A Comparative Evaluation of Demographic Factors' and Entrepreneurial Traits Influence of Small Scale Enterprises Performance in Nigeria.

OGUNSIJI A. SOLA

Faculty of Management Sciences, Lautech. Nigeria

Email: amosogunsiji@yahoo.com

Abstract

The study admits that the small scale enterprises (SSEs) subsector offers more overwhelming attraction to the female gender due to the limited or negatively biased employment opportunities offered to the female gender by the formal sector in the typical African setting like Nigeria. It also affirms that the conventional disparity in the educational opportunities and other socio-political development variables confine the female gender to the informal subsector. However, the study found out that some archetypal traits more than demographic factors influence the performance of most small scale entrepreneurs. And that these archetypal traits are well distributed among Nigerians regardless of religions. Socio-cultural, geo-political background and even educational status. Furthermore it found out that though demographic factors also affect performance of SSEs, Using the exponential log, the most outstanding demographic factor that influence performance most was age x_1 $R^2 = 0.6606$ followed by socio-economic status of the entrepreneur $X_4 = 0.16317$. Whereas competence t_6 was the most favored trait with adjusted $R^2 = 0.5857$ followed by innovativeness X_3 and proactiveness X_4 in that order.

Keywords: *Traits demographic factor, orientation entrepreneurship, innovativeness, diversification matrix.*

Introduction

Several researches have shown that the small scale Enterprise (SSEs) subsector offers an overwhelming attraction to the female gender of the middle age (Gonzalez de la Rocha 1986, Abumere, Arimah and Jerome 1998). Contrastingly Selby in 1990 noted that earnings which is supposed to the attracting force are substantially lower for the female gender than for the male, This is not unlikely to be connected with the limited or the negatively biased employment opportunities offered to the female gender by the formal sector and the conventional disparity in the distribution of educational opportunities and other socio-political development variables which make the initial or start-up capital of each gender to differ. Largely relying on women, the sector enhances their economics and social status.

In the early ages of below 20, a preponderance of drop-outs mostly male at their prime age are usually apprenticed to successful business men traders. This class of people hardly completed the secondary school education and where they do were mostly unsuccessful. At the age of over 50, another large number always retire into the small scale entrepreneurship to either eke out a living or just be engaged to fill up the gap of differences between an actively productive lifestyle and seemingly idle/unproductive retired life. That is the raison detre for Abumere and other to expressly opine that the age, sex and education factors in the composition of the informal sector constitute one of the important hypotheses that need to be examined for the Nigeria case (Abumere et al 1998). Besides, it must be understood and appreciated that the formal sector is not developed enough as to fully engage the available supply of labor force in the Nigeria economy.

This showed that demographic factors cannot by any means be treated as inconsequential consideration in the set up, structure and even performance of small scale enterprise sub sector of the informal sector organization (Ogunsiji 2002).

Though some authors argued that the seemingly oversupply of labour to the formal sector is a reflection of the missing link of the economies especially of the developing countries that make the informal sector to flourish. It is the considered opinion of the study that it is rather the presence of some traits like the ability to perceive potentially profitable business opportunities, the degree of responsiveness, the willingness to act on what is perceived, innovation, drive and the necessary organizing ability that largely bred archetypal entrepreneurs (Walter 1988, Ogunsiji 2002).

In Nigeria the informal sector comprised of both the Small and Medium Scale Enterprises (SMEs), But the controversy surrounding what constitutes a small scale enterprise is still raging and the relationship between small scale and informal sector cannot be clearly compartmentalized into water tight categories. The definition therefore reflects the state of socio-cultural and economic development of each nation defining it. However it suffices to state that two quintessential characteristics (ability to identify business opportunities and ability to harness and /or act on them), coupled with strategic orientation that make entrepreneurship to flourish abound among Nigerian regardless of their religious, social-cultural and geo-political background or even educational status (Ogunsiji 2002). Quite intrigueing is the fact that culture affects entrepreneurship differently but strategic management approach help much in dealing with Nigerian peculiarities Peculiar responsibilities, the peculiarities of the Nigerian society and their attitudes to management issues that would normally have created no scene and/or issues that are expectedly the prerogative and preserve of the executive of an organization are interfered with by the society. The interference is more pronounced in SSEs to the extent that most erudite management treatise from Harvard, Oxford and Stanford would fail in Nigeria unless the "Nigerian factors" is zeroed in along it with the prominence it deserves.

All the same, in this study some archetypal traits/profiles such as opportunistic, innovativeness, pro-activeness, high profile, image-setter, restlessness, determination managerial competence, and extroversion were examined against production/performance of SSEs vis-a vis how the demographic factors like age gender, marital status, social-class education and ethnicity affect the performance.

The paper is therefore divided into four sections with section 1 having the introduction, section II for the Methodology, the discussions on field findings in the third section while section IV contained the conclusion and recommendations.

Methodology

The study sample consisting of 130 respondent enterprises drawn randomly from the five senatorial districts of Oyo state of Nigerian through stratification. These respondent enterprises were made up mainly of small scale businesses in the area of commerce/merchandising (51), services and craft i.e dyeing, barbing, cane and raft weaving etc (60). Dotting these sparingly are small scale enterprises in the area of manufacturing at very rudimentary stages (19). Such include soap/candle making, fruit/oil extraction, steel fabrication and water packaging.

Out of the 130 questionnaires administered to these respondent enterprises 123 representing 95% of totals, was found to the completely analyzable.
The data thus collected through the well structured questionnaires administered were analyzed using multivariate functional models to evaluate the influence of demographic factors and traits on the performance of SSEs on comparative basis. Some parameters of Multiple Regression found to be appropriate estimation technique were also used.

Demographic factors investigated include age, gender, social class, marital status, education and ethnicity, while trait comprise of opportunistic, innovativeness, pro-activeness determination, managerial competence and extroversion. The performance index of SSEs was measured in terms of profitability, return on investment, total earnings or turnovers as may be found available in each SSEs examined. However, each of these variables was reduced to a common denominator and discounted with a constant factor.

Econometric Model

The SSEs performance was considered to be affected by a number of the variable making up the entrepreneurial traits as well as those making up the demographic factors.

Thus the OLS estimation technique was used to determine the strength and direction of influence of the constituent variable of demography and/or trait characteristics on SSE performance.

The model specification is of the type $Y = \dfrac{p}{1-p}$

Taking the natural log of $Y = p/1-p \ gives \ InY = In \left(\dfrac{p}{1-p} \right)$

From $Y = f \left(x_1, x_2, ... X_n / y_1, y_2 ..... y_n \right)...........$

$$Y = f \left(\sum_{i=1}^{n} X/y_1 \right)$$

i.e where

Y = the performance of SSEs measured in term of Profitability, Return on Investment, Total Earnings or Turnover as the case may be.

Xi = demographic variables denoted by $x_1, x_2, x_3 ....\ ....X_n$

representing age; gender, marital status, social class, education and ethnicity.

Y_i = the trait variable denoted by $c_1, c_2, ...\ c_n$ representing opportunistic, innovativeness, proactive, etc.

$$Y_x = b_0 \_ b_1 X_1 + b_2 X_2 + b_3 X_3 + ...\ ....b_n X_n + U ....\ .... 1a$$

And $Y_c = a_0 \_ a_1 c_1 + a_2 c_2 + a_3 c_3 + ...a_n c_n + U .... 1b$

Where

$a_0 b_0$ = constant terms

$b_1 \_ b_n$ = regression coefficient for demographic factors

$a_1 \_ a_n$ = regression coefficient for trait characteristics

$X_1 ...... X_n$ = explanatory variables of demography

$c_1 ..... c_n$ = explanatory variables of traits and

eU = error term expected to fulfill all OLS assumptions except that of homoskedasticity which breaks down when cross sectional data are used. Generally the relationship may also be expressed as

$Y = b_0 X_1 b_1 X_2 b_2 X_2 b_3 ....\ eU$ in the exponential form 2a

Log $Y = a_0 c_1 b_1 c_2 b_2 c_3 ....\ eU ....\ ....\ ...2b.$

Thus three functional forms were fitted, the Linear, the Exponential and Logarithmic equations as in linear equations 1_a and 1_b above,

Exponential Equation 2_a and 2_b when transformed into log becomes

$$In\, Y = b_0 b_1 InX_1 + b_2 InX_2 + ... b_6 InX_6 \quad \text{for demographic and} \qquad 3a$$

$$In\, Y = a_0 + a_1 Inc_1 + a_2 Inc_2 + ... a_6 Inc_6 \quad \text{for trait variables.} \qquad 3b$$

It's double log form is of the type

$$\text{Log } (InY) = Log\, b_0 + \log b_1\, InX_1 + ... Logb_6 InX_6 \quad \text{for demographic and}$$

$$\text{Log } (InY) = Log\, a_0 + \log a_1\, Inc_1 + ... Loga_6 Inc_6 \quad \text{for trait}$$

From the three functional models, the equation with the best fit is selected on the basis of the value of adjusted R^2. On examination, the exponential equation 2_a and 2_b were found to be the lead equation with the best value of adjusted R^2 and t-value. This thus refute some extant belief that the seemingly oversupply of labor to the formal sector is a reflection of the mis management of the economics of the developing nations. Rather it established that it is the presence of some traits like the ability to perceive and exploit potentially profitable business opportunities that bred archetypal entrepreneurs.

The interpretation of the analytical values obtained converge on the works of Walter 1988 a, b, Amin 1987, and Durston 1987 that personal attributes/trait make the difference between the successful entrepreneurs. The much orchestrated lack of finance, lack of financial prudence and control, lack of knowledge of break-even analysis and managerial deficiency have gradually faded away among Nigerian entrepreneurs of SSEs though the concept of strategic entrepreneurship that can ensure sustainable competitive advantage has not been fully adopted as a management stratagem, (Ogunsiji 2010).

However an improved management approach selectively marrying traits with the demographic factors is practiced using a diversification matrix approach, through a symmetrical correlation matrix shown below: Evidently the involvement of some personalities in some particular business venture serves as an open door of business success that would not have come if the personalities were non-starters or mere upstarts.

Table 1: Correlation Matrix R-Type of the Variable

	1	2	3	4	5	6	7	8
1	1.000							
2	−0.225	1.000						
3	0.702	−0.265	1.000					
4	0.558**	0.694	−313	1.000				
5	0.215	0.530	−221	0.698*	1.000			
6	0.614**	0.573	−363	0.765**	0.735	1.000		
7	0.342*	−0.256	0.786	−0.379	−0.272	−0.438	1.000	
8	0.582*	0.599	−0.285	0.813	0.714	0.770	−0.367	1.00

* Significant at 0.005
** Significant at 0.001

Furthermore the Multivariate (Logic) Regression Analysis were obtained for both variables as shown in TABLE 2a: MULTIVARIATE (LOGIT) REGRESSION ANALYSIS RESULTS (DEMOGRAPHIC FACTORS) Source Analysed field Data

Final Model	Dependent variable	FACTORS						R^2	$\overline{R}^2$	t-value	D-W
		X_1	X_2	X_3	X_4	X_5	X_6				
1 LINEAR 2 EXPONENRIAL 3 LOG	Y Log Y Log In Y	0.2676 0.6606 - 0.0145	0.2629 0.06702 0.2928	0.0174 0.1322 0.08492	0.7209 .16312 - 02358	- 0.1721 .12604	0.0144 0.0554 .1013	0.7725 0.9912 0.7068	0.7743 0.9816 0.6512	- 3.0667 0.9128 - 3.8903	1.8493 1.9224 0.7410

TABLE 2b: MULTIVARIATE (LOGIT) REGRESSION ANALYSIS RESULTS (DEMOGRAPHIC FACTORS) Source Analysis field Data

Final Model	Dependent variable	FACTORS						R^2	Adjusted R^2	t-value	D-W
		a_1	a_2	a_3	a_4	a_5	a_6				
1 LINEAR 2 EXPONENRIAL 3 LOG	Y Log Y Log In Y	-1699 .1292 - 0.16214	0.668 .18107 0.0821	0.4552 .1673 .0919	- 1166 .1622 .0919	.0290 .1223 .0945	1.1710 .5857 .0985	0.9391 .9473 .8946	1.0718 9511 .9272	1.8728 3.2467 1.8559	1.8359 1.9368 1.8291

The exponentials form in table 2 show a functional model leading by adjusted R^2 value 0.9473. It furthermore showed clear overall superiority demonstrated over the table 1 values. For example the adjusted coefficient of determination, and adjusted R^2 for table 2 is 0.9473 compared with 0.9128 of table 1.

In like manner the Darbin Watson value of 1.9368 is also higher than its table 1 counterpart value of 1.9224. The implication of this is that trait exhibits an over all superior impact on performance more than demographic factors. Even among the traits variables, managerial competence is found to affect performance more than every other variables. The fact that the competence of the owner-manager who sets up the business in the first instance determine how the firm is managed in crucial area of marketing, finance and personnel among others and went further to determine the relative prosperity, population (employees/customer) profile and production/product structure serving as good measures of organizational focus and performance (Ogunsiji 2002, Walter 1988).

Perhaps, in this study the competence (qualified skill/managerial) demonstrated a high up value of 0.5857 for the adjusted R^2 while the others range between 0.1228 to less than 0.2000. The implication of this is that skill/managerial competence singly affect performance more than any of the other variable. This competence is distinct from technical/managerial training in that competence and capabilities are built from within i.e it is innate, though it can be reconfigured and/or leveraged either structurally or contextually through training and/or education (Ogunsiji 2002). Managerial/technical competence precipitate on the innate ability to identify and harness opportunity as a reflection of an astute decision making process.

Conclusion and Recommendations

In conclusion the entrepreneurial traits on comparative basis tend to influence/affect SSEs performance more than the demographic factors do. This is because the traits has a higher overall t-value as well as a higher value for the adjusted R^2 significant to 95%, though the demographic variable are highly auto correlated.

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In the entrepreneurial traits however, variable y- (opportunistic) has the highest coefficient of determination. This offers a plausible causal relationship/effect because the independent variables are not highly interrelated. Thus the problem of multicollinearity was safely avoided.

This avoidance of multicollinearity goes further to reinforce the significance the precipitated causal effect "opportunistic" has on the performance of SSEs within the dynamics environmental framework in which SSEs operate. "Opportunistic" which involves the ability to perceive, identify and exploit prospect/favorable stimuli explains the disproportionate appreciation of talents and understanding of environment wherein the distinctiveness leverages and expands the economy with large multiplier exists. The implication of this however is a highly favorable incidence of trait as influencing factors on performance of SSEs, regardless of the dynamism of the environment intrusive also is the detection of some examable flows to rationalize the departure from the support for applying S.M. approach as a panacea for under productivity and sub-optional performance.

Following opportunistic in the order of their significance as they affect the performance level of SSEs are innovativeness and proactiveness.

Comparatively the exponential model though offers the leading equations in the two examined, i.e Demographic factors and Entrepreneurial Traits, the adjusted R^2 value and the student T-value is high for the Traits than what it was in the Demographic factors. This goes to confirm that entrepreneurial traits are more critical consideration traits, technical/managerial competence is found to have the highest coefficient of determination in the lead model ($f^6 = 0.5857$). Thus inmate ability to manage or lead determines to a significant extent the level of performance of the enterprises because it even promote the skill/potential to perceive, identify and exploit opportunity in an entrepreneur.

It is therefore recommended that appropriate trait identification technique should be designed and instituted as part of the management strategy for SSEs. Following from that is also the need to encourage the design of a training scheme and policy that would adapt, leverage, and improve such identified traits to meet up with current day high technology challenges that could propel the performance of SSEs to become globally competitive and market-driven.

Furthermore, it is instructive to push the indepth analysis of the diversification matrix frontier further to at least achieve an irrefutable amalgam of demographic factors and traits from convergence in what is the strategic entrepreneurship which is the current management vogue in developed nations (Covin and Slevin 1949, Ansoff 1965, Mingler 1998, Ogunsiji 2012)

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