http://dx.doi.org/10.22161/ijeab/2.4.73 *ISSN: 2456-1878*

Socio-Economic Determinants of Entrepreneurship Decision among Yam Agribusiness Entrepreneurs in Benue State, Nigeria.

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Abstract— *The socio-economic determinants of entrepreneurship decision among yam agribusiness entrepreneurs in Benue State of Nigeria were examined. The specific objective was to identify and analyse the determinants of entrepreneurship decision among yam agribusiness entrepreneurs. Data were collected from 288 yam agribusiness entrepreneurs in six local government areas and 24 wards using a multi-stage sampling technique. Structured interview schedule was used to collect the data. Data collected were analysed using logit model. The finding indicates that age, educational status, years of experience, profit motive, financial independence, place to retire, and household entrepreneurial history significantly influence entrepreneurship decision of yam agribusiness entrepreneurs. It was recommended that workshops aimed at educating yam entrepreneurs on yam processing equipment and various processed forms of yams be encouraged; campaigns geared towards promoting the financial benefits of these various food forms from yam be encouraged; and credit facilities should be made available and accessible to these yam entrepreneurs to enable them adopt and utilize these yam processing equipments.*

Keywords— Benue State, decision, determinants, entrepreneurship, yam entrepreneurs.

I. INTRODUCTION

Post-harvest losses have continued to limit the growth and development of the agricultural sector in Nigeria. For instance, a report from [15] revealed that though 92% of the world's production of yam comes from West Africa, with Nigeria alone producing 65% (i.e. more than 37 million tons), however, 20-30% of the yams produce go to waste annually due to poor post-harvest management.

Similarly, [3] revealed that the pre and post-harvest food crop loss among African countries was estimated at about 10% which is higher than the global average. According to [12], the post-harvest technological scenario in tubers, roots etc of Nigerians present a dismal picture and are mostly comprised of traditional techniques practiced by growers, traders and the processor thus resulting in considerable deterioration of physical and nutritional qualities of harvested crops.

Losses associated with these food crops limit the potential income of farmers, threatens food security, and exacerbates conditions of poverty among rural households whose income stream depends on the ability to store excess farm produce for a later date [11]. Similarly, [18] pointed out that not only are these losses a waste of food, but they also represent a similar waste of human efforts, farm inputs, livelihoods, investments and scarce resources such as water. Furthermore, [7] reported that owing to these post-harvest losses, yam in the country is becoming expensive and relatively unaffordable in urban areas as production has not kept pace with population growth leading to demand exceeding supply. Similarly, yam farmers sell their produce just after harvest to avoid losses thereby leading to low income or reduced profits as well as food insecurity particularly in the lean season [2].

In order to reduce these post-harvest losses and increase the profitability and productivity of yam agribusiness entrepreneurs, there is need to invest in yam processing equipments that produce varieties of product such as yam flour, flakes, starch, chips which tend to have longer shelf-life. According to [13], there are many export opportunities for Nigerian products (i.e. processed yam of various forms) to countries in the West African sub-region. Similarly, [16] revealed that yam flour is one of the Nigerian food products

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which could be exported if produced and displayed in a more hygienic condition.

Having recognized the importance of processing yam into various food forms to the growth and development of the yam agribusiness sector of the country as well as the consequences of poor post-harvest management of yam tubers, it becomes imperative to examine what determine the entrepreneurship decision of yam entrepreneurs in an effort to encourage investment in these yam processing equipments that are often exorbitant.

The main objective of this study was to examine the socio-economic determinants of entrepreneurship decision among yam agribusiness entrepreneurs in Benue State. Specifically, the study sought to identify and analyse the determinants of entrepreneurship decision among respondents.

II. METHODOLOGY

2.1 Study area

The study was conducted in Benue State, Nigeria. The state lies between latitudes $6^0 25^/N$ and $8^0 8^/N$ and longitudes $7^0 47^/E$ and $10^0 E$. Benue State is the nation's acclaimed food basket because of the abundance of its agricultural resources. The state is a major producer of food and cash crops [4]. Yam agribusiness entrepreneurs who are engaged in yam production, distribution/marketing of yam, yam chips production, and yam flour production abound in the state.

2.2 Sampling technique and data collection

The population for the study consisted of yam agribusiness entrepreneurs in the state. As a result of the enormity of the population for the study, a sample of 288 yam entrepreneurs from six local government area and 24 wards known for yam production was selected using multi-stage sampling technique.

The data for the study were collected using a well-structured interview schedule.

2.3 Data analysis

Logit model was used to realize the determinants of entrepreneurship decision among respondents.

2.4 Model specification

The model for the determinants of entrepreneurship decision was explicitly expressed as follows:

$$P(Y=1) = \frac{exp^{(a+b1x1+b2x2+b3x3+\cdots+b9x9+\mu)}}{1+exp^{(a+b1x1+b2x2+b3x3+\cdots+b9x9+\mu)}}$$ where:

P (Y = 1) = the probability that a respondent deliberately seek other investment opportunities

exp = the base of natural logarithm

a = the constant of the equation

b_1- b_9 = the coefficients of the predictor variables

x_1 = age (years)

x_2 = educational status (years)

x_3 = years of experience (years)

x_4 = profit motive (quest for profit = 1; no quest for profit = 0)

x_5 = financial independence (quest for independence = 1; no quest for independence = 0)

x_6 = place to retire (quest for retirement place = 1; no quest for retirement place = 0)

x_7 = household entrepreneurial history (lineage entrepreneur = 1; lineage not entrepreneur = 0)

x_8 = household size

x_9 = marital status (married = 1; single = 0)

μ = stochastic error term

The *a priori* expectation was that the coefficients of age, marital status, and household size will be negative while those educational status, years of experience, household entrepreneurial history, profit motive, financial independence, and place to retire will be positive.

III. RESULTS AND DISCUSSION

3.1 Determinants of entrepreneurship decision

The logit model was used to investigate the effect of socio-economic characteristics of agribusiness entrepreneurs on their decision to seek other investment opportunities. The estimated relationship is presented in Table 1.

Table.1: Determinants of entrepreneurship decision

Variables	B	Sig	S.E	Wald	Exp (β)
Age	-0.192***	0.001	0.059	10.511	0.826
Educational status	0.118**	0.025	0.052	5.017	1.125
Years of experience	0.080**	0.040	0.039	4.238	1.083
Profit motive (1)	1.724***	0.002			

			0.570	9.161	5.606
Financial independence (1)	2.183***	0.000			
Place to retire (1)	2.105***	0.006	0.550	15.741	8.875
			0.768	7.505	8.208
Household entrepreneurship history (1)	-1.413**	0.013	0.571	6.136	0.243
Household size	-0.016^{NS}	0.736			
			0.047	0.114	0.984
Marital status (1)	-0.192^{NS}	0.864			
			1.119	0.029	0.825
Constant	3.436^{NS}	0.137			
			2.310	3.213	31.064
Model Chi-square	123.179***	0.000			
Nagelkerke R square	0.676				
Percentage correct	87.5				

Source: Field survey, 2015. * Significant at 10.0% level; ** Significant at 5.0% level; * Significant at 1.0% level; NS = Not significant.**

From the analysis, the model chi-square was 123.179 which were significant 1% thus rejecting the null hypothesis that there is no difference between the model with only a constant and the model with independent variables. In other words, the existence of a relationship between the socio-economic characteristics of yam agribusiness entrepreneurs and their entrepreneurship decision was supported.

The Nagelkerke R square was 0.676 thus indicating a strong relationship of 67.6% between the predictors and the predictions. The analysis also revealed that none of the independent variables had a standard error (S.E) greater than 2.0 thus confirming the absence of numerical problem such as multicollinearity among the independent variables.

The prediction success overall was 87.5% (71.4% for does not deliberately seek other investment opportunities and 94.1% for deliberately seek other investment opportunities) which was substantially higher than the accuracy attainable by chance alone (73.3%). Thus, the independent variables could be characterized as useful predictors distinguishing survey respondents who have deliberately sought other investment opportunities from survey respondents who have not deliberately sought other investment opportunities.

Analysis of the result reveals that the coefficient of age was significant at 1% and negatively related to entrepreneurship decision. The negative sign of the coefficient is in consonance with the *a priori* expectation, implying that as the age of yam agribusiness entrepreneur increases, they are 0.826 times less likely to seek other investment opportunities. As these yam agribusiness entrepreneurs advances in age, the likelihood of them entering into riskier agricultural projects will decline owing to the vigorous nature of such farm business and their desire for leisure. This finding is corroborated by [8] as cited in [5] who posited that the propensity to become an entrepreneur decreases with age as old people will prefer activities with immediate payoffs such as waged labour than activities requiring a time commitment before becoming income producing such as a new firm.

The coefficient of educational status was significant at 5% and positively related to decision to become entrepreneur. The positive sign of the coefficient conforms to the *a priori* expectation, implying that as the educational level of yam agribusiness entrepreneurs increases, they are 1.125 times more likely to seek other investment opportunities. Education influences entrepreneurship through providing people with the necessary skills and information to start up a business in addition to stimulating entrepreneurial values such as creativity, independence and risk taking. This is corroborated by [10] who reported that as individual increases his educational attainment, his entrepreneurial quest and skill increases as well as his knowledge base which makes him alert to new opportunities.

The coefficient of experience in years was significant at 5% and positively related to entrepreneurship decision. The positive sign of the coefficient agrees with the *a priori* expectation, implying that as the experience of yam

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agribusiness entrepreneurs increases, they are 1.083 times more likely to seek other investment opportunities. Training and learning are very significant in increasing one's entrepreneurial experience. Thus, as yam agribusiness entrepreneurs increases their entrepreneurial experience through training and learning, their quest to seek other investment opportunities increases. This confirms the finding of [6] who deduced that having had experience in the same sector or business increases the probabilities of becoming entrepreneur of self owned business. Also, [14] in a study on experience and entrepreneurship, reported that accumulation of experience brings about the accumulation of wealth and this rising wealth thus makes entrepreneurship more flexible with age.

The coefficient of profit motive was significant at 1% and positively related to entrepreneurship decision. The positive sign of the coefficient conforms to the *a priori* expectation, implying that as the quest to make profit by yam agribusiness entrepreneurs increases, they are 5.606 times more likely to seek other investment opportunities. The perceived certainty of sufficient return in a venture triggers entrepreneurship in that it influences the individual to mobilize his idle resources to take advantage of such opportunity. This is supported by [17] who reported that people that avoid uncertainty are likely to avoid entrepreneurship, as this occupational option often involves high risk. This is also corroborated by [1] who reported that financial benefit is a major inducement for a good number of persons who venture into entrepreneurship as salaries and wages are considered irregular or inadequate to meet the demands of fairly well standard of living.

The coefficient of financial independence was significant at 1% and positively related to decision to become an entrepreneur. The positive sign of the coefficient is in consonance with the *a priori* expectation, implying that as the quest by yam agribusiness entrepreneurs to become financially independent increases, they are 8.875 times more likely to seek other investment opportunities. The quest to become independent financially creates a sense of dissatisfaction with one's income which further drives the individual into self-employment. This is in consonance with [1] who revealed that people perceived entrepreneurship as a means of running away from subordination and also an opportunity to become masters of their own.

The coefficient of place to retire was significant at 1% and positively related to entrepreneurship decision. The positive sign of the coefficient conforms to the *a priori* expectation, implying that as the quest for a retirement place by agribusiness entrepreneurs increases, they are 8.208 times more likely to seek other investment opportunities. The desire to maintain an already established standard of living even at old age will drive people to start building up entrepreneurial ventures as a support or fallback position on retirement. This is in conformity with [9] who posited that retirement is believed to be the last stage of life and as such a farmer will be pleased to save and invest so as to maintain the already established standard of living.

The coefficient of household entrepreneurial history was significant at 5% and negatively related to entrepreneurship decision. The negative sign of the coefficient is at variance with the *a priori* expectation, implying that if a yam agribusiness entrepreneur comes from a home where one of the lineages is an entrepreneur, he is 0.243 times less likely to seek other investment opportunities. The sense of security inherited family business creates tends to restrain agribusiness entrepreneurs from venturing into other investment opportunities. This finding is supported by [1] who pointed out that when family businesses of good standing are inherited, people are tempted to stay back and run such business in order to keep safe the inherited family wealth. This finding however, is at variance with that of [10] who revealed that individuals that came from a family of entrepreneurs will tend to aspire to be entrepreneur than those from non-entrepreneurial families.

IV. CONCLUSION AND POLICY IMPLICATIONS

Evidence from the study indicates that age, educational status, years of experience, profit motive, financial independence, place to retire, and household entrepreneurial history significantly influence entrepreneurship decision of yam agribusiness entrepreneurs.

On the basis of this finding, the following recommendations were made:

- Workshops should be organized in these yam producing areas to inform and educate these entrepreneurs on the various food forms that can be obtained in processing yam as well as how to use these yam processing equipments.
- Campaigns aimed at promoting the potential financial benefits of processing yam tubers into various food forms should be encouraged in the localities of these entrepreneurs.
- Credit facilities should be made available and accessible to these entrepreneurs in order to encourage them to adopt and utilize these modern yam processing equipments.

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