Effect of Entrepreneurial Competencies On Profitability of Quoted Manufacturing Firms in Nigeria

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Abstract- Entrepreneurship is vital in creating and fulfilling a healthy economy. Nigeria business environments which are currently witnessing rapid development and changes on the economic, human, technological and industrial sector, aspire to meet the difficult tasks of today's operating industrial instability, with emphases been laid on the various components of functional competencies of the firms. The main objective of the study is to evaluate the impact of entrepreneurial competencies on profitability of firms in Nigeria manufacturing industry. The specific objectives are to: establish the effect of total personnel cost to total production cost (TPCPC) ratio on return on asset (ROA) of firms in the Nigeria manufacturing industry, evaluate the impact of total equity to total asset (TETA) ratio on return on asset (ROA) of Nigeria manufacturing firms. To achieve these objectives, ex-post factor research design was adopted. The population of the study was 4 selected manufacturing firms quoted on Nigeria stock exchange in Nigeria. The study covered a period of sixteen (16) years (2002-2017) gathered from various annual reports of firms in Nigerian manufacturing industry. The sample of the study focuses on the four listed manufacturing firms in Nigeria among which are Nigeria breweries Plc, Guinness Nigeria Plc, Nestle Nigeria Plc and Uni-lever Nigeria Plc. The method of data analysis was Panel multiple regression. The summary of findings are listed as follows: Total personnel cost to production cost ratio (TPCPC) has positive but not significant effect on return on asset (ROA) of firms in Nigeria manufacturing industry (t – statistics (1.342627) < Critical values (1.681), total equity to total asset ratio (TETA) has no significant effect on return on asset (ROA) of Nigeria manufacturing firms (t – statistics (1.342627) <Critical values (1.681). The study concludes that there is positive insignificant impact of entrepreneurial competencies on profitability of firms in Nigeria manufacturing industry. The study also concludes that entrepreneurial competencies; production competencies, production competencies, human resources competencies, marketing competencies and entrepreneurial competencies affect the profitability of manufacturing firms in Nigeria. Entrepreneurial competencies were discovered to account for a positive and significant effect on the return on equity (ROE) which suggests it has impact on the profitability of manufacturing firms in Nigeria. The study recommended that the management of Nigeria manufacturing industry should review and continually put work in line with the profit plan of the organization. As a result, policies pertaining capital structure, firm earnings and asset management should be emphasized.

Index Terms- Entrepreneurial Competencies, Profitability and Quoted Manufacturing Firms

I. Background of the Study

Entrepreneurship has been debated among scholars, educators, researchers, and policy makers since the concept was first established in the early 1700's. The term entrepreneurship comes from the French verb entreprendre and the German word unternehmen, both mean to "undertake" Entrepreneurship has becoming crucial to every country ever since the age of globalization because the growth of entrepreneurial activities will help in creating jobs for the society and reducing the unemployment rate. Nafukho and Muyia (2010) submit that entrepreneurship is vital in creating and fulfilling a healthy economy. This is supported by Dickson, Solomon and Mark Weaver (2008) where growth of entrepreneurship is significant to a country's economy.

Entrepreneurial process is 'involving all the functions, activities, and actions associated with perceiving of opportunities and creation of organizations to pursue them Bygrave and Hofer (1891)'. Joseph Schumpeters introduced the modern definition of entrepreneurship in 1934. The carrying out of new combinations we call 'enterprise, and the individuals whose function it is to carry them out we call entrepreneurs. Schumpeter tied entrepreneurship to the creation of five basic new combinations namely: introduction of a new product, introduction of a new method of production, opening of a new market, the conquest of a new source of supply and carrying out of a new organization of industry.

Nigeria business environments which are currently witnessing rapid development and changes on the economic, human, technological and industrial sector, aspire to meet the difficult tasks of today's operating industrial instability, with emphases been laid on the various components of functional competencies of the firms. The competencies are evaluated from the view point of resources and capabilities required to drive the comparative advantage of various firms in Nigeria manufacturing industry, with stress on production, marketing, human resources, research and development, and entrepreneurial competencies (Nguyen, 2008). The capabilities required to drive an advantage include designing new products, installing new production technologies, adapting training programs, using quality control technologies and improving supplier relationships. Some

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innovations result from revolutionary changes in strategy, but others are series of small, incremental changes (Cetin, 2010). Li (2000) posited that new technology, new products, new market, new manufacturing techniques and new management concepts are continuously emerging to change the comparative advantage of the companies. Competence is the ability of an individual to do a job properly. A competency is a lot of defined practices that give an organized guide enabling the identification, evaluation and development of the practices in individual employees. The term "fitness" first showed up in an article written by White (1959) as a concept for performance motivation. The term gained traction when McClelland (1973) wrote a seminal paper titled, "Testing for Competence Rather than for Intelligence". It has since been advanced by Richard Boyatzis and many others, for example, Gilbert (2008) who utilized the concept in relation to performance improvement. Its utilization changes generally, which prompts considerable misunderstanding.

A few researchers such as Masoud (2013), Nguyen (2008) see "capability" as a combination of commonsense and theoretical information, subjective aptitudes, conduct and qualities used to improve performance; or as the state or quality of being satisfactorily or all around qualified, having the capacity to perform a particular job. For instance, management competency may include systems thinking and emotional intelligence, and abilities in influence and negotiation. Competency is additionally utilized as an increasingly broad description of the necessities of human beings in organizations and networks (Fischer, and Henkel, 2010).

Jasperson, Carter and Zmud (2005) opine that competency is sometimes thought of as being shown in action in a situation and context that may be distinctive whenever a person has to act. In crises, capable individuals may respond to a situation following practices they have recently found to succeed. To be skillful, a person would need to have the option to interpret the situation in the context and to have a repertoire of potential actions to take and have trained in the potential actions in the repertoire, if this is relevant. Notwithstanding training, competency would develop through involvement and the degree of an individual to learn and adjust. In any case, research has discovered that it is difficult to assess competencies and fitness development. A competency is the combination of learning, expertise, and/or capacity one needs to effectively perform a vocation function.

A few investigations linked performance to firm competencies. Competencies encourage the transformation of organizational resources into qualities offering for the manufacturing firms. La, Patterson and Styles (2005) posit that the notion of firm competencies is akin to the resource based view (RBV) where firms are seen as particular heap of resources and abilities. Wheelen and Hunger (2007), hold that a firm develops through strategic management in request to adapt to the changing scene. It makes managers and individuals from the organization to be cognizant to new chances and dangers in a quickly changing environment.

Nigeria manufacturing industry is made up of sectors, for example, oil and gas, industrial merchandise, consumer products, material, medicinal services, conglomerates, and Agriculture. As a resource based sector of the Nation's economy, it currently works thirteen activities viz; oil refining, bond, sustenance, drinks and tobacco; attire and footwear, wood and wood products; non-metallic products; plastic and elastic products; electrical and electronic; basic metals, iron and steel; motor vehicles and assembly and other manufacturing. In spite of the fact that the sector in Nigeria cannot reasonably bolster economic development in its present performance level, it has incredible possibilities since Nigeria is one of the nations with most attention-grabbing markets in the West Africa, with over 180million consumers and millions additional customers in the economically reliant neighboring nations. The importance of the manufacturing sector is additionally acknowledged from the way that private consumption uses are significantly increasing in the nation. Be that as it may, many issues are impeding the growth of the manufacturing industry in Nigeria and accordingly; the nation is progressing in all respects gradually towards economic diversification. Therefore, it is in the light of this that this study will examine the effect of entrepreneurial competencies on profitability of quoted manufacturing firms in Nigeria.

II. Statement of the Problem

Upon several Government policies and efforts towards stabilizing Nigeria economy through manufacturing industry, there are lots of challenges facing the growth and profit potentials of manufacturing firms, as identified by researchers. These challenges include but not limited to inappropriate and ineffective policies (Anyanwu, 2007); lack of integrated business plan and absence of harmonized and coordinated fiscal policy (Onoh, 2007); gross mismanagement of resources and lack of potentials for rapid growth and development of production efforts. Despite the emphasis placed on management of the economy, the manufacturing sector inclusive, Nigerian economy is yet to come to the path of sound growth and development because of low input of the sector to the GDP of the economy.

Companies in the manufacturing sector usually need resources and capabilities to enable them to grow and develop their operating activities. However, where the impact of such resources and capabilities becomes such that their cost implications rises against the market growth plans and profit potentials of the firm's product, possible erosion of business share which inadvertently leads to business failure ensues. In view of the above therefore, firms in the manufacturing industry should as a matter of necessity identify the various components of competencies that are directly or indirectly involved in the operating activities of the firm. In the quest and struggle to gain comparative advantage in production amidst holding an appreciable market stake in the industry, firms need to evaluate the efficiency of the various competencies in line with the value maximization and profit plans of the organization. This needs to be carried out continually, to guaranty the going concern status of the business. The essence of timely review of the firm's policies relating to the managing cost of resources and capabilities cannot be over emphasized, as such will enhance cost savings and increase market value.

Hamel (1994) posited that functionality related competence enable 'firms' to provide its services and products with unique functionality, hence investing in the product with distinctive customer benefits, rather than only making it incrementally better. This is because firms are converging around universally elevated standards for products and service integrity and are expose to

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alliances, acquisitions and industry consolidation to build broadly matching global brand and distribution capabilities. It is against this backdrop that the research effort focuses on investigating the effect of entrepreneurial competencies on the profitability of firms in Nigeria manufacturing industry.

III. Objectives of the Study

The main objective of the study is to evaluate the impact of entrepreneurial competencies on profitability of firms in Nigeria manufacturing industry. Specifically; the objectives are to:

i. Establish the effect of total personnel cost to total production cost (TPCPC) ratio on return on asset (ROA) of firms in the Nigeria manufacturing industry.
ii. Evaluate the impact of total equity to total asset (TETA) ratio on return on asset (ROA) of Nigeria manufacturing firms.

IV. Research Hypotheses

The hypotheses for the study have been formulated. These null hypotheses are as follows:

I. Total personnel cost to total production cost (TPCPC) ratio has no significant effect on return on asset (ROA) of firms in the Nigeria manufacturing industry.
II. Total equity to total asset (TETA) ratio has no significant effect on return on asset (ROA) of Nigeria manufacturing firms.

V. Literature Review

Competencies

Per-Erik and Henrik (2008) explain the meaning of capability from three points of view viz: formal, real and competencies-in-use. Accordingly it is considered as a characteristic of the employee that is, as kind of human capital or a human resource that can be translated into certain degree of performance formal skill is measured in terms of the long stretches of school finished and by the accreditations gotten by an individual.

Ellstrom (1997) viewed capability in terms of the necessities of the task that constitute a certain activity all the more explicitly, it will be utilized to allude to the limit of an individual (or a group) to effectively (according to certain formal or informal criteria, set independent from anyone else or by another person) handle certain situation or complete a certain task or employment.

VI. Entrepreneurial Competencies

A few investigations have linked performance to firm competencies. Competencies encourage the transformation of organizational resources into qualities offerings for the manufacturing firms. La, Patterson and styles (2005) place that the notion of firm competencies is akin to the resources based view (RBV) theory where firms are seen as peculiar groups of resources and abilities.

The distinctive competencies of any firm emerge from two sources viz; its resources (man, machine, materials, land, condition of craftsmanship, techniques) and abilities. According to Nguyen (2008), a differentiating competency is capacity that enables one firm to accomplish unrivaled efficiency, quality, innovation or customer responsiveness and thereby to attain an upper hand. Winterton, Delamare, and Stringfellow (2005) make the following identicalness: information is the psychological ability; aptitudes belong to functional skill; and properties are linked with social capability. Vorhies, Morgan and Autry (2009) additionally demonstrate that it isn't sufficient to have resources and abilities which are significant, uncommon and hard to duplicate, how capacities are sent is increasingly important for creating and sustaining upper hand than their minor possession.

Mahadalle and Kaplan (2017) held that the encouraging results of organizational achievement emerging from productive business enterprise have driven scholastic and administrative attention on concepts of entrepreneurial competencies in the last couple of decades. Competencies of business visionaries have prompted more achievement in business, and it gives the sustainable upper hand. Profitable aptitude, learning, and the capacity to go for broke, birth and survival are a portion of the factors which are intently associated with the entrepreneurial competencies which have as very much created the effective performance of Business endeavor. Lazar and Paul (2015) contemplated the entrepreneurial competencies in a business endeavor. According to Mohammad and Sidek (2013) entrepreneurial competencies intercede the relationship between the growth of microfinance and the small businesses.

Each business organization need effective managers to be fruitful in today's exceptionally focused and dynamic business environment (Veliu & Manxhari, 2017). It is important for a business organization to distinguish, create and retain capable individuals. Each fruitful and effective manager has a few competencies that empower him to perform productively and effectively at various managerial levels. The competencies can identify the contrasts among normal and incredible managers. The relationship between managerial competencies and business achievement still remains an important issue within organization literature (Crooke, Todd, Combs, Woehr and Ketchen 2011). According to Tehseen and Ramayah, (2015), many researchers have discovered that the entrepreneurial competencies are identified with the performance of endeavor. It is in this viewpoint that this work intends to extend the utilization of total equity to total asset ratio as intermediary for entrepreneurial competencies to assess the impact it has on profitability of firms in Nigeria manufacturing sector, subsequently the hypothesis underneath:

VII. Firm Profitability

Profitability is the essential objective of all business adventures. Without profitability, the business won't get by in the long run. So measuring current and past profitability and projecting future profitability is important. Profitability is measured with income and expenses. This is done with the guide of "income statement". Income statement is basically a listing of income and expenses during a timeframe (Usually a year) for the whole business. A business that is exceptionally profitable has the

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capacity to remunerate its proprietors with a large return on their investment.

Increasing profitability is one of the most important tasks of the business managers. According to Trkman (2010) business performance evaluation in a basic issue. Sharing their view, Sucipto, Okteviani and Rizal, (2015) alluded to business performance as the measuring stick used to quantify results accomplished by the firm for a period. Meanwhile, issue, for example, customer brand reliability, an increase in the volume of sales, customer satisfaction growth in pieces of the overall industry and satisfactory return on investment are integral components of firm performance (Morgan, 2012). Saeed, Shekoofeh and Mahnaz (2013) investigated relationship between human resource and worth included efficiency of human capital and an issued return on equity (ROE) as a measure of firm performance Waiganjo, Mukulu and Kahiri (2012) assert that performance has been traditionally conceptualized in terms of financial measures, for example, return on asset (ROA), return on equity (ROE).

Return on Asset (ROA)

Okwo and Ugwunta (2012), opines that return on asset indicates how profitable a company is with respect to its total asset and delineate how well management is employing the firms total asset to make profit .it is processed by dividing the profit after tax by the total asset of a firm

Return on Equity (ROE)

Okwo et al defines return on equity as the measure of net gain returned as a level of investors equity. Return on equity measures a corporation's profitability by relating how much profit a company produces with the money investors have invested. ROE is communicated as a rate and determined as: ROE = Net income/investors equity

ROE is valuable for comparing the profitability of a company to that of other firms in a similar industry. It outlines how effective the company is, at turning the reserve put into the business to more noteworthy gains and growth for the company and investors. Exquisite, (2006) opines that return on equity (ROE) is a measure of the profitability of a business in relation to the book estimation of investor equity, otherwise called net assets or assets minus liabilities. ROE is a measure of how well a company utilizes investments to produce earnings growth. ROE is equivalent to a monetary year total compensation (after favored stock dividends, before common stock dividends), separated by total equity (excluding favored offers), communicated as a rate.

Appetizing (2006) further states return on equity is particularly utilized for comparing the performance of companies in a similar industry. As with return on capital, a ROE is a measure of management's capacity to produce income from the equity accessible to it. ROEs of 15-20% are for the most part considered great.

ROEs are additionally a factor in stock valuation, in association with other financial ratios. When all is said in done, stock costs are influenced by earnings per share (EPS), so stock of a company with a 20% ROE will by and large cost twice as much as one with a 10% ROE.

The advantage of low ROEs originates from reinvesting earnings to help company growth. The advantage can likewise come as a profit on common offers or as a combination of dividends and company reinvestment. ROE is less relevant if earnings are not reinvested.

The sustainable growth model demonstrates that when firms pay dividends, earnings growth brings down. On the off chance that the profit payout is 20%, the growth expected will be only 80% of the ROE rate.

The growth rate will be lower if earnings are utilized to repurchase shares. In the event that the offers are purchased at a various of book esteem (a factor of x times book esteem), the incremental earnings returns will be decreased by that equivalent factor (ROE/x).

New investments may not be as profitable as the existing business. Ask "what is the company doing with its earnings?"

ROE is determined from the company point of view, on the company in general. Since much financial manipulation is practiced with new offer issues and buyback, the investor may have an alternate recalculated esteem 'per share' (earnings per share/book esteem per share).

VIII. Theoretical Framework

Production Efficiency Theory

The efficiency theory was propounded by Pareto, also called Pareto optimality. Morgan, Kaleka and Katsipeas (2004), posits that production efficiency is based on a business's ability to produce the highest number of units of a good while using the least amount of resource possible. The aim is to find a balance between the use of resources, the rate of production and quality of the goods being produced.

Efficiency in general describes the extent to which resources such as time, space, energy, etc are well used for the intended task or purpose.

Diffusion of Innovation Theory

This theory was developed by Rogers (1962) and one of the oldest social science theories. Diffusion research centers on the conditions which increase or decrease the likelihood that a new idea, product or practice will be adopted by members of a given culture. Diffusion of innovation theory predicts that media as well as interpersonal contacts provide information and influence opinion and judgment. Studying how innovation occurs, Rogers (1995) argues that it consists of four stages: Invention, diffusion (communication) through the social system, time and consequences.

2.3.3 Profitability Models

Profitability models are of great importance to a business because its primary goal and duty is to generate profit. A profitability model is a business structure established gradually by the business to attain profit in the process of market competition. For a specific type of business, it is a certain operational approaches that generate relatively greater sales and profit with relatively less input.

One key idea of the "golden rules for investment" proposed by the Paris school of business maintain that the most important thing for a business is not capital or its talents, it is the profitability model. The absence of a profitability model that is close and

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reasonable would make it difficult for a business to survive and grow.

IX. Empirical Review

Entrepreneurial Competencies and Firms profitability

Competency-based management empowers an organization to integrate strategic human resources and business plans, by allowing organization to assess the current human resources limit based on their competencies against the limit needed for translating the strategic vision of an organization into the practices that employees must show for the organization to be fruitful, based on methodology have been connected to wide range of human resource works on including enrollment, motivation, training and performance management.

Antwi and Owusu (2015) planned to examine the relationship between employee's fitness and firm's performance among pharmaceutical companies in Ghana. Field overview involving 280 respondents was done to secure information used to test the hypothesis expressed for the examination. With the guide of linear regression analysis, the examination found that the independent factors (employee's fitness) has to a significant degree, some influence on the result of firm performance, thereby recommend that firm know about the colossal advantage that they enjoying because of having set up an effective and productive workforce. The investigation prescribed that firms need to take advantage of the lucky break to improve continuous leaning in their organizations in order to improve the abilities, frame of mind and conduct of employee towards the release of their individual tasks to have the option to attain superior penchant.

Gweyi and Karanja (2014) made endeavor to investigate the impact of financial leverage on the financial performance of store taking saccos in Kenya. The straightforward information was extricated from 40 savings and credit co-employable social orders (achievement) enlisted by saccos society regulatory specialist reached out from the time of 2010 to 2012. The secondary information utilized for the analysis was gathered from the financial statement of the different store taking saccos. Two basic methodologies spellbinding and analytical structures were received. The outcomes show ideal positive correlation between firm size with return on equity and profit after tax at 99% confidence interval and week positive correlation between financial leverage with return on assets and income growth.

Osuji and Odita (2012) in their paper examined the impact of firm size on financial performance of Nigerian firms using an example of thirty (30) non-financial firms recorded on the Nigerian stock exchange during the multi year time frame, 2004 to 2010. Panel information for the chose firms were produced and analyzed using ordinary least square (OLS) as a technique for estimating. The outcome demonstrates that a firm's size surrogated by debt ratio has a significantly negative impact of the firm's financial measures (return on assets, and return on equity). The investigation of their findings indicates consistency with period exact examinations and supplier proof on the side of organization cost theory.

Bassey, Aniekan, Ikpe and Udo (2013), using a sample of 60 unquoted agro-based firms Nigeria within a period of six years (2005-2010) from the agency cost theory point o1 view. They employed the Ordinary Least Square regression and descriptive statistics and revealed that only growth and educational level of firms owners were significant determinants of both firm size and age of the firms, gender of owners and export status impacted significantly on share price of quoted firms, while business risk, size and profitability of firms were major determinants of short term debt ratio for the firms under investigation.

Oke and Afolabi (2011), using a study of five quoted firms within a period of nine years (1999-2007) from the static trade-off and agency cost theory point of view. They employed the panel data regression model and revealed in their studya positive relationship between firms" performance and firm size as well as between firms' performance and share price. There is also a negative relationship that exists between firms performance and share price to high cost of borrowing in the country.

Nguyen (2008) aimed to study the effect of functional competencies on manufacturing firms in Vietnam, A survey of 725 manufacturing companies in Vietnam was conducted to identify the effect of functional competencies in terms of marketing, research & development, manufacturing, and human resource on firm performance in terms of market performance and profitability. Consequently 125 questionnaires were returned back at response rate of 17.24%.The finding supported a positive relationship between the functional competencies and firm performance. It found that manufacturing firms in Vietnam were not performing well in these functional competencies, and firms were better in manufacturing competencies than marketing competencies.

Gichunge (2007) examined the effect of formal strategic management on organisational performance of medium sized manufacturing enterprises in Nairobi Kenya. He investigated the effect of various administrative/legal factors on the extent to which formal strategic management are adopted, and also determined the relationship between level of competition and formal strategic management. He selected eighty medium enterprises (MEs) using simple random sampling. Primary data was collected using a semi-structured questionnaire. Results showed that the MEs have not fully adopted formal strategic management and that administrative/legal factors and competition influence adoption of strategic management.

Malhotra (2010) examined the influence of strategic management on corporate performance in selected small scale enterprises in Lagos, Nigeria. Cross sectional survey research method was adopted for the study and 140 participants were randomly selected among small-scale enterprises in Lagos metropolis. Findings of the study showed that strategic management enhances both organizational profitability and company market share.

Askarany and Yazdifar (2012), investigated the diffusion of six proposed strategic management tools of the past few decades through the lens of organizational change theory, examined the relationship between the adoption of these techniques and organizational performance in both manufacturing and non-manufacturing organizations in New Zealand. The findings suggested a significant association between the diffusion of these relatively new strategic management tools and organizational performance.

Muogbo (2013) examined the impact of strategic management on organisational growth and development in selected manufacturing firms in Anambra State, Nigeria. The

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study used a descriptive survey design to collect detailed and factual information. Cluster sampling was used to select equal number of manufacturing firm s from each sample cluster in the study. The data collection instrument was a structured questionnaire. He found out that Strategic management was not yet a common business practice among manufacturing firms in Anambra State.

Okwo and Ugwunta (2012) investigated the effect of input costs on profitability of brewing firms in Nigeria. A cross sectional data was gathered from the annual reports of the studied firms for a period of 1999 – 2010. The ordinary least square (OLS) stated in the form of a multiple regression model was applied in the analysis. The study found that the effect of focal variable RSGAE (Ratio of Selling and General Administrative Expenses) is statistically positive and impacted on profitability of the brewing firms in Nigeria.

X. Methodology

The study adopted *ex-post facto*r research design that made use of secondary data to examine the effect of entrepreneurial competencies have on the profitability of selected manufacturing firms quoted on Nigeria stock exchange. The choice of the design was based nature of the data. The study covered a period of sixteen (16) years (2002-2017) gathered from various annual reports of firms in Nigerian manufacturing industry. The sample of the study focuses on the four listed manufacturing firms in Nigeria among which are Nigeria breweries Plc, Guinness Nigeria Plc, Nestle Nigeria Plc, Uni-lever Nigeria Plc. The choice of the companies was because of their domination and impactful contributions with consumer goods leading with more than 52% of the total industry stake (National Bureau of Statistics, 2015) over the years. The method of data analysis was panel regression.

Model Specification

To analyze the respective relationships defined in prior sections, multiple regressions analysis is performed based on the following modification models as applied in other previous studies (Ahangar, 2011). The model been used is:

$ROA_{it} = Bo + B_1 (TPCT)_{it} + B_2 (MET)_{it} + \in_{it} \ldots (1)$

Where:

ROA = Return on Asset – indicates the firms' profitability as measured by the firms' returns expressed as a proportion of total asset.

TPCPC = Total personnel cost to production cost ratio
TETA = Total equity to total asset ratio
B_o = Constant term (intercept)
B_1 = Coefficient to be estimated
E = Error term

Table 2: Multiple Panel Regression for testing Hypotheses

Dependent Variable: ROA
Method: Panel Least Squares
Date: 11/01/20 Time: 08:06
Sample: 2002 2017
Periods included: 16
Cross-sections included: 4
Total panel (Balanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TPCPC	0.012910	0.039747	0.324792	0.7466
TETA	0.042681	0.031789	1.342627	0.1849
C	0.076837	0.012795	6.005066	0.0000

R-squared	0.835879	Mean dependent var	0.059897
Adjusted R-squared	0.700820	S.D. dependent var	0.027985
S.E. of regression	0.027973	Akaike info criterion	-4.264795
Sum squared resid	0.043038	Schwarz criterion	-4.158220
Log likelihood	126.6791	Hannan-Quinn criter.	-4.223282
F-statistic	1.023391	Durbin-Watson stat	1.845046
Prob(F-statistic)	0.366115		

In testing this hypothesis, total personnel cost to production cost ratio (TPCPC) and total equity to total asset ratio (TETA) was regressed against Return on Asset(ROA). The result of the multiple panel regression analysis summarized in table 2 shows the model to evaluate the impact of entrepreneurialcompetencies on profitability of firms in Nigeria manufacturing industry.

Return on Asset (ROA) = 0.076837 + 0.012910 TPCPC + 0.042681TETA

The empirical result shows that the coefficient of total personnel cost to production cost ratio (TPCPC) and total equity to total asset ratio (TETA) have positive effect onReturn on Asset(ROA); it means that total personnel cost to production cost ratio (TPCPC) and total equity to total asset ratio (TETA) have

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positive and direct influence on Return on Asset(ROA). The results of the t – statistics denotes that the coefficient oftotal personnel cost to production cost ratio (TPCPC) was not statistically significance. This is because observed values of t – statistics (0.324792) was less than its critical values (1.681).The results of the t – statistics denotes that the coefficient of total equity to total asset ratio (TETA) was not statistically significance. This is because observed values of t – statistics (1.342627) was less than its critical values (1.681).The results of the F – statistical test shows that the overall regression of the hypothesis one was not statistically significance. This is because observed value of the F – statistics (1.023391) was less than its critical value (3.2870). Again, our empirical result shows that the Pearson product moment correlation analysis (r) was 0.835879. The strength of relationship between the two variables was high.

Test of Hypothesis One

However, we accept the null hypothesis and conclude that total personnel cost to production cost ratio (TPCPC) has no significant effect on return on asset (ROA) of firms in Nigeria manufacturing industry.

Test of Hypothesis Two

However, we accept the null hypothesis and conclude that total equity to total asset ratio (TETA) has no significant effect on return on asset (ROA) of Nigeria manufacturing firms.

XI. Summary of the Findings

This study has the following findings:

I. Total personnel cost to production cost ratio (TPCPC) has positive but not significant effect on return on asset (ROA) of firms in Nigeria manufacturing industry (t – statistics (1.342627) < Critical values (1.681). The study result indicated that cost effective strategies will enhance human resources efficiency

II. Total equity to total asset ratio (TETA) has no significant effect on return on asset (ROA) of Nigeria manufacturing firms (t – statistics (1.342627) <Critical values (1.681).It suggests that the firms' policies should be reviewed and continually made to work in line with the profit plan of the organization.

5.2 Conclusion

The study concluded that there is positive insignificant impact of entrepreneurial competencies on profitability of firms in Nigeria manufacturing industry. The study also concludes that entrepreneurial competencies; production competencies, production competencies, human resources competencies, marketing competencies and entrepreneurial competencies affect the profitability of manufacturing firms in Nigeria. From the findings, it is apparent that while production competencies relates negatively but not significant with return on asset, same positively affects return on equity, showing that efficient use of production capabilities will result to increased profitability and yield to equity. Human resources competencies are found to have positive but not significant effect on ROA and ROE which implies need for more cost effective strategies that will ensure human capital efficiency while maximizing derivable values from same.

Marketing competencies which were found to have positive but not significant effect on both ROA and ROE suggest that efforts, innovation and strategies deployed by firms in the industry, seem effective but require reviewed in order to achieve cost effective attraction, enhanced customer patronage and in turn increase sales. Entrepreneurial competencies were discovered to account for a positive and significant effect on the return on equity (ROE) which suggests it has impact on the profitability of manufacturing firms in Nigeria.

5.3 Recommendations

Based on the findings of this study, the following recommendations were made.

I. The management of Nigeria manufacturing industry should re-strategize cost of human resources in the sector that places burden on the total cost of goods available for sales as well as the profit margin of the business. Accordingly, Companies should adopt human capital value oriented strategies. Bearing in mind, the essentials of competent and competitive work force to firm's survival in a rapid changing environment, companies should be provided with opportunity to develop programme and process to recruit, motivate and retain employees with capabilities to add value. This could be achieved through: creating effective and efficient personnel policies; providing professional training for managers; providing job training for workers; involving the employees in the decision making process; stimulating employee motivation, job satisfaction and morale; developing compensation and recognition based on performance

II. The management of Nigeria manufacturing industry should review and continually put work in line with the profit plan of the organization. As a result, policies pertaining capital structure, firm earnings and asset management should be emphasized.

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