

SOCIO-ECONOMIC DETERMINANTS OF INVESTMENT PATTERNS OF SMALL-SCALE AGRO-BASED ENTERPRISES IN ANAMBRA STATE, NIGERIA.

¹Theresa U. Anigbogu, and ²Perpertua A. Chukwuma

1. Department of Cooperative Economics and Management, Nnamdi Azikiwe University, Awka.
Email: tu.anigbogu@unizik.edu.ng,
2. Department of Cooperative Economics and Management, Nnamdi Azikiwe University, Awka.
Email: pa.nwobi@unizik.edu.ng

Abstract

The study examined the socioeconomic determinants of investment patterns of small scale agri-based enterprises in Anambra State, Nigeria. Specifically, the study explored the influence of age, income and savings of enterprise as well as the prevalent lending interest rate on the investment patterns of small scale agro-based enterprises in Anambra State. The study was guided by the Accelerator and Keynesian theories of investment. A survey research design was adopted and the major instrument for data collection was a questionnaire. 1815 registered small scale agro-based enterprises in Anambra state made up the population of the study and a sample size of 328 was determined using the Taro Yamane formula. Face and content validity tests were carried out on the questionnaire and the reliability was tested using the Cronbach's Alpha coefficient. Descriptive statistics such as frequency count, mean score, bar charts, percentage and Regression analysis were used in analyzing data. The analysis revealed that income of enterprise (t -value= 3.111 and p -value=0.002), and savings of enterprises (t -value= 4.134 and p -value=0.000), as well as current lending interest rate (t -value= 13.675 and p -value=0.000), exert a strong positive influence on investment patterns of small scale agro-based enterprises in Anambra State. It was therefore recommended that the Government at different levels and institutions may prioritize the conscientization of young entrepreneurs to venture more into agri-based enterprises, adequate and timely financing may be provided to small scale agro-based entrepreneurs in Anambra State, Owners of small scale agro-based enterprises may adopt statutory savings to improve their capital base and government may direct financial institutions to reduce the current lending interest rate to enable the business owners to survive the present turbulent economic environment.

Keywords: Investment Patterns, Agro-based Enterprises, Socioeconomic Determinants, Current Lending Interest, Small Scale Enterprises.

1.0 INTRODUCTION

Over the decades, the agricultural sector of the Nigerian economy has contributed to the nation's economic growth through rural poverty reduction, increased acceleration of food, increased productivity and reduction of the unemployment rate. The dominance of agriculture in Nigeria places a great premium on the activities of agro-based industries and entrepreneurs in the growth and development of the economy (Nsionu, 2015). According to Ogheneruemu, Ohibunmi and Adetutu (2012), growth attained within the agricultural sector depends largely on what the farmers do with the seasonal additional incomes generated from their farm activities. Similarly, Akerele and Ambali (2012) further points out that the growth rate in the farming economy largely depends on the stock of capital built in a farm organization and the re-investment of such stock in form of savings for further

improvement of the farm organization. Business and agro investments are major components of the total investments in a developing country like Nigeria. Seen as an engine for growth, agribusiness and its related industries are receiving increased attention in policies and strategies that aim to promote investments in agro-enterprises and develop agro-based value chains (Okeke and Mbanasor, 2017). Agro-based enterprises according to Kar and Mishra (2004) are involved in the production, processing, preservation, manufacturing of agricultural inputs and marketing of agricultural products. In Nigeria, the activities of agro-based enterprises are on small-scale bases not exceeding an annual turnover of ₦500,000 (CBN, 2005). Onyebinama (2004) reports that agriculture and agro-based activities in Nigeria are largely on a small-scale involving land holding between one and five hectares. Investment by small-scale agro-based enterprises in Nigeria has generally been low characterized by poor yield or return on the invested amount (ROI).

The investment strategies of one investor are dissimilar from that of another. Researchers found that investors do not behave in a merely rational manner across financial markets and there is a variety of factors influencing their decision-making in investment; among those factors, socioeconomic factors like age, income, savings, and interest rate are the major elements (Kumar & Lee, 2006; Baker & Wurgler, 2007; Garling, Kirchler, Lewis, 2009; Okonkwo, et. al. 2021). Before choosing how to allocate resources, investors consider many financial data, trying to transform them into useful information. An intriguing approach to describe and, possibly, explain investment decisions may be the explicit consideration of these socioeconomic factors as they act as key drivers for investment decisions by small-scale agro-based enterprises.

Recent theoretical and empirical studies on the determinants of investment focused on the role of government policy and tried to derive an explicit relationship between the principal policy instruments and private investment (Kumar & Lee, 2006; Anju & Anuradha 2015; Rumanujan & Viswanathan 2018). More importantly, as evidenced in many research works, it is the private investment (more specifically, Agro-investment) that plays a greater role than public investment in determining economic growth in developing countries.

The choice of investment avenue and portfolio has remained a major challenge facing small scale entrepreneurs. Ansari and Dhamija (2011) posits that not all investments will be profitable, as investors will not always make correct investments for years. Decisions on whether to invest or not are determined and/or constrained by numerous factors. These factors must be identified and the importance of identified variables as policy instruments lies in the fact that they can be used judiciously to foster investments.

The need to address these multifaceted problems hinges on the important role played by these small-scale enterprises in the agricultural sector. Empirical studies have not been sufficiently conducted to localize these problems and socioeconomic determinants, particularly in Anambra state as a *prima facie* to addressing them. Attempts to analyse investment determinants and predict its behaviour in the Nigerian economy have achieved a disproportionate share of analysts' attention. Decisions are taken in respect of investment, whether rightly or wrongly have a lasting effect on the growth and development of an economy. To avoid the danger of faulty investment or investment decisions, it is necessary to examine or investigate very carefully those factors that determine investments in the agricultural sector of the Nigerian economy, to know their impacts. Hence, the focus of this paper.

This study, therefore, examined the influence of age of enterprise; income of enterprise; enterprise savings and current lending interest rate on the investment patterns of small-scale agro-based enterprises in Anambra state.

Hypotheses

The following hypotheses, which are in null form, are postulated for this study:

1. Age has no significant relationship with the investment pattern of small scale agro-based enterprises.
2. There is no significant relationship between Income and the investment pattern of small scale agro-based enterprises.
3. Savings and investment patterns of small scale agro-based have no significant relationship.
4. The lending interest rate has no significant relationship with the investment pattern of small scale agro-based enterprises.

2.0 REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Concept of Investment

Over the years, investors' investment pattern has witnessed a metamorphic change and the change can be attributed to changing scenario of investment alternatives available. Therefore, the concept of investment could be understood from either the economic viewpoint or the financial viewpoint. From the financial viewpoint, investment means the purchase of a financial product or other items of value with an expectation of favourable future returns (Abey, 2020). It also refers to the concept of deferred consumption, which involves purchasing an asset, giving a loan or keeping funds in a bank account to generate future returns (Abey, 2020). In furtherance, Abey (2020) defines economic investment as the formation of new and productive capital in the form of the new construction and producers of durable instruments such as plants and machinery. The economic and financial concepts of investment are related to each other because investment is a part of the savings of individuals which flow into the capital market either directly or through institutions. Thus, investment decisions and financial decisions interact with each other. The term investment can refer to any mechanism used in generating future income (Chen, 2020). Investment is elucidated and defined as an addition to the stockpile of physical capital. Investment can also mean money dedicated to capital spending, which builds the capacity of an entity to produce whatever goods and services it markets (Smyth, 2019).

Investment is characterized by certain features and according to Abey (2020), they include Return, Risk, Safety and Liquidity. All investments are characterized by the expectation of a return. The return may be received in the form of yield plus capital appreciation. The difference between the sale price and the purchase price is capital appreciation. The dividend or interest received from the investment is the yield. The return from an investment depends upon the nature of the investment, the maturity period and a host of other factors (Smyth, 2019).

2.1.2 Concept of Small Scale Agro-Based Enterprises

Agriculture and industry both are miles apart from each other but there are certain industries which are dependent on agriculture and these types of industries are called Agro-based industries/enterprises. Agro-based enterprises as the name refer to those enterprises which use agriculture products as their raw materials as far as production of products is concerned (Parikh, 2017). According to UN Commission on Sustainable Development (UNCSD, 2008), agro-industry is the processing, preservation and preparation of agricultural production for intermediate and final consumption. Agribusiness/Agro-based enterprise according to Igbokwuwe, Essien and Agunna (2015) is an aspect of agriculture comprising of production, manufacture and distribution of farm inputs, equipment and supplies at one hand and the processing, storage and distribution of farm commodities on the other hand. This implies that the entire agricultural production, processing, distribution and

consumption spectrum from farm input supplies inclusive of wood producers, furniture manufacturers, food processors, food packers, food transporters and food marketing companies to restaurants and shopping malls. It covers input industries including the commodity-processing, food manufacturing and distribution industries and third-party firms that facilitate agribusiness operations including bankers, brokers, advertising agencies and marketing information firms (Yumkella, 2012). The activities of agro-based enterprises cut across production, manufacturing, processing, marketing and preservation of agricultural products and inputs (Nsionu, 2015).

Agro-based enterprise, in other words, is the total of all the operations involved in the manufacture and distribution of farm supplies, production operations on the farms, storage-processing distribution of farm commodities and other items made from them (Igbokwuwe, Essien & Agunna, 2015). A small-scale agro-based enterprise from the foregoing are enterprises that are involved in the production (rice/grain farmers, poultry and fish farmers), processing (palm oil/nut, coconut/oil extraction, flour mill), agro-traders (foodstuff sellers, frozen food sellers, timber traders, fertilizer sellers, etc.) and agro-service providers and whose annual turnover is less than ₦1,000,000 and this will serve as the operational definition of small scale agro-based enterprises for the study (Nsionu, 2015).

2.1.3 Patterns of Investment of Small Scale Agro-Based Enterprises

The pattern of investment varies widely across the different players in the economy especially among small-scale agro-based enterprises (Nsionu, 2015). According to Venkatesh (2015), investment pattern is the classification of the investment portfolio held by an individual and is based on the type and the riskiness of the asset constituting the portfolio. Small-scale agro-based enterprises are characteristically limited by funding and capital, and this affects their level and volume of investment as well as the choices available to them for investment (Nsionu, 2015). The pattern of investment of small-scale agro-based enterprises comprises decisions determining the choice of investment avenues available. An investment is described as a perfect investment if it satisfies all the needs of all investors. Therefore, the starting point of searching for any perfect investment must look through the investor needs, if all those needs are met by the investment, then that investment is termed the perfect investment (Manikandan & Meenakshi, 2017). There is always something that is underpinning an investment decision-making process as the possibilities of returns are a concern (Ramanujan & Viswanathan, 2018). Each of these investments has common characteristics such as potential return and the risk an individual bears. Based on these characteristics, each investor selects investments that match his investment objective. The future is uncertain, and one must determine how much risk one is willing to bear since higher return is associated with accepting more risk (Ansari & Dhamija, 2011; Ugwa, et. al. 2015).

2.1.4 Socio-economic Determinants of Investment Patterns of Small Scale Agro-based Enterprises

The decision of whether to invest or not is constrained by numerous factors that must be identified and accorded due consideration to foster investment (Duruchi & Ojiegbo, 2015). Investment decisions are considered one of the major aspects of finance. However, for an investment decision to be made, the determinants play different influential roles (Barayandema & Ndizeye, 2018). Socio-economic is a term used generally to signify the interaction of socio life and economic activities or socio and economic factors. The interaction between social and economic factors results in efforts to integrate social consideration into economic activities and to more fully integrate socio-economic considerations into investment decisions (Agbada & Odejemi, 2013). To avoid the danger of faulty investment decisions or patterns, Duruchi and Ojiegbo (2015) exert that it is necessary to examine or investigate very carefully those factors that determine investments in the Nigerian economy, to know their impact. This study is aimed at examining the significance of social factors (age) and economic factors (income,

lending interest rate, savings and capital) on the investment pattern of small scale agro-based entrepreneurs.

Age of Enterprise

The age of an enterprise has been identified to influence the type of investment by entrepreneurs in southeast Nigeria. Agro-investors whose ages are within the age bracket of 40-59 years were found to be more active in farm input supply (60%), farm processing (55%) and marketing/distribution (54%). Older investors (60 years and above) are more into farm production (Nwibo & Alimba, 2013). According to Okoli, Anyaegbulam, Etuk, Uchegbu & Udedibie (2004), agro-based entrepreneurs within the middle age (35-50 years) are more productive than younger or older ones, and as such earn more income, save and invest more. Age tends to indicate a negative correlation. Age is always an essential factor and has a significant relationship with investment patterns (Huberman & Jiang, 2006; Okonkwo, et. al. 2017; Otaokpukpu, et. al. 2017).

Income of Entrepreneurs

Investment patterns changes according to different income group such as lower, middle- and higher-income group. Investors' preferences according to Shinde and Zanvar (2015) are different among various income groups, as the income rises, the proportion of investment rises. Osondu et al, (2015) postulates that an increase in farm income of smallholder farmers will stir up an increased amount invested in farming. Smallholder farmers with higher levels of income have a higher tolerance for risk. Hence, they are most likely to invest more funds in farming.

Savings of Entrepreneurs

Savings are of great importance in a developing economy like Nigeria. This is because of the direct bearing it has on the level of economic activity of the nation (Adeyemo & Bamire, 2005). Sustainable growth in any sector of the economy is premised upon capital accumulation and increased individual and household savings. Savings to a large extent determine the growth rate of the productive capacity and output (Okeke et al, 2017). There is a positive and significant relationship between savings level and investment potentials, the higher the level of savings, the higher the propensity to invest.

Lending Interest Rate

As posited by Isshaku (2011), the high-interest rate in the economy deters agro-based entrepreneurs from taking loans to invest in productive assets and as such, investment is discouraged. According to Duruechie and Ojiegbe (2015), high-interest rates discourage the tendency to borrow. This is because, despite all efforts to encourage investment, the interest rate has continued to remain high in Nigeria. For some time the Monetary Policy Rate (MPR) has been maintained at 12% or a little above by the Central Bank of Nigeria (CBN). This may or may not have taken into cognizance investment trends. An increase in interest rate is more likely to stimulate investment when the potential to learn is larger and in the short run rather than the long run.

2.2 Theoretical Review

The study is anchored on the Keynesian theory and Accelerator theory of investment which were developed by Keynes, John Maynard in 1936. The Keynesian theory places on the importance of interest rate and rate of return-on-investment decisions. According to Keynes, investment depends on two main factors, viz; the expected rate of return on new investment or the marginal efficiency of capital (MEC) and the interest rate (r). investment varies directly with MEC and inversely with the interest rate, so long as $MEC > r$, the investment will increase.

Accelerator theory on its part, states that when income or consumption increases, the investment will increase by multiple amounts. The theory explains why an increase in income often results in a more than proportionate increase in investment spending and why the amount of investment spending depends not on the absolute level of business activity but on whether the level is increasing or

decreasing (Nipun, 2020). So, a change in income induces a change in investment. However, a small change in income or output leads to an accelerated change in investment.

The Keynesian theory, on the one hand, clarifies the relationship that exists between the income and investment pattern of small scale agro-based enterprises while Accelerator theory on the other hand simplifies the correlation between the lending interest rate and investment pattern of small scale agro-based enterprises hence, their relevancy to the study.

2.3 Empirical Review

Several studies have been carried out on the determinants (demographic, socio-economic and psychological factors) of investment patterns of individuals, salaried people, women employees, cooperative members, farmers and small and medium scale enterprises but there exists a dearth of literature on the investment patterns of small scale agro-based enterprises in Anambra state.

Dewan, Gayatri and Dewan (2019) carried out a comparative study on the factors affecting the investment behaviour of the corporate and individual investors from Southern India. The study was primarily based on the perception of the investors and the data was collected from 576 investors (304 individual investors and 272 corporate investors) from four major cities of South India namely; Bangalore, Hyderabad, Chennai and Visakhapatnam using the questionnaire method. Further, it was found from the comparative analysis of the corporate and individual investors, that there is a significant difference in the investment behaviour of the corporate and individual investors from Southern India.

Bajaj and Kalra (2018) explored the factors that are most likely to influence the investment decision of an entrepreneur. The research also includes a comparative study of entrepreneurs with students, full-time employees and retired employees on the grounds of the factors most likely influencing their investment. A survey was conducted with 260 respondents who were made to answer a questionnaire. Data were analysed using the percentage, Chi-square test, Correlation analysis and Regression Analysis. The findings from this research provide an understanding of the various factors that affect investment decisions, motives behind the investment, common problems faced by an entrepreneur about investment decisions, awareness of all the opportunities and a study on most of the common investment avenues available in the market.

Okeke and Mbanasor (2017) analysed the factors influencing saving and investment behaviour among yam entrepreneurs in Benue State of Nigeria. Data were collected from 288 yam entrepreneurs in six local government areas and 24 wards using a multi-stage sampling technique. The structured interview schedule was used to collect the data. Data collected were analysed using frequency distributions table, percentages and factor analysis. The results reveal that yam entrepreneurs carry out their savings on weekly basis and their investments on a daily and weekly basis. The results also indicate that financial and social factors significantly affect the savings and investment behaviour of yam entrepreneurs.

Afroze, Rahman, Bristy and Parvin (2015) examined the factors influencing individual investors' choices in the stock market of Bangladesh. It also attempted to compare the identified factors in terms of investor's demographic factors like gender, age, occupation, monthly income and educational level. A survey research method was adopted with the use of questionnaires. A total of 116 questionnaires were distributed but 100 valid questionnaires were found. For data analysis purposes descriptive statistics, independent sample t-test and one-way ANOVA have been applied. The study found that

accounting information is the most important factor that the investors consider during their decision making and reliability of information about the firm is the least important factor. Moreover, it found some factors to vary for the demographic factors of the respondents while others do not vary.

Babani (2015) analysed the savings and investment behaviour of small-scale farmers in Kauru and Lere local government areas of Kaduna State. Data were obtained from a total of 168 farmers with the use of questionnaires. Data analysis was done descriptively using a multiple regression model. The analysis revealed that age, household size, education, farm and off-farm income were responsible for 55% variation observed in the level of savings, while household size, farm size, farm income, off-farm income and loan obtained were responsible for 55% variations observed in the level of investment. Many (26% and 25%) of the farmers ranked low income and inadequate capital as the foremost constraints associated with savings and investment in the study area.

3.0 Methodology

The study was carried out in the four agricultural zones in Anambra state. The multi-stage sampling technique was used to select two local government areas from each agricultural zones and also the subsequent selection of two towns from each LGAs making it a total of sixteen towns. A total number of 327 small scale agro-based enterprises were randomly selected and this served as the sample size for this study. Out of the 327 copies of questionnaires that were distributed, 307 were retrieved and properly filled. Secondary data sources (journals, academic papers, financial reports etc.) were also employed for this research. The validity and reliability of the research instrument were tested using the face and content validity and the Cronbach Alpha's Coefficient respectively.

The data collected from the above sources were analysed using simple descriptive statistics such as frequency counts, percentages, weighted means and standard deviations while the regression model was used to analyse the research objectives. Also, tabular analysis was extensively employed to present data and make comparisons of data.

3.1 Model Specification

The model for the multiple regression analysis is implicitly specified as follows:

$$\text{InvPat} = f(\text{age, income, savings, lending interest rate}) \dots \dots \dots (1)$$

Where:

InvPat= Investment Pattern of small scale agro-based enterprise

Age= Age of small scale agro-based enterprises in years

Income= Saving of small scale agro-based enterprises in Naira

Lending Interest Rate = Lending interest rate from banks and other institutes in %

The above model is specified explicitly thus:

$$\text{InvPat} = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + u_i \dots \dots \dots (2)$$

Where:

β_1, β_4 = Coefficient of the independent variable

x_1 = Age

x_2 = Income

x_3 = Savings

x_4 = Lending interest rate

α = Constant

u_i = Error term

All calculations and estimates were obtained through the use of the SPSS package.

The R^2 and Adjusted R^2 were performed in each of the models to test the significance of the

The aggregate of an explanatory variable at the alpha level of 5%.

4.0 RESULT AND DISCUSSION OF FINDINGS

4.1 Descriptive Statistics Result on the Socioeconomic Determinants of Small-scale Agro-based Enterprises

Table 4.1.1: Age of Enterprise

Variables	N	Mean	Std Dev	Remark
The older my enterprise, the better it will open to investment in real estate, bonds/shares, commodities and other structures	307	3.41	0.621	Accepted
My enterprise may not invest much in the purchase of machinery if it is young (below 2 years)	307	1.47	1.082	Rejected
My enterprise will invest in the purchase of raw materials and stock irrespective of age (either younger or older)	307	3.63	0.072	Accepted
The older my enterprise, the more receptive it will be to investment opportunities to earn higher returns on the invested amount	307	3.54	0.066	Accepted
I will consider my enterprise age when investing to expand my business	307	3.22	0.132	Accepted
Grand Mean		3.05	0.416	Accepted

Source: Field Survey, 2021

Table 4.1.1 reveals that the older the enterprise, the better it will open to investment in real estate, bonds/shares, commodities and other structures. It also shows that small scale agro-enterprises will invest in the purchase of raw materials and stock irrespective of age (either younger or older). The table shows that the older the enterprise, the more receptive it will be to investment opportunities to earn higher returns on the invested amount. Consequently, all except one item in all the variables meet the theoretical mean threshold of 3.0. We, therefore, conclude that the age of enterprise is a determinant of the investment pattern of Small Scale Agro-Based enterprises in Anambra State, Nigeria. This has a grand mean of 3.05 and a standard deviation of 0.416.

Table 4.1.2: Income of Enterprise

Variables	N	Mean	Std Dev	Remark
The income of my enterprise will influence my investment in bond/shares, real estate, structures and other commodities	307	3.38	0.754	Accepted
When my enterprise income is high, I am better disposed to invest in the purchase of raw materials and machinery as compared to when its low	307	4.40	0.011	Accepted
The higher my enterprise income, the more receptive it will be to investment opportunities to earn higher returns on the invested amount	307	3.71	0.634	Accepted
I will consider my enterprise current income when investing to expand my business	307	3.15	0.044	Accepted
Grand Mean		3.66	0.854	Accepted

Source: Field Survey, 2021

Table 4.1.2 explains that the income of enterprises will influence their investment in bond/shares, real estate, structures and other commodities. When their enterprise income is high, they are better disposed to invest in the purchase of raw materials and machinery as compared to when it's low. The table indicated that the higher their enterprise income, the more receptive it will be to investment opportunities to earn higher returns on invested amount and expansion of business. The weighted theoretical mean of 3.66 and standard deviation of 0.854 suggests that the Income of Enterprise is a determinant of the investment pattern of Small Scale Agro-Based Enterprise in Anambra State, Nigeria

Table 4.1.3: Savings of Enterprise

Variables	N	Mean	Std Dev	Remark
When my enterprise saves more, it will have more funds for investment in different avenues (bonds, shares, real estate, commodities etc.)	307	3.40	0.867	Accepted
The higher my enterprise savings the more money will I have to set aside for the purchase of raw materials and machinery	307	3.37	0.862	Accepted
An increase in my enterprise savings will influence my investment purpose for business expansion	307	4.26	0.738	Accepted
Grand Mean		3.68	0.657	Accepted

Source: Field Survey, 2021

As shown in Table 4.1.3, a rise in enterprise savings leads to an increase in funds set aside for investment in different avenues (bonds, shares, real estate, commodities etc.) and purchase of raw materials and machines. It further revealed that the amount of money saved by the enterprise will influence the investment decision business expansion. Thus, the descriptive statistics suggest that savings of enterprise are a determinant of investment pattern of Small Scale Agro-Based Enterprise in Anambra State, Nigeria with a grand mean of 3.68 and standard deviation of 0.657.

Table 4.1.4: Current Lending Interest Rate by Commercial Banks

Variables	N	Mean	Std Dev	Remark
The interest rate charged by banks will affect my investment in bonds, shares, real estate, commodities and other securities	307	3.78	0.754	Accepted
When the lending interest rate is high, it will discourage my enterprise from borrowing to purchase raw materials and machinery	307	3.47	0.627	Accepted
The current interest rate charged will influence my investment objective of expanding my business	307	3.12	1.025	Accepted
An increase in the lending interest rate will affect my decision to invest to earn a higher return on the invested amount	307	3.86	1.094	Accepted
Grand Mean		3.92	0.834	Accepted

Source: Field Survey, 2021

Table 4.1.4 shows the mean score on the current lending interest rate by commercial banks. All the items meet the theoretical mean threshold of 3.0. Thus, the descriptive statistics suggest that the

current lending interest rate by commercial banks is a determinant of the investment pattern of Small Scale Agro-Based enterprises in Anambra State, Nigeria with a grand mean of 3.92 and standard deviation of 0.834.

4.2 Test of Hypotheses

Table 4.2 Regression Estimates (Influence of Socioeconomic determinants on Investment Pattern).

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.629	.160		3.925	.000
Age of small scale Agro-based Enterprise	-.055	.039	-.063	-1.410	.159
Income of Small scale Agro-based enterprise	.105	.034	.121	3.111	.002
Savings of Small scale Agro-based enterprise	.211	.051	.225	4.134	.000
Lending interest rates by banks and other institutes	.583	.043	.647	13.675	.000
Residual Standard Error: .6519 R: .816; R ² : .665; Adj. R ² : .661; F Statistic: 150.027 (p-value = .000)					

a. Dependent Variable: Investment Pattern

Source: Researcher's computation, 2021

The regression table 4.2 revealed the analysis of the four socioeconomic indicators modeled in this study and their regression coefficients, standard error, t-test statistics, and the probability value of each of the individual regression coefficients. The R, R², adjusted R², and F-Statistics were also included in the table.

The regression coefficients -age of small scale agro-based enterprise, the income of small scale agro-based enterprise, savings of small scale agro-based enterprise, and lending interest rate - represented by the heading "B" in the regression table explains the extent to which they influence the investment patterns of small scale agro-based enterprise in Anambra State, Nigeria. The regression result tells us the nature of the relationship between the regression coefficients and the dependent variable which is the investment pattern. From the result, all the regression coefficients except for the age of small-scale agro-based enterprises have a positive relationship with the investment pattern. Again, the table revealed that a unit increase in terms of support for the age of enterprise of the small agro-based enterprises will bring about a 39% change in the investment pattern. A unit increase in terms of income of enterprises of the small agro-based enterprises will bring about a 34% change in investment pattern. A unit increase in terms of savings of enterprise of the small agro based enterprises will bring about 51%. and a unit increase in terms of the current lending interest rate will bring about a 43% increase in the invested amount by small-scale agro-entrepreneurs in Anambra State.

To evaluate the socioeconomic determinant of investment patterns of small-scale agro-based enterprises in Anambra State, Nigeria, the analysis was also done based on statistical criteria by applying the coefficient of determination (R²) and the F-test. In general, the joint effect of the explanatory variables-independent variables in the model accounts for 0.665 or 66.5% of the variations in the investment patterns of small-scale agro-based enterprises in Anambra State. This

implies that 66.5% of the variations in the investment patterns of small-scale agro-based enterprises in Anambra State are being accounted for or explained by the variations in the age of enterprise, the income of enterprise, savings of enterprise, and current lending interest rate. All four coefficients except for the age of small-scale agro-based enterprises significantly influenced the investment patterns of small-scale agro-based enterprises in Anambra State.

4.2.1 Test of hypothesis one: Influence of age of small scale agro-based enterprises on investment pattern

Ho₁: Age of enterprise does not have a significant effect on investment patterns of small-scale agro-based enterprises.

Ha₁: Age of enterprise has a significant effect on investment patterns of small-scale agro-based enterprises.

Decision: The regression result shows a t-value of -1.410 at a 0.159 significant level. We, therefore, accept the null hypothesis one and conclude that age has no significant influence on the investment patterns of small-scale agro-based enterprises in Anambra state.

4.2.2 Test of hypothesis Two: Effect of Enterprise Income on Investment Pattern

Ho₂: Enterprise income does not have a significant effect on investment patterns of small-scale agro-based enterprises.

Ha₂: Enterprise income has a significant effect on investment patterns of small scale agro-based enterprises

Decision: The regression result shows a t-value of 3.111 at a 0.002 significant level. We, therefore, reject null hypothesis two and conclude that the income of enterprises has a significant influence on the investment patterns of small-scale agro-based enterprises in Anambra state.

4.2.3 Test of hypothesis one: Influence of savings of Enterprise on investment pattern

Ho₃: Savings of enterprise does not have a significant effect on investment patterns of small-scale agro-based enterprises.

Ha₃: Savings of enterprises have a significant effect on investment patterns of small-scale agro-based enterprises.

Decision: The regression result shows a t-value of 4.134 at a 0.000 significant level. We, therefore, reject null hypothesis three and conclude that savings of enterprise have a significant influence on the investment patterns of small-scale agro-based enterprises in Anambra state.

4.2.4 Test of hypothesis one: Influence of Lending Interest Rate on investment pattern

Ho₄: Lending interest rate does not have a significant effect on investment patterns of small-scale agro-based enterprises.

Ha₄: Lending interest rate has a significant effect on investment patterns of small-scale agro-based enterprises.

Decision: The regression result shows a t-value of 13.675 at a 0.000 significant level. We, therefore, reject null hypothesis four and conclude that the lending interest rate has a significant influence on the investment patterns of small-scale agro-based enterprises in Anambra state.

4.3 Discussion of Findings

This study ascertained the nexus between socioeconomic determinants and investment patterns of small-scale agro-based enterprises in Anambra State. The independent variable (socioeconomic determinants) was proxied by age of enterprise, enterprise income, savings of enterprise, current lending interest rate, while investment pattern measured through the investment avenues served as the dependent variable.

The result for hypothesis 1 is indicated by the t-value of -1.410 at 0.159 level of significance as shown in Table 4.2. This implies that the age of enterprise has no significant influence on the investment patterns of small-scale agro-based enterprises in Anambra State at a 5% level of significance. This is in line with the finding of Tirupathi (2012) who posits that the age of enterprises and other demographic profiles do not have a significant effect on the investment pattern of entrepreneurs but in contrast with the findings of Babani (2015); Shinde and Zanvar (2015); Buchaiah (2014); Geetha and Vimala (2014).

The result for hypothesis II revealed that there is a significant influence of enterprise income on investment patterns of small-scale agro-based enterprises in Anambra state at an at-value of 3.111 and associated p-value of 0.002 in Table 4.2. The table further indicates that a unit increase in terms of income of enterprises of the small agro-based enterprises will bring about a 34% change in investment pattern. Therefore, the null hypothesis is rejected. This finding agrees with that of Bhola and Zanvar (2016); Okeke and Mbanasor (2015); Shinde and Zanvar (2015); Geetha and Vimala (2014); Geetha and Ramesh (2012), who stated that a strong positive relationship exists between the level of income of an enterprise and their ability to invest in various avenues.

The result of the sample test for hypothesis III showed that savings of enterprise have a significant effect on the investment patterns of small-scale agro-based enterprises in Anambra State. Table 4.2 indicates the t-value of 4.134 at a significant level of 0.000. Also, the table showed that a unit increase in terms of savings of enterprise of the small agro-based enterprises will bring about a 51% change in investment pattern. Therefore, the alternative is accepted and the null hypothesis rejected. This is in tandem with the findings of Nsionu (2015); Babani (2015); Nwibo and Alimba (2013) that revealed a significant influence of savings held by enterprises and the amount invested by these enterprises.

The sample test in hypothesis IV showed the effect of the current lending interest rate on investment patterns as indicated by the t-value of 13.675 and p-value = 0.000 in Table 4.2 and a unit increase in terms of current lending interest rate will bring about a 43% increase in the investment pattern by small scale agro-entrepreneurs in Anambra State. This implies that the current lending interest rate has a significant effect on the investment patterns of small-scale agro-based enterprises in Anambra State. This agrees with the findings of Nsionu (2015); Bhola and Zanvar (2016); Okeke and Mbanasor (2015) but contrasts the findings of Nupur and Agarwal (2013) who stated that Interest rate did not have any relation with the investment patterns.

Table 4.3 Reliability Statistics

Cronbach's Alpha	N of Items
.871	20

Source: Researchers' computation using SPSS version 23, 2019

Cronbach's alpha is **0.871**, which indicates a high level of internal consistency for the scale.

5.0 CONCLUSION AND RECOMMENDATION

Investment by the agricultural sector in Nigeria plays a very important role in capital accumulation. The study has established the need to understand the various factors that undermine the investment capacity of agro-enterprises operating on the small-scale level. The study, therefore, concludes that the age of enterprise, the income of enterprise, savings of enterprise and current lending interest rate are significant determinants of the investment patterns of small scale agro-based enterprise in Anambra State. These socioeconomic determinants if not given due considerations will hinder the investment potentials of these enterprises.

Based on the findings of this study, the following recommendations are made:

1. The Government at different levels (local, state and federal) and institutions (SMEDAN, Cooperative societies etc) may prioritize the conscientization of young entrepreneurs to venture more into agri-based enterprises, this will promote the agribusiness idea more among younger people since it was discovered that younger entrepreneurs are more receptive at trying different investment portfolio than the older ones.
2. Adequate and timely financing may be provided to small scale agro-based entrepreneurs in Anambra State. This will improve their income and encourage them to invest more.
3. Owners of small scale agro-based enterprises in Anambra State, Nigeria may adopt statutory savings to improve their capital base. This is because savings of enterprise was found to have a significant influence on the investment patterns of small scale agro-based enterprises in Anambra State.
4. The government may direct financial institutions to reduce the current lending interest rate to enable the business owners to survive the present turbulent economic environment.

REFERENCES

- Abey, F. (2020). Financial and economic meaning of investment. Retrieved from <https://www.google.com/amp/s/www.mbaknol.com/investment-management/financial-and-economic-of-investment/amp/> on 2 April 2020.
- Adeyemo A. & Bamire, A. S. (2005). Savings and Investment Patterns of Cooperative Farmers in South-Western Nigeria. *Journal of Social Science*. 11 (1): 187-192.
- Afronze, T., Rahman, S.M., Bristy, J.F. & Parvin, F. (2015). Factors influencing investment decisions in capital market: a study of the individual investor in Bangladesh. *European Journal of Economics, Finance and Administrative Sciences*, 71.
- Agbada, O. & Odejimi, D.O. (2013). An empirical assessment of socioeconomic determinant of portfolio investment decisions of civil servants in Nigeria. *Journal of Emerging Trends in Economic and Management Sciences (JETEMS)*, 5(1), 9-18.
- Akerele, E.O. & Ambali, O.I. (2012). Consumption and saving pattern among rural farming households in Abeokuta Local Government Area of Ogun State. *Journal of Agriculture and Veterinary Services*, 4.
- Anju, K.J. & Anuradha, P.S. (2015). Determinants of investor's behaviour- An analytical review. Retrieved from <https://papers.ssrn.com/abstract=2665301> on 3 April 2021.
- Ansari, Y. & Dhamija, S.C. (2011). An empirical assessment of investment patterns of investors. *Asia Pacific Journal of Research in Business Management*, 2(5).
- Babani, E. (2015). Saving and Investment Behaviour of small-scale farmers in Kauru and Lere Local Government Areas of Kaduna State, Nigeria. Master Thesis, Department of Agricultural Economics and Rural Sociology, Faculty of Agriculture, Ahmed Bello University, Zaria, Kaduna State, Nigeria.

- Bajaj, U. & Kalra, R. (2018). A study of the factors that affect the investment decisions of an entrepreneur. *Journal of Emerging Technologies and Innovative Research*, 5(12), 174-181.
- Baker, M. & Wurgler, J. (2007). Investor sentiment in the stock market. *Journal of Economic Perspective* 2007; 21: 129–151.
- Barayandema, J. &Ndizeye, I. (2018). The determinants of investment decisions in the Rwanda Stock Exchange. *East Africa Research papers in Economics and Finance*, 28.
- Central Bank of Nigeria (2005). Overview of Microfinance activities in Nigeria: In Microfinance policy, regulatory and supervising framework for Nigeria. Adgozo Ltd, Abuja.P.I.
- Chen, J. (2020). Investment. Retrieved from <https://www.investopedia.com/terms/i/investment.asp> on 5 June 2020.
- Darling, T., Kirchler, E. & Lewis, A. (2009). Psychology, financial decision making, and financial crises. *Psychol Sci Public Interest* 2009; 10: 1–47.
- Dewan, A., Gayatri, R. & Dewan, R. (2019). A research on investment behaviour of corporate and individual investors from Southern India. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 8(6), 1493-1501.
- Duruechie, A.H. &Ojiegbe, J. N. (2015). Determinants of investments in the Nigerian economy: an empirical approach (1990-2003). *International Journal of Financial Research*, 6(4), 217_227.
- Huberman, G. & Jiang, W. (2006). Offering versus choice in 401(k) plans: equity versus number of funds. *Journal of Finance*, 56, 763-801.
- Igbokwuwe, M.C., Esssein, B.A. &Agunnnanah, M.U. (2015). The imperatives of Nigerian agric-business: issues and challenges. *Science Journal of Business and Management*, 3(5), 7-10.
- Issahaku, H. (2011). “Determinants of Saving and Investment in Deprived District Capitals in Ghana -A Case Study of Nadowli in the Upper West Region of Ghana”, *Wilolud Journals*, Continental J. Social Sciences 4 (1): 1 - 12.
- Kar, G.C. & Mishra, S.N. (2004). Agro industries and economic development. Deep and Deep publications PVT. Ltd.
- Lunar, A. & Lee, C.M. (2006). Retail investor sentiment and return comovements. *Journal of Finance* 2006; 61: 2451–2486
- Manikandan, A. & Meenakshi, M. (2017). Perception of investors towards the investment pattern on different investment avenues- A review. *Journal of Internet Banking and Commerce*, 22(7).
- Nipun, S. (2020). Investment and its determinants. Retrieved from <http://www.economicdiscussion.net/investment/investment-and-its-determinants/26009> on 20 August 2020.
- Nsionu, C.P (2025). Income, savings and investment patterns of small scale agro-based enterprises in Anambra State, Nigeria. Master Thesis, Department of Agricultural Economics, Faculty of Agriculture, University of Nigeria, Nsukka.
- Nwibo, S.U. &Alimba, J.O. (2013). Determinants of investment decisions among Agribusiness investors in Southeast, Nigeria. *Journal of Business and Management*, 8(6):60-67.
- Ogheneruemu, O.E., Ohibunmi, O.A. & Adetutu, E.S. (2014). Savings determinants among rural households in Southwest Nigeria. *World Rural Observations*, 6(4): 6-11.

- Okeke, A.M. & Mbanasor, J.A. (2017). Determinants of savings capacity among agribusiness entrepreneurs in Benue State, Nigeria. *International Journal of Innovative Finance and Economics Research*, 5(4):66-72.
- Okoli, I. C., Anyaegbunam, C. N., Etuk, E. B., Uchegbu, M. C., & Udedibie, A. B. I. (2004). Socio-economic characteristics of poultry business entrepreneurs in Imo State, Nigeria. *Journal of Agriculture and Social Research*, Vol. 4, No. 2. PP 103-107.
- Okonkwo, J.C., Ezema, F.S. & Otaokpukpu, J.N. (2017). Effect of Cooperative Extension Education on the Performance of Members of Farmers Multipurpose Cooperative Societies in Enugu State. The (IIARD) International Journal of Economics and Business Management (IJEEM). Vol. 3 No. 10. 29 – 47.
- Okonkwo, Chukwudi Joseph & Ugwa, Magnus (2021). Empowering Youth Co-operators for Growth in Nigeria: Review of Working Case Studies. An article published in Forshen Hub International Journal of Entrepreneurial and Cooperative Studies Vol.3 No.1. 59 – 71.
- Otaokpukpu, J.N., Ogbu, S. O. & Okonkwo, J.C. (2017). Effect of Type and Participation on Cooperative Financial Performance in Orumba South L.G.A of Anambra State. The (IIARD) International Journal of Social Sciences and Management Research. Vol. 3 No. 8. 104 – 114.
- Onyebinama, U.A. (2004). Farm business management for smallholder firms in Nigeria. Owerri: Alphabet Nigeria Publishers, p.8.
- Osundu, C.K., Obike, K.C. & Ogbonna, S.I. (2015). Savings, income and investment patterns and its determinants among smallholder arable crop farmers in Umuahia Capital Territory, Abia State, Nigeria. *European Journal of Business and Innovative Research*, 3(1), pp.51-70.
- Parikh, V. (2017). Agro-based industries examples. Retrieved from <https://www.letslearnfinance.com/agro-based-industries-examples.html> on 30 March 2020.
- Ramanujan, V. & Viswanathan, T. (2018). Determinants of investment behaviour among the women executives. Retrieved from <https://www.researchgate.net/publication/323393427> on 6 July 2020.
- Shinde, C.M. & Zanvar, P. (2015). A study of investment patterns on the basis of demographic traits. *International Journal of Research Granthaalayah*, 3(11), pp. 175-205.
- Smyth, D. (2019). How does an investment affect productivity and economic growth? Retrieved from <https://bizfluent.com/info-10010620-investment-affect-productivity-economic-growth.html>, on 13 Marc, 2020.
- Ugwa, M., Okonkwo, J. C. & Okonkwo, I. A. (2015). The Application of Queuing Theory in the Effective Management of Time in Money Deposit Banks. A Study of Zenith Bank Plc in Enugu Metropolis. The international Research Journal of Social Science & Management-RJSSM, Singapore. Vol 4, No.5. 19 – 32.
- UN Commission on Sustainable Development (2008). The importance of agro-industry for socio-economic development and poverty reduction. Paper presented for the side event on how agro-industry can help eradicate poverty, New York at the UN Commission on Sustainable Development 16th session.
- Venkatesh, R. V. (2015). A study on investment patterns among employed women. PhD thesis in management, Vinayaka Missions University Salem, Tamil Nadu, India.
- Yumkella, K. (2012). Agribusiness for Africa's prosperity, United Nations Industrial Development Organization. <http://www.unido.org>.