 were 44 or 25.7% those below 30 years were only 4 or 2.3%. Out of the four categories of marital status, those who were married (132 or 77 percent) were in the majority. While there were 29 respondents who were single, 8 were divorced. Only 2 respondents identified themselves as separated. In terms of level of income, 6 respondents or 3 percent earned less than one hundred thousand naira; 46 respondents or 27% earned between one hundred and one thousand naira and two hundred thousand naira. While 55 respondents or 32 percent earned between two hundred and one thousand and three hundred thousand naira, another 46 respondents or 27 percent fell within three hundred and one thousand naira and four hundred thousand naira. Only 19 or 11% of the respondents earned more than four hundred thousand naira. In terms of the highest educational qualification, 107 respondents or 67% possessed doctorate degrees. While 54 respondents or 32% had Masters' degree, 9 respondents or 5% possessed first degree and HND.

Table 4.4: Distribution of responses on savings

		Frequency	Percent
Valid	Disagree	6	3.5
	Strongly disagree	14	8.1
	Agree	105	61.0
	Strongly agree	47	27.4
Total		172	100.0

Source: Fieldwork

Table 4.4 shows the opinions of respondents on the tendency of every income earner. Interestingly no respondent was undecided on the matter. While 152 respondents or 88.4% agreed that income earners keep aside part of their earnings as savings, 20 respondents or 11.7 percent disagreed.

Table 4.5: Preferred choice of investment asset for savings

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bank deposit	19	11.0	11.0	11.0
	Treasury bill	21	12.2	12.2	23.3
	Stocks/shares	24	14.0	14.0	37.2
	Real estate	55	32.0	32.0	69.2
	Land acquisition	53	30.8	30.8	100.0
Total		172	100.0	100.0	

Source: Field work 2019

Table 4.5 shows the rating of the different investment assets by the respondents as investment options. While 19 or 11 percent of the respondents chose bank deposit, 21 or 12.2 percent chose treasury bill as preferred investment option. 24 or 14 percent of the respondents chose stocks/shares as opposed to 55 or 32 percent that chose real estate which is the highest. The next preferred option is land acquisition which was chosen by 53 or 30.8 percent of the respondents. Clearly investment in shares/stock was rated the third preferred choice of investment. In response to a question based on the preferred choice, the respondents identified the following reasons: consistency of investment returns, regularity of returns, yield potentials, appreciation/growth of investment overtime, and minimum risk. Out of these factors, appreciation/growth of investment was chosen by over 60 percent of the respondents.

Table 4.6: Distribution of respondents based on risk profile

		Frequency	Percent
valid	Averter	11	6.4
	Rationalist	61	36
	Speculator	79	46
	Plunger	20	12
	Total	171	99.4
	777.00	1	0.6
Total		172	100.0

Source: Field work, 2019

Table 4.6 identified four categories of risk profiles, viz averter, rationalist, speculator and plunger. From the table, majority, 79 or 46 percent of the respondents, are speculators - one who may consider taking a risk if he /she has full assurance of positive return. This is followed by 61 or 36 percent of the respondents who described themselves as rationalists - one ready to take a risk if he/she has assurance of positive outcome. There were 20 (12 percent) respondents who are plungers because they are ready to take a risk even in the face of uncertainty. Only 11 or 6.4 percent of the respondents are risk averters.

Respondents' interest in investment related issues and developments: every investor monitors directly or indirectly developments in his/her investment. We have shown in table 4.7 the extent to which respondents show interest in the following issues that relate to investment in shares/stocks. Even though the assessment was based on a 4-likert scale from very low extent to very high extent, we have shown the percentage of respondents that reported high extent (3) and very high extent (4).

Table 4.7: Distribution of responses on tracking of information on investment by respondents

Dimension	Indicator	N	Mean	Std. Deviation
Investment information monitoring	Extent of interest shown by respondents to inflation news and trends	171	3.1111	.70664
	Extent of interest in company news	172	2.5116	.86172
	Extent of interest shown in stock exchange news	172	2.7442	.94511
	Extent of interest shown in news about shareholders and shares	172	2.8023	.97716
	Extent of interest in news about dividend payment	172	2.7442	.99925
	Extent of interest in government economic policies	172	3.1686	.83809
	Extent of interest in real estate development	172	2.9535	.96010
	Extent of interest on interest rate on bank deposit	172	2.9942	.82715
	Extent of interest in personal income tax policy	169	3.1361	.76326

Source: Fieldwork 2019

Table 4.7 shows the distribution of respondents' preference for certain types of information concerning their investment. Measured on a 4-point Likert scale, ranging from very low extent to very high extent, Table 4.7 above shows that interest in government economic policies has the highest mean of 3.17. This is followed by personal income tax (3.14) and inflation news and trends (3.11). In that order, the next areas of interest are interest rate on bank deposit (2.99), real estate (2.95), news about shareholders and shares (2.8), news about dividend payment tied with stock exchange news at 2.74 and company news which has the lowest mean of 2.51. There is no doubt that even the lowest mean value is above 2 but the three areas with mean value above 3.00 represent the key factors of interest to every investor.

Table 4.8 Distribution of respondents who had traded in Nigerian Stock Exchange

		Frequency	Percent
Valid	YES	110	64
	NO	62	36
Total		172	100

Source: Fieldwork 2019

Taking cognizance of the fact that share ownership is different from trading in the Stock Exchange, we sought to know who among the respondents had traded their shares in the Nigerian Stock Exchange. Table 4.8 show that of the 172 respondent-shareholders, only 110 or 64 percent had traded in the NSE. Understandably involvement in the NSE trading improves a shareholder's awareness and interest in the dynamics of share investment.

Table 4.9: Distribution of level of satisfaction of respondents with company performance

Dimension	Indicator	N	Mean	Std. Deviation
Firm performance	How satisfied with dividend payment	171	1.6023	.59882
	How satisfied with the firm's profitability	172	1.8140	.70936
	Level of transparency in financial reporting	172	1.9767	.70049
	Corporate social responsibility engagement	172	1.9942	.80566

Source: Fieldwork 2019

The distribution of the level of satisfaction, measured on a 3-Likert scale ranging from not satisfied to very satisfied, with firm performance by respondents as indicated by dividend payment, profitability, transparency in financial reporting and corporate responsibility engagement is shown in table 4.9 above. Generally, the mean value is low; all the indicators showed a mean value of less than 2 points. While satisfaction with the firms' CSR involvement was highest with a mean value of 1.99, the level of satisfaction with dividend payment by the firms is lowest at a mean value of 1.6.

Table 4.10. Distribution of the degree of usefulness of information sources to respondents

	N	Mean	Std. Deviation
Usefulness of stockbrokers as source of information	172	2.2267	.67606
Usefulness of periodicals as source of information	172	2.3372	.63265
Usefulness of NSE online publications	172	2.3314	.64938
Usefulness of friends and colleagues as source of information	172	2.0233	.63017
Usefulness of company publications as source of information	172	2.2674	.59085

Source: Fieldwork 2019

Table 4.10 depicts the assessment by the respondents of the usefulness of five sources of information for decision making. The assessment was based on a 3-point Likert scale ranging from not useful to very useful. Based on the mean values, periodicals were rated as the most useful source of information (2.34). It is followed by NSE online publications (2.33), company publications (2.26), stockbrokers are rated next with mean value of (2.22) and lastly friends and colleagues (2.02). Understandably, the predominance of published materials as sources of information can be linked to the educational background of the respondents.

Table 4.11. Distribution of responses on the importance of firm

factors in decision making			
Option	N	Mean	Std. Deviation
The importance of profitability in making decisions about share subscription	172	3.8837	1.00197
The importance of share price in making decisions about share subscription	172	3.9826	1.01724
The importance of dividend history in making decision about share subscription	172	3.8837	1.08599
The importance of CSR involvement in making decision about share subscription	172	3.6221	1.06633
The importance of a firm's reputation management	172	4.1802	.75476
The importance of the popularity of a firm's products	172	4.1163	.82247

Source: Field work 2019

Table 4.11 presents the distribution of responses on the importance of certain firm related factors to respondents' decision making regarding whether to subscribe to a firm's shares or not. The importance of the factors was assessed on a five-pointlikert scale ranging from not at all important to extremely important. The mean values which range from 3.62 to 4.18 clearly show that the factors are all important. However, the two factors that ranked highest are a firm's reputation management (4.18) and popularity of a firm's products (4.11). The two factors have a mean value of greater than 4. The next three factors are, firm's share price (3.98), firm's profitability that tied with firm's dividend history at 3.88. The last factor is a firm's involvement in corporate social responsibility programmes with a value of 3.62.

Table 4.12: Distribution responses on preferred investment

maturity period			
		Frequency	Percent
Valid	Short term	55	32.0
	Medium term	69	40.1
	Long term	48	27.9
	Total	172	100.0

Source: Fieldwork 2019

In recognition of the importance of maturity period to investment decisions, we sought to know the respondents' preferred investment maturity period. Table 4.10 shows that 69 or 40 percent of the respondents have medium term orientation. They are followed by 55 respondents representing 32 percent who prefer short-term maturity period. Only 48 respondents or 27.9 percent chose long-term maturity period.

Table 4.13: Distribution of responses on factors that affect investment in shares quoted in NSE

	N	Mean	Std. Deviation
The extent that after tax profit influences the decision to invest in shares quoted in NSE	172	3.0640	.98020
The extent that payment of dividend by a firm affects decision to invest in shares quoted in NSE	172	3.3023	.87952
The extent that past trends in a firm's share price affect decision to invest in shares quoted in NSE	172	3.2035	.90443
The extent that expert opinion on share investment affects decision to invest in shares quoted in NSE	172	3.1453	.91564
The extent that cost of participating in the stock market affects decision to invest in shares quoted in NSE	172	2.9477	.79666
The extent that change in monetary and fiscal policies affect decision to invest in shares quoted in NSE	172	3.1919	.88743
The extent that CSR engagement affect decision to invest in shares quoted in NSE	172	3.0233	.86487
The extent that level of transparency in financial reporting affects decision to invest in shares quoted in NSE	172	3.1919	1.04481
The extent that upward review in personal income tax affects decision to invest in shares quoted in NSE	171	2.9415	.91206

Source: Fieldwork 2019

In Table 4.13 we have the distribution of respondents' opinion on the extent to which certain factors that lie within and outside a firm influence the decision to invest in shares quoted in the Nigerian Stock Exchange. The respondents assessed the relevance of the factors to decision making based on 4-point Likert responses that range from low extent to very high extent. Based on mean values, dividend payment was considered the most relevant factor with a value of 3.3. it is followed by past trends in the firm's share price (3.2), changes in monetary/fiscal policies which tied with level of transparency in financial reporting shown by the firm (3.19), relevance of expert opinion (3.14), corporate after-tax profit (3.06), firm's CSR profile(3.02), cost of participating in stock market (2.94) and upward review of personal income tax (2.94)

Table 4.14: Distribution of type of earnings preferred by respondents

		Frequency	Percent
Valid	Little but steady stream of earnings (libse)	83	48.3
	Big but intermittent earnings (bibe)	65	37.8
	Very big but infrequent earnings (vebie)	24	14.0
	Total	172	100.0

Source: Fieldwork 2019

Table 4.14 shows the distribution of responses on the type of earning preferred by the respondents. Out of the three types of earnings, 83 or 48.3 percent of the respondents chose the little but steady stream of earnings. On the other hand, 65 or 37.8 percent of the respondents preferred big but intermittent earnings. Only 24 or 14 percent of the respondents chose very big but infrequent earnings.

Table 4.15: Descriptive statistics of deterrents to investment in shares

	N	Mean	Std. Deviation
What is the probability that poor dividend payment history serves as a deterrent to investment in shares	171	3.8772	1.11783
What is the probability that low investment return serves as a deterrent to investment in shares	172	4.0349	1.02538
What is the probability that corporate corruption serves as a deterrent to investment in shares	172	4.3198	.94099
What is the probability that bad corporate image serves as a deterrent to investing in shares	172	4.2733	1.02643
What is the probability that personal income tax serves as a deterrent to investing in shares	171	3.9064	1.00148

Source: Fieldwork 2019

Table 4.15 shows the relative weight as indicated by the mean value of the factors that deter respondents from investing in shares. Among the five key factors, corporate corruption has the highest mean value of 4.31, it is closely followed by bad corporate image (4.27) which expectedly could arise from corruption. Low investment return which is a core issue in investment has a mean value of 4.03. Surprisingly, developments in the area of personal income tax with a mean value of 3.9 ranked higher than poor dividend payment which is rated last with a mean value of 3.8

Table 4.16: crosstabulation of measure of risk tendencies of respondents.

		Will you go out on a cloudy day with an umbrella?		Total
		YES	NO	
Attitude towards risk	avertor	6	4	10
	rationalist	29	28	57
	speculator	34	41	75
	plunger	6	13	19
Total		80	81	161

Source: Fieldwork 2019

Table 4.16 is a cross tabulation of the two measures of respondents' risk tendencies. The first measure was based on self-assessment which often reflects personality characteristics. Based on this factor, we isolated four types of risk attitudes - averter, rationalist, speculator and plunger. The cross tabulation subsequently identified how these four risk stereotypes relate to another measure of risk tendency - the cloudy day test. The frequencies, with the exception of the rationalist, clearly point to a linear relationship between the two tendencies. Only the rationalist differed from the rest in that it had a slim difference between the positive and negative frequencies.

Table 4.17 Distribution of responses on the sources of investment information to respondents

Option		Frequency	Percent
Valid	Stockbroker	23	13.2
	Company publication/annual report	43	24.8
	Newspaper/periodicals	20	11.6
	Online publication/internet	15	9
	Phone call/sms	9	5.3
	Private mail box	8	4.4
	AGM	13	7.7
	Stock market reports	29	17
	Friends/colleagues-	7	4.1
	Total	167	
Missing	777.00	5	2.9
Total		172	100.0

Source: Fieldwork 2019

Table 4.17 shows the different sources of investment information to the respondents. Instead of asking the respondents to choose from a list of options, they were given the freedom to identify the source. Table 4.17 is a distribution of the sources freely identified by the respondents. This approach ensures that the respondent identifies the best option. The analysis shows that company publications/annual reports represent the most popular source in that it was chosen by 43 or 25 percent of the respondents. It is followed by stock market reports

identified by 29 or 17 percent, stockbroker (23 or 13 percent, newspaper/periodicals 20 or 12 percent, online publications/internet 15 or 9 percent, , attendance at corporate annual general meetings 13 or 8 percent, phone calls/sms 9 or 5 percent, private mail box (correspondences) 8 or 4 percent and lastly friends/colleagues which was chosen by 7 representing 4.1 percent of the respondents.

In order to further ascertain the respondent's investment need in the context of the firm and investment asset, respondents were given the opportunity to state in their words the reason for remaining a shareholder of a given firm. The responses have been narrowed down to the following reasons as contained in table 4.16.

Table 4.18 Distribution of reasons for remaining a shareholder of the current firm.

	Option	Frequenc y	Percent
Valid	Savings/rainy day/dividend	107	62
	Corporate image/reputation	16	9
	Transparency	5	3
	Company profitability/performance	41	24
	No better alternative	3	2
	Total	172	100

Source: Fieldwork 2019.

Expectedly as revealed in table 4.18 majority of the respondents, 107 or sixty-two percent invest in shares as a means of shoring up their income. Three key terms - savings, provision for the rainy day and dividend -were used in describing their reason for remaining shareholders in the current firm. The second reason that was identified by 41 or 24 percent of respondents is company profitability/performance which in the long run is all about dividends and savings. Corporate image /reputation was identified by 16 or 9 percent of the respondents as the major reason for investing in the shares of the firm. Understandably, corporate image/reputation is a function of a number of factors including corporate social performance and financial performance. The last two reasons given by the respondents are management transparency and no better alternative. Even though the last three reasons are non-financial, in the long run their financial implications will be of importance to the investor.

To ascertain the strength of the preference of respondents for a given investment asset, we asked scenario-based question (no. 23) which introduced some pressure to the decision situation. The output of the analysis is shown in table 4.19 which shows that land acquisition has the highest mean value of 3.94 followed by real estate (3.73), shares/stock 3.52, treasury bill 3.28 and bank deposit 2.35. When this outcome is cross matched with the outcome of a similar question (no.8) the outcomes differed slightly in that real estate had the highest frequency followed by land acquisition with treasury bill ranked last.

Table 4.19: Distribution of respondents' choice of investment assets

	N	Mean	Std. Deviation
What is the probability of bank deposits as an investment preference	165	2.3515	1.25332
What is the probability of treasury bill as an investment preference	171	3.2807	1.25681
What is the probability that shares and stock are an investment preference	172	3.5291	1.14160
What is the probability that real estate serves as an investment preference	172	3.7326	1.16403
What is the probability that land acquisition serves as an investment preference	171	3.9474	1.04185
Valid N (listwise)	163		

Source: Field work 2019

4.2: Test of Research Hypotheses

To statistically confirm the relationships proposed in the objectives of the study, the objectives were transformed into hypothetical statements and subjected to statistical tests with appropriate tools. The outcomes are shown below.

1. Hypothesis One focused on the extent to which company earnings (after-tax) influence household investment in financial assets quoted on the NSE. Based on the weighted average index, the mean value of 3.06 on a 4-point Likert scale as shown in table 4.13 indicates a high extent. However, to further ascertain the nature of the influence, we utilized binary logistics regression to identify the influence or effect of earnings as indicated by after-tax profit on household investment in shares/stocks. The use of binary logistic regression was informed by the nature of the data obtained and the fact that the data failed the normality test. The output of the statistical test is shown in appendix B). A logistic regression was used to determine the effect of earnings (after tax profit) on the likelihood that households would invest in shares. The logistic regression was statistically significant with $X^2(1) = 6.4$, $p = 0.013$. The model explained 5.4% (Nagerkerke R^2) of the variance in household investment in shares and correctly classified 73% of cases. In other words, improved earnings represent a significant and positive predictor in the model as shown in the positive B-slope (0.709, S E = 0.285, $p = 0.01$ and $\text{Exp}(B) = 2.031$. In other words, an increase in earnings is associated with an increased likelihood of household investment in shares.

2. Hypothesis Two investigated the nature of the relationship between corporate dividends declared and investment in financial assets by households in the NSE. In measuring dividend payment, we utilized a composite of proxies comprising satisfaction with current firm's dividend payment, firm's dividend history and the strength of dividend payment in influencing decisions to investment. The mean value of these three factors was correlated against the factor of trading in Nigerian Stock Exchange. Due to the failure of the normality test of the data, we utilized Spearman's Rank Correlation Order which output is shown in table 4.20 below.

Table 4.20: Correlations of dividend and NSETRADE

		DIVIDEN D	NSETRADE
Spearman's rho	Correlation	1.000	.179*
	Coefficient		
	Sig. (2-tailed)	.	.019
	N	172	172
NSETRADE	Correlation	.179*	1.000
	Coefficient		
	Sig. (2-tailed)	.019	.
	N	172	172

*. Correlation is significant at the 0.05 level (2-tailed).

Based on the positive correlation coefficient (0.179) and a p-value <0.05, it can be inferred that there is a positive and significant relationship between dividend payment and household investment in shares.

3. Hypothesis Three focused on the extent to which past trends in stock prices impact investment in stocks by households in the NSE. A logistic regression was used to determine the effect of past trends in stock prices (trendish) on the likelihood that households would invest in shares or trade in the Nigerian Stock Exchange and the output is shown in the appendix. The logistic regression was statistically significant with $X^2(1) = 13.203$, $p < 0.05$. the model explained 11% (Nagerkerke R^2) of the variance in household investment in shares and correctly classified 73% of cases. In effect, the positive trends as indicated by the positive b-slope (.822), $SE = 0.233$, $p < 0.05$ and $\text{Exp}(B) = 2.275$ show that positive past trends in stock prices increase the likelihood of households investing in shares.

4. Hypothesis Four examined the nature of the relationship between risk (based on four types of risk attitudes - averter, rationalist, speculator and plunger) and investment in stocks using binary logistic regression. The averter was used as the baseline. The output of the analysis is shown in the appendix. Nevertheless, the result of the analysis is shown as follows: both the goodness of fit of the model and tests of model effects (likelihood ratio test) are significant and acceptable. The logistic regression model was statistically significant given $X^2(3) = 8.195$, $p < .05$. Based on the Nagelkerke pseudo- R^2 , the model explained 6.5% of the variance in share investment by households and correctly classified 69% of the cases. The coefficients show that the three risk attitudes have negative b-slopes – rationalist (-0.992, $p > 0.144$), speculator (-1.641, $p < 0.05$) and plunger (-1.658, $p < 0.041$). However, in the case of the speculator and the plunger, the relationship is statistically significant, which shows that a higher-risk attitude does not translate to higher investment in shares.

5. Hypothesis Five tested the nature of the relationship between household income and investment in stocks quoted on the NSE. Logistic regression was used to determine the effect of household income (categorized into five groups) on household investment in shares. The logistic regression model was statistically significant given $X^2(2) = 11.289$, $p < .05$. Based on the Nagelkerke pseudo- R^2 , the model explained 8.7% of the variance in share investment by households and correctly classified 64.5% of the cases. Given that income GRP 1 was used as baseline, the remaining income groups had negative B-slopes – GRP 2 (-.105, $p > 0.910$), GRP 3 (-.105, $p > 0.05$), GRP 4 (-1.180, $p < 0.05$) and GRP 5 (-1.147, $p < 0.05$). However, income GRPs 3 and 4 exhibited a statistically significant relationship which reveals that income has a

negative effect on household investment in shares. The odds ratios for the significant income groups show that while there is an odd ratio of .307 that income group 4 will less likely invest in shares, the odds ratio that income group 5 will less likely invest in shares is .318.

6. Hypothesis Six focused on the nature of the relationship between government monetary and fiscal policies and household investment in the NSE. Based on Pearson Correlation as shown in table 4.22, there is a positive (0.044) but insignificant (0.565) relationship between government monetary and fiscal policies and investment in stocks.

Table 4.22: Correlations of government policies and investment in shares

		Have you traded shares in NSE?	Have you traded your S in POLICIE
Have you traded your shares in NSE?	Pearson Correlation	1	.044
	Sig. (2-tailed)		.565
	N	172	172
POLICIES	Pearson Correlation	.044	1
	Sig. (2-tailed)	.565	
	N	172	172

7. Hypothesis Seven focused on the extent to which other investment alternatives like real estate affect household investment in stocks quoted on the NSE. In order to identify the extent to which the other investment assets affected investment in shares, we carried out a weighted average index on respondents' preference of five investment assets. The outcome of the weighted average index is shown in table 4.28. Majority of the respondents chose land acquisition as the choice of investment asset. This is followed by real estate (3.76), investment in shares (3.57), government treasury bill (3.28) and lastly bank deposit (2.28).

Table 4.24: Weighted average statistics for preferred investment asset

		What is the probability of bank deposit investment preference	What is the probability of treasury bill investment preference	What is the probability of shares that are an investment preference	What is the probability of real estate that serves as an investment preference	What is the probability of land acquisition that serves as an investment preference
N	Valid	3346	3482	3503	3503	3483
	Missing	157	21	0	0	20
Mean		2.2824	3.2814	3.5784	3.7676	3.9868

4.3: Discussion of Findings

Hypothesis 1 tested the extent to which company earnings (after-tax) influence household investment in financial assets quoted on the NSE. The ordinal logistic regression test showed that company earnings (after-tax profit) positively and significantly influence household decision to invest in stocks. Though corporate earnings may not always translate to dividend payment, it has other indirect positive effects on a firm's shares. It therefore weighs heavily in an investor's decisions concerning investment in shares. This finding is corroborated by the findings of such other researchers as Jagongo and Mutswenje (2014), Riaz et al (2020), Rana (2019), Ogbebor et al (2020) and Obamuyi (2013) who identified corporate profit and expected corporate earnings as one of the factors that affect household decision to invest in shares.

Hypothesis 2 investigated the nature of the relationship between corporate dividends declared and investment in financial assets by households in the NSE. Interestingly, there is a positive and significant relationship between dividend payment and household investment in shares. Understandably, individual income, in the form of dividends represent one of the basic needs for investing in shares and therefore represents a strong incentive on the part of a shareholder to remain with a firm or to switch firms. Dividend payment is also a strong indicator of the performance and vitality of a firm. This finding corroborates the findings of Jagongo and Mutswenje (2014), Riaz et al (2020), Ogbebor et al (2020), and Obamuyi (2013).

Hypothesis 3 focused on the extent to which past trends in stock prices impact on investment in stocks by households in the NSE. We confirm that past trends in stock prices have a positive and significant effect on a household's investment in financial assets. Unarguably, the effect of past trends of share prices, depending on the nature of the trend, may be an incentive or disincentive to investment in shares. While upward and positive trend in share prices may precipitate a positive action on the part of an investor, a negative trend will no doubt lead to share migration. This finding is in line with the findings of Riaz et al (2020) but contradicted the findings of Jagongo and Mutswenje (2014), Rana (2019) and Obamuyi (2013).

Hypothesis 4 examined the nature of the relationship between risk and investment in stocks and the statistical test confirmed that there are no differences among different risk profiles in their decision to invest in shares. Though this finding tallies with that of Pahlevi et al (2018) it may appear contradictory to the findings by Farooq and Sajid (2015) in their conclusion that risk aversion has a negative and significant effect on share investment decision, a more critical consideration of the findings will show that they represent aspects of the risk continuum with averters at one end and plungers at the other end. Some other researchers such as Uslu and Bagci (2018), Rekik and Boujelbene (2013), Evbayiro-Osagie and Chijiuka (2021) and Chandra and Kumar (2011) identified conservatism as a positive factor in household investment in shares.

Hypothesis 5 focused on the nature of the relationship between household income and investment in stock quoted on the NSE and the statistical test showed that there is a negative and insignificant relationship between household income and investment in shares. Understandably, investment in shares does not require huge financial outlay and can therefore be undertaken with a basic minimum amount. As a matter of fact, the higher the income the greater the tendency to choose other investment assets with higher yield and no doubt higher risk.

Hypothesis 6 examined the nature of the relationship between government monetary and fiscal policies and household investment in the NSE. Based on Pearson Correlation coefficient and p-value there is a positive but insignificant relationship between government monetary and fiscal policies and investment in stocks. This finding confirms the fact that government monetary and fiscal policies are often provided as investment incentives both to corporate and individual investors.

Hypothesis 7 focused on the extent to which other investment alternatives like real estate affect household investment in stocks quoted on the NSE. Based on weighted mean values, land acquisition was rated the most important investment asset and is followed by real estate. Interestingly, stock ownership was rated third and higher than treasury bill and bank deposits. As a matter of fact, bank deposits were not only rated last but has a mean value that is less than the 3.0 threshold. Interestingly, the responses to this question on where to invest a windfall income tallied largely with the responses to question 8 on the preferred investment asset for savings as shown in table 4.5.

5.1 Summary of Findings

Based on the analysis of the research using different analytical techniques, the findings of this research can be summarized thus:

- i. Corporate earnings have a positive and significant influence on the behaviour of households in taking share investment decisions
- ii. Declared corporate dividends positively influence the behaviour of households in making decisions concerning investment in shares.
- iii. Past trends in stock prices positively influence the behaviour of existing and potential shareholders.
- iv. A person's attitude to risk has a negative influence on his/her behaviour towards share investment.
- v. There is a negative but insignificant relationship between household income and investment in shares.
- vi. There is a positive but insignificant relationship between government monetary and fiscal policies and investment in stocks.
- vii. Land acquisition was rated the most important investment asset and is followed by real estate. Interestingly, stock ownership was rated third and higher than treasury bill and bank deposit

5.2 Conclusion

There is no doubt that the findings of this study have in line with research streams in this area confirmed some factors as positive determinants of investment behaviour and others as negative influencers or neutralizers of share investment behaviour. This further confirms the controversies that have characterized research in this area which have often been attributed to the dynamism and unpredictability of human behaviour. Nevertheless, while this study extended the frontiers of past research works with regard to some of the factors of focus, it equally introduced some new variables of analysis such as CSR engagement and investment horizon.

Interestingly, while some of the factors such as corporate earnings, dividend payment, past trends in stock, government monetary and fiscal policies were confirmed as determinants of share investment behaviour, such other factors as household income, risk profile, transaction cost, investment horizon and the corporate responsibility profile of the firm do not enhance investment decisions. Instructively, the determinants relate mainly to the firm and the

government – key actors in the stock market and this has serious implications for policy development.

5.3 Recommendations

Given the fact that majority of both the positive and negative influences on the behaviour of share investors relate to the firms and the government, there is need for the government to regularly review the policy framework of the stock market with a view to addressing recurring and emergent challenges. Such reviews should focus on:

- i. Creating necessary incentives for existing and potential shareholders to patronize the market.
- ii. Strengthen corporate governance measures to eliminate corruption and other unethical practices among firms.
- iii The Nigerian Stock Exchange should intensify public enlightenment on its activities in the Universities, particularly in those geo-political zones such as south-east where share investment is not widespread.

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