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The Impact of Bank Loan on the Profitability of Small and Medium Enterprises in Bauchi State, Nigeria

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Abstract

Small and Medium Scale Enterprises play an important role in the Economic Development of both developed and developing nations. Nigeria is no exception with SMEs providing about 85% of employment in manufacturing sector, believed to contribute to about 70% to GDP and account for about 92% of businesses in Nigeria. However, the SMEs are confronted with challenges of credit accessibility for their expansion and growth. The above constraints gave rise to the researchers to examine impact of bank loan on the profitability of SMEs in Bauchi state of Nigeria. The objective of the study was to examine impact of bank loan on the profitability of SMEs in Bauchi state. To this end, the study used survey method and secondary data method. A self-administered questionnaire was used to obtain relevant data from a sample of 97 SMEs operators of Bauchi state. In addition, Krangcie and Morgan table was used to select the firms. Both descriptive and multiply regression analysis were used in the analysis of the relevant data. The analyses were done using multiple regression analysis to examine impact of bank loan on the profitability of SMEs in Bauchi state. In conclusion, this research shows that bank loan has negative relationship with Return on Asset but have positive relationship with firm size and firm age in Bauchi state based on the research findings.

Keywords: Bank loan, Profitability, SMEs, Return on asset, Age of the firm, Size of the firm.

INTRODUCTION

Prior to 1960, the continued existence of small and medium scale industries in Nigeria is justified by the scarcity of capital and administrative experience. It is often argued that in orders to ensure an orderly transition, small and medium scale industries deserve support but mainly in sectors where modern methods could not be immediately applied. However, in mid 1960s a new approach to small and medium scale enterprise (SME) development began to emerge due to a number of factors. First there was growing concern over low employment elasticity of modern large scale production which claimed that even with more optimal policies, industrial organizations were unable to absorb a significant proportion of the rapidly expending labour force [1, 2]. Second there was wide spread recognition that the benefits of economic growth were not being fairly distributed and the use of large scale capital intensive techniques was partly to blame [1]. Third, empirical diagnosis showed that the causes of poverty were not confined to unemployment and that most of the poor were employed in a large variety of small scale, low productivity activities. Thus it was thought that one way to alleviate poverty could be to increase the productivity of those engaged in small and medium scale production [3].

This suggested a new role to small and medium enterprise or what has come to be labeled "the urban informal sector". Small labour-intensive industries and medium industries were seen not only to increase employment but also to increase the living standards of the poor. They were also thought to be capable of providing a new dynamic of economic growth. The new objective was not just to stop the retreat but to promote small and medium sector [4, 3].

OBJECTIVES OF THE STUDY

The main objective of the research is to determine the impact of bank loan on the profitability of SMEs. The specific objectives are:

- To examine the relationship between bank loan and return on asset of SMEs
- To assess the impact of return on asset on the size of SMEs
- To evaluate the relationship between age and return on asset of SMEs

REVIEW OF RELATED LITERATURE

Role of Banking Sector in Developing SMEs

The role of the banking sector in the failure of SMEs in Nigeria cannot be over emphasized; a study identified poor access to finance as most critical constraint on small and medium scale enterprises in Nigeria. In fact, 50 percent of the surveyed enterprises received external finance while 79 percentages indicated lack of financial resource as a major constraint, [5]. In Dec. 2001, the banker's committee decided that all banks in Nigeria would set aside 10% of their profit to start a scheme called the small and medium industries equity investment scheme. This was a charade because by the definition of the scheme, a small business is "any enterprise with a maximum asset base of N200 million excluding land and working capital and must have a staff of minimum of ten people and a maximum of 300 people" it therefore means that over 70% of the population have been disenfranchised from using this scheme and only those in the upper echelon of society can use the scheme and therefore the aim of starting up small business that will grow into mega companies is defeated. The Nigerian banking sector does not have the requisite man power to help develop the economy. Their staffs are not trained to seek out small business that would yield good dividends in the long run; they only know how to go after deposits.

The banking sector specifically commercial banks and specialized banks have several ways to get involved in SMEs finance, ranging from the creation of participation in SMEs finance investment funds to the creation of a special unit for financing SMEs within the bank.

Banking sector service provided to SMEs take various from such as

- Short term loans, compatible with SMEs business and income patterns.
- Repeated loans, where full repayment of one loan brings access to another, and where the size of the loans depends on the clients' cash flow.
- Very small loans or bank overdraft facilities are also appropriate for meeting the day-to-day financial requirement of small businesses.
- Factoring and invoice discounting, asset finance (including commercial mortgages), and equity finance, all being within the framework of a customer friendly approach.

In improving all these services, it is recommended that banks take into consideration outlets located close to entrepreneurs, use extremely simple loans application, limit the time between application and disbursement to a few days.

Develop a public image of being approachable to low-income people; these are some among the characteristics that should be avoidable in banking units serving the SMEs sector.

Importance of Commercial Banks in Financing SMEs

Commercial banks have several advantages over non-bank financial institution (NBUs) and non-governmental organizations (NGOs) when it comes to financing SMEs as they have:

- Clear regulations illustrating the condition of ownership, financial disclosure, and capital.
- Adequacy that helps them ensure prudent risk management physical infrastructure, including a large network of branches which enables them to reach a substantial number of small and medium sized client Well-Established internal controls, administrative and accounting systems which facilitate keeping track of large number of transactions. Ownership structures increasingly dominated by private sector which tends to encourage.
- Sound governance practices, seeking cost effectiveness and profitability.

Profitability

Profitability can be defined from various perspectives name; dictionary definition, accountant's definition, economist definition.

Brain Helweg-Larsen [6] defines profitability as a scenario where you earn more revenue than incur cost. Asking questions like; how do you makes profit, it is sustainable, and how can it be improved?

The other view of profit is that it is a measure of the value you create for others. You cannot have a sustainable business base on a rip-off. To be sustainable, the customers must receive value for the services or products they buy, the employees must get fair wages for their work and the owners of the company must make a reasonable return on the investment. Technically, the word profitability means the ratio of profits or revenue, not just the amount of profit figure can be misleading, while looking at the profit as a percentage of sales can tell a more interesting story. Profit of 3million naira, 4 million naira and 5 million naira looks very impressive over 3 years, but if sales have exploded and the percentage profit is going from 17% to 14% to 9% at the same time, there are some important question to ask about whether things are actually going well. An accountant's definition is the measure of the difference between the purchase price and the cost of bringing to market that is the revenue a company derives from its operations, less than explicit cost. An economist definition is the term profit has two related but distinct meanings. Normal profit represents the total opportunity cost (both explicit and implicit) of a venture to an investor or entrepreneur, whilst economic profit (or simply profit) is the difference between firm total revenue and all cost including normal profit.

Objectives of Small and Medium Enterprises

SMEs have various objectives and are in aspect such as economic, social, human and national objective. The following give the details of these objectives;

a) **Economic objectives:** businesses primarily have economic objectives which are: profit earning, creation of market and innovation.

i. Profit earning: the primary objective of business is to produce and sell goods for profit of course, through the satisfaction of human wants. A business which does not earn profit cannot stay in the market for a longer period. The income of enterprise, therefore, must exceed expenditure over a period of time. Profit is necessary for the enterprise to ensure its own survival, growth an expansion. In other words, the problem of any business is not the maximization of profit but the achievement of sufficient profit to cover the risk of economic activities and thus avoid losses (Peter F. Rucker). Business enterprise should work for reasonable profit which should cover its own future risk, if they profit is made over charging customers, indulging in malpractices such as hoarding, black marketing, smuggling etc. it will be against the ethics of business.

ii. Creating markets: every business tries to create customers for its own product and services. The more the customers are treated properly, the wider will be the market for the goods and larger the profit.

iii. Technological improvements: the business, if it is to stay in the markets, must offset stagnation by using efficient methods of production. The creation of new products, new designs and application of new techniques of production contributes to growth, charge and expansion in the economy.

b) **Social objectives:** the social objectives of business are gaining more and more recognition with each passing year. They include, supply of standard quality of goods, avoidance of anti-social parties, provision of more employment, cooperation with the government, use of national resources.

i. Supply of standard quality of goods: one of the social responsibilities of business is to produce goods of standard quality. If the enterprise is producing inferior, substandard and adulterated goods. It will be doing disservice to the society.

ii. Avoidance of anti-social parties: it is not fair on the part of a business to indulge in anti-social parties such as hoarding, black marketing, smuggling, over charging etc. to earn profit. A reasonable profit on a legitimate business is regarded as healthy sign.

iii. Provision of more employment: business provides employment to the people. It thus helps to increase the standard of living of the members of the society.

iv. Cooperation with the government: the business community should adopt a positive approach toward the policies of the government of the country. They should pay all taxes and dues in time to the government. All business activities should be carried within the legal framework of the country.

v. Use of national resources: the business should use the national resources in the best interest of the country. Wastage should be reduced to the minimum. The motor should be more and more goods for people at lower prices.

c. **Human objectives:** the business activity is carried on by the people (entrepreneurs through the people (employees) and for the people (customers)). Human factor is thus an important element in business. A business which overlooks the human factor cannot prosper and ultimately suffers losses. The human objectives of the business should be fairly rewarded.

i. The employees working in a business should be fairly rewarded.

ii. A healthy climate is created by providing opportunities to the employees for development of new skills and abilities.

iii. The employees should have say in the affair which directly affects them.

iv. Thinking of modern business must go well beyond material benefits of its employees. It must reduce unpleasantness of work and plan for job satisfaction to the workers.

d. **National objectives:** every business whether operating on small or large scale must have an obligation towards nation also. It should help in achieving national goods such as promoting social justice, increasing value added goods for exports, finding out better and cheaper substitutes for imports and helping in increasing exports for building the foreign exchange reserves to meet the import bills.

METHODOLOGY AND DATA

The study uses time series data and panel data in carrying out its empirical research on the impact of bank loan on the profitability of small and medium enterprises in Bauchi state. The data used for this study were secondary data which cover the period of five years that is 2014-2018. Data on the variables are sourced from the financial record of the SMEs.

Variables of the Study

Return on Assets: It is believed that, for firm to get profit there must be an investment; this may include infrastructural development, human resources, and government bonds. This means that total current investment will have positive relationship with the profit of SMEs and is computed by total asset over profit

Bank loan: Availability of credit from formal sector like financial institutions and banks and also availability of credit from the informal sector like personal savings and family assistance for the last two years. Those SMEs that have access to credit from formal and informal sector are expected to grow. A value of one (1) was given to affirm that had access to credit and zero (0) to a firm that never had access to credit

Age of the firm: Firm age is defined as the absolute number of years of existence since the start up. Older firms grow faster than the younger ones because of the experience over the years. Thus there prevail a positive relationship between the enterprise growth and its age.

Size of the firm: It is the total sales value at the time of the study. It is expected to have a positive relation with growth of the SMEs. This is because the more the sales output the more the production of the good, and hence growth in SMEs.

Model Specification

A Statistical model was specified here to examine the impact of bank loan on the profitability of SMEs in Bauchi state. It is a multiple regression model where the profit of the firm is made the dependent variable with a host of independent variables. Among the independent variables are; asset, commercial bank loan, and age of the firm. Thus we have; the multiple regression model of the form;

SMEP=f (CBL, SIZE, AGE)

Model 1

$ROA = \beta0 + \beta1\ BL + \beta2\ SIZE + \beta3\ AGE + e$

Model 2

$ROI = \beta0 + \beta1\ BL + \beta2\ SIZE + \beta3\ AGE + e$

Where SMEP=Small and medium enterprises profitability

BL = Bank Loan

SIZE =Size of firms

AGE =Age of the firms

e =the error term

i =1….n, where n is the number of firms

$\beta1$, $\beta2$, $\beta3$ = are multiple regression coefficients.

The expected signs $\beta1>0$, $\beta2>0$ and $\beta3>0$

RESULT AND DISCUSSIONS

The model has the following results

R2 = 0.010

F statistics = 1.435

No of observation = 485

From the findings, there is negative relationship between Bank Loan (BL) and Return on Asset (ROA), the coefficient of BL is -1.070 which implies that a unit change in BL will change ROA by -1.070.

Moreover, there is positive relationship between Size of firm (SIZE) and Return on Asset (ROA), the coefficient of SIZE is 4.224 which imply that a unit change in size of firms will change in ROA by 4.224.

Similarly, the result shows a positive relationship between the Age of firms and the Return on Asset. The coefficient of AGE is 0.027; this implies that a unit change in Age in firms will change in Return on Asset by 0.027.

The coefficient of determination R2 is 0.010 which is very weak and undesirable. This implies that the variation in the whole independent variable on the dependent variable in the model is weak and the model did not fit the data well.

The p-value of all the variables is greater than the critical value. We hereby conclude that the variables are not statistically significant.

The F-statistics is greater than the critical value 0.05 and we therefore conclude that the variable jointly cannot influence the dependent variable

Table-4.1: Regression Model 1Coefficient

Model	Unstandardized Coefficient		Standardized Coefficient	Significant
	Beta	Std err	Beta	
Constant	1.440	.130		.000
BL	-1.070E	.000	-.052	.399
Size	4.224E	.000	.045	.477
Age	.027	.020	.072	.171

Dependent Source

THE CORRELATION ANALYSIS: MODEL 1

Correlation Analysis

Correlation coefficients for the variables

The Pearson Correlation was computed for Return on Asset, Bank Loan, Size of Firms and Age of the firms data series resulting in a correlation coefficient of 0.01, -0.035, 0.007and 0.128 respectively at the 0.001 (2- tailed) significance level From the table below, it's evident that ROA has a strong negative correlation with Bank Loan (BL) evidenced by the negative value of -0.035, and positive correlation with SIZE and AGE evidenced by the positive value of 0.07 and 0.128. BL has a strong correlation with SIZE, and negative correlation with AGE and ROA. This implies that an increase in Bank Loan impacts positively on return on asset increases the size of firms and also increases with a fall in Age.

Using the results of the correlation analysis, the link between Return on Asset and all the included variables can then be described in linear form as:-

$$ROAi = \alpha - 0.035BLi + 0.007SIZEi + 0.128\ AGEi + \varepsilon i$$

Table-4.2: Correlation Model 1

		ROA	BL	SIZE	AGE
ROA	Pearson Correlation	1	-.035	.007	.128**
	Significant		.464	.879	.005
BL	Pearson Correlation	-.035	1	.568**	-.121*
	Significant	.464		.000	.011
SIZE	Pearson Correlation	.007	.586**	1	.229**
	Significant	.879	.000		.000
AGE	Pearson Correlation	.128**	-.121*	.229**	1
	Significant	.005	.011	.000	

**Correlation is significant at the 0.01level (2-tailed)

*Correlation is significant at the 0.05level (2-tailed)

THE REGRESSION ANALYSIS: Regression MODEL

The model has the following results

R2 = 0.166

F statistics = 28.686

No of observations = 485

From the findings of the result above, there is negative relationship between Bank Loan (BL) and Return on Investment (ROI), the coefficient of BL is -3.821 which implies that a unit change in BL will change ROI by -3.821.

Moreover, there is also a negative relationship between Size of firm (SIZE) and Return on Investment (ROI), the coefficient of SIZE is -1.150 which implies that a unit change in size of firms will change in ROI by -1.150.

Similarly, the result shows a negative relationship between the Age of firms and the Return on Investment. The coefficient of AGE is -0.175; this implies that a unit change in Age in firms will change in Return on Investment by -0.1.75.

The coefficient of determination R2 is 0.166 which is very weak and undesirable. This implies that only 16% of the variation in the dependent variable is explain by the whole independent variables in the model which is very weak and the model did not fit the data well.

The p-value of all the variables is greater than the critical value. We hereby conclude that the variables are not statistically significant with the exception of Size which its p-value is less than the critical value.

The F-statistics is greater than the critical value 0.05 and we therefore conclude that the variable jointly cannot influence the dependent variable.

Table-4.3: Regression Model 2 Coefficient

Model	Unstandardized Coefficient		Standardized Coefficient	Significant
	Beta	Std err	Beta	
Constant	10.264	.445		.000
BL	-3.821E-	.000	-.050	.378
Size	-1.10E-	.000	-.331	.000
Age	-.175	.067	-.126	.010

Dependent Variable: ROI

Correlations Analysis: Model 2

Correlation coefficients for the variables

The Pearson Correlation was computed for Return on Investment, Bank Loan, Size of Firms and Age of the firm's data series resulting in a correlation coefficient of 1.00, -0.222, -0.355 and -0.098 respectively at the 0.001 (2- tailed) significance level from the table above, it's evident that ROI has a strong negative correlation with Bank Loan (BL) evidenced by the negative value of -0. 222, and also negative correlation with SIZE and AGE evidenced by the negative value of -0.355 and -0.098. BL has a negative correlation with SIZE, and negatively correlated with AGE and ROI. This implies that a decrease in Bank Loan impacts negatively on return on Investment, thereby decreasing the size of firms and also decreases with a fall in Age.

Using the results of the correlation analysis, the link between Return on Investment and all the included variables can then be described in linear form as: -

$$ROIi = \alpha - 0.222BLi - 0.355\ SIZEi - 0.098\ AGEi + \varepsilon i$$

Table-4.4: Correlation Model 2 Correlation

		ROI	BL	SIZE	AGE
ROI	Pearson Correlation	1	-.222**	-.355**	-.098*
	Significant		.000	.000	.030
BL	Pearson Correlation	-.222**	1	.568**	-.121*
	Significant	.000		.000	.011
SIZE	Pearson Correlation	-.355**	.568**	1	.229**
	Significant	.000	.000		.000
AGE	Pearson Correlation	-.098*	-.121*	.229**	1
	Significant	.030	.011	.000	

**Correlation is significant at the 0.01level (2-tailed)

*Correlation is significant at the 0,05level (2-tailed)

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