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## STATISTICAL ANALYSIS OF THE ROLE OF SELECTED INSTITUTIONS IN SMALL AND MEDIUM ENTERPRISES (SMEs) GROWTH IN NIGERIA

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## ABSTRACT

This study examines the statistical analysis of the role of some selected institutions in small and medium enterprises (SMEs) growth in Nigeria. The broad objective of this study is to statistically examine the role of institutional environments in the growth of SMEs in Nigeria. In the study, the conceptual, theoretical and empirical literatures are articulated. This study uses secondary data, sourced from United Nations Development Program (UNDP), Global Entrepreneurship Monitor Data base, Institutional Governance Indicators data base in World Bank and Corporate Affairs Commission, (CAC) Abuja Nigeria. The period of the study spans 21 years from 1996 to 2016. The period is long enough to cater for the loss of degree of freedom. The study uses the period because data on institutional governance indicators are readily available for the period under consideration. The method of data analysis is strictly on descriptive statistics for variables. This analysis is carried out using econometric software (E-view 8.0) version. The study concludes that except for POLINEV, the NORMIEV, REGUINEV, LEGALIEV and CGNNIEV have not successfully used their role in impressively influencing the SMEs in Nigeria. The study recommends that government officials should be sincere enough to address the mentions problems so as to improve the lots of SMEs in Nigeria.

Keywords: Statistical analysis, selected institutions, small and medium enterprises, growth.

## INTRODUCTION

In our modern world, small and medium enterprises (SMEs) have persistently contributed considerably to the growth levels of most economies around the globe. Thus the operations as well as the importance of small and medium enterprises (SMEs) have reached public prominence. Small and medium enterprises (SMEs) among other things have continued to create much wealth, closing inequality gap, generating employment opportunities in a scale ever imaged, reviving idle local resources, by dragging them into the production processes and adding to the productive capacities of most world economies. (Jegede & Akinwale, 2013;). On the other hand, Institutional Environment is the set of

fundamental, political, regulatory, social and legal ground rules that establish the basis for production, trade, exchange, distribution and human interaction (North, 1990).

On this note, the World Bank (2015) stressed that building strong institutions is not only important to minimizing business failures but also to avoid economic depression. Previous studies on institutional environment posit that institutional environment explains cross-country differences in growth and business development as countries with better institutions have higher levels and rates of growth than countries with poor institutional environments. They have argued that strong institutional environment creates incentive for investments (North, 2005), platform for innovation mobilization of resources for new venture creation (Seawright, 2010) and reduction in transaction costs, and risk which are critical behavours for entrepreneurship development. In response to this, Nigeria has made several polices over the years to strengthen its institutional environment and governance capacities. She has strengthened the rules, laws, codes, policies and their connectivity with broader institutional environment. But the extent to which the policies have affected the development of SMEs is yet to gain much empirical attention in Nigeria. It is based on this background that this study examines the impact of institutional environment on small and medium enterprises in Nigeria.

The content scope of this study is the role of some selected institutions in the growth of small and medium enterprises in Nigeria. Specifically, institutional environment is delimited to quality of normative, political, regulatory, legal, and cognitive institutions in Nigeria. The time frame of the investigation covers the period of 1996 to 2016. We have chosen this period because the data on the dimensions of institutional environments and number of registered SMEs employments in Nigeria were readily available. The geographical scope of this study is Nigeria though the findings of the study will have far reaching implications for other countries in sub-Sahara Africa since they have similar institutional characteristics. The time frame of 1996 to 2016 also represent the mixed period when the country transits from Military rule to unbroken democratic governance, a period of technical recession, price and other microeconomic volatility. The period also witnessed remarkable and departmental changes in terms of structure, operational activities, increase in the number of Small and Medium Enterprises businesses and the volume of transactions that have recorded significant increase during the period under consideration. The relevant secondary data were sourced from United Nations Development Program (UNDP), the Enterprise Survey Unit of the World Bank, and Worldwide Governance indicators data base in World Bank which are acknowledged in the literature as creditable, sufficient, and reliable sources of the data needed to estimate the variable under consideration.

The broad objective of this study is to statistically examine the role of institutional environments in the growth of SMEs in Nigeria.

The paper is classified into five sections. Section one is the introduction. Section is on theoretical and empirical literature review. Section three discusses the methodology. Section four presents the discussions of the statistical results and section five is on conclusion and recommendations.

## LITERATURE REVIEW

## **Conceptual and theoretical literature**

Many scholars had attempted to conceptualize small and medium enterprises (SMEs) growth. This has hitherto been conceptualized from micro and macro levels terms of sustaining growth (Adesanya, 2015). It has been defined as sustained increase in turnover, profits and innovation capacity at micro levels or firm specific. From macro levels, Small and Medium Enterprises (SMEs) development is viewed as sustained increase in number of established SMEs, contribution of SMEs to total employment, and shares to gross domestic products of a nation. In this regard, this study explored SMEs development at both micro and macro levels bearing in mind that bi-directional relationship exists between SMEs development at micro and macro levels. This is because sustain increase in turnover, profits and innovation of SMEs explains the magnitude of SMEs contribution to employment generations, gross domestic products and national competitiveness.

#### SMEs (Growth) Development at Micro Level

At micro level, SMEs development is often gauged by its performance indicators such as increase in profits, turnover, number of staff and production outputs. It is the degree to which SMEs command increase in market share, sales, total balance sheet, and return on investment, profit or earnings. It is therefore viewed as the ability to meet set objectives through effective and efficient utilization of resources. These definitions aligned with SMEs performance, which is based on the degree to which resources are judiciously employed by owners of SMEs, generate income over a specified period. In this vein, SMEs development can best be understood through balanced scorecard, (Lin & Chen, 2007) which focuses on both financial and non-financial measures of performance. According to Lin, & Chen, (2007), the balance scorecard has four key perspectives: financial, customer, internal business and learning and growth perspectives. The financial perspective incorporated net income, return on sales, and return on investment, and economic value added. It captures the ability of a firm to develop profits from its assets or investment and thus assesses the effectiveness of the capital employed. This provides a basis in which owners of SMEs can measure the viability and earnings generated from its investment in capital assets.

The customer perspective is often viewed based on how SMEs develop its market. It also develops when firms attract new customer and sustain its effort to retain its existing customers. The internal business perspective comprises of the innovation process, innovation performance, operating process and post sales services. Innovation performance means the ability of SMEs to continuously generate and translate ideas and change into marketable new or significantly improved devices, products, processes and services (Lin, & Chen, 2007). In this way, innovation encompasses inventions though it is only when an invention or creative idea is institutionalized, implemented or commercially exploited that it becomes innovation. Though innovation can take place in product, process, systems, SMEs innovation is usually measured with the aggregates of all innovations adopted within firms; percentage of sales generated by innovations, counts of patent listed, innovation inputs such as investments research and development or other innovation-related activities, processes and expenditures and novelty. The last four matrices of balance score cored is the learning and growth perspective, which involve employee education and skill levels, employee satisfaction, employee turnover, hours of Staff training and information system availability. It is the degree to which SMEs invest in employee training and skills acquisitions and reward of the Staff.

## SMEs (Growth) Development at Macro Level

At macro level or from a country specific, SMEs development is viewed as sustained increase in many established SMEs in a country. It is an increase in number of SMEs startup yearly, the degree to which people are venturing into SMEs, and number of yearly registered SMEs (World Bank, 2015). It is the degree to which SMEs consistently generates employment. More so, many studies have defined SMEs development as sustain increase in shares of SMEs to gross domestic products. These strings of authors believed that SMEs is said to be developing when its contributions to gross domestic products as well as employment generation are increasing.

In the light of the above, the numbers of SMEs formation yearly in a country, their contribution to economic growth and employment are central to determining how a country is perceived to have stimulated the right environment for SMEs development. This study therefore uses the number of established SMEs yearly in Nigeria in addition to innovation performance of SMEs to measure SMEs development in Nigeria.

In conceptualizing different dimensions of institutional environments, North (1990) focuses on formal and informal, overt or implicit institutional environment. Kostova (1997) suggested regulatory, cognitive and normative dimension of institutional environment which have come to be known as the three institutional pillars, further suggested the following: political institutional environment, legal institutional environment (rules of law), regulatory institutional environment, government polices (government effectiveness), accountability and corruption as indicators of institutional environment. Other studies have also added financial institutional environments (Kostova, 1997) to the three institutional pillars to explain organizational performance over time. Furthermore, other studies have also looked at institutional environment from a broader perspective: political, technological, economic, social-cultural and legal business environments. Drawing on Kostova (1997), dimensions of institutional environments, this study focused on regulatory, legal, cognitive, normative, and political institutional environment.

## **Theoretical Literature**

This study draws on institutional, cognitive behavioural and human capital theories to explain the relationship between institutional environment and SMEs development. It also applied social capital and entrepreneurial ecosystems approach.

#### Institutional Theory

Institutional theory developed by North (1990) is defined as formal (law, state policies, economic rules) and informal (codes of conduct, organizational cultures and conventions) rules or arrangements and their enforcement characteristics. North (1990) indicated that institutions exist due to the uncertainty involved in human interactions. They are constrained devised to structure those interactions. Institutional theory posits that business structure, decisions and actions are affected by its social environment. They are less formal shared interactions derived from professions, scripts and other societal and cultural practices that organizations and individuals are expected to follow. The theory posits that the rules derived from institutions like court and regulatory agencies set market rules, structure interactions among economic actors, and as such adherence to the rules may serves not only to protect firms or individuals (SMEs) from formal, economic penalties, but also to create legitimacy, which serves to advance the firms current and future performance.

Drawing from the assertion that institutions are super conditions for the mobilization of resources among SMEs, previous studies have investigated how different institutional arrangement influence SMEs mobilization of resources and development. It demonstrated formal (such as statutory law) and informal constraints (such as customs and traditions) and defined the incentive structures that determine the rate of productive activities of small and medium enterprises. Empirical study by Welter & Smallbone, (2008) found that institutional environment dictates not only the structure of an organization but also incentive to invest and engage in business formation. Welter and Smallbone (2008) indicated that, though formal institutional forces condition the actual level of entrepreneurial opportunities, it is the informal institutions that shape the collective and individual perception of entrepreneurship as they are more stable than informal institutions.

Grilo and Thurik (2005) empirical evidence further validated the impact of institutional environment on the performance of business when it documented that the regulatory institutional environment that tend to be harsh, complex and unfriendly discourages entrepreneurship. They influence individual perception of business environment within the country, which in turn, influences venture creations and development. They added that entrepreneurial behavior, SMEs formation and performance are strongly triggered and highly conditioned by institutions. They further argue that human beliefs and interest in SMEs development are social and cultural in origin, and thus suggested that institutions promote entrepreneurship and SMEs performance.

Furthermore, Stenholm (2013) built on Scott's (1995) institutional pillars to examine the influence regulatory, normative, and cognitive dimensions of entrepreneurial activity on business performance and found that differences in institutional arrangements have significant influence on both the rate and the type of entrepreneurial activity in a crosssectional country-level study. Stenholm (2013) further indicated that while the institutional regulations have more impact on the rate of entrepreneurial activity, but they matter very little in the formation of new ventures. Interestingly, by structuring, constraining, and enabling individual behaviors, institutions have been adjudged to mold capacity to directly, entirely, or uniformly determine individual business expansions and development. They further suggested that a society's normative, cultural-cognitive, and regulative institutions are related and influences business activities. The work found that normative and culturalcognitive institutions' descriptive power in explaining entrepreneurial and SMEs performance is higher than regulatory institutions.

## **Empirical Literature**

Employing a sample of 326 (43%) entrepreneurs (entrepreneurs who are currently running successful businesses that had been in operation for over 2 years) and 431 (57%) non-entrepreneurs from eight countries, Scott (1995) examined the extent to which institutions (legal systems, financial systems, corruption and country's educational system) influence venture creation decisions, where entrepreneurial expert scripts (venture arrangements, venture willingness and venture ability scripts) act as a mediator. The entrepreneurial munificence of the legal system was measured by two indicators: property rights (scale from 1 to 5) and regulation policies related to opening and keeping a business (scale from 1 to 5). A higher score for property rights indicates that private property is better protected. A higher score on regulation means that regulations are straightforward, less burdensome, and applied uniformly to all businesses. The financial system was operationalized with three variables: (1) the relative size of the stock market to that of

banks (structure-size), (2) the relative intensity of activity in stock markets vis-à-vis the banking sector (structure-activity), and (3) the relative efficiency of stock markets vis-à-vis the banking sectors (structure-efficiency).

The venture arrangements script was measured with resource access, venture-specific skills. The venture willingness script was gauged with commitment tolerance and opportunity motivation. The venture ability script was extracted from ability-opportunity fit, venturing diagnostic ability and venture situational knowledge. Using structural equation modeling developed to simultaneously analyze multiple criteria of predictor constructs and unobservable theoretical constructs, the study showed that institutional arrangements, legal, and financial systems, significantly affect venture arrangements and willingness scripts. Among the four institutional factors (legal systems, financial systems, corruption and country's education system) that constitute a business system, the legal and financial systems were found to significantly influence venture arrangements and willingness scripts. Specifically, the study found that the degree of entrepreneurial munificence of a legal system is positively associated with the individual level venture arrangement scripts and venture willingness scripts. The significant path between financial system and venture arrangements scripts suggests that the degree to which a country's financial system is market-based (vis-à-vis bank-based) is associated with a lower level of individuals' venture arrangements scripts. The study did not support the hypothesis that equity-based financial systems (compared with bank-based financial systems) are related to higher level of venture willingness scripts. The study further demonstrated that the paths between the country's education system and venturing scripts were not statistically significant over and above the effects of the other institutional factors in our model, except for the path between country's education system and venture ability scripts, which was marginally significant, thus supporting the hypotheses that a country's education system affects only venture ability.

Seawright (2010) specifically found that relationships between education system and venturing scripts were not significant, except for the marginally significant relationship between educational systems and venture ability scripts. They also did not find support for their hypothesis that there may be negative relationships between the level of corruption and venture willingness scripts despite previous contentions that unfair intervention by economic actors can create uncertainty that may discourage entrepreneurial activities. Their study showed that a positive correlation between trust relationships and venture willingness scripts, but this relationship was not statistically significant. Among institutional variables, legal system had the most substantial impact on venture arrangements scripts and venture willingness scripts. Education system was the only institutional variable that was hypothesized to be connected to venture ability scripts, although the path was not statistically significant.

## **Studies in Nigeria and other Africa Countries**

Using survey method, Okwu (2015) investigated business environment and the potentials of small and medium enterprises in Lagos. He draws 228 SMEs from 456 SMEs listed in the 2014 edition of Lagos Business Development (LBD), published by Ministry of Commerce and Industry using convenience sampling technique. Business environment was measured with perceptual measures of environmental factors like legal-regulatory (LGR), politics and policy (POP), infrastructure (INF), external finance (ESF), technology (TEC), competition (COM), taxes and other fees (TOF), social-cultural factors (SCF), labour

availability and costs (LAC) and corruption (COR). The potentials of small and medium enterprises were measured with non-financial metrics of SME such as job creation (JCN), employment generation (EMP), innovation (INV) and growth (GRT) of SMEs. Using Least Squares (LS) techniques to analyzed effects of business environment on job creation, employment generation, innovation and growth potentials of SMEs in Lagos State, the study found that while politics and policy (POP), infrastructure (INF), external finance (ESF), technology (TEC), competition (COM), taxes and other fees (TOF), labour availability and costs (LAC) significantly drives SMEs innovation and growth, socio-cultural factors and corruption weakens the potentials of SMEs to innovate and grow. Okwu (2015) found that the business environment significantly enhances the potentials of the SMEs to create jobs, generate employment, innovate and grow.

Ode, Wombo, Ede and Mile, (2014) investigated the impact of Institutional Support on Small and Medium Enterprises in Benue State, Nigeria. They adopted questionnaires and interviews method to collect data from 225 SMEs drawn from 1,276 SMEs that engage three or more persons in agricultural sector, manufacturing, food and beverage processing, transport and hospitality. The findings of Ode, Wombo, Ede and Mile's (2014) study showed that, while, there exists a relationship between support initiatives and growth of SMEs, SMEs without any form of government support (financial and/or non-financial), performed better than those which received government support as they have a higher number of staffs employed and turnover. Ode, Wombo, Ede and Mile, (2014) demonstrated a significant difference in the performance of SMEs based on sectors and indicated that SMEs in some sectors naturally performed better than others due to the peculiarities of the sector because market demand for their various products and services differ. The study concluded that given that a huge proportion of the SMEs received no support, yet they performed reasonably well, support agencies (government or private) should not provide a blanket support for all SMEs. Rather they should consider industry diversity and potential for growth as basis for focus and provision of support.

#### **Research Gaps**

There is a growing theoretical and empirical literature on how formal institutional environments promote or inhibit the development of SMEs across countries. Having carefully reviewed these extant empirical studies, we observed the following gaps in literature. This study aims at covering these gaps.

Firstly, it was observed especially from the empirical review, that many of the studies on the subject matter were conducted outside Nigeria- mostly in developed nations like United States, Europe, Asia, and America among others. Secondly, most studies on institutional environments and SMEs development employed survey method as means of data collection, which at times, are vulnerable to self-bias, manipulations and poor representation of true population. Thirdly, many of the studies used cross-countries data, which may not be suitable or appropriate to formulate policy at individual country specific level due to the differences in cross cultural context. To the best of the researcher's knowledge, the few studies, (Ode et al., 2014 & Okwu, 2015) that made attempt to investigate the relationship between institutional environments and SMEs in Nigeria were conducted in Lagos and Benue States. They focused on only three of the dimensions of institutional environment (Legal, Politics & Social), and using survey method, thus neglecting the other states of the federation as well as the influence of other dimensions of institutional environment. Fourthly, other studies employed only Ordinary Least Squares

(OLS) as method of data analysis with little effort at employing the Error Correction Model (ECM) that provide the benefit of comparing short-run dynamics with long-run equilibrium of the data.

Empirical and theoretical research studies linking the role of institutions to the conduct of business and their impact on entrepreneurship and SMEs development in Nigeria is lacking. There is paucity of research studies in Nigeria, to show understanding on how SMEs perceive the institutional environment impact on their performance and development. Furthermore, there is little understanding on how individual element of the formal institutional environment affects SMEs development in Nigeria. It is based on this background/gaps that this study examines the impact of institutional environment on Small and medium scale enterprises in Nigeria.

## METHODOLOGY

## Population of the study

The study adopts aggregate data on the institutional environments and the development of SMEs in Nigeria. The total number of the registered SMEs in Nigeria from 1996 to 2016 represents the population of the study. This is justified as the data used are aggregate of the parameters of SMEs and institutional environment peculiar to Nigeria.

## **Sources of Data**

This study uses secondary data, sourced from United Nations Development Program (UNDP), Global Entrepreneurship Monitor Data base, Institutional Governance Indicators data base in World Bank and Corporate Affairs Commission, (CAC) Abuja Nigeria. The period of the study spans 21 years from 1996 to 2016. The period is long enough to cater for the loss of degree of freedom. The study uses the period because data on institutional governance indicators are readily available for the period under consideration.

## **Method of Data Analysis**

The method of data analysis is strictly on descriptive statistics for variables. This analysis is carried out using econometric software (E-view 8.0) version.

DATA PRESENTATION, ANALYSES AND INTERPRETATION							
Presentation of Descriptive Statistics							

	SMEDEV	NORMIEV	POLINEV	REGUINEV	LEGALIEV	COGNNIEV	
Mean	1.380952	9.109048	5.899524	17.26143	9.783810	0.595176	
Median	1.400000	10.73000	4.850000	19.42000	11.85000	0.600400	
Maximum	1.600000	19.42000	26.60000	27.01000	15.87000	0.649000	
Minimum	1.100000	0.000000	0.000000	0.000000	0.000000	0.510500	
Std. Dev.	0.128915	5.624905	5.909051	8.972383	5.050561	0.044663	
Skewness	-0.211920	-0.299847	2.283329	-0.874870	-0.846904	-0.451209	
Kurtosis	2.660902	2.267882	8.528080	2.557529	2.596501	1.810056	
Jarque-Bera	0.257799	0.783676	44.98729	2.850200	2.652825	1.951535	
Probability	0.879062	0.675814	0.000000	0.240484	0.265428	0.376903	
Sum	29.00000	191.2900	123.8900	362.4900	205.4600	12.49870	
Sum Sq. Dev.	0.332381	632.7912	698.3377	1610.073	510.1633	0.039896	
Observations	21	21	21	21	21	21	

Table 1: Descriptive Statistics

Source: Extracted from E-view 8.0 Output (Author's Computation, 2018)

The table above showed that the yearly average SMEs development (SMEDEV), which was gauged by yearly number of those individuals whose remuneration directly dependent

upon their profits derived from goods and services produced and have engaged on a continual basis, one or more persons to work for them is 1.380952 with maximum (highest) of 1.600000 and minimum (lowest) value of 1.10000 within the time under consideration. The standard deviation for SMEs development, which measures the speed of distribution or dispersion of the set of data on SMEs development from the mean stood at 0.1289. This standard deviation value is quite low. It indicates that the set of the data on SMEs development do not significantly varies from the mean. Moreover, the Jarque-Bera values for SMEs development is 0.257799 with probability value of 0.879062, which is greater than 5% level of significance. This value indicates that the data series on development of SMEs is normally distributed within the period under consideration. Kurtosis value for SMEs development which measures the peak-ness or flatness of the distributions of the variable is 2.66, which is less than the critical value of 3. This implies that the time series or data for SMEs development do possess flat distributions that are relatively normal. The value of skewness for SMEs development is -0.211920. This value means that SMEs development is negatively skewed, thus, indicating that the development of SMEs has been declining within the period under consideration.

The table above also showed that the average index score on normative institutional environment (NORMIEV) is 9.109048 with maximum (highest) of 19.42000 of critical value of 100. This means that Nigeria scored very low in the development of normative institution with a maximum score of 19.42 which is below the 100 benchmarks. Hence, the quality of normative institutional environment can be said to be low even after the establishment of several agencies to fight corruption, develop good governance and moral norm in the country. The standard deviation for normative institutional environment (NORMIEV), which measures the speed of distribution or dispersion of the set of data from the mean stood at 5.624905, which is quite high. This indicates the set of the data or index score on normative institutional environment (NORMIEV) significantly varies from the mean score. Moreover, the Jarque-Bera value for normative institutional environment (NORMIEV) is 0.783676 with probability value of 0.675814 which is greater than 5% level of significance. This indicates that index score on normative institutional environment (NORMIEV) is normally distributed within the period under consideration. Kurtosis value for institutional environment (NORMIEV) which measures the peak-ness or flatness of the distributions of the variable is 2.267882 which is less than the critical value of 3. This means that the errors of the index score on institutional environment (NORMIEV) is possess flat distributions that is relatively normal. The value of skewness for normative institutional environment (NORMIEV) is -0.299847. This value means that institutional environment (NORMIEV) negative skewed, thus, indicating that the quality of normative institutional environment (NORMIEV) has been declining within the period under consideration.

From the above table showed that the average index score on political institutional environment (POLINEV) is 5.899524 with maximum (highest) index of 26.60000 of total score of 100. This means that the political institutional environment in Nigeria is also perceived to be low since the maximum score of 26.6 is also far below the 100 benchmarks. The standard deviation for political institutional environment (POLINEV), which measures the speed of distribution or dispersion of the set of data from the mean stood at 5.90, which is quite high. This indicates the set of the data or index score on political institutional environment (POLINEV) significantly varies from the mean score. Moreover, the Jarque-Bera value for political institutional environment (POLINEV) is 44.98729 with probability

value of 0.00000 which is less than 5% level of significance. This indicates that index score on political institutional environment (POLINEV) is not normally distributed within the period under consideration. Kurtosis value for political institutional environment (POLINEV) which measures the peak-ness or flatness of the distributions of the variable is 8.528080, which is greater than the critical value of 3. This means that the index score on political institutional environment (POLINEV) possess peak distributions. The value of skewness for political institutional environment (POLINEV) is 2.283329. This value means that political institutional environment (POLINEV) is positively skewed, thus, indicating that the quality of political institutional environment (POLINEV) has been increasing within the time period under consideration.

More so, the table above showed that the average index score on regulatory institutional environment (REGUINEV) is 17.26143 with maximum (highest) index of 27.01000 within the period under consideration. This maximum score of 27.01000 tend to be low when evaluated against the 100 benchmarks, suggesting that quality of the regulatory institutional environment is low. The standard deviation for regulatory institutional environment (REGUINEV), which measures the speed of distribution or dispersion of the set of data from the mean stood at 8.972383, which is quite high. This indicates the set of the data or index score on regulatory institutional environment (REGUINEV) significantly varies from the mean score. Moreover, the Jarque-Bera value for regulatory institutional environment (REGUINEV) is 2.850200 with probability value of 0.240484 which is greater than 5% level of significance. This indicates that index score on regulatory institutional environment (REGUINEV) is normally distributed within the period under consideration. Kurtosis value for regulatory institutional environment (REGUINEV) which measures the peak-ness or flatness of the distributions of the variable is 2.557529, which is less than the critical value of 3. This means that the errors of the index score on regulatory institutional environment (REGUINEV) possesses flat distributions that are relatively normal. Furthermore, the value of skewness for regulatory institutional environment (REGUINEV) is -0.874870. This value means that the regulatory institutional environment (REGUINEV) is negatively skewed, thus, indicating that the quality of regulatory institutional environment (REGUINEV) has been decreasing within the time period under consideration.

It was also gathered as shown above that the average index score on legal institutional environment (LEGALIEV) is 9.783810 with maximum (highest) index of 15.87000 within the time frame under consideration. This maximum score of 15.87000 tend to be low when compared with the 100 benchmarks, hence the quality of the regulatory institutional environment is low. The standard deviation for legal institutional environment (LEGALIEV), which measures the speed of distribution or dispersion of the set of data from the mean stood at 8.972383, which is quite high. This indicates the set of the data or index score on legal institutional environment (LEGALIEV) significantly varies from the mean score. Moreover, the Jarque-Bera value for legal institutional environment (LEGALIEV) is 2.652825 with probability value of 0.265428 which is greater than 5% level of significance. This indicates that index score on legal institutional environment (LEGALIEV) which measures the peak-ness or flatness of the distributions of the variable is 2.596501, which is less than the critical value of 3. This means that the errors of the index score on legal institutional environment (LEGALIEV)

that is relatively normal. The value of skewness is -0.846904. This means that the legal institutional environment (LEGALIEV) is negatively skewed, thus, indicating that the quality of legal institutional environment (LEGALIEV) has been decreasing within the time period under consideration.

Finally, the above table showed that the average index score on cognitive institutional environment (COGNNIEV) is 0.595176 with maximum (highest) index of 0.649000 within the period under consideration. This suggests that the level of cognitive institutional environment (COGNNIEV) in Nigeria is relatively moderate as 59% of Nigerians tend to possess basic knowledge, or intellectual capacity. The standard deviation for cognitive institutional environment (COGNNIEV), which measures the speed of distribution or dispersion of the set of data from the mean stood at 0.044663, which is quite low. This indicates the set of the data or index score on cognitive institutional environment (COGNNIEV) do not significantly varies from the mean score. Moreover, the Jarque-Bera value for the cognitive institutional environment (COGNNIEV) is 1.95153 with probability value of 0.376903 which is greater than 5% level of significance. This indicates that index score on cognitive institutional environment (COGNNIEV) is normally distributed within the period under consideration. Kurtosis value for cognitive institutional environment (COGNNIEV) which measures the peak-ness or flatness of the distributions of the variable is 1.810056 which is less than the critical value of 3. This means that the errors of the index score on the cognitive institutional environment (COGNNIEV) possesses a flat distribution that is relatively normal. The value of skewness for institutional environment (COGNNIEV) is -0.451209. This value means that cognitive institutional environment (COGNNIEV) is negatively skewed, thus, indicating that the quality of cognitive institutional environment (COGNNIEV) has been decreasing within the time under consideration.

## CONCLUSION AND RECOMMENDATIONS

From the findings of the statistical results, the following conclusions can be drawn. The SMEs development is negatively skewed, thus, indicating that the growth and development of SMEs has not been quite impressive. This can be attributed the role of institutions in SMEs is also disappointing in some aspects. For instance, the value of skewness for normative institutional environment (NORMIEV) is -0.299847. This value means that institutional environment (NORMIEV) negative skewed, thus, indicating that the quality of normative institutional environment (NORMIEV) has been declining within the period under consideration. However, unlike the NORMIEV, the value of skewness for political institutional environment (POLINEV) is 2.283329. This value suggests that political institutional environment (POLINEV) is positively skewed, thus, indicating that the quality of political institutional environment (POLINEV) has been improving in its role in influencing SMEs. Although the statistical value of the regulatory institutional environment (REGUINEV) has not been impressive, it indicates the possibility of improvement in its futuristic role in SMEs. The legal institutional environment (LEGALIEV) is also negatively skewed, which is an indicative of an inferior outcome in its role in SMEs. The cognitive institutional environment (COGNNIEV) is also negatively skewed, thus, indicating that the quality of cognitive institutional environment (COGNNIEV) has been decreasing within the time under consideration. We conclude that SMEs growth and development in Nigeria is fairly conditioned by the institutional environment of the country.

Based on the findings from the statistical analysis, the following recommendations are made:

- The study recommends that the quality of legal environment can be improved upon by setting up a panel to critically examine and sanction those judges lacking integrity and causing undue delay in justice delivery. This will help in ensuring that justice is provided by competent, independent, and ethical adjudicators.
- 2. We call upon the Government of Nigeria to commit reasonable resources in improving the quality of the regulatory environment across the nation with the aim of positively affecting SMEs.
- **3.** The quality inherent in the current political institutional environment in Nigeria should be improved upon in a way and manner that will positively affect the operations and growth of SMEs in the country.
- 4. The government of Nigeria through the ministry of education should direct all schools in Nigeria frequently and periodically engage in cognitive and psychological appraisal in such that students deficient in learning should be recommended for vocational trainings rather than forcing them to continue in the system through repetition. The government of Nigeria should also increase budgetary allocation to educational system to uplift the decaying infrastructures, develop a better curriculum, train and retrain teachers, expose students to network of entrepreneurs that will enrich them with all the information needed to develop market for the products and ideas generated. This will help to reposition quality of teaching, research and learning in the educational system toward job creation.
- 5. Lastly, we recommend that the Nigerian government should be determined in promoting moral, ethical and positive cultural norm in the country so as to lessen the negative effect of weak normative institutional environment on SMEs growth.

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