

A Comparative Analysis of Risks and Returns of Running Small / Medium Micro Enterprises in North Central Nigeria*

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ABSTRACT The small/medium scale micro enterprises are very important and crucial in the industrialization of any nation. Viewed in this light, this study was conducted to compare empirically, risks and returns in micro enterprises in North central Nigeria. The study was carried out in the two states of Benue and Nassarawa. Of interest were effects of risks and rate of returns on investment decisions. The method rate of returns on investment decisions. The methodological framework adopted was both descriptive and empirical. Using mainly primary data, the study covered three industry types – Agriculture (Livestock- dairy production), Manufacturing (agro-allied processing cassava processing) and Services (Automobile and repair services) in ten (10) centres. In all, sixty (60) respondents (six entrepreneurs in each center) were interviewed. The surveys covered the period December 2002 to November 2003. The findings from the survey reveal that, comparatively, investment in the livestock sub-sector (dairy production) which has a probability rate of 106.48 appear more risky than investment in agro-allied and services sub—sectors which have probability rates of 7.94 and 13.0 respectively. The study thus recommends that policies geared towards the establishment of rural cassava processing cottage industries be put in place to encourage potential investors in this sub-sector because investment opportunities abound in cassava production and processing.

INTRODUCTION AND RESEARCH PROBLEM

The small firm has increasingly become the focus for public policy. According to Storey (1987), the small firm is designed to increase employment, reduce unemployment and also to boost efficiency and production. It is now widely believed that small /medium micro enterprises contribute to the nation's economy through competing with large firms and partly by providing inputs to large, firms, enabling the latter to be competitive in the world markets.

Undoubtedly, small/medium scale micro enterprises are generally subject to wide array of risks in the course of their operations. These risks have increased, especially in recent times as small/medium micro enterprises diversify their operations in the competitive markets. In particular, with the globalization of the world economy in the last decade, the activities and operations of small/medium micro enterprises have expanded rapidly including their exposure to risks.

*The views expressed here are personal and do not reflect the views of the author's organisations.

Given that small/medium micro enterprises occupy a central role in an economy, they are naturally subject to closer supervisor and regulation than other forms of business activities. The aim of focusing sharply on them is to ensure that their operations are within the regulatory requirements for efficient and effective functioning of the industrial sector.

Over the years, small/medium micro enterprises have witnessed a high rate of attrition, and sometimes-high indebtedness and bankruptcy. The problems of high rate of attrition (business failure) among small firms has been traced to a myriad factors including funding, lack of management ability, infrastructure, poor record keeping, shortage of skilled personnel as well as poor or improper risk management. More often than not, investment decisions are exposed to conditions of variable outcomes. Investors; expectations are multi-valued rather than unique. Where an investor knows exactly the range of possible outcomes to expect from an investment opportunity as well as the likely hood. (Probability) of each outcome, the investment is exposed to a *condition of risk*. Conditions of risk therefore imply incomplete knowledge as well

as incomplete ignorance. In this study we shall use the word risk in a broad sense, to denote exposure to loss arising from variations between the expected and the actual outcome of investment activities.

Thus, this paper examines the various risk associated with the operations of small/medium micro enterprises in North central Nigeria. The paper x-rays how investment decisions are carried out under conditions of risk. The conditions of risk relate basically to the state of an investor's knowledge about underlying factors, which affect the outcome of his investment decisions.

The rest of this study is divided into four sections as follows: closely following this introductory section is a discussion on risk mapping in small medium micro enterprises. Section three is a brief review of related literature. The section also provides the theoretical framework for the study, while section four presents the methodology and empirical analysis Section five is the summary and conclusion of the study.

RISK MAPPING IN SMALL/MEDIUM MICRO ENTERPRISES

The term *risk* is relative and lends itself to varied definitions. Literarily, it means exposure to danger or economic adversity. In the latter sense, risk is used as a surrogate for the likelihood of loss or the potential size of such a loss.

In this section, attempt is made here to provide the various types of risks to which small/medium micro enterprises can be exposed. They are itemized below.

The above classification though not exhaustive, captures almost all the risk arising from the normal day-to-day activities of small/medium scale micro enterprises. These risk are applicable to small medium micro enterprises that operate both locally and internationally. Indeed, the fundamental requirement for the proper management of the above risks is the ability of micro enterprises to identify and measure them accurately.

Gradually, small/medium micro enterprises risks can be summarized broadly into four (4) categories. These are financial risk, Operational risk, Business risks and Event risks. This summary is an adaptation of van Greuning and Bratanovic (2003) classification of banking risk spectrum.

REVIEW OF RELATED LITERATURE AND THEORETICAL FRAMEWORK

Literature Review

The literature on small/medium micro enterprise in Africa are few, they include the studies of van Greuning, h. and Bratonivic, S.B. (2003). Ekpenyong and Nyong (1992), ACEG (2001) Harries (1971), Marris (1968), and Marsden (1990). A review of these studies revealed an emphasis on the importance of both the quantity and quality aspect of small business development. They particularly stressed the importance of a conducive environment and the quality of management to small business development. Olaniyan et al. (1998), in their submission on urban self-employment in Kenya, identified resources, market and legal variables

Table 1: Taxonomy of risks

<i>S. No.</i>	<i>Type</i>	<i>Description</i>
1	Credit risk	Risk that a loan obligation will not be redeemed
2	Interest rate risk	Risk of a change in interest rates that will have adverse effect on their borrowing ability
3	Market risk	Capital loss resulting from adverse market or business environment
4	Business risk	Risk arising from changes in general economic conditions that lead to unexpected declines in the earning power of most investment.
5	Political risk	Risk arising from the non-predictability of political forces which affect investment outcomes
6	Purchasing power risk	Risk arising from a fall in the real value of investment outcomes due to an unanticipated increase in the rate of inflation
7	Profit (returns) risk	Risk that small/medium micro enterprises do not make sufficient profit (returns) to cover cost and maintain capital adequacy
8	Reputation risk	The risk that problems in small/medium micro enterprises can cause potential investors in the sector to loose confidence

as factors that hinder entry into small business enterprises. However other studies cited management as the main obstacle to small/medium micro enterprise growth and this transformation in Africa (Harris, 1971) transformation of small / medium micro enterprises better as small scale enterprise in Nigeria) to large scale enterprises boarders largely on factor such as the conducive policy, social, legal and economic environment in which they exist.

A Survey on the literature on small /medium micro enterprises in Nigeria as well as entrepreneurship revealed two hypotheses: first, is that which explains the constraints of small business enterprises or entrepreneurial development as they related to growth and transformation into large –scale industries and thus enhancing industrialization. This first hypothesis focuses on the transformation of small business enterprises as an environmental determined phenomenon. That is, development, growth and the transformation of small-scale industries are influenced by social, legal, economic and political factors. The second on the other hand has its premise on the individual personality who sets up the enterprise.

Marris (1986), provides us the best insight to the understanding of the first hypothesis on the viability of the small business enterprises, in transforming into large-scale industries and hence industrialization of the economy in question. According to them, entrepreneurial traits of proliferates of small business are strongly influenced by political and economic systems (the infrastructure available or in place, rapid and threatening change (environment turbulence), and one's family education and the work environment (individual life experience). Subsequently, according to Marris (1986), at the national level. Policy makers may contribute to the ineffective growth and early transformation of these enterprises due to the non-redesigning of the existing infrastructure and facilitating innovation and change. At enterprise control level, the entrepreneurs often create organizational environment that do not tolerate and support creativeness, and autonomous and risk taking behaviors, while at the level of the individual entrepreneurs, their level of education do contribute immensely to the potentially of viable growth and transformation of the small enterprises.

According to the literature, a successful

entrepreneur is the one who sees an opportunity by understanding the marketing environment- the current and future needs, wants and varying habits of the consumer- and takes advantage of this opportunity by executing a business activity. Proponents of the trait theory generally agree that the entrepreneur is not motivated by the money but rather by high needs especially his/her need to achieve. It is this type of motivation that makes a better entrepreneur (McIntyre, 2002). Other entrepreneurial characteristics include: innovation, risk raking, self –confidence, proactive ness, people and future orientation, (Palmer, 1971; Pater, 1986; (McIntyre, 2002. In their analysis, McIntyre, (2002) revealed other personality traits such as support, independence and leadership.

Available evidence in the literature, suggest that micro enterprises have played a major role in the growth and development of all the leading economies in Asia UNCTAD (2002). The Asian experience clearly shows that it is mainly the growth –oriented medium sized enterprises among micro enterprises that have a high propensity ot apply technology and training and serve specialized niche markets. Among the factors that have contributed to the success of such micro enterprises is a high incidence of cooperative inter-firm relationship, which have rendered firms less susceptible to risks, fostered mutual exchanges of information and know –how between firms and created a rich pool of collective knowledge. A key factors has also been the provision by governments to small/medium enterprises, extension services (such as quality assurance, research support and information on sources of technology) (UNCTAD, 2002).

Micro enterprises in Nigeria are characterized by the production of traditional consumers' goods, and the sector tends to locate and concentrate its distribution activities in local markets obtaining the economic advantages of consumer's proximity as in providing services, and in producing bulk items with high transport cost. Access to technology is not quite a constraint to small firms as they are able to employ technical specialists to install equipment and train employees. Several of the small firms have trained and experience engineers and other specialist among their employees or which typically benefit from targeted financing interventions.

UNCTAD (2002) further opined that micro enterprises are more flexible than larger firms in

responding rapidly to economic growth opportunities and instigating competition to improve the quality of products and reduce price. In serving local markets they have a more intimate fell for the changing needs of their customers. It is also easy for micro enterprises to escape the burden some regulatory environment prevailing in most African countries. Micro enterprises adapt more during periods of rapid change because of the simple technology usually employed. They are usually labour intensive, thus the expansion of the Micro enterprises can affect more employment and a more equitable distribution of income.

Following form the above observed flexibility of the micro enterprises, it is suffice to say that, the growth and thus the transformation of these micro enterprises to large scale firms might be quite easy to come by, if the policies of industrialization pursued by developing countries are environmentally friendly.

Theoretical Framework

Measurement of Risk: The term risk simply imply the existence of Probability distribution: measurement problem arise from the fact that risk, in the context of investment decisions, represents an index of the variability of the realized from the expected rates of return. It implies, for instance that the degree of risk cannot be assessed with absolute certainty until the final outcome of an investment is known. The risk of an investment is a vital decision parameter that ought to be known *ex ante* methodologically, it can be computed from a comparison of the distribution of the outcomes of an investment in relation to its expected return. The more values of individual outcomes are clustered around the expected value, the smaller the risk of the investment. Similarly, investment risk would be high if:

- (a) The range of outcomes is wide
- (b) The outcomes whose values differ appreciably from the expected values have high probabilities.

Two major approaches are available in the literature on the procedure for measuring risk (Okafor 1983:29)

Probability of Outcome: The investor could on the basis of a prior reasoning compute with certainty the probability of an outcome where the characteristics of all possible outcomes associated with an event are known.

Under this approach, empirical evidence could

also be used this entails measures of probability of derived from data generated by similarly occurrence in the past. Empirical deduction is very reliable, particularly where past occurrences have been mentioned for a long period, under such conditions, the likelihood of each outcome estimated from an analysis of the relative frequency of similar outcomes in the past

A third approach here is by the subjective judgment to assign probability values to different events. The approach provides a rational framework for decision making provided al existing information relevant to an event is fully appraised and deductions are based solely on such information. As already mentioned above, a condition of risk is created once a probability distribution of possible outcomes is available to guide the decision maker. The distribution could be derived objectively as in the first two approaches or subjectively.

Expected Values: There is no doubt that a condition of certainty makes it possible for investors to have single valued expectations about investments outcomes. It is a situation which creates few problems for the investment decision –maker. The existence of several possible outcomes crates a problem. e.g. the choice of which particular outcome from the array of possibilities should one expect high returns?. An investor could, for instance, pin his hopes on the outcome with the highest probability (Modal value) or on the outcome in the middle of the entire distribution (medium). Other possibilities are the maximum or minimum values in the distribution. Each of these measures has obvious merits and demerits.

Experience has, however, shown that the most dependable measure of expected outcome (EO) is the mean value is simply the weighted average (mean) value of a probability distribution where the individual probabilities of possible outcomes have been used as weighting factors.

Theoretically, this implies that for a given event (A) the expected value (EV) can be defined by the formula:

$$EV (A) = X_1 P_1 + X_2 P_2 + \dots + X_n P_n \dots\dots\dots(1)$$

In more general terms, the expression reduces to:

$$EV (A) = \sum_{i=1}^n X_i P_i \dots\dots\dots (2)$$

Where $X_i (i=1,2 \dots n)$ is the set of in possible outcome of event A

$P_i (i = 1, 2 \dots n)$ is the associated probability of each outcome

These two approaches provide the theoretical framework for this study. The approaches would form the bulwark for our methodology and empirical presentation and analysis.

The Model: Theoretically, statistical measures of dispersion, such as the range, the variance or the standard derivation could be used to measure investment risk. However, the standard derivation or its square (the variance) is the best indicator of investment risk. Just as the expected rate of return s the most widely used measure of investment return.

As standard procedure for calculating the variance of a probability distribution for ungrouped data (A) is given and

$$S^2 (A) = \sum P_i (x_i - EV (A))^2 \dots\dots\dots (3)$$

Where $S^2 (A)$ = variance of probability distribution (AAA)

X_i = Possible outcomes (i =1, —n)

P_i = Probability of related outcomes

$$S(A) = \sum P_i (X_i - EV (A))^2 \dots\dots\dots (4)$$

The method of calculation is shown in Table 3 with figures from the three investment options given in tables 1 and 2.

METHODOLOGY AND EMPIRICAL ANALYSIS

Small-medium micro enterprise in developing countries have a significant role to perform in terms of employment generation capacity, quick production response as well as adoption to weak infrastructure and use of local material resources, as means of developing indigenous entrepreneurial and managerial skills for sustained industrialization

The Data (Type and Sources): Both primary and secondary data were used of this study. The primary data used for this study are drawn from a survey of small-medium scale micro enterprises livestock production (dairy) Agro-allied processing (cassava production) and services (Automobile and repair services) enterprises in North central Nigeria. Specifically, Benue State. Our small medium scale enterprise is defined in terms of output. This is because it is easy to apply and that is closely correlated to risk and returns.

We defined a small medium enterprise as a business whose output is between N15,000 – N600,000 per month (i.e. 112 USD – 4,478 used per month). The primary data were derived through the administration of questionnaires and oral interviews. This is however complemented with a focus group. Discussion in order to give

more meaning to the responses from our survey. The survey covered a twelve (12) month period (December 2002-November 2003).

The secondary data was generated from Publications from the Central Bank of Nigeria, federal office of statistics small and medium scale enterprises Board, textbooks, Journal articles etc.

Study Sample and Sampling Approach: The population for this study comprised small medium scale micro enterprises. There are nine states in North Central Nigeria, out of which two sates (Benue) and Nasarawa were purposively selected. Our choice of states was based on factors such as cultural homogeneity, geographically proximity, prevalence of trade and the cosmopolitan nature of the state in terms of literacy level and urbanization.

In each of the two states thirty (30) questionnaires were administered on enterprises in the Agricultural (Livestock Dairy), Manufacturing (Agro –allied processing) and services (automobile and Regard services) sectors. In order to avoid systematic errors in collecting the data, we started by identifying the micro enterprises and the list for al micro enterprises operating in each of the sub-sector identified above was collected from the local association of operation of each sub-sector. The 30 firms in each state were randomly chosen from the list of registered firms in a particular town of reference. Our interest has been narrowed down to three man –sub-sectors. Viz: livestock (Dairy Production) Agro-allied processing (cassava processing) and services (artisans such as automobile (mechanic) works and repair services).

The sampling techniques used for the study was systematic. In adopting these techniques, the first respondents were chosen at random from the list of micro enterprises, while the next respondents were selected after an interval of three micro enterprises. The urban centers were chosen using the purposive sampling method based on the prevalence of a special trade and also to cater for the macroeconomic impact of polices directed towards micro enterprises.

EMPIRICAL ANALYSIS AND FINDINGS

The study made use of both descriptive and econometric analysis. The econometric techniques involve the specification of a probability distribution model for ungrouped data. The method involves computing the variance of

the model. This is shown in equations (3) and (4) in our theoretical framework in section 3.2

The explanatory variables include possible outcomes, (X_i) probability of related outcomes (P_i). The derivation of expected value of each outcome EV (A) is already discussed in section 3.1.2. the calculations involves three (3) investment options vz livestock –Dairy, Agro –allied (cassava processing and services (Automobile service and Repair services). The calculations are shown in following ways.

- (i) Computation of probability of outcome (P_i) table 1 in the appendix
- (ii) Computation of Expected value ($X_i P_i$) table 2 in the Appendix.
- (iii) Computation of Expected values and risk of investment n livestock –dairy table 3.
- (iv) Computation of Expected values and risk of investment in Agro allied processing sub-sector (cassava production) table 4
- (v) Computation of expected values and risk of investment in services –sub-sector (automobile and repairs services) table 5

Empirical Analysis: The analyses are shown in tables 3, 4 and 5 in the appendix. The results are discussed in the succeeding section.

Empirical Results: For the empirical analysis, three estimates were carried out. First, the estimation of probability of outcomes, which as noted earlier is the same for all the industry type. This is presented in Table 2.

Secondly, is a the computation of the expected value for he sub-sector Table 3

Thirdly, is the computation of the relationship between the expected values and risks of investment in all the sub-sectors. The results in Tables 4,5 and 6 reveal that options Xi (Investment in livestock (Dairy) production) appears more risky than investment in agro allied and services sub-sector.

The higher value of the standard deviation of investment in diary livestock production (106-48) as against 7.94 (investment in services automobile repair Services) shows that is the most risky of all the micro enterprises sampled.

Next is investment in services – (automobile / repair services) the fact that this is so is not surprising as our investigations reveal that the is a high rate of attrition n this sector. Mechanics are quick to abandon automobile repair works for driving and the selling of automobile and auto-parts, which they consider as being more lucrative.

Investment in agro-allied processing (cassava) production_ even though with a standard deviation of 7.94 appears to be most attractive form of business in the three sub-sectors considered. A plausible explanation for this that cassava processing requires less working capital and are likely to have reduced cost of production, increased turnover as well as graduating into a larger firm

The Policy Nexus: IT has been reported by FAO that Nigeria is currently the world’s largest producer of *cassava* with an annual production of over 34 million tones of tubers. Despite the high level of production, Nigeria consumers

Table 2: Computation of expected value

Period	Livestock Dairy			Ago-allied – Cassava Processing			Service-Automobile and Repair Service		
	Output monthly ('000N)(X_1)	Probability (P_1)	Expected value ($X_1 P_1$)	Output monthly ('000N)	Probability (P_2)	Expected Value ($X_2 P_2$)	Monthly output (X_3)	Probability (P_3)	Expected value ($X_3 P_3$)
Dec. 2002	595	27	53.55	595	27	3.02	595	27	1.98
Jan. 2003	577	27	51.93	577	27	3.18	577	27	1.53
Feb. 2003	203	24	3.21	203	24	2.66	203	24	1.33
March 2003	415	25	33.2	415	25	1.68	415	25	1.2
April 2003	373	26	29.84	373	26	1.92	373	26	1.68
May 2003	334	27	30.06	334	27	2.37	334	27	2.43
June 2003	313	25	25.04	313	25	2.32	313	25	3.15
July 2003	306	27	27.54	306	27	3.1	306	27	3.44
August 2003	290	2	23.2	290	2	3.16	290	2	3.04
Sept. 2003	281	26	22.48	281	26	3.26	281	26	4
Oct. 2003	345	27	31.05	345	27	3.84	345	27	4.32
Nov. 2003	438	25	35.04	438	25	3.99	438	25	4.08
	4770	312	398.14	4770	312	34.5	4770	312	32.18

Table 3: Computation of expected value of monthly output Industry (Investment) type

Period	Livestock Dairy			Ago-allied – Cassava Processing			Service-Automobile and Repair Service		
	Output monthly ('000N)	Probability	Expected value	Output monthly ('000N)	Probability	Expected Value	Monthly output (X ₃) ('000N)	Probability	Expected value
Dec. 2002	595	27	0.09	33.6	0.09	0.09	22	27	0.09
Jan. 2003	577	27	0.09	35.3	0.09	0.09	17	27	0.09
Feb. 2003	203	24	0.07	38	0.07	0.07	19	24	0.07
March 2003	415	25	0.08	21	0.08	0.08	15	25	0.08
April 2003	373	26	0.08	24	0.08	0.08	21	26	0.08
May 2003	334	27	0.09	26.3	0.09	0.09	27	27	0.09
June 2003	313	25	0.08	29	0.08	0.08	35	25	0.08
July 2003	306	27	0.09	34.4	0.09	0.09	43	27	0.09
August 2003	290	2	0.08	39.56	0.08	0.08	38	26	0.08
Sept. 2003	281	26	0.08	46.7	0.08	0.08	50	26	0.08
Oct. 2003	345	27	0.09	42.7	0.09	0.09	48	27	0.09
Nov. 2003	438	25	0.08	49.9	0.08	0.08	51	25	0.08
	4770	312	1	414.46	312	1	386	312	1

Table 4: Expected values and risk of investment options X₁ sector

Outcome (X ₁)	Probability (P)	Weighted Outcome X ₁ P	Unit deviation d = X ₁ - EV	Square deviation d ²	Weighted Square deviation Pd ²
595	27	53.55	196.86	38.753.9	3487.9
577	27	51.93	178.86	31,990.90	2879.2
203	24	3.21	104.86	10,995.60	769.7
415	25	33.2	16.86	284.3	22.7
373	26	29.84	-25.14	632	50.6
334	27	30.06	-64.14	4113.9	370.9
313	25	25.04	-85.14	7248.8	579.9
306	27	27.54	-92.14	8489.8	764.1
290	2	23.2	-108.14	11694.3	935.5
281	26	22.48	-117.14	13721.8	1097.7
345	27	31.05	-53.14	2823.9	254.2
438	25	35.04	39.86	1588.8	1271
		Expected Value (EV) 398.14		Variance Σpd ² 11,338.9	

Table 5: Expected values and risks of investment option X₂ (Agro-allied cassava processing)

Outcome (X ₂)	Probability (P)	Weighted Outcome X ₂ P	Units deviation d=X ₂ - EV	Square deviation D ²	Weighted square deviation Pd ²
			33.6	0.09	3.02 -0.9
0.81	0.07		35.3	0.09	3.18 0.8
0.64	0.06		38	0.07	2.66 3.5
12.25	0.86		21	0.08	1.68 -13.5
182.25	143.58		24	0.08	1.92 -10.5
110.25	8.82		26.3	0.09	2.37 -8.2
67.24	6.05		29	0.08	2.32 -5.5
36.25	2.42		34.4	0.09	3.1 0
30.25	0		39.56	0.08	3.16 6-May
0.01	2.05		46.7	0.08	3.26 6.2
25.6	3.08		42.7	0.09	3.84 8.2
38.44	3.08		49.9	0.08	3.99 15.4
67.24	6.05			0.09	
237.16	18.97				
				Variance Σpd ² 63.01	34.5

Table 6: Expected values and risk of investment options X_3 sector (Service –Automobile and repair services)

<i>Outcome (X_3)</i>	<i>Probability (P_1)</i>	<i>Weighted Outcome X_3P</i>	<i>Unit deviation $d = X_3 - EV$</i>	<i>Square deviation d^2</i>	<i>Weighted Square deviation Pd^2</i>
22	0.09	1.98	-10.18	103.63	9.33
17	0.09	1.53	15.18	230.43	20.74
1	0.07	1.33	-13.18	173.71	12.16
1	0.08	1.2	-17.18	295.15	23.61
1	0.08	1.68	-11.18	124.99	10
1	0.09	2.43	-5.18	26.83	2.41
1	0.08	3.15	2.82	7.95	0.64
1	0.09	3.44	10.82	117.07	10.54
1	0.08	3.04	5.82	33.87	2.71
1	0.08	4	17.82	317.55	25.4
48	0.09	4.32	15.82	25.27	22.52
51	0.08	4.08	18.82	354.19	28.34
Expected value (EV) = 32.18					Variance Σpd^2 168.4

virtually all that it produces, currently, cassava is gaining grounds as an industrial raw material in the livestock confectionaries and textile industries. Abdaullahi (2003:5) observed that current trend in cassava production and demand indicate that the consumption is increasing globally and that cassava was not cultivated 30 years ago.

Nigeria and Brazil are the world's leading producer of this commodity, however, most of it is consumed locally. On the other hand Thailand is the world's leading exporter of cassava products because most of the local productions are not utilize as cassava is not a staple diet.

The current policy direction to boost cassava production in Nigeria should be sustained. This is because there are a lot of investment opportunities in cassava processing. Cassava and its products such as chips, starch, pellets and flour are important sources of industrial raw material. Consequently, considerable opportunities exist for investments in their production for both local and export markets.

Based on our results and because of recent developments and the wide consumption and use of cassava, the need to establish rural cottage industries producing garri, cassava flour and cassava starch is imperative with a risk probability of a mere 7.94, investment in cassava production in Nigeria appears very attractive given the fact that national investors are much more concerned with the aggregate risk of their investment portfolios rather than with the individual risk of assets.

SUMMARY AND CONCLUSION

Investors in the small-medium scale micro enterprise have conflicting attitudes towards investment risks and returns. Generally, investors have a strong preference for investments that promise high rates of expected return. Indeed, most investors have a strong aversion to risks. Both attitudes are in conflict with one another because risky investments generally attract high expected rates of return and vice versa. Since investors dislike risky investments, they must be paid to accept additional risk. Thus, the attractiveness of a given investment opportunity must therefore be assessed on a two parameter mode which incorporates its expected rate of return and its index of risk. According to Okafor (1983) the risk return rule implies that for two mutually exclusive investments, X and Y, X will be preferred if one of two conditions hold:

- i. Investment x has a higher expected rate of return than Y, but has the same or a lower standard deviation of possible returns (risk),
- ii. Investment X has a lower risk (smaller standard deviation) than Y, but as much as or a higher expected rate of return.

The rule implies an inevitable trade –off between investors' desire for high-expected rates of return and their preparedness to assume investment risks.

In the past, investment decisions are identified as having a bias in favour of services. This bias renders the growth of small/medium micro enterprises largely ineffective.

Furthermore, efforts focusing on small/medium enterprises development are often frustrated by the absence of a favorable macroeconomic framework.

In Nigeria, investment decisions by entrepreneurs have implications for small business development in particular and industrial development in general. Though risks and the expected rates of returns represent a very significant determinant so investment in small/medium micro enterprises, other factors like infrastructure, political environment, funding etc. also influence the decision to invest. The risks faced by entrepreneurs in the small/medium micro enterprises are immense and very complex. They arose from the increasing complexity and sophistication of the industrial sector and increasing macroeconomic instability. There is therefore the need for an extensive and correspondingly sophisticated risk management technique to be put in place. The risk management process and the quality of entrepreneurship are key in ensuring the safety and stability of both individual micro enterprises and the small/medium scale industrial sector as a whole.

Finally, it is important to note that small/medium scale micro enterprises are central to Nigeria's development strategy and could play a vital role in rural growth and transformation and in the overall industrial development of Nigeria. Indeed, the preponderance of vast numbers of traditional small/medium scale micro enterprises in Nigeria suggest that there is an increasing awareness and that the sector offers substantial opportunity for the intensive development and improvement of this sector.

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