



Key Potential Development Patterns for Promoting Agribusiness Entrepreneurial Success among Nigerian University Undergraduates

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Abstract: *The main focus of this paper was to investigate the Potential Development of Agribusiness for Promoting Entrepreneurial Success among Nigerian university undergraduates. The target population selected for this study is final year undergraduate students of University of Agriculture, Makurdi, Benue State, Nigeria. The study group consisted of 3, 053 students from eight colleges: Agronomy (454), Agric Economics, Extension and Management Technology (242), Agriculture and Science Education (315), Animal Science (385), Engineering (449), Food and Technology (224), Forestry and Fisheries (526), and Science (458). Thus, 3, 053 constituted the sample size for this study. A full assessment of the potential development of agribusiness entrepreneurship impacts and correlation indicate that, the linkage with promoting entrepreneurial success was clearly identified, and established the linkages through the use of demographics and psychoanalytic measures and analysis. Undergraduate university students chose the best agribusiness venture which they know will be of most benefit to them after graduation. The study concluded that potential development of agribusiness entrepreneurship aids in promoting entrepreneurial success among Nigerian university undergraduates. The best choice of a new agribusiness venture will largely depend on the effort of parents to care and nurture their undergraduate children through agribusiness entrepreneurship; appropriate programs should adequately be established by Nigerian universities to encourage the potential development of their under graduate students through agro-products processing and trading/marketing, for improving the choice of a new agribusiness venture. Acquired technological education and potential industrial experience in agribusiness, should be enhanced by developing undergraduate students through entrepreneurship culture and values relating to agribusiness achievers and successful entrepreneurs so as to inspire them.*

Key words: *Entrepreneurial success, key potential development, patters, promoting, undergraduates*

1. Introduction

The word agriculture indicates plowing a field, planting seed, harvesting a crop, milking cows, or feeding livestock. Until recently, this was a fairly accurate picture. But today's agriculture is radically different. Agriculture has evolved into agribusiness and has become a vast and

complex system that reaches far beyond the farm to include all those who are involved in bringing food and fiber to consumers. Agribusiness include not only those that farm the land but also the people and firms that provide the inputs (for example, seeds, chemicals, credit, etc.), process the output (for example, milk, grain, meat etc.), manufacture the food products (for example, ice cream, bread, breakfast cereals etc.), and transport and sell the food products to consumers (for example, restaurants, supermarkets). In order to develop agribusiness potential for entrepreneurship among tertiary undergraduates in Nigerian universities, the following constructs were taken into cognizance: i). Parental Inducement; ii). The Enthronement of Entrepreneurial Culture and Values; iii). The Contribution of Government; iv). Education for Entrepreneurship; and v). Encouragement of Corporate Entrepreneurs (Intrapreneurship). Entrepreneurship has become a reality in our universities. There are basic skills that entrepreneurs need to successfully start and manage their businesses; without these skills, the entrepreneur will face great difficulties; these skills are classified into technical skills, business management skills, and personality oriented skills (Hisrich and Peters, 1995; Ottih, 2000). Promoting entrepreneurial success is very vital in developing young people in tertiary institutions in Nigeria: a). Choice of Business; b). Education and Experience; c). Collaboration; d). Attention to Operating Details.

Beller (1955; 1957a) conducted a series of studies in which he asked nursery school teachers to rate children on scales measuring behavioral tendencies characterized by dependence and independence. He maintained dependence and independence should be conceived of as somewhat separate aspects of children's behavior and that it is possible to think of a child learning to depend on others and learning to be independent at the same time. These somewhat incompatible behavior patterns can of course involve the child in considerable emotional conflict and aggravate the emotional storm and stress of early childhood (Watson and Lindgren, 1979). According to Ottih (2000), entrepreneurs are not content with situations where their future and security are dependent upon forces outside their control, they prefer situations where they make their own choices and set their own pace. Teenagers and young adults interact with peers and social groups, they are influenced in the same way parents influence socialization in the early years (Ottih, 2000). Children and teenagers usually identify models within these groups, who they imitate because the behavior of such models are rewarded and seem worthy of emulation; peers therefore can influence one's attitude and behavior toward entrepreneurship (Biehler, 1981).

An old maxim of entrepreneurship teaching is that an entrepreneur requires 50,000 chunks of information to succeed with a venture (Warshaw, 2000). How to represent these chunks, and how to capture them in empirical models, is an intriguing challenge; in short, a richer conception of human capital is necessary (Mahoney and Michael, 2004). Entrepreneurial discovery and entrepreneurial creativity serve a coordination role and, as Barnard (1938) observes, coordination is a creative act.

The problem of producing the complete student that would be able to meet the challenges of the real world has always been a problem with Nigerian universities. This is because their curriculum is so conventional and loaded with subject matter courses that leave no room for entrepreneurship development courses. The university environment and the entire

community lack entrepreneurship culture that can stimulate the development of students towards entrepreneuring. Entrepreneurship and business courses are underrated in Nigerian universities and are not taken seriously, because there is this belief that anybody can teach entrepreneurship or business courses. In non-conventional universities, it is very difficult to convince the authorities about the importance of inculcating entrepreneurship courses, in their curriculum. There is this idea that entrepreneurship does not require a separate treatment.

One of the significance of this study is to develop a model for rating and planning the development of agribusiness entrepreneurship in Nigerian universities. The analysis will greatly help stake holders in implementing teachings that will shape the psyche of undergraduate university students towards entrepreneurial success. The study will be relevant to university administrators, because it will show them the benefit of agribusiness entrepreneurship in creating the complete graduate. This complete graduate would love to be independent, take risks and work very hard towards achieving his objectives in life. Ostentatious culture and values in our society will be curtailed because these potential graduates will then be able to make judicious use of their resources, by inculcating the culture of self-discipline and channeling such vital resources to agribusiness ventures that will yield benefits.

1.1. Objectives of the Study

The overall objective of this research is to investigate the potential development of agribusiness for promoting entrepreneurial success among Nigerian university undergraduates. Specifically objectives of this study are to:

- a). investigate if the choice of an agribusiness venture will largely be affected by developing undergraduate students for entrepreneurship;
- b). examine if acquired technological education and industrial experience in agribusiness will be largely affected by developing undergraduate students for entrepreneurship;
- c). ascertain if collaboration with lead entrepreneurs in agribusiness influences the development of undergraduate students for entrepreneurship; and
- d). assess if concentration and paying close attention to agribusiness production, sales and finance will aid in the development of undergraduate students for entrepreneurship

2. Literature Review

2.1. Conceptual Framework

2.1.1 Concept of agribusiness

Agribusiness is a complex, system of input sector, production sector, processing manufacturing sector and transport and marketing sector. Therefore, it is directly related to industry, commerce and trade, Industry is concerned with the production of commodities and materials while commerce and trade are concerned with their distribution. The term agribusiness was first introduced by Davis and Goldberg in 1957 (Baruah, *nd*). Agribusiness connotes a field of study or an enterprise that is concerned with large-scale, inputs supply, production, processing, storage and marketing of agricultural products. In order words, it is purely market oriented or a commercial agricultural venture. It represents three part system made up of (1) the agricultural input sector (2) the production sector (3) the processing-manufacturing (4) the storage and (5) Marketing sector. To capture the full meaning of the term “agribusiness” it is important to

visualize these five sectors as interrelated parts of a system in which the success of each part depends heavily on the proper functioning of the other four. Thus, the whole is greater than sum of the parts – Systems Theory. Agribusiness is concerned with profit maximization, because of this, management skills and expertise are needed for effective, efficient and proficient running of agri-based businesses.

2.1.1.1. Developing the agribusiness potential for entrepreneurship

In order to develop agribusiness potential for entrepreneurship among tertiary undergraduate students, this study will utilize McClelland (1973)'s "Business Drive and National Achievement", which emphasizes that: a) parents' high achievement standards, b) encouragement and warmth in the home and c) a non dominating, non authoritarian father, are the factors considered important in the development of achievement motivation in young people. Encouragement of agribusiness entrepreneurship is useful and has been practiced as a way of achieving economic development; there are reports on a number of world-wide programmes primarily developed to encourage economic development. Among them were the small scale industries development organization in India, project Brazil in North-Eastern Brazil, and the minority enterprise programs in the United States of America (Buchele, 1972). There is evidence that business organizations have for long operated on the belief that entrepreneurial capability can be developed (Ottih, 2000). McClelland (1973) has indicated that it is possible to develop achievement motivation in adults, and that the achievement motivation will lead to entrepreneurial activity; the basic ways of developing or encouraging the development of entrepreneurial capability are therefore as follows (McClelland, 1973 and Ottih, 2000):

i). Parental Inducement

Parents can encourage the development of entrepreneurship capacity through the display of interest and high expectations in achievements of children. The encouragement of children is also a necessary factor; a situation where parents wittingly or unwittingly provide their children with abundance (whether earned or acquired surreptitiously) particularly after their teen years, can discourages enterprise and ties the children perpetually to the apron string of their parents.

ii). The Enthronement of Entrepreneurial Culture and Values

The culture and value system extol work, personal achievement, creativity and excellence. Entrepreneurs must be recognized as making very important contributions. A situation where rogues in high places who mercilessly loot government and industrial treasuries are conspicuously and frequently placed on high pedestals and cheered, while the entrepreneurs, the real engines of economic development are disregarded, definitely discourages entrepreneurship.

iii). The Contribution of Government

The government has a lot to do toward the encouragement of entrepreneurship; it must crate the enabling environment (pipe born water, electricity, road network, communication systems, etc.) for entrepreneurship. It should enthrone the right economic climate, the removal of bureaucratic bottlenecks, and these should be laced with the appropriate fiscal and financial incentives.

iv). Education for Entrepreneurship

The ability to take action toward risk is influenced by achievement motivation, the individual's self image and the ability to perceive environmental opportunities and the costs and benefits associated with investment decisions. These abilities and skills can be improved with education. Education improves self image, one's awareness of his environment, foresight and perceptiveness.

v). Encouragement of Corporate Entrepreneurs (Intrapreneurship)

Corporate idea champions should be encouraged to fully develop their ideas into products and services. These should be tested and marketed if successful, to keep the creative adrenalin flowing. These large and formalized firms are often unable to take advantage of new product discoveries and this gives rise to the exit of the idea champion who sets up the new firm to produce and market the new product to his own advantage.

2.1.2. Concept of Entrepreneur

The French economist, Richard Cantillon, is therefore regarded as the first person to employ the term "entrepreneur" to refer to the individual who obtains factors of production and combines them into products and services for the market. He saw the entrepreneur as a risk bearer, noting that merchants, farmers, craftsmen and other sole proprietors "buy at a certain price and sell at an uncertain price, therefore operating at a risk (Herbert and Link, 1982; Ottih, 2000). Penrose (1959) maintains that: "The term 'entrepreneur' is used in a functional sense to refer to individuals or groups within the firm providing entrepreneurial services, whatever their position or occupational classification may be like.

a). Achievement Motivation

McClelland (1966) referred to this high need for achievement as n'Ach, and differentiated it from the need for affiliation, n'Aff, and the need for power, n'Pow. Those with high need for affiliation prefer friendship circles and those with the need for power, which is peculiar to politicians want power, recognition and control. Those with high need for affiliation and power are not as concerned as those with the n'Ach in the quest to improve work performance for its own sake (McClelland, 1966; Ottih, 2000).

b). Entrepreneurial Judgment

The entrepreneur in Penrose's (1959) resource-based approach is far more than a static (and passive) maximizer, an automaton applying a decision calculus to a clearly defined optimization problem. Penrose submits that: "The problem of entrepreneurial judgment involves more than a combination of imagination, 'good sense,' self confidence, and other personal qualities. It is closely related to the organization of information gathering and consulting facilities within a firm, and it leads into the whole question of the effects of uncertainty on, and the role of expectations in, the growth of firms" (Penrose, 1959).

c). Influence of Culture

Culture is one factor that attempts to explain why some groups have entrepreneurial instincts, a dedication to hard work, to savings, to striving toward material accomplishment, while some others devote energies to leisure, to ostentatious consumption and to the possession of power among such other orientations (Ottih, 2000).

d). Situational Determinants

This includes all the individual experiences that influence the development of personality, these include the frequent experiences that may have a cumulative impact on the individual, the occasional ones, and the single but traumatic or particularly significant experiences that change the direction of one's life (Biehler, 1981; Ottih, 2000).

e). Innovativeness

Entrepreneurs are very creative people, this creativity can be manifested in many ways; they have the ability to create new ways of doing things and can easily identify errors or problems in systems and recommend new solutions (Ottih, 2000). They are watchful and can easily isolate business opportunities and think of original or improved products or services to take advantage of such opportunities (Ottih, 2000).

f). Optimism

For the entrepreneurial personality, the bucket is never half-empty, it is always half-full (Mancuso, 1978). Entrepreneurs are usually very optimistic individuals and see opportunities where the average person will see the need for caution (Ottih, 2000).

2.1.2.1. Promoting Entrepreneurial Success

In order for a successful agribusiness entrepreneurial program to take root among undergraduates in tertiary institutions, it is pertinent to examine some constructs. Avoidance of failure-inducing factors cause success; while this is true, it is nevertheless considered necessary to present the following success promoting factors (Ottih, 2000):

a). Choice of Business

According to Ottih (2000), a very important factor affecting the survival and failure of a new venture is the choice of the product of service to be offered, if the product/service line is in a growing market and the domain is not very competitive, surely the new business will succeed. As Murphy (1956) summed up from his study of 100 start-ups, *"In both my surveys, the conclusion remained the same. The man who chose the promising field did better than the man who elected to slug it out in one already crowded. Or, when the same man tried both, he often failed in the highly competitive business and went on to succeed in the growing one."*

b). Education and Experience

Education is considered important in business success (Ottih, 2000). Although higher education cannot be said to be necessary for all types of business, it is related to success in the more promising ventures, that is the medium and large scale businesses or those planned to grow to such heights (Nwachukwu, 1990). Technical education has a high relationship with successful high-tech venturing (Shapiro, 1972). Education has also been shown to be related to high capitalization in business venturing (Ottih, 1998). Previous industrial experience has already been shown as being the entrepreneur has the technical know-how in his chosen line and this can be quite useful in successful entrepreneuring (Ottih, 2000).

c). Collaboration

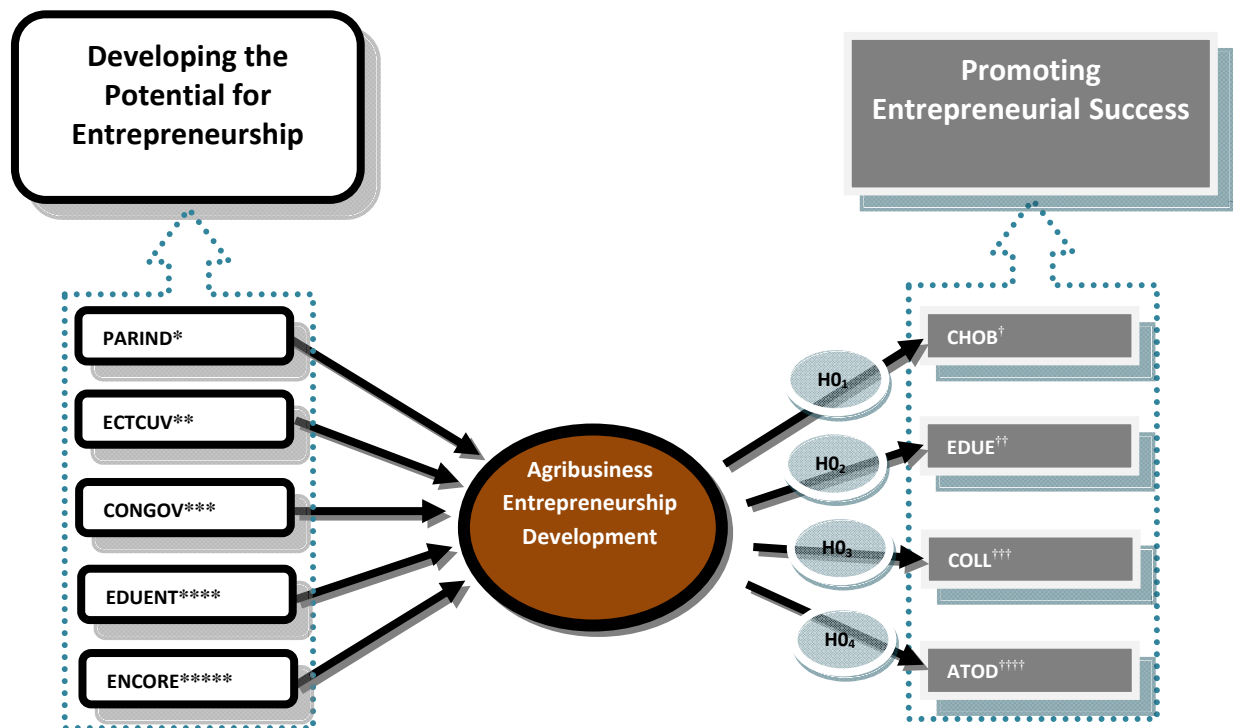
Collaboration or teaming between the lead entrepreneur and others can promote success particularly in the medium and the large-scale entrepreneurs (Ottih, *ibid*). According to Vesper (1980), collaboration can be three types: a) Internal Team: members who participate in

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the founding of the enterprise, b) External Team: Advisers, consultants and others who actively work for the venture, and c) Connections: Although not hired or paid, they act to help the firm succeed. Collaboration (and especially internal teaming) provides large manpower effort, a better balance of skills, makes it unnecessary to hire additional key talents, show maturing and broadness of mind of the lead entrepreneur and therefore evidence of managerial capacity for growth; in addition, recruiting team members helps to screen the merits of the venture idea (Vesper, *ibid*; Ottih, 2000).

d). Attention to Operating Details

According to Ottih (*ibid*), the entrepreneur of a new enterprise must be close to the operations of his business, he must pay attention to the basis of production, sales and finances at the early stages of the business; the presence of the entrepreneurs and his attention to details is a major way the entrepreneur can ensure the fulfillment of his dream.



Adopted from study's literature review

Figure 1: Proposed Conceptual Framework Model of Potential Development of Agribusiness Entrepreneurship for Promoting Entrepreneurial Success

Note: *Parental inducement (PARIND), **Enthronement of entrepreneurial culture and values (ENTCUV), ***Contribution of government (CONGOV), ****Education for entrepreneurship (EDUENT), *****Encouragement of corporate entrepreneurs (ENCORE), †Choice of business (CHOB), ††Education and Experience (EDUE), †††Collaboration (COLL), ††††Attention to operating details (ATOD).

2.2. Theoretical Framework

2.2.1. Trait Theory

Trait theory is the successor to what was called “great man” theory of leadership, this approach was based on the assumption that leaders such as Abraham Lincoln, Martin Luther King, or Jack Welch were born with some inborn ability to lead; in contrast, trait theories believed that leadership traits were not innate but could be developed through experience and learning. A leader trait is a physical or personality characteristics that can be used to differentiate leaders from followers (Kreitner and Kinicki, 2007).

2.2.2. Vroom’s Expectancy Theory

Expectancy theory holds that people are motivated to behave in ways that produce desired combinations of expected outcomes; generally, expectancy theory can be used to predict motivation and behavior in any situation in which a choice between two or more alternatives must be made (Kreitner and Kinicki, 2007). For instance, it can be used to predict whether to quit or stay at a job; whether to exert substantial or minimal effort at a task; and whether to major in management, finance, marketing, psychology, or communication (Kreitner and Kinicki, *ibid*). Vroom (1964) formulated a mathematical model of expectancy, this theory has been summarized as follows: *“the strength of a tendency to act in a certain way depends on the strength of an expectancy that the act will be followed by a given consequences (or outcome) and on the value or attractiveness of that consequence (or outcome) to the actor.”*

2.2.3. Entrepreneurship Theory

As Foss (1998) argues, Penrose (1959) largely anticipated Kirzner’s (1973) theory of entrepreneurship. Penrose notes that: “the decision to search for opportunities is an enterprising decision requiring entrepreneurial intuition and imagination and must precede the ‘economic’ decision to go ahead with the examination of opportunities for expansion (1959: 34). Again, the conceptual distinction is made between optimization on the one hand, and search procedures, heuristics and business intuitions based on tacit knowledge and experience, on the other hand.

3. Methodology

3.1. Population and Sample Size

The target population selected for this study is final year undergraduate students of University of Agriculture, Makurdi, Benue State, Nigeria. The study group consists of 3, 053 students from eight colleges: Agronomy (454), Agric Economics, Extension and Management Technology (242), Agriculture and Science Education (315), Animal Science (385), Engineering (449), Food and Technology (224), Forestry and Fisheries (526), and Science (458). These groups were chosen as the population of the study because they have been taught entrepreneurship development and are potential agribusiness entrepreneurs through the various entrepreneurial teachings they have received. Thus, 3, 053 constituted the sample size for this study.

3.2. Method of Data Collection

The survey methodology was used to obtain general overall information on the potential development of agribusiness entrepreneurship from undergraduates students from the University of Agriculture, Makurdi to ascertain their awareness of the subject matter for

promoting entrepreneurial success. The main instrument for data generation and analysis is structured research questionnaire.

3.3. Measurement of Variables

The items and related sources form part of the conceptual framework. All items were measured using a five-point Likert-like scale ranging from one (lowest score) to five (highest score). Effort was also made to minimize the problem of developing a weak research instrument. The items used and their related sources are tabulated in Table 1.

Table 1: Sources of Items Used in the Research Instrument

S/N	CONSTRUCTS (PREVIOUS STUDIES)	ITEMS USED TO MEASURE THE CONSTRUCTS
1	Developing the Potential for Entrepreneurship (McClelland, 1973; Ottih, 2000)	<ul style="list-style-type: none"> • <i>Parental Inducement:</i> parents can encourage the development of entrepreneurship capacity through display of interest and high expectations in achievement of children. • <i>The Enthronement of Entrepreneurial Culture and Values:</i> culture and value system extol work, personal achievement, creativity and excellence. • <i>The contribution of Government:</i> government should create the enabling environment (pipe born water, electricity, road network, communication system etc.) for entrepreneurship. • <i>Education for Entrepreneurship:</i> education improves self image, ones awareness of his environment, foresight and perceptiveness. • <i>Encouragement of Corporate Entrepreneurs (Intrapreneurship):</i> corporate idea champions should be encouraged to fully develop their ideas into products and services. This would encourage prospective entrepreneurs to develop interest in entrepreneurship.
2	Promoting Entrepreneurial Success (Murphy, 1956; Shapero, 1972; Vesper, 1980; Nwachukwu, 1990; Ottih, 1998; 2000)	<ul style="list-style-type: none"> • <i>Choice of Business:</i> if the product/service line is in growing market and the domain is not very competitive surely the new business will succeed. • <i>Education and Experience:</i> education has been shown to be related to high capitalization in business venturing. • <i>Collaboration:</i> collaboration or teaming between the lead entrepreneur and others can promote success. • <i>Attention to Operating Details:</i> the entrepreneur of a new enterprise must be close to the operations of his business.

Source: Literature Review of Study

3.4. Validity of Instrument

The Construct Validity of the statistical instrument generated data on each dimensions and then tested for correlation among them. The assumption here is that different measures of the same construct should be correlated fairly highly.

3.4.1. KMO and BTS Test of Sphericity

The two factors (endogenous and exogenous) used for this study were subjected to exploratory factor analysis to investigate whether the constructs as described in the literature fits the factors derived from the factor analysis. Factor analysis indicates that the KMO (Kaiser-Meyer-Olkin) measure for potential development of agribusiness entrepreneurship Parameters (endogenous factors) is 0.68 with Barlett’s Test of Sphericity (BTS) value to be 4400.0 at a level of significance $p=0.000$. From Table 2, five factors of the endogenous variable with Eigenvalue, 2.28; is greater than one (1.000) and accounts for 45.7 percent of the total variance for the study. The components of the exogenous factors have a KMO measure of 0.77 and BTS of 6607.0 at a level of significance $p=0.000$. The Eigenvalue for this dimension is 2.59 which is also greater than one and accounts for 64.8 percent of the total variance for the study. Our KMO results in this analysis surpass the threshold value of 0.50 as recommended by Hair *et al.* (1995). Therefore, we are confident that our sample and data are adequate for this study. Our result has strong *construct validity*, because the various sorghum value chain dimensions and enterprise development parameters were tested for correlation and it was found out that there was a high degree of measures between the measures of the same construct, indicating that correlation exists between them. Thus the critical components in this study had *content validity* because an extensive review of the literature was conducted in selecting the measurement items.

Table 2: KMO and BTS Test of Sphericity

Sorghum value chain dimension	Initial	Extraction (Coefficients)	Eigenvalues	KMO	Determinant	Bartlett’s Test of Sphericity	df	Sign.
PARIND	1.000	0.492						
ENDUENT	1.000	0.281						
CONGOV	1.000	0.441	2.283	0.677	0.490	4400.0	10	0.000
ENTCUV	1.000	0.677	(45.652%)					
ENCORE	1.000	0.392						

Enterprise development parameters	Initial	Extraction (Coefficients)	Eigenvalues	KMO	Determinant	Bartlett’s Test of Sphericity	df	Sign.
CHOB	1.000	0.742						
EDUE	1.000	0.645	2.593	0.770	0.244	6607.0	6	0.000

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COLL	1.000	0.623	(64.818%)
ATOD	1.000	0.583	

Source: Research instrument, SPSS Version 18

3.5. Reliability of Instrument

Cronbach's Coefficient Analysis or Cronbach's Alpha was used to know the Corrected Item-Total Correlation & Cronbach's Alpha if item(s) is/are deleted. A measuring instrument gives similar, close or the same result when different researchers under the same conditions use it. Reliability therefore, is the consistency between independent measurements of the same phenomenon. It is the stability, dependability and predictability of a measuring instrument. It is also the accuracy or precision of a measuring instrument.

3.5.1. Cronbach's Alpha Test of Reliability

This column of information is valuable for determining which items from among a set of items contribute to the total alpha. The value presented in table 3 represents the alpha value if the given item were not included. If the Cronbach's Alpha of all the five items of the endogenous variable (PARIND, EDUENT, CONGOV, ENTCUV and ENCORE) were to be deleted, there would be a reduction in the over-all Cronbach's Alpha value (0.699) to: 0.639, 0.699, 0.655, 0.566, and 0.674 respectively. EDUENT has the same r value with the overall Cronbach's Alfa which shows the perfect contribution of EDUENT to the overall reliability of the five (5) items. Thus these five parameters are useful and will not be dropped from the research. In the case of the exogenous parameters – CHOB, EDUE, COLL and ATOD – the overall Cronbach's Alfa value (0.815) will also decrease to: 0.729, 0.772, 0.774 and 0.795. Thus our four items are highly consistent internally. This is a way to access how well one item's score is internally consistent with composite scores from all other items that remain. Correlation would be weak for item analysis purposes if $r < 0.3$; if such a situation occurs, then that item should be removed and not form a composite score for the variable in question. All parameters for this study appear to be useful and contribute to the overall reliability of potential development of agribusiness entrepreneurial for promoting entrepreneurial success among Nigerian university undergraduates.

Table 3: Cronbach's Alpha Test of Reliability

Sorghum value chain dimension	No of item	Corrected item – total correlation	Cronbach's Alpha if item deleted	Item Mean	Item Variance	Cronbach's Alpha
PARIND		0.482	0.639			
EDUENT		0.328	0.699			
CONGOV	5	0.443	0.655	2.726	0.998	0.699

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ENTCUV			0.631		0.566			
ENCORE			0.395		0.674			
Enterprise development parameters	No of item	Corrected – correlation	item total	Cronbach’s Alpha if item deleted	Item Mean	Item Variance	Cronbach’s Alpha	
CHOB			0.718	0.729				
EDUE	4		0.627	0.772	3.391	1.076	0.815	
COLL			0.620	0.774				
ATOD			0.587	0.795				

Source: Research instrument, SPSS Version 18

3.6. Methods of Data Analysis

The data for the study was collected, coded and analyzed using computer-based Statistical Package for Social Sciences (SPSS version 18 for Windows). Descriptive statistics in the forms of percentage, tables and frequency was used to determine the characteristics of the respondents’ bio-data (demographics). Inferential statistics in the form of Spearman’s correlation was used to determine the relationship between input and output variables.

3.7. Model Specification

Four models were designed for determining the impact of the input parameters on output parameters through priority criteria weighting to establish ranking scores. These models are highlighted below:

$$\text{CHOB Impact } (\alpha) = (W \times A)/100 \dots\dots\dots \text{Model 1}$$

$$\text{EDUE Impact } (\beta) = (X \times B)/100 \dots\dots\dots \text{Model 2}$$

$$\text{COLL Impact } (\theta) = (Y \times C)/100 \dots\dots\dots \text{Model 3}$$

$$\text{ATOD Impact } (\mu) = (z \times D)/100 \dots\dots\dots \text{Model 4}$$

Where:

CHOB = Choice of Business

EDUE = Education and Experience

COLL = Collaboration

ATOD = Attention to Operating Details

$\alpha, \beta, \theta,$ and μ = impact scores based on exogenous weights

W, X, Y and Z = Percentage weights of the exogenous variables

A, B, C, and D = Potential Development of Agribusiness Entrepreneurship scores
for each of the exogenous variables

4. Results and discussion

4. 1. Demographics of Respondents

4.1.1. Gender Distribution

The gender distribution constitutes a high male population of 64.5 percent, while the female population made up the remaining 35.5 percentage, giving the picture that the study sample is predominantly dominated by the male counterparts. Given this information, the ratio of male to female is approximately 1.8:1.

4.1.2. Accommodation With Parents During Holidays

The majority of respondents are those who spend holidays with their parents and constitute 56.3 percent of the study. Those living with only one parent constitute 25.6 percent to take the second position. The third ranked group is those living with their relatives, who make up 10.8 percent and others constitute 7.4 percent for the study.

4.2.3. Area of Agribusiness Interest

Manufacturing of agricultural products topped the list with 28.5 percent of the respondents indicating interest for this agribusiness sector. Production of agricultural products ranked next with 25.4 percent, while trading/marketing of agricultural products ranked third as 23.9 percent indicated interest. The least area of interest was processing with a 22.1 percent respondent rate.

4.2.4. Age of Respondents

Majority of the respondents between the ages of 23 to 27 constituted 58.3 percent of the study. The second ranked age group is those who are up to 27 years and above with a response rate of 29.1 percent. The remaining 12.7 percent fell between respondents who are 22 years and below.

4.2.5. College of Study

The hierarchy ranking of the respondents college of study ranges from the highest to the lowest as follows: Forestry and Fisheries (14.9), Science (14.2), Agronomy (13.9), Engineering (13.6), Animal Science (12.4), Agriculture and Science Education (11.7), Food and Technology (10.0), and Agricultural Economics, Extension and Management Technology (9.3).

4.2.6. Historical Relationship with Parents

The highest response rate of 28.2 percent indicated that they had a very intimate relationship with their parents. This is followed by 24.4 percent who claimed that the relationship with their parents can be termed considerable. Those who agree that relationship with their parents is somewhat moderate constitute 19.8 percent, while 15.5 percent claimed that they have not been too close to their parents. A meager percentage of 12.0 specified that no historical relationship exists between them and their parents.

Table 4: Summary of Respondents' Demographics

Characteristics	Freq.	(%)	Characteristics	freq.	(%)
Gender distribution			College of Study		
Male	946	64.5	Agronomy	204	13.9
Female	520	35.5	Agric Econs, Ext. & Mgt Tech.	137	9.3
Total	1466	100.0	Agriculture & Science Edu.	171	11.7
Accommodation with parents during the holidays			Animal Science	182	12.4
Living with both parents	825	56.3	Engineering	200	13.6
Living with only one parent	375	25.6	Food Technology	146	10.0
Living with relatives	158	10.8	Forestry & Fisheries	218	14.9
others	108	7.4	Science	208	14.2
Total	1466	100.0	Total	1466	100.0
Area of Agribusiness Interest			Historical Relationship with parents		
Production	373	25.4	Very intimate	414	28.2
Processing	324	22.1	Considerable	358	24.4
Trading/Marketing	351	23.9	Moderate	291	19.8
Manufacturing	418	28.5	Not too close	227	15.5
Total	1466	100.0	Not at all	176	12.0
Age of Respondents			Total	1466	100.0
≤ 22 years	186	12.7			
23 – 27 years	854	58.3			
27 and above	426	29.1			

Total 1466 100.0

Source: Field survey, 2011

4.2. Presentation and Analysis of Data

4.2.1. Profile of Respondents on Potential Development of Agribusiness Entrepreneurship

Majority of the respondents (33.2 percent) strongly degreed that their parents encouraged the development of agribusiness entrepreneurship capacity; the second majority that made up 32.6 percent agreed to this fact. Majority of the study respondents of 33.8 percent were undecided that they participate in skill acquisition seminars and programs to broaden their horizon in agribusiness entrepreneurship; this is followed by 32.9 percent who agreed but only to a small degree (Table 5). The highest ranking respondents of 41.3 percent strongly agreed that the Nigerian environment is conducive for agribusiness entrepreneurship, the second highest ranking group of 26.2 percent agreed to this. The culture and values of agribusiness achievers and successful entrepreneurs inspire majority of the respondents because 31.1 percent agreed to this, but 26.2 percent, who made up the second largest group were undecided. Most of the respondents 39.2 percent were also undecided that intrapreneurs in corporate organizations are taken seriously and can go it alone if they wish to be independent; the second largest respondent group of 26.5 percent agreed to this.

4.2.2. Profile of Respondents on Promoting Entrepreneurial Success

Majority of the respondents (33.9 percentage), were undecided that the best choice of agribusiness venture to go into will largely, be affected by developing undergraduate students through entrepreneurship. The second majority (30.7 percent) agreed to this fact. Majority of the respondents, who made up 35.7 percent of the study, strongly agreed that acquired technological education and industrial experience in agribusiness, will be largely affected by developing undergraduate students through entrepreneurship. Second majority of 30.7 percent agreed (Table 5). The highest rating respondent group of 35.2 percent, agreed, that collaboration with lead entrepreneurs in agribusiness can be influenced by developing undergraduate students through entrepreneurship; this opinion was undecided, by a second majority of respondents (30.2 percent). A whopping group of respondents consisting of 30.1 percent agreed that, concentration and paying close attention to agribusiness production, sales and finance etc., would greatly be influenced by developing undergraduate students through entrepreneurship; the second ranking group (27.8 percent) were undecided.

Table 5: Agribusiness Entrepreneurship for Promoting Entrepreneurial Success among Nigerian University Undergraduates

Research Questions	Frequency and Percentage					Mean
	1(SA)	2(A)	3(U)	4(D)	5(SD)	
Parents encourage the development of agribusiness entrepreneurship capacity	183 (12.5)	487 (33.2)	478 (32.6)	258 (17.6)	60 (4.1)	2.67

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Skill acquisition seminars and programs broaden your horizon in agribusiness entrepreneurship	147 (10.0)	482 (32.9)	495 (33.8)	328 (22.3)	14 (1.0)	2.71
Nigerian environment is conducive for agribusiness entrepreneurship	258 (17.6)	384 (26.2)	605 (41.3)	206 (14.1)	13 (0.9)	2.54
Culture and values of agribusiness achievers and successful entrepreneurs inspire students	299 (20.4)	456 (31.1)	407 (27.8)	267 (18.2)	37 (2.5)	2.51
Intrapreneurs in corporate organizations are taken seriously and can go it alone if they wish to be independent	244 (16.6)	389 (26.5)	574 (39.2)	247 (16.8)	12 (0.8)	2.50
The best choice of agribusiness venture will largely be affected by developing undergraduate students through entrepreneurship	30 (2.1)	450 (30.7)	338 (23.1)	497 (33.9)	151 (10.3)	3.20
Acquired technological education and industrial experience in agribusiness will be largely affected by developing undergraduate students through entrepreneurship	30 (2.1)	444 (30.3)	403 (27.5)	523 (35.7)	66 (4.5)	3.10
Collaboration with lead entrepreneurs in agribusiness can be influenced by developing undergraduate students through entrepreneurship	33 (2.3)	516 (35.2)	376 (25.6)	442 (30.2)	99 (6.8)	3.04
Concentration and paying close attention to agribusiness production, sales and finance etc., can be greatly influenced by developing undergraduate students through entrepreneurship	24 (1.6)	441 (30.1)	325 (22.2)	407 (27.8)	269 (18.3)	2.65

Source: Field survey, 2011

4.3. Test of Hypotheses

Spearman's analysis was carried out to ascertain if there are correlations between Potential Development of Agribusiness Entrepreneurship Dimension and Promotion of Entrepreneurial Success Dimension. The analyzed data confirms to the fact that there exist correlation between the inputs (PARIND, EDUENT, CONGOV and ENCORE) and outputs (CHOB, EDUE, COLL and ATOD). This result show that, the null hypotheses outlined for this study should be rejected and the alternatives (**H1₁**, **H1₂**, **H1₃**, and **H1₄**) accepted. These significant correlations show the relevance of Potential Development of Agribusiness Entrepreneurship for Promoting Entrepreneurial Success among university undergraduates by: a) enlightening them on the Choice of Business to engage in, b) increase in Education and Experience, c) Potential Collaboration they can engage in, and d) enabling them to pay adequate Attention to Operating Details.

Table 6: Spearman's Correlation of Potential Development of Agribusiness Entrepreneurship for Promoting Entrepreneurial Success among Nigerian University Graduates

	Spearman's Correlation			
	CHOB	EDUE	COLL	ATOD
.				

PARIND	0.317**	0.301**	0.337**	0.363**
EDUENT	0.470**	0.399**	0.366**	0.406**
CONGOV	0.430**	0.334**	0.492**	0.518**
ENTCUV	0.426**	0.237**	0.400**	0.457**
ENCORE	0.476**	0.322**	0.444**	0.331**

**P≤0.01 2. All t-tests are one-tailed

Source: SPSS Version 18 for Windows

4.4. Potential Development of Agribusiness Entrepreneurship in Promoting Entrepreneurial Success among Nigerian University Undergraduates

Potential development of agribusiness entrepreneurship has to do with acquired traits or learning acquired from the environment to improve the individual's attitude and promoting entrepreneurial success. The ratings shows prominence for achieving the objectives of this research: a). investigate if the survival of a new agribusiness venture will largely be affected by developing undergraduate students for entrepreneurship, b). find out if acquired technological education and industrial experience in agribusiness will be largely affected by developing undergraduate students for entrepreneurship, c). ascertain if collaboration with lead entrepreneurs in agribusiness be influenced by developing undergraduate students for entrepreneurship, and d). explore if concentration and paying close attention to agribusiness production, sales and finance be greatly influenced by developing undergraduate students for entrepreneurship.

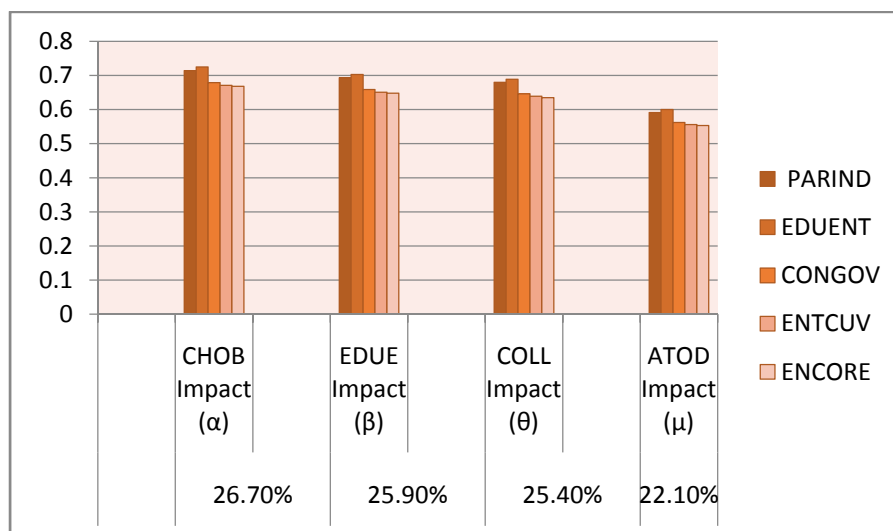
Findings indicate that a strong relationship impact exists between the input and output variables highlighted for this study. Potential development of agribusiness entrepreneurship has an impact rating of 0.692 (69 percent) on CHOB, which is the highest impact of the study. The second ranking goes to EDUE, with an impact rating of 0.671 (67 percent). The third score-ranking indicates an impact rating of 0.658 (66 percent) on COLL, and 0.572 (57 percent) for ATOD being the 4th in the score-ranking. Thus, the ranking: 1st - CHOB, 2nd - EDUE, 3rd - COLL, and 4th - ATOD were mostly influenced by EDUENT with the following impact scores: 0.73 on CHOB, 0.70 on EDUE, 0.69 on COLL and 0.60 on ATOD. With this analysis it is obvious that development of agribusiness entrepreneurship has potential capacity for promoting entrepreneurial success among Nigerian university undergraduates.

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Table 7: Potential Development of Agribusiness Entrepreneurship Impacts on Promoting Entrepreneurial Success among Nigerian University Undergraduates

Weight (%)	Criteria	Score for each value chain (1 to 5)					Score	Ranking
		PARIND	EDUENT	CONGOV	ENTCUV	ENCORE		
26.7	CHOB (A)	2.676	2.714	2.544	2.514	2.500	2.59	1
	CHOB Impact (α)	(0.714)	(0.725)	(0.679)	(0.671)	(0.668)	(0.692)	
25.9	EDUE (B)	2.676	2.714	2.544	2.514	2.500	2.59	2
	EDUE Impact (β)	(0.693)	(0.703)	(0.659)	(0.651)	(0.648)	(0.671)	
25.4	COLL (C)	2.676	2.714	2.544	2.514	2.500	2.59	3
	COLL Impact (θ)	(0.680)	(0.689)	(0.646)	(0.639)	(0.635)	(0.658)	
22.1	ATOD (D)	2.676	2.714	2.544	2.514	2.500	2.59	4
	ATOD Impact (μ)	(0.591)	(0.600)	(0.562)	(0.556)	(0.553)	(0.572)	
Total Score (A+B+C+D)		10.70	10.86	10.18	10.06	10.00		
Total Score Based on Weights ($\alpha + \beta + \theta + \mu$)		2.68	2.72	2.55	2.52	2.50		
Ranking		2	1	3	4	5		

Source: The Study, 2011



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Figure 2: Potential Development of Agribusiness Entrepreneurship Impacts on Promoting Entrepreneurial Success among Nigerian University Undergraduates

Note:

PARIND = Parental inducement,
ENTCUV= Enthronement of entrepreneurial culture and values,
CONGOV= Contribution of government,
EDUENT= Education for entrepreneurship,
ENCORE= Encouragement of corporate entrepreneurs,
CHOB= Choice of business,
EDUE= Education and Experience,
COLL= Collaboration,
ATOD= Attention to operating details.
 α , β , θ , and μ = impact scores based on exogenous weights

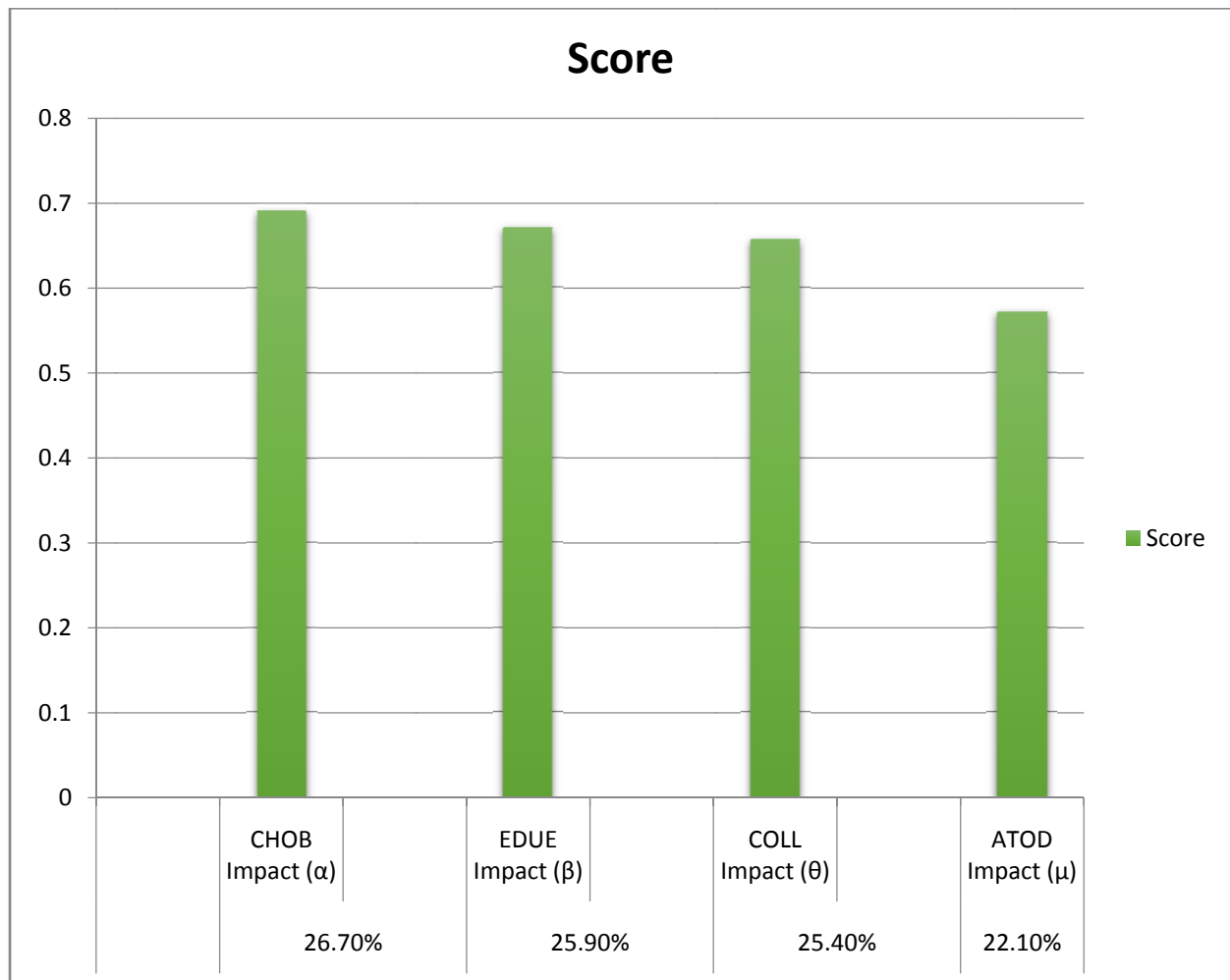


Figure 3: Summary of Scores

5. Conclusion

The main focus of this paper was to investigate the Potential Development of Agribusiness Entrepreneurship for Promoting Entrepreneurial Success among Nigerian university undergraduates. A full assessment of the potential development of agribusiness entrepreneurship impacts and correlation indicate that, the linkage with promoting entrepreneurial success was clearly identified, and established the linkages through the use of demographics and psychoanalytic measures and analysis. Undergraduate university students chose the best agribusiness venture which they know will be of most benefit to them after graduation. The study concluded that potential development of agribusiness entrepreneurship aids in promoting entrepreneurial success among Nigerian university undergraduates.

6. Recommendations

Based on the findings of the study the following recommendations are appropriate:

- i. The best choice of a new agribusiness venture will largely depend on the effort of parents to care and nurture their undergraduate children through agribusiness entrepreneurship; appropriate programs should adequately be established by Nigerian universities to encourage the potential development of their under graduate students through agro-products processing and trading/marketing, for improving the choice of a new agribusiness venture,
- ii. Acquired technological education and potential industrial experience in agribusiness, should be enhanced by developing undergraduate students through entrepreneurship culture and values relating to agribusiness achievers and successful entrepreneurs so as to inspire them.
- iii. Collaboration with lead entrepreneurs in agribusiness will be greatly influenced if an enabling environment is created through the potential development entrepreneurship among undergraduates in Nigerian universities,
- iv. Concentration and paying close attention to agribusiness production, sales and finance etc., would greatly be influenced by developing undergraduate students through agribusiness entrepreneurship if Nigerian universities re-evaluate their entrepreneurial curriculum to include new areas of interests

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Appendix I: A List of Agribusiness Ventures

AGRIBUSINESS VENTURES

a) Agro-Based Industries

fruit juices, baking, biscuit, rice milling, toilet soap, craft bag, yellow board, automobile tyre-tube, toilet paper, working clothes, oil milling, coconut processing, candy, simplest re-worked fibre, medial use textile, blanket and non-fabric system, starch, rice oil, farm implements, cotton towel, bicycle tyres and tubes, coir fibre processing, mosquito net, sisal twine cord, absorbent cotton, alcohol from molasses, bakers' yeast, brushes (fibre and bristles), carbohydrate and protein-extracts from groundnut cake, cashew apple juice, cashew shell oil, cattle and poultry feed, coconut shell power, condiments and spice powers, cotton-seed oil, dehydrated ginger, desiccated coconut, dried molasses-cattle feed, fibre from banana stalks, ginger oil, glucose from tapioca, orange oil, oxalic acid from pineapple, preservation of whole fruits, processed food, roasted cashew, ropes and twines, starch from banana stems, starch from maize, tobacco seed oil, brushes (industrial), brushes (tooth), banana powder, cards (playing), electric accessories (wooden), food (dehydrated), gloves (surgical), oil (lemon grass), picking sticks, paper cups and saucers, paper products used in packaging industry, rubber moulded goods and tyres (scooter),

b) Livestock-Based Industries

big tanned sole leather, belting leather, bone crushing, bone meal, brush making, cycle leather saddle tops, dairy and milk products, glue from tannery waste, glue from animal fleshings, hold-alls and travelling kits, industrial leather, leather foot wear, leather for sports goods, leather gloves, leather goods including sports goods, leather tanning, sports footwear, textile leather (for manufacturing pickers, picking bands, etc.), upholstery leather, washers and dust shield leather,

c) Forest-Based Industries

saw milling, plywood, bamboo board, briquetting of saw dust, cane umbrella handles, cane and bamboo products, country crafts and mechanized fishing boats, chip board and particle board,

drawing and stationary items, gum, packing cases, pencils, photo cabinets, radio cabinets, sports goods, straw matting for packing, tanning material out of different barks, tooth picks, wooden joinery products, wooden toys, wooden blackboards, wooden cases, wooden electric accessories, wooden furniture and wooden stationer articles,

d) Marine-Based Industries

fish sausage, canning and freezing of fish, epon salt, fish curing

Adopted from Entrepreneuring towards Preparedness by Ottih, L.O. (2006)