

MANUFACTURING SMALL AND MEDIUM ENTERPRISES
(SMEs) MARGINALITY: A REVIEW OF FACTORS INFLUENCING
PERFORMANCE OF SMES IN LAGOS, NIGERIA

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ABSTRACT

The importance of small and medium enterprise (SMEs) in an economy can not be overemphasized. There has been a lot of debate among the academics and the policy makers on the factors that influence the performance in terms of profitability of SMEs. This paper focuses on these factors within the period 1995-2010 in Lagos state, Nigeria. Model was formulated using ordinary least square regression analysis on time - series data. The paper showed that turnover and total assets have significant and positive influence on SMEs. These results have important implications for SMEs development in an economy by shedding light on the quantitative factors that can influence the capacity of manufacturing SMEs, in improving the economy and thereby contributing to poverty alleviation through the employment generation and wealth creation.

Introduction

The importance of Small and Medium Enterprises (SMEs) in an economy cannot be overemphasized. They generate substantial employment opportunities, stimulate indigenous entrepreneurship and facilitate effective mobilization of local resources. SMEs are also important in supporting economic development within a country (CDASED 1999). In ensuring the economic growth of a country through economic diversification, policy makers and analysts need to know the factors influencing the growth performance of these SMEs. Understanding of these factors would enable policy makers to formulate appropriate policies as the existence of a strong small business sector is necessary for boosting the economy.

In Nigeria, Series of policies and interventions have been introduced by various governments in promoting SMEs. These include financial support initiative, technical/training and fiscal incentives. In spite of these development initiatives most of the SMEs are still not performing well. Most empirical studies have concentrated on the importance of SMEs but with little attention on the factors that influence the capacity of SMEs in generating income in an economy. This is the motivation of this study. There is a need to examine the factors that could influence the performance of SMEs so that they could be in a strong position to perform their expected roles in poverty reduction, employment generation and wealth creation in the Nigerian economy. In order to ensure a sound and balanced industrial development, it is necessary that SMEs are well developed Oresogu (1985). This will enable them to fill particular gaps in domestic industrial activities. This study will empirically investigate the variables that could influence the performance of manufacturing SMEs in Nigeria over the past fifteen

years in Lagos, Nigeria.

Objective of the study

The broad objective is to investigate the factors influencing the profitability of manufacturing small businesses in Lagos state, Nigeria; specifically the study is to:

- i. identify the various factors of measuring businesses performance and
- ii. to evaluate each of the factors influencing profitability of small business in the study area between 1995 to 2010.

Literature Review

There is no single universally accepted definition of SMEs. SMEs can be defined along three dimensions, namely employment, investment and turnover, or a combination of two or all of the above (Bala- Subrahmanya, 2005). Ramachandra (2002) argued that SMEs in Nigeria context are defined as those with fewer than 100 employees and below N50 million naira in assets. However, in view of the existing structure of our industrial growth and development, the study views SMEs as those with between 10 and 250 employees.

A lot of studies have been carried out on the performance measurement of small businesses. Obamuyi (2005) in his study, making use of ordinary least square regression analysis on time series data of a chosen firm in Ondo State, Nigeria, found revealed that bank loans and business sales had significant and positive influence on small business. He chose a firm to generalize the situation of the entire small businesses in the state. This might not be the situation in reality. There is a need to cover different segments of the sub sector. It is not clear in his study whether the firm chose was a small manufacturing enterprise or trading company. Papps (1982) argues that profit is a good measure of the performance of a firm as it provides clear indication of the efficiency of utilization of firm's resources. Profit making indicates how a business is being managed and hedges against business risks, Cuba (1983) in his study of small business management found a positive nexus between age of business and profit. According to his study, older businesses are likely to be operating more economically than new businesses. This may not be the case in some developing economies where old businesses are not willing to adopt new technology that could promote efficiency. Duchesneau and Gartner (1990) identified 3 categories of factors that influence success e.g. characteristics of firms, start-up capital, overall management strategy. They found out, that experience of business owner, business risk, and good customer service are significant factors. Findings of Stranger (2000) revealed a negative effect on the profit to sales ratio of increasing level of employment in small businesses - in view of the effect of cost of hired labour on the profit.

Most of these studies have not shown lucidly how these factors have influenced the capacity of SMEs in generating income and creating employment, taking in to consideration the characteristics of the firms and the business owners.

RESEARCH METHODOLOGY

Study Area

Lagos is located at 6° 35' N and 3° 45' E. It occupies a total area of 3,475.1 Km². It is the commercial nerve of Nigeria with a total population of about 8 million (according to National Census- 2006) with population growth of about 275,000 persons per annum.

Lagos state is divided into five administrative divisions-Badagry division, Epe division, Ikeja division, Ikorodu division and Lagos division. These are further divided into 20 local Government Areas. Our samples are drawn from each of the administrative divisions.

Population and Sampling size

The population consists of all manufacturing Small and Medium Enterprises in the five aforementioned divisions.

In this study, some enterprises are selected from these five administrative divisions using stratified random sampling techniques.

As regards the measuring the performance of SMEs, the theory of freedom as proposed by Murphy et al., (1996) would be adopted. Stronger (2000) used two performance measures - business size and profit but in this study, we consider the following variable turnover, no of employees, start up capital, total assets, and age of business. Ascertaining these parameters by the entrepreneurs does not require complex calculations. This is in line with the recommendations of Murphy et al., (1996) and Stronger (2000) in the choice of performance measures.

Nature and Sources of Data

The data was obtained from the published financial statements of a select SMEs in Lagos State cutting across manufacturing, trading and agro-allied businesses to reflect situation in the industrial sub sector over a period 15 years from 1995-2010. We selected the enterprises with the highest minimal aggregates of some criteria such as number of employees, turnover, business age and total assets. It must be noted that manufacturing sub sector commands much attention of both the government and non-governmental organizations in terms of assistance for development and growth, This is an improvement on previous studies especially on Obamuyi 2008 which used only data on a firm. The average figures of the variables of the selected enterprises were computed and used in this study.

METHOD OF DATA ANALYSIS

The ordinary least square multiple regression analysis was used to analyze the relationship between profit and other independent variable among other things R^2 , and t-statistics were used to explain the significance, validity and stability of the model.

Model specification

Based on the previous studies and to meet the objectives of the study, we specify the following model.

$$P = f(\text{Turnover BA TUR, Emp, TAS}) \dots \dots \dots (1)$$

- Where P = Annual Pre-tax profit
- BA = Business age
- Emp = No of employees (employment size)
- TAS = Total Assets
- TUR = Turnover

Functional forms of the models are specified as followings to estimate the performance.

$$P_t = a_0 + a_1 BA_t + a_2 TUR_t + a_3 Emp_t + a_4 TAS_t + e_t \dots (2)$$

$$\ln P_t = a_0 + a_1 \ln BA_t + a_2 \ln TUR_t + a_3 \ln Emp_t + a_4 \ln TAS_t + \ln e_t \dots \dots (3)$$

Where a_0, a_1, a_2, a_3, a_4 are parameters to be estimated and e is a random error term.

DATA ANALYSIS AND DISCUSSION

It is important before estimating the parameters to ascertain the time series properties of all variables to avoid spurious regression which could result from the regression of two or more non-stationary time series data - giving impression that relationship exist between two variables by virtue of their coefficient as measured by R2 and adjusted R2 with highly auto-correlated residuals as indicated by low Durbin - Watson (DW) when in actual fact no such relationships exists.

Therefore, tests were conducted in order to detect the time series properties of the data

Transforming, to induce stationarity led to differencing the data i.e, taking the first differences of all variables that appeared to be highly auto-correlated until a stationary model was arrived at.

Table 1: ADF Statistics for Testing Unit Roots

Variable	ADF	Critical value	Remarks
Profit	-4.4548	-2.7215	At difference level
Business Age	-3.0617	-2.7215	Stationary level
Turnover	-5.8482	-2.7215	Stationary level
Total assets	-4.4721	-2.7215	Stationary level
Employment size	-3.0421	-2.7215	Stationary level

Source: Author's compilation 2010

Table 2: Regression Results of determinant of profit

Independent variables	Parameter	Coefficient	t-statistics
Profit	a_0	-1994.7	1.797
Business Age	a_1	-0.2763	0.4314
Turnover	a_2	-0.4834	3.1214
Total assets	a_3	-0.1037	1.8176
Employment size	a_4	-0.7421	2.8410

$R^2 = 0.947$

Adj $R^2 = 0.915$

DW = 1.314

$F^* = 56.43$

In table 1 above, the unit root tests show that there is no problem of autocorrelation.

In table 2, the coefficient of total assets was positive and significant in line with a priori expectation indicating that the profit of small business increases with increase in total assets.

In the case of business age, its coefficient was found to be insignificant, and as a matter of fact it carries a negative sign indicating that the older the business, the less the profit. This is consistent with the studies carried out by Storey (1994) and Almus and Nerlinger (1999). In Nigeria, new firms appear to be more aggressive and innovative with higher potentials of making profit.

The coefficient of turnover shows a positive sign and significant, indicating that profit tends to increase with increase in turnover. The coefficient of employment size is found to be positive indicating the fact that an increase in number of employees will bring about increase in activities and more return of sales and by extension profit.

Generally, the overall effect of the independent variables is statistically significant at 5 percent. The f-statistic is also significant indicating that a significant nexus between profitability and the parameter estimates of, the explanatory variables. The adjusted coefficient of determination of 0.915 shows that 91.5 percent of the variability in the profitability of small businesses is explained by the specified explanatory variables. The D.W. statistics of 1.314 shows the absence of serial correlation at 5 percent significant level.

Limitation of Study and Area for Further Study

The study focused on quantitative variables paying less attention on other qualitative measures such as quality of management and organization structures, and availability of social infrastructure with attendant effect on cost of operation and profit level, and level of technology, ability of the enterprise to acquire, develop and maintain the necessary human capital Becker (1964) and other scalars e.g. effective communication, alliance -building, and ability to stimulate market

forces. Attitude of staff and attitude of board. Storey (1994) opined that great influences of growth are characteristic of owners of firm. The paper also focused on manufacturing enterprises only.

Further work can be done on other sectors such as trading and agro-allied sectors in future. It is also important to stress at this juncture that there is a need for further research also on the other qualitative factors that could influence the performance and profitability of small businesses as this study has focused on qualitative factors. These will include quality of management, availability of social infrastructure; level of technology and attitude of board and staff. The effects of these factors on the profit of businesses would invariably depend on the cultural context on which the small businesses operate.

Concluding, Remarks and Recommendations

The study examined the factors that influence the profitability of small businesses over the past years. Ordinary least squares regression analysis on time-series data was used to estimate the formulated models. The study shows that turnover and total asset, have significant and positive effect on small businesses.

In view of the great impact of total assets and turnover on the profitability of small businesses, concerted attention must be focused on Assets and liability management (ALM) on good management of assets can bring efficiency of operation and improve profitability. Suffice to say that efforts should be made to manage and improve the conditions of the assets especially, the fixed assets, debtors, stocks at all times in order to reduce exposure to business risks which might adversely affect profitability. Small business should also be encouraged to develop their marketing skill through appropriate training programme. They should also ensure that quality products are produced from time to time to sustain the taste of their customers and also embark on aggressive sales promotion and marketing strategies to boost their sales and profitability level.

Implication

The findings of this study have implications for theory, and practice particularly for development of SMEs in Lagos State. The theoretical contribution of this study provides new insights on literature on factors influencing the capacity of small businesses in Lagos- a commercial nerve of Nigeria where the characteristics of Nigerian enterprises are truly represented.

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