




ANALYSIS OF ENVIRONMENTAL FACTORS AFFECTING MANUFACTURING SMALL AND MEDIUM-SIZE ENTERPRISES IN KOGI STATE NIGERIA

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ABSTRACT

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This study analyzed the environmental factors affecting manufacturing SMEs in Kogi State, Nigeria. The target is to investigate the effects of internal factors as they affect the profitability of manufacturing SMEs in Kogi State. The survey research design was adopted for the study; covered 171 SME owners in Kogi State. The clusters of SMEs were located and utilized for this study. Data were analyzed using descriptive statistics, principal component factor analysis, and binary logit regression. Findings show that business strategy has a significant negative relationship with the profitability of SMEs in Kogi State. Operational strength and debt leveraging significantly and positively relate to the profitability of SMEs in Kogi State. These factors play critical roles in the sustainability of the profitability of manufacturing SMEs in Kogi State. The study recommended that manufacturing SME owners should seek knowledge and skill to crafting and adopting an effective business strategy, boost their operational strength and manage their debt leveraging distinctively to sustain their profitability in the competitive business environment of Kogi State.

Contribution/Originality: This study contributes to the existing literature on the environmental factors affecting Manufacturing SMEs. The study uses new methods of principal component analysis and binary logit regression to analyze the environmental factors affecting manufacturing SMEs in Kogi State, Nigeria.

1. INTRODUCTION

Recently, the dominion of Small and Medium-scale Enterprises (Manufacturing SMEs) in all aspects of the Kogi State's economy can never be over-emphasized. Importantly, the annual increase in their numbers has been observed to be transformative upon the progress of the economy. Essien (2014) opined that "their increasing number is due to the fact that they require less capital, less labor, low technological knowledge and a little managerial ability for their establishment". Notably, the economic progress abrupt by Manufacturing SMEs appears to be the reason why the political phase of Kogi State has not collapse the economy. Many Manufacturing SMEs have been affected by political undertone that they have either witnessed entropy or folded up few years after start-up. It is observed that some other Manufacturing SMEs have witnessed entropy or folded up in the past as a result of frustration by many other environmental forces apart from political force.

It is uncontroversial that Manufacturing SMEs do not exist in a vacuum. There must be forces around the operations of Manufacturing SMEs which rather facilitate or frustrate its objectives. It is good to know that

opportunities are open to SME owners who take cognizance of the business environment, and those who do not may have their venture threatened. The opportunities posed by the business environment are also beneficial to Kogi State economy. According to [Essmui et al. \(2014\)](#) good business environment will make the state an attractive business place for foreign investment and a place in which domestic entrepreneurs of all sizes and across industries are willing to invest. They added that domestic and foreign investors invest where they find profitable opportunities, and try to avoid risks. Following this understanding, [Braşoveanu and Bălu \(2014\)](#) argued that business environment influences the business's operations and performance, in general, and Manufacturing SMEs, in particular. Meanwhile, Manufacturing SMEs are going concern by the nature of their legal person which is much dependent on performance. This puts performance as one of the central issues of Manufacturing SMEs ([Anthony and Entebang, 2015](#)).

The business environment of Kogi State is not defrayed of threatening factors which affect the performance of Manufacturing SMEs in all industries. These environmental factors are classified into internal enterprise factors (quality of labor force, low managerial skill, decreasing customers, untrustworthy suppliers, low working capital, constant machine breakdown and so on) and external enterprise factors (tough competition, lack of accessibility to fund, unfavorable government policies and so on). [Kebede and Simesh \(2015\)](#) opined that "the internal environmental factors affecting the performance of SMEs include business entity size, owner-manager competencies, commitment, resource, strategic choice, organizational feature, types/importance of the goals". On the general view, [Essien \(2014\)](#) identified the threatening factors that the country is currently facing as high level of insecurity, poor infrastructure, harsh governmental regulatory policies, low markets for products, high costs of products, scarcity of raw materials, unfriendly banking policies, corruption, and high competition. Though other factors are in no doubt attached to the limitations of Manufacturing SMEs in Kogi State, the government policies and regulatory framework (which includes registration requirements, licensing requirements, commercial legal framework) appear to be too worrisome. SME owners are pressurized to comply with certain obligations which they found unsatisfactory and de-facilitating the performance of their business enterprise. In fact, many SME owners do not trust the regulatory agencies in Kogi State due to perceived sharp practices. Attention has not been given to business environmental regulation in the Kogi State economy as having cause-effect on the SME sub-sector. [Frontier Economics \(2012\)](#) reported that regulations have a positive impact on the objectives of Manufacturing SMEs by removing certain market failures and improving economic efficiency; and also have a negative impact by creating substantial compliance costs, undesirable market distortions or unintended consequences. However, the business environment of Kogi State is problematic and requires research attention, but it is worthy of note to conduct research to ascertain the internal environment of SMEs in the state.

1.1. Statement of Problems

Recently, it is observed that the business environment of Kogi State has witnessed a tremendous change. [Adeoye \(2012\)](#) reported that environmental changes are continuously exerting new pressures on companies' performance. These changes appear to have been stimulated by competition, technology adoption, government policies and economic recession. These are Manufacturing SMEs' *external environmental factors* and they are believed to be affecting Manufacturing SMEs to a reasonable extent. Though, there are other factors around the operational environment of Manufacturing SMEs in Kogi State. [Obasan \(2014\)](#) identifies these operational base factors as mission, resistance to change, poor quality staff, and lapses in internal control, bad resource/financial management, operational strength, high staff turnover and leveraging.

The issue around business performance has been empirically investigated using business strategy ([Mazdeh et al., 2011](#); [Adeoye, 2012](#); [Alabi et al., 2016](#)) promotion, labour force and bribery ([Dut, 2015](#)) under-utilization of resources ([Alabi et al., 2016](#)) and firm structure ([Chang et al., 2011](#)) as internal environment factors (independent variables). These studies among others have proven that internal factors have strong effect on business performance

of firms. The most advantageous of these research outcomes is in its descriptive nature, which informs business owners of the control tendency of the internal factors. The ability of SME owner/managers to control these factors appears to be dependent on their knowledge, skill and capacity. These are however of little focus to this study. External environmental factors (tough competition, unfavourable government policies, pressure from regulatory agencies, low financial support and power fluctuation) seem to be threatening Manufacturing SMEs in Kogi State. The study conducted by Nurudeen *et al.* (2018) confirmed that power fluctuation specifically affect the performance of SMEs in Kogi State. Also, Alabi *et al.* (2016) found that the dwindling performance of SMEs is also as a result of irregular power supply.

In their study, de Jong *et al.* (2011) ascertained the effect of complexity, dynamism and munificence as attributes of external environment. Finding of the study conducted by Obasan (2014) shows that the impact of external environmental factors on business performance towards profit objective has increasingly stronger interrelationships which require more sophisticated business strategies.

Though, the economic recession coupled with non-payment of salaries, socio-cultural and technological factor seem to be hitting hard on the survival of Manufacturing SMEs, but government policy (taxes) and regulatory agencies appears to be the prime external environmental factors impeding business performance in Kogi State. Ibrahim and Murital (2015) expressed that government policies can be on taxation, subsidies, interest rates and exchange rates. The International Labour Organization (2005) assesses the business environment for small enterprises considering policy, legal and regulatory framework. This is because the critical factors are believed to be associative with Manufacturing SMEs' success or failure. For instance, unfavorable government policy (taxes) and regulatory framework are observed to have been affecting the performance of Manufacturing SMEs (in terms of profitability, productivity and innovation). Studies on the effects of internal business environment on the profitability of Manufacturing SMEs in Kogi State are observed absent. Review of previous empirical studies has provided a ground for study on Kogi State as a result of the research gap that exists in the area. This study thus sought to explore this gap.

1.2. Objectives of the Study

The major objective of the study was to analyze environmental factors affecting manufacturing SMEs in Kogi State. The specific objectives were:

- i. To identify and describe both internal and external environmental factors affecting manufacturing SMEs in Kogi State.
- ii. To investigate the effects of internal factors on the profitability of manufacturing SMEs in Kogi State.

2. REVIEW OF LITERATURE

SMEs are found in manufacturing, service, agricultural and food/beverage industries in Kogi State. Majority of SMEs in Kogi State is observed to be in service and food/beverage processing and manufacturing industries, and they vary in start-up capital, assets and size/quality of employees. Essien (2014) expressed that small scale industry means industry with a total capital not less than N1.5million and not more than N50 million including working capital but excluding the cost of land and workforce of between 1-100 workers. The interest of this study is the Manufacturing SMEs. Manufacturing SMEs operate in the business environment of Kogi State which needs to be diagnosed. Essien (2014) believed that the diagnosis is very much important "because the operating environment offers opportunities as well as threats to the business organizations". The Figure 2.1 shows the nature of the Kogi State business environment. It shows that internal environment is connected with Manufacturing SMEs' strength and weakness; and the external environment shows opportunities and threat. The ability of SME owner to possess sufficient resources is an indication of strength. Meanwhile, the utilization of such resources is backed up with SME's core competence (which has to do with the conversion of the resources in a distinct manner). Where this

utilization capacity is evident, the external environment is said to have posed the SME with opportunities. On the other hand, weakness of Manufacturing SMEs is an indication that available resources are not sufficient enough to utilize opportunities posed by the external environment. Logically, it is reasonable enough to uphold that the weakness of one SME is projected by the strength of another. Thus, the ability of one SME to provide sufficient resources and utilize them causes threat to the other weak Manufacturing SMEs.

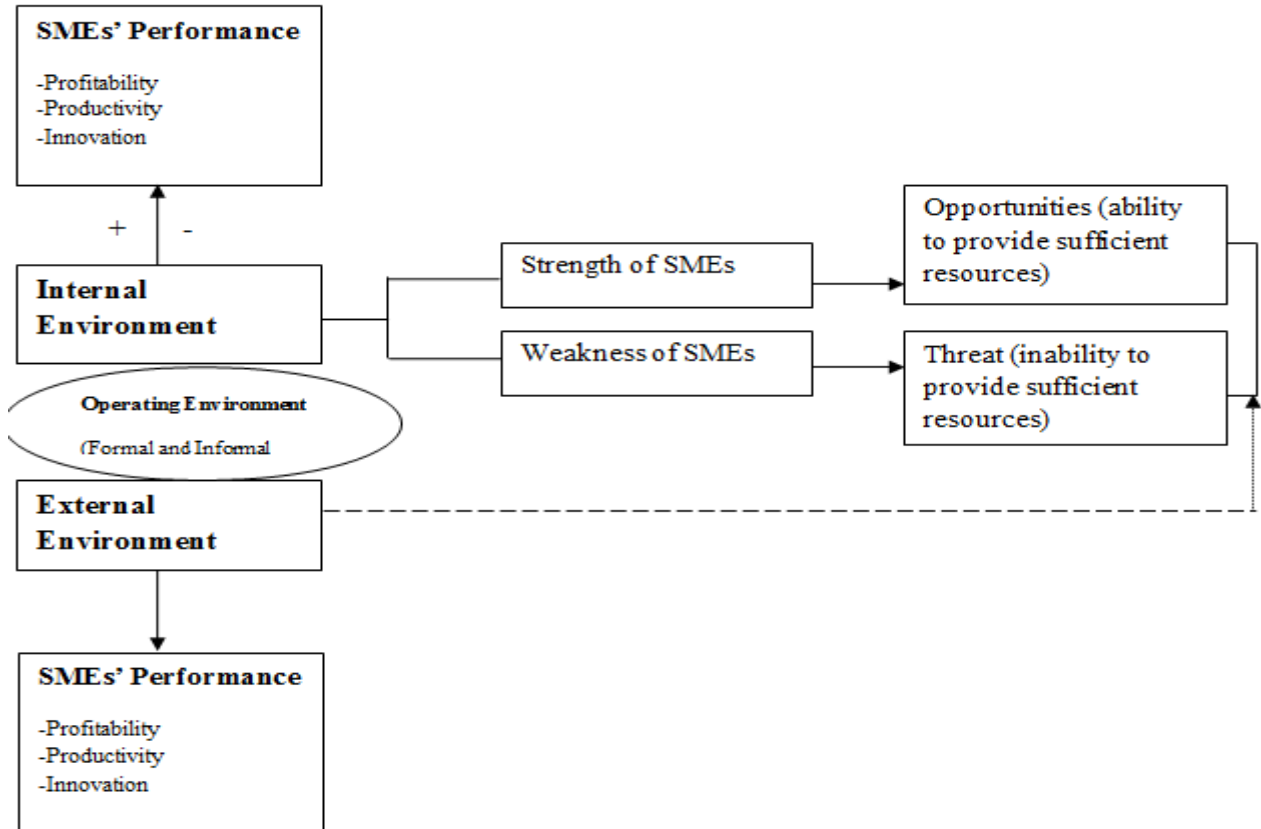


Figure-2.1. The Business Environment of Kogi State.

Source: Adopted from Chang *et al.* (2011); Rochaa (2012); Adeoye (2012); Obasan (2014); Essien (2014); Dut (2015).

However, business environment includes all favorable and unfavorable forces which have direct or indirect link with the operations of Manufacturing SMEs in Kogi State. Braşoveanu and Bălu (2014) see “the business environment of a country as represented by all the legal, administrative, moral, ethical rules and values that create the establishment and operational framework of firms”. Ukeje (2003) took business environment to include all those factors within and outside that affect an industry’s operations, and include customers, competitors, stakeholders, suppliers, industry trends, regulations, other government activities, social and economic factors and technological developments. Drawing from his view, it is seen that the business environment of Kogi State is a complete system with each subsystems interconnecting and interacting. This implies that Manufacturing SMEs operate within the confinement of internal and external forces. Essien (2014) posited that “every business operates in an environment and is always in a constant state of interaction with the internal and external forces”. Ghani *et al.* (2010) investigated the critical internal and external factors of business environment in Malaysia, and found that government intervention is critical to the utilization of opportunities presented by external factors, and the threats are represented by bureaucratic procedures that Manufacturing SMEs must face to obtain various approvals and certifications.

In this study, performance is taken as scorecard for predetermined objectives. In another view, Anthony and Entebang (2015) uphold that it is characterized by the firm’s ability to create acceptable outcomes and actions. Studies are yet to have consensus research outcomes on the effect of business environment and performance. The

two categories of empirical evidences provided by researches have pointed out that the elements of business environment (internal or external) are unique and peculiar in countries or regions around the globe. For instance, studies (Chittithaworn *et al.*, 2011; Ng and Kee, 2012; Tu, 2012; Neneh and Vanzyl, 2014) reported that local business environment significantly and positively affect business performance of firms. Other studies (such as De Jong *et al.* (2012)) provided empirical evidence which refuted this finding. It appears that the efficiency of Manufacturing SMEs in the business environment of Kogi State is masterminded by the degree of threats posed and the ability of owners/managers to overcome the threat. To support this, Braşoveanu and Bălu (2014) argued that efficiency difference between formal and informal firms is, mainly, the result of an unattractive business environment, more than a poor management. Nevertheless, Figure 2.1 shows that both the internal and external environment in which Manufacturing SMEs operate affect performance (profitability, productivity and innovation) positively or negatively.

3. METHODOLOGY

Survey research design was adopted for this study. The rationale behind the research design is backed up with the fact that necessary data relating to environmental factors affecting manufacturing SMEs are required for scientific verification and generalization. The study only focused on manufacturing SMEs in Kogi State. 250 SME owners were purposively sampled in Kogi State; only 171 SME owners were later recognized as the respondents of the study. This is due to the numbers of questionnaires returned and used for analysis. Kogi State is divided into three senatorial districts namely the East, West and Central. The clusters of SMEs were located and utilized for this study. Three research assistants were employed and trained to administer the designed questionnaires for the period of eight weeks. The questionnaires used were close-ended but well structured.

Content validity was quite necessary for the multi-dimensional factors of the business environment of Kogi State. To ascertain the measurement of variables in this study, "items for the study need to be drawn from several sources". Thus, the review of previous empirical studies informs the choice of appropriate variables/constructs which were validated by professionals from the field of management. This led to the well-established structure of the instrument. Test-rest approach was also applied to perfect the validity of the instrument. For analysis, descriptive statistics, principal component analysis and binary logit regression were used.

4. RESULTS AND DISCUSSION

The collected data were analyzed for proves and scientific backings. Demographic characteristics of respondents were analyzed with simple percentage; internal and external factors were analyzed using descriptive statistics and principal component. The effects of internal environmental factors were analyzed using binary logit regression. The tables as follows show the results of the data analyzed.

Table 1 shows the age range of respondents. It is observed that 37 respondents (21.6%) were within 15 to 25 years; 35 respondents (20.5%) were within 26 to 36 years; 53 respondents (31.0%) were within 37 to 47 years; 25 respondents (14.6%) were within 48 to 58 years; and 21 respondents (12.3%) were 59 years and above. The effect of this is that majority of respondents in the study area were 39 years based on the calculated mean score. Table 1 shows the sex of respondents. It is observed from the table above that 101 respondents (59.1%) were male; and 70 respondents (40.9%) were female. This shows that the majority of respondents in the study area were male.

Table 1 shows the marital status of respondents. It shows that 37 respondents (21.9%) were single; 62 respondents (36.3%) were married; 47 respondents (27.5%) were divorce; and 25 respondents (14.6%) were widow(er). This results depict that majority of respondents in the study area were married. Table 1 shows the qualification of respondents. It is observed that 31 respondents (18.1%) were holder of Primary School Living Certificate; 55 respondents (32.2%) were holder of Secondary School Certificate; 44 respondents (25.7%) were holder of Diploma Certificate or its equivalence; 27 respondents (15.8%) were holders of Bachelor of Science or

Higher National Diploma certificate; and 14 respondents (8.2%) were holders of master degree certificate and above. The implication of this is that majority of respondents in the study area were holder of Secondary School Certificate.

Table 1 shows the business existence of respondents. It is perceived that 38 respondents (22.2%) were within 0 to 5 years; 57 respondents (33.3%) were within 5 to 10 years; 36 respondents (21.1%) were within 10 to 15 years; 26 respondents (15.2%) were within 15 to 20 years; and 14 respondents (8.2%) were 20 years and above. The mean score depicts that majority of the respondents in the study area had 10 years of business existence.

Table-1. Demographic Characteristics of Respondents.

Demographic Factors	Frequency	Percent	Mean Score/Mode
Age range			
15 to 25 years	37	21.6	
26 to 36 years	35	20.5	
37 to 47 years	53	31.0	39.30
48 to 58 years	25	14.6	
59 years and above	21	12.3	
Total	171	100.0	
Sex			
Male	101	59.1	101
Female	70	40.9	
Total	171	100.0	
Marital status			
Single	37	21.6	
Married	62	36.3	62
Divorce	47	27.5	
widow(er)	25	14.6	
Total	171	100.0	
Educational qualification			
PSLC	31	18.1	
SSCE	55	32.2	55
OND/NCE	44	25.7	
HND/B.Sc	27	15.8	
M.Sc and above	14	8.2	
Total	171	100.0	
Business existence			
0 to 5 years	38	22.2	
5 to 10 years	57	33.3	10.19
10 to 15 years	36	21.1	
15 to 20 years	26	15.2	
20 years and above	14	8.2	
Total	171	100.0	

Source: Field Survey, 2019.

Table-2a. Descriptive Statistics of Internal Factors.

Internal Factors	Mean	Std. Deviation ^a	Analysis N ^a
Business Structure	3.3684	1.17771	171
Business Strategy	3.4503	1.19392	171
Labour Force Efficiency	3.5205	3.26179	171
Mission	3.4152	1.24504	171
Resistance to Change	3.4620	1.21873	171
Poor Quality Staff	3.3450	1.16479	171
Financial Management	3.3041	1.21797	171
Operational Strength	3.4211	1.15220	171
High Staff Turnover	3.5673	1.20776	171
Leveraging	3.7836	1.25322	171

Source: Field Survey (2019).

Table 2a shows the mean scores of internal force affecting performance in Kogi State. The 'N' denotes the total number of data entered into the distribution; mean shows the average of the data in the distribution; and standard deviation denotes the spread of data around the mean.

Table 2a shows business structure (mean= 3.3684; standard deviation= 1.17771), business strategy (mean= 3.4503; standard deviation= 1.19392), labour force efficiency (mean= 3.5205; standard deviation= 3.26179), mission (mean= 3.4152; standard deviation= 1.24504), Resistance to change (mean= 3.4620; standard deviation= 1.21873), poor quality staff (mean= 3.3450; standard deviation= 1.16479), financial management (mean= 3.3041; standard deviation= 1.21797), operational strength (mean= 3.4211; standard deviation= 1.15220), high staff turnover (mean= 3.5673; standard deviation= 1.20776), and leveraging (mean= 3.7836; standard deviation= 1.25322) are internal factors affecting performance. Logically, leveraging and high staff turnover appear to be the strongest internal factors affecting manufacturing SMEs in Kogi State.

Table-2b. KMO and Bartlett's Test.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.857
Bartlett's Test of Sphericity	Approx. Chi-Square	576.454
	Df	45
	Sig.	.000

Source: Field Survey (2019).

In Table 2b, the 'KMO sampling adequacy index' (0.857) shows that the data are not accidental, and fit in for the 'Principal Component Analysis' (PCA). The KMO value is closer to 1, indicating that the factor analysis yield distinct and reliable factors. Odunlami (2013) stated that "values between 0.7 and 0.8 are good values above 0.9 are superb" (p.49).

The p-value of the Bartlett test is 0.01. Bartlett test shows a very significant result. That is the 'associated probability' is below 0.05 (Odunlami, 2013). The simple implication of Bartlett's Test of Sphericity ($p < 0.01$) is that the correlation matrix significantly varies from identity matrix (that in which correlations among variables equal zero).

Table-2c. Total Variance Explained.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.388	43.876	43.876	4.388	43.876	43.876
2	1.055	10.549	54.424	1.055	10.549	54.424
3	.937	9.373	63.798			
4	.734	7.339	71.137			
5	.683	6.829	77.966			
6	.575	5.752	83.719			
7	.550	5.504	89.223			
8	.435	4.348	93.571			
9	.326	3.261	96.831			
10	.317	3.169	100.000			

Extraction Method: Principal Component Analysis.

Source: Field Survey (2019).

In Table 2c, the 'total column' reveals how much the variance of every component reports for in the original factors. The percentage of the 'variance column' provides the ratio, calculated as a percentage, to the 'total variance' in all different factors of the variability taken into account for each component. The 'column cumulative percentage' provides the percentage of variance that the first components account for.

Table 2c reveals that the eigenvalue value of the first factor is 4.388 and the second is 1.055 respectively. Apparently, the values are larger than 1 and they also indicate more variances. The percentage of the variances

explained is 54.424. Other factors varying from 3 to 10 include values of origin of less than 1. They describe very little variances, consequently. In certain words, it is feasible to account for 54.424 percent of the prevalent variances taken up by the 10 factors

Table-3a. Descriptive Statistics of External Factors.

External Factors	Mean	Std. Deviation	Analysis N
Unfavourable Government Policy	3.2164	1.22952	171
Competition	3.2456	1.22639	171
Technology Adoption	3.3392	1.35977	171
Government Support	3.1053	1.26980	171
Economic Recession	3.2515	1.18368	171
Pressure From Regulatory Agencies	3.3275	1.12632	171
Low Financial Support	3.1111	1.32152	171
Power Fluctuation	3.0877	1.40939	171

Source: Field Survey, 2019.

The Table 3a shows that unfavourable government policy (mean= 3.2164; standard deviation= 1.22952), competition (mean= 3.2456; standard deviation= 1.22639), technology adoption (mean= 3.3392; standard deviation= 1.35977), government support (mean= 3.1053; standard deviation= 1.26980), economic recession (mean= 3.2515; standard deviation= 1.18368), pressure from regulatory agencies (mean= 3.3275; standard deviation= 1.12632), low financial support (mean= 3.1111; standard deviation= 1.32152), power fluctuation (mean=3.0877; standard deviation= 1.40939) are external factors affecting SMEs. All these factors appear to very strong. They are evidently placing barriers before manufacturing SMEs in Kogi State. The results depict that technology adoption appears to be the strongest external factor affecting manufacturing SMEs in Kogi State. This may imply that lack of financial and know-how have caused low technology utilization and adoption by SME owners in Kogi State.

Table-3b. KMO and Bartlett's Test.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.779
Bartlett's Test of Sphericity	Approx. Chi-Square	490.998
	Df	28
	Sig.	.000

Source: Field Survey (2019).

The 'KMO sampling adequacy index' (0.779) in Table 3b shows that the data are not accidental, and fit in for the 'Principal Component Analysis' (PCA). The KMO value is closer to 1, indicating that the factor analysis yield distinct and reliable factors. The p-value of the Bartlett test is 0.01. Bartlett test shows a very significant result. The simple implication of Bartlett's Test of Sphericity ($p < 0.01$) is that the correlation matrix significantly varies from identity matrix (that in which correlations among variables equal zero).

Table-3c. Total Variance Explained.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.736	46.698	46.698	3.736	46.698	46.698
2	1.142	14.281	60.979	1.142	14.281	60.979
3	.803	10.034	71.013			
4	.716	8.946	79.959			
5	.572	7.149	87.108			
6	.430	5.380	92.487			
7	.360	4.494	96.982			
8	.241	3.018	100.000			

Extraction Method: Principal Component Analysis.

Source: Field Survey (2019).

Table 3c reveals that the eigenvalue value of the first factor is 3.736 and the second is 1.142. Obviously, the values are greater than 1 and indicate more variances. The percentage of the variances explained is 60.979. Other factors varying from 3 to 8 include values of origin of less than 1. They describe very little variances, consequently. In another words, it is possible to account for 60.979 percent of the prevalent variances taken up by the 8 factors.

Table-4. Logit Regression on the effects of internal factors on profitability of SMEs.

Variables	Coefficients	Standard Error	P> z
Business Structure	.126	.148	.491
Business Strategy	-.186	.096	.006*
Labour Force Efficiency	.122	.079	.099
Mission	.127	.106	.234
Resistance to Change	.155	.092	.093
Poor Quality Staff	-.030	.131	.819
Financial Management	.096	.103	.355
Operational Strength	.582	.154	.000*
High Staff Turnover	-.115	.128	.370
Leveraging	.229	.102	.002*

Source: Field Survey (2019).

Number of Obs	=	171
LR chi2	=	713.370
Prob > chi2	=	0.000
Pseudo R2	=	0.766

Based on the result on Table 4, the coefficient of determination (LR) of 391.667 and adjusted (Pr) 0.000 shows that the totality of the changes encountered by SMEs in their profitability was explained by the factors in the model. The table explicitly reveals the coefficient of factors (business structure, business strategy, labour force efficiency, mission, resistance to change, poor quality staff, financial management, operational strength, high staff turnover and leveraging) affecting the profitability of SMEs in Kogi State. The result in the Table 4 shows that business strategy ($\beta = -0.186$; $p = 0.01$), poor quality staff ($\beta = -0.030$; $p > 0.05$) and high staff turnover ($\beta = -0.115$; $p > 0.05$) negatively relates with the profitability of SMEs in Kogi State. The results prove that only business strategy significantly and negatively affect the profitability of SMEs in Kogi State. Poor quality staff and high staff turnover do not have significant effects on the profitability of SMEs in Kogi State. The fact is that business strategy still remains a problem to many of SMEs in Kogi State. The adoption of business strategy seems to be costly. SME owners tend to secure more profit when effort towards the crafting and adoption of business strategy is less. In their study, Ogbadu *et al.* (2017) argued that this business outcome is propelled by 'consciously or unconsciously adopted strategic approach'.

Business structure ($\beta = 0.126$; $p > 0.05$), labour force efficiency ($\beta = 0.122$; $p > 0.05$), mission ($\beta = 0.127$; $p > 0.05$), resistance to change ($\beta = 0.155$; $p > 0.05$), financial management ($\beta = 0.096$; $p > 0.05$), operational strength ($\beta = 0.582$; $p = 0.01$) and leveraging ($\beta = 0.229$; $p = 0.01$) have positive effect on the profitability of SMEs. However, the result only shows that operational strength and leveraging have significant effects on the profitability of SMEs in Kogi State. This implies that SME owners have better operational strength which has often channeled their entrepreneurial activities in a cost effective and profitable manner. Also, leveraging on the part of SME owner in terms of incurring debt is kept minimal and manageable. This supports the finding of Obasan (2014) that over-leveraging is a critical factor affecting the performance of SMEs. Minimal and manageable leveraging has led to the achievement of increasing profitability by SMEs in Kogi State.

5. CONCLUSION

Manufacturing SMEs are in no doubt faced with internal and external business environmental factors in Kogi State. The internal environment may constitute constraint to the Manufacturing SMEs when embedded factors seem not efficaciously matching the forces of the external business environment. Factors such as business structure,

business strategy, labour force efficiency, mission, resistance to change, poor quality staff, financial management, operational strength, high staff turnover and leveraging are critical internal factors affecting Manufacturing SMEs in Kogi State. Leveraging and high staff turnover are the strongest internal factors affecting Manufacturing SMEs in Kogi State based on their provided variances in the analysis. Factors such as unfavourable government policy, competition, technology adoption, government support, economic recession, pressure from regulatory agencies, low financial support and power fluctuation are strong external factors affecting SMEs, but technology adoption seems to be problematic.

Based on the analysis of the internal factors, business structure, labour force efficiency, mission, resistance to change, poor quality staff, financial management and high staff turnover do not significantly affect the profitability of Manufacturing SMEs in Kogi State. Only business strategy, operational strength and leveraging have significant effects on the profitability of SMEs in Kogi State. Business strategy significantly and negatively relates with the profitability of Manufacturing SMEs in Kogi State as a result of unconscious practice of owners in the competitive business environment. Operational strength significantly and positively relates with the profitability of Manufacturing SMEs in Kogi State because it favourably matched with some or few of the external environmental forces. Also, leveraging significantly and positively relates with the profitability of SMEs in Kogi State because it is kept minimal and managed by owners to a reasonable extent. These factors play critical roles in the sustainability of the profitability of manufacturing SMEs in Kogi State.

6. RECOMMENDATIONS

The study recommends that:

- i. Manufacturing SME owners should distinctively manage their debt leveraging, staff turnover and technology adoption. They constitute critical internal and external factors for the Manufacturing SMEs in Kogi State.
- ii. Manufacturing SME owners should seek the knowledge and skill to crafting and adopting effective business strategy such that the sustainability of their increased profitability can be enhanced in the competitive business environment. Operational strength should be protected or rather muscled against external forces, and debt leveraging should be managed distinctively by SME owners. These will keep profitability of SMEs in Kogi State sustainable.

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