# A STUDY OF HUMAN CAPACITY BUILDING AND PERFORMANCE OF MICRO AND SMALL TECHNICAL ENTERPRISES IN SOUTHWESTERN NIGERIA

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#### Abstract

The study examined the human capacity building (HCB) of micro and small technical enterprises (MSTEs) in Southwestern Nigeria (SN). The study used questionnaire for data collection. The questionnaire were administered on three hundred respondents in SN; Lagos, Oyo, Ondo and Ekiti states. Two hundred and forty-nine (83%) were retrieved and used for the analysis of the study. The study was analysed with both descriptive and inferential statistics. The study shows that larger proportion of the operators of MSTEs had pre-higher education (49.4%), with 3-5 technical workshops training (46.3%), less than 6 years of apprenticeship (98.4%), and had spent 3 years and above in technical education (91.9%). The study shows that HCB influences both sales volume (r =  $0.248^{**}$ , p<1% and r =  $0.329^{**}$ , p<1%) of the operators. The study shows that the 31% of relationship between HCB and performance of MSTEs in the study area was significant (F<sub>2.71</sub> = 3.712, p<5%) and concluded that improved human capital of the operators will enhance the performance of MSTEs in the study area.

Key words: HCB, MSTEs, Performance and Southwestern Nigeria

#### I INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) have gotten the attention of scholars and are generally recognized as the source of opportunity for transiting emerging economy to be developed (Porta and Shleifer, 2014). These MSMEs contributes 46.54% to Nigeria GDP in nominal terms {National Bureau of Statistics (NBS) and Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), 2010} and Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), 2010}. By implication, MSMEs are indispensable in the economy. In addition, MSMEs are majorly family-owned business, requiring low capital base (Report of National Technical Working Group on Small and Medium Enterprises, 2009).

Nigeria Government recognized the importance of MSMEs in the economy and have been zealously assisting this MSME sector (formal and informal) technically. Osotimehin *et al.*, (2012) noted that massive assistance (financial, technical, marketing and managerial) have been rendered by government to grow the activities of MSEs in Nigeria. Governments have stepped up efforts to promote the development and improve the performance of MSEs through incentive schemes and specialized financial institutions such as National Enterprise Development Programme (NEDEP). NEDEP was collectively implemented by three agencies such as The Bank of Industry (BOI), the Industrial Training Fund (ITF), and The SMEDAN. NEDEP was designed to strengthen the performance of contributor agencies across the Nigeria platform. Provision of technology incubation centres, and African Development Bank (ADB) to mention a few, all are to facilitate the improvement in the human capital of the operators and such will lead to increase in the performance of this sector. In addition, human capacity building; formal or informal is a medium for knowledge stock of an enterprise. Human capital reflects the capability and stock of knowledge within an enterprise (Inglis and Richmond, 2013). Hence, human capital is a set of acquired human capabilities or an embodiment of knowledge, skills, behaviours and commitment of employees in an enterprise, and such is a germane input to innovation.

#### (i) Statement of the problem

Despite government efforts in Nigeria to promote the activities of MSMEs activities, studies have shown the appalling performance of micro and small enterprises (MSEs) in Nigeria (NBS and SMEDAN, 2010; Ogaboh, Attah and Ebong, 2015). Researchers have attributed the dwindling performance of MSEs to exogenous factors. For instance, Ogaboh et al. (2015) have attributed it to poor finance and poor working conditions. Osotimehin, et al. (2012) and NBC and SMEDAN (2010) attributed the phenomenon to weak infrastructure, inconsistence of government policies, obsolete technology and cost of credit (interest rate, bank charges and monitoring charges). Few studies have attributed this poor performance to endogenous factor. Ekpenyong and Nyong (1992) reported that "failure of MSMEs is due to their low level of education and lack of prior business experience". Likewise, Adeleke, Jianguo and Uchechi, (2015) revealed that micro informal businesses are attributed with low human capabilities and are experiencing poor transition to small and medium enterprises which is due to their level of human capacity building. Ropega (2011) attributed it to both endogenous and exogenous factors such as formal and informal education and interplay of their business location. In addition, a baseline report of NBC and SMEDAN (2010), noted that "MSMEs generally lack the understanding and ability to determine the competencies that are required by an employee to fulfill his/her role. This phenomenon exists in all the sectors". This was also complimented by Osotimehin, et al., (2012) that many micro and small businesses have deficient managerial skills which slows down the capable routine of micro and small businesses in Nigeria. Furthermore, the challenges faced by micro and small enterprises (MSEs) are exacerbated for micro and small technical enterprises (MSTEs) because MSTEs have more specific and less interchangeable human capital. Studies have

shown the importance of human capital on the organization performance. For example, Ogaboh, et al., (2015) revealed that human capital is significantly and positively influencing the performance of enterprises in Nigeria. Likewise, Subramaniam and Youndt (2005), showed that humanware is an essential ingredient for enabling improved organization performance (radical innovation). There is dearth of information on endogenous factors influencing the performance of MSTEs in the study area which involved informal education such as training/apprenticeship, workshops and experience, and formal education such as compulsory education, pre-higher education and higher education. "This makes this phenomenon; capacity building an important area to be focused on (NBS AND SMEDAN, 2010)". The main objective of this study is to map the significance of human capacity building techniques of the operators of MSTEs in the study area so as to recommend policy interventions that is appropriate for human capacity building techniques in the study area. To achieve this objective, the study follows NBS and SMEDAN (2010) recommendation for human capacity building in the MSMEs such as formal and informal education in this sector; hence, this study will identify the human capacity building of the operators in the selected MSTEs, it will also examine the critical factors influencing the enterprises' performance and evaluate the impact of human capacity of the operators of MSTEs on their performance in southwestern Nigeria.

## (ii) Research questions

- (a) What is the status of human capacity building of the operators?
- (b) What is the impact of human capacity building on the performance of MSTEs in Southwestern Nigeria?

4

#### (iii). Hypothesis

- **H**<sub>0</sub>: There is no significant relationship between human capacity building and the performance of the enterprise.
- **H**<sub>1</sub>: There is significant relationship between human capacity building and the performance of the enterprise.

It is expected that the foregoing will provide sufficient information on the human capacity building of operators in the MSTEs so as to further fine-grained policy recommendations for actors in the sector. The rest of the article is organized as follows: review of literature, research methodology, results and discussion, conclusion and policy recommendations.

## II. REVIEW OF LITERATURE

#### (a) Conceptual review

Human capital has been defined differently by scholars based on different criteria which all revolves around "the product" of human capacity building channels. Sumbramaniam and Youndt (2005) defined human capital to be skills, knowledge and competence attributed to what individual uses. The genesis of one's human capital is a function of knowledge and skills acquired by individual through his/her learning activities. Human capital involved knowledge, competence, attitude and behaviour embedded in an individual. This was corroborated by Alan, Altman, and Roussel (2008) that the idea of human capital is to identify knowledge and skills obtained throughout educational activities which could be compulsory education, postsecondary education, vocational education and experience. Hence, it is an investment that people make in themselves to improve on their performance. Alan *et al.*, (2008) further opined that human capital entails the conglomerate of education, experience, training, intelligence, energy, trustworthiness and initiative that affect

the value of a worker's activities. The definition of human capital by Alan *et al.*, (2008) was adopted for human capital in this study. Human capital is the combination of skills, competencies, knowledge and personality attributes embodied in the ability to perform tasks and assignments which produce economic value (Amao, 2016). It is a combination of attributes acquired through both formal and informal learning such as education, training, experience, learning and development. It is the primary resource that is critical to the success of the best businesses and nations today." Therefore, training and education is one of the effective way of increasing the skills and productivity of human resources. Hence, education is an investment in human resources because it enhances learners' intellect, improve their quality of life and also improve the individuals' skills and efficiency in producing useful things (Machlup, 1982).

Human capacity building has been defined by scholars as the processes or channels of improving individuals' human capital. Chapagain (2004) defined capacity building as approach to develop individuals' potentiality in order to enhance their performance or organization performance. Brews (1994) further noted that capacity building is the content of empowerment, and empowerment is the value accrued to individual exposure. In addition, human capacity building process can be attributed to three basic forms; first through Science Technology and Innovation (STI) learning process which entails formal education such as pre-secondary school and post-secondary school. Second, through doing, using and interacting (DUI) which entails informal forms of learning process such as experience, apprenticeship, mentorship, observation and continuous usage. Thirdly, through the combinations of STI and DUI modes of innovation. This third aspect of human capacity building process wholly entails both the theory and application of the learning mode. Furthermore, Rahmeyer (2006) corroborated Brews' view of 1994, in his report of human capacity building process that learning and creation of knowledge happen in diverse

organizational ways. First, through scientific research and development and through acquiring experience by the employees in manufacturing (doing, using), such is internal to the firm. Secondly, by sourcing knowledge externally via Universities, research laboratories, competitors, customers and suppliers, this could be from reverse engineering, or from R&D cooperation with competing firms in different forms. He further noted that "the common pool of knowledge will increase in this way and serve as a basis for positive externalities for further creating and exploiting knowledge". Hence, both internal and external source of knowledge complement each other. Learning of individuals and organizations as a problemsolving activity, leads to new knowledge and capabilities. Rahmeyer (2006) further noted that the capabilities and competence of an enterprise will influence their decision strategies and determine their competitiveness in the industry. The type of strategies to be deployed by resourceful firms is a function of the competiveness of their business environment. Due to different sources of learning and knowledge, Rahmeyer (2006) differentiated knowledge in firms into four: First, internal implicit knowledge which are usually obtained via practical experience (learning by using), second, external implicit knowledge which are obtained via appropriation from the collective innovation system, third, internal explicit knowledge which are generated via in-house research and development (R&D) activities and forth, external explicit knowledge which are realized via formal R&D cooperation externally.

#### (b) Empirical review

Madubueze, Ananti, Onyekwelu, and Okpalibekwe (2015) studied manpower development and utilization in Nigeria's Local Government System, and deployed descriptive survey with the aid of Likert scale. The study was analysed with non-parametric test (Chi-square) and reported the existence of manpower development in the study area but the selection of staff for the development is not on merit basis and the trained staff are not properly placed in areas that will enhance their acquired skill. Madubueze *et al.*, (2015)

7

further reported that efficient human input is a criterion for efficient business operation and the benefits and loss experienced by the business is a function of caliber of people piloting the affairs of the business. However, Madubueze *et al.*, (2015) opined that organizations of any type are susceptible to danger when there is absence of suitable human resource and manpower administration.

Adejuwon, Taiwo and Ilori (2014) studied promoting technology adoption in the small-scale oil palm fruit processing sector in Southwestern Nigeria. The study used innovation system approach and the study analysis was basically on three types of interactions such as (i) interaction among actors in the innovation (ii) interactions sources of science, technology and innovation (STI) and (iii) doing, utilizing and interacting (DUI) forms of learning and innovation between fabricators of the processing technologies and processors. The result revealed that the innovation system in the sector is in two form such as formal and informal sector lines. This formal sector that possess the core of the technology and interact well with one another using STI mode of learning and innovation have produced technologies for all the five steps of processing oil palm fruits into palm oil, but the innovation has not been successfully adopted in the sector. The informal sectors include the processors and artisans who fabricated small-scale oil palm fruit processing technologies for two stages in the process using the DUI mode of learning and innovation. The technology produced by informal part of the system were largely based on imitation and cost innovations and have been widely adopted in the sector. Hence, the study recommended that technology adoption can be encouraged in the sector through production of technology fostered by both STI and DUI modes of innovation. The study also corroborated Jensen, Johnson, Lorenz and Lundvall (2007) that sources of successful innovations stems from firms that combine STI mode of learning with DUI mode of learning. This study did not consider how to bridge the gap between STI and DUI learning mode.

Odu (2011) revealed the importance of human capital development in Science and Technology Education to the sphere of life. The study revealed the history of human capital development in Technology Education in Nigeria and their challenges such as retraining of science and technology teachers, inadequate finance and limited information of competent technology trainers. The study focused on how the revealed challenges could be envisioned for successful implementation of efficient human capital development strategies and also the new responsibilities of the teachers for science and technology education in Nigeria. Likewise, Adelakun (2011) studied human capital development and economic growth in Nigeria. The study adopted conceptual analytical framework that is based on theoretical and ordinary least square (OLS) for the analysis of the relationship between the factors and response variable. The study used secondary data for its analysis such as gross domestic product (GDP) as a proxy for economic growth (response variable), total government expenditure on health and education, and the enrolment pattern of pre-secondary and postsecondary education as proxy for human capital (factor variables). The study revealed that there is strong and positive relationship between factors and respond variable. The study recommended that stakeholders needed to device a more practical means of developing human capabilities and proper institutional framework for human capacity needs in the various sectors for efficient and effective policies that will lead to the overall growth of the economy should be implemented.

Furthermore, Olatunle, Mukulu and Orwa (2015), studied the effects of career development on the performance of Small and Medium Textile Manufacturing Enterprises in Nigeria. The study used these proxy variables; career information, career counseling and career advancement to capture career development. The study administered questionnaire on the textile manufacturing SMEs in the Northern and Southern regions of Nigeria. The study deployed regression model for the testing of its hypothesis and revealed that proxy variables for career development significantly influences the workers and organizational performance. The study recommended that career development proxies should be given appropriate attention and commitment by the operators of the manufacturing SMEs. The study was region and registered biased by not considering other Textile Manufacturing Enterprises that are not in Northern and Southern region of Nigeria. Likewise, the study failed to consider the textile industry that had not registered with Corporate Affairs Commission (CAC).

#### (c) Theoretical review

This study is based on both solid theory and loose theory. Solid theories as defined by Arlbjorn and Halldorsson (2002) as an established theory such as Knowledge-based Theory (KBT), Resource-based Theory (RBT) and theory of vocational choice (TVC), while loose theory is made up of propositions or hypotheses explaining certain aspects of the real world. Loose theory is synonymous to 'barefoot empiricism'. Hence, surveys and case studies is the typical way of doing research based on loose theory (Marconi, 2011). Nevertheless, these established theories have gained the interest of researchers and underwent series of modifications.

(i) Knowledge-based theory: Kogut and Zander, (1992), and Grant, (1996) opined that knowledge is the core resource for achieving favourable entrepreneurial outcome. This is because knowledge will enhance entrepreneur's capability to exploit opportunities (Penrose, 1959). In addition, Nickerson and Zenger (2004), in a study of knowledge-based theory of the firm, explained how the choice of organization influence the efficient production and protection of valuable firm's resources (*especially the choice of whether to integrate or outsource activity*). The theory implies that the complexity of problem will determine the level of solutions search to curtail the problem, and this solution search will be influenced by the level of organizational knowledge.

(ii). **Resource-based theory:** This theory believes that enterprises should leverage on its internal resources and improve both its performance and its competitive strategies. In addition, business owner-managers should carefully manage their stocks and sources of knowledge to stay competitive in their industry (Sullivan and Marvel, 2011). Hence, Peteraf and Bergen (2003) opined that enterprises compete on the basis of their resources and capabilities and these resources are the amount of quality network ties of the enterprise and the competences of the enterprises.

(iii). Theory of vocational choice: This theory stipulated that a person will choose his/her career or occupation based on his/her self-concept or interest (Holland, 1985). Furthermore, exposure/environment determines the vocational choices of individuals. In addition, personality and personal values also determine the vocational choices of people.

### III RESEARCH METHOLOGY

#### (a) **Research design**

The study used purposive sampling method. The criteria used were: First, the enterprises must have been in operation for at least two years before the study. Second, it must be technical enterprise located in the southwestern part of Nigeria. The definition of NBS and SMEDAN (2010) for MSMEs was adapted for this study; number of personnel in the firm. This study was carried out in four randomly selected states from the southwestern region in Nigeria: Ekiti, Lagos, Ogun and Ondo. Three Local Government Areas were randomly selected from each of the selected states. Questionnaire was administered on twenty-five-technical business owner-managers from each of the selected Local Government Areas were ranking a total of three hundred respondents, but two hundred and forty-nine (83%) were retrieved and used for the study.

#### (b) Variables

(i) **Dependent variables:** The dependent variables were measured subjectively as per their profit level and sales volume. The organizational performance was measured subjectively because the respondents were not willing to explicitly reveal their profit *(monetary terms)* and sales volume *(quantity)*. This measurement approach is consistent with prior research for measuring organization performance (Hitt, Irelan, Camp and Sexton, 2001; Nyang'ori, 2010). The business owner-managers were asked to rank their profit and sales volume level in relation with their business activities. The Likert-type scale evaluation ranging from 1 (very low profit and very low sales volume) to 4 (very high profit and very high sales volume) was used for this study.

Independent variables: Key independent variables were (1) Years of business in (ii) operation (2) Owners' highest educational qualification (3) Years of vocational education (4) Years of apprenticeship /technical training (5) Number of technical workshop attended. For years of business in operation, owners and managers were asked to indicate the year their businesses have been in operation, and this was captured with new business (2-8 years) and established business (9 years and above). This year of business classification was in line with Li and Zhang (2007) that firms that are eight years old or younger are regarded as new venture/business and beyond eight years are established firms. For owner-manager's highest educational qualification, respondents were asked to tick their highest educational qualification. Qualifications were coded as 1 for compulsory education, 2 for pre-higher education and 3 for higher educational qualification. For years of vocational education, respondents that reported that they attended technical schools were asked to tick the number of years they spent. These years were coded as 1 for less than three years and 2 for three years and above. For years of apprenticeship/technical training, respondents were asked to indicate the years of their apprenticeship. These years of apprenticeship/technical training were coded 1 and 2 for less than six years and six years and above respectively. For number of technical workshop attended, respondents that reported that they attended technical workshops were asked to indicate the number of technical workshops they attended, less than three technical workshops attended was coded 1, three to five technical workshops attended was coded 2 and six and above technical workshops attended was coded 3.

#### (c) Method of data analysis

Data collected were analysed descriptively such as frequency and percentages, and inferentially such as Regression, Correlation analysis and ANOVA. Regression was used to check the relationship between factor variables and response variable. Correlation analysis was used to determine the magnitude and direction of the factor variables on the response variables in the study area. ANOVA was used to test the hypothesis of this study; to determine the significance of human capacity building and enterprise performance. The result of Cronbach's Alpha coefficient for determining the internal consistency of the scale used for response variables in this study was 0.936 (*see appendix i*), this revealed that the scale used for this study is reliable for use in other studies. An alpha level of 0.05 and 0.01 were chosen *a priori* as the level of significance which is 95 and 99% confidence level respectively.

## (d) Model specifications

The model determines the impact of Human capacity building of the operators of MSTEs on their performance (sales volume and profit level).

| HCB= FE and IFE  | (i)   |
|--|-------|
| FE= HEQ and YVE  | (ii)  |
| IFE=YBO, YAT and NTWA                                      | (iii) |
| OP = f(HCB) + E.   | (iv)  |
| OP = f(HEQ + YVE + YBO + YAT + NTWA) + E.                  | (v)   |
| Where:   |       |
| EP= Enterprise performance (Sales volume and Profit level) |       |

E= Error Term

HCB= Human Capacity Building

FE= Formal Education

IFE= informal Education

HEQ= Highest Educational Qualification

YVE = Years of Vocational Education

YBO = Years of Business in Operation

YAT= Years of Apprenticeship /Technical Training

NTWA= Number of Technical Workshop Attended

STI = Science Technology and Innovation (formal learning process)

DUI = Doing, using, and interacting (informal learning process)

Equation (iv) and (v) revealed the impact of human capacity building on the performance of MSTEs in Southwestern Nigeria.

## (e) Conceptual framework

This conceptual framework emanated from the studied theories; KBT, RBT and TVBC which revealed the importance of knowledge acquired via human capacity building and stock of resources to the achieving favourable entrepreneurial outcome (Penrose, 1959; Kogut and Zander, 1992; Grant, 1996; Peteraf and Bergen 2003; Nickerson and Zenger, 2004; Sullivan and Marvel, 2011) and theory of vocational choices determines their expertise and tenacity in successfully managing their businesses (Holland, 1985). *Hence, the conceptual framework revealed the dynamics of enterprise performance due to HCB (endogenous).* The framework depicts that HCB influences the enterprise performance in return influences the HCB via re-investment.

14



Figure 1:The relationship between the HCB and performance of the enterprisesSource:AuthorsLegendHCB= Human Capacity Building

FE= Formal Education

IFE= informal Education

# IV. RESULTS AND DISCUSSION

### **Objective one:** The human capacity building of the operators

From this study, Table 1 shows the mode of learning activities of the operators of MSTEs in the study area. It was revealed that operators in the study area used both formal and informal learning mode activities for building their human capital. Virtually, all the respondents had compulsory education but out of all, only 20.1% of the respondents had compulsory education as their highest educational qualification. This corroborated the main objective of Universal Basic Education (UBE) programme in Nigeria which is the provision of universal and compulsory basic education for every Nigerian child aged 6-15 years (Amuchie, Asoti and Audu, 2013). The UBE is in three phases; one, universal which means that it cut across all areas such as economic status, gender, disability status, The Table further showed that about 49.4% of the respondents had pre-higher education (junior and senior secondary certificate) as their highest educational qualification while just 26.9% of the

respondents had higher education qualifications (College, Polytechnic and University Education).

In addition, Table 1 shows the years the business has been in operation as reported by the business operators. The table shows that 49% of the businesses are new businesses and 48.6% of are established venture. According to Li and Zhang (2007), the firms that are eight years old or younger are accepted as new venture and beyond eight years are regarded as established. Furthermore, Table 1 shows the number of technical workshops attended by the operators of the enterprise. It was reveals that 32.9% of the respondents attended less than 3 technical workshops training, about 46.9% of them attended 3-5 technical workshops training while only 15% of the responses attended 6 technical workshops training. As regards the numbers of years spent as an apprentice, the table shows that majority (98.4%) of the respondents spent less than 6 years as an apprentice, while only 1.6% spent 6 years and above. On the years spent in technical education, out of the respondents that attended technical education, minority (8.1%) spent less than 3 years and majority (91.9%) spent 3 years and above.

| Characteristics Human Capacity Building                    | Frequenc | y Percent     |
|--|----------|---------------|
| Highest educational qualification (HEO) of the respondents |          |               |
| Compulsory Education                                       | 50       | 20.1          |
| Pre-Higher Education                                       | 123      | 49.4          |
| Higher Education   | 67       | 26.9          |
| No response  | 9        | 3.6           |
| Total  | 249      | 100.0         |
|  |          |               |
| Years of business in operation                             | 100      | 10            |
| New Venture  | 122      | 49            |
| Established Venture  | 121      | 48.6          |
| No response  | 6        | 2.4           |
| Total  | 249      | 100.0         |
| Number of Technical workshops training Attended            |          |               |
| Less than 3 technical workshops training                   | 27       | 32.9          |
| 3 – 5 technical workshops training                         | 38       | 46.3          |
| 6 and above technical workshops training                   | 13       | 15.9          |
| No response  | 4        | 4.9           |
| Total  | 82       | 100.0         |
| Vears of Annrenticeshin /Technical Training                |          |               |
| Less than 6 years  | 180      | 98.4          |
| 6 years and above  | 3        | 1.6           |
| Total  | 183      | 100.0         |
| Vegra Sport in Tashnical Education                         |          |               |
| Loss then 2 years  | 2        | Q 1           |
| Less than 5 years  | 5<br>24  | 0.1           |
| 5 years and above  | )4<br>)7 | 71.7<br>100 0 |
| 1 Otal   | 51       | 100.0         |

## **Table 1: Human Capacity Building of the Respondents**

# Objective two: The impact of human capacity building on the performance of MSTEs in Southwestern Nigeria

Table 2 reveals the impact of human capacity building of the operators on the enterprise performance. It was revealed that some factor variables are positively correlated and statistically significant such as highest educational qualification of the respondents and year of business operation ( $r = 0.146^*$ , p<5%), highest educational qualification of the

respondents and year spent as an apprentice ( $r = 0.165^*$ , p<5%). The magnitude of the correlation between the factor variables is weak, therefore, there is no multicollinearity.

Furthermore, not all the correlation between the factor variables and response variables are statistically significant. The table shows that the correlation between the highest educational qualification of the respondents and enterprise performance (profit level and sales volume) was positive and statistically significant ( $r = 0.250^{**}$ , p < 1% and  $r = 0.248^{*}$ , p < 1%) respectively. Hence, correlation between the numbers of technical workshop training attended and enterprise performance (profit level and sales volume) was positive and statistically significant ( $r = 0.299^{**}$ , p < 1% and  $r = 0.329^{**}$ , p < 1%) respectively. This shows that both formal learning activity (highest educational qualification of the respondents) and informal learning activity (number of technical workshop training attended) are statistically significant influencing the enterprises performance.

| Factor Variables | HEQ          | YBO    | YSA   | YSTE   | NTWA         | PL | SV    |
|------------------|--------------|--------|-------|--------|--------------|----|-------|
| HEQ              | 1.000        |        |       |        |              |    |       |
| YBO              | 0.146*       | 1.000  |       |        |              |    |       |
| YSA              | $0.165^{*}$  | -0.097 | 1.000 | •      |              |    |       |
| YSTE             | -0.217       | 0.075  | •     | 1.000  |              |    |       |
| NTWA             | 0.044        | -0.120 | •     | 0.481  | 1.000        |    |       |
| PL               | $0.250^{**}$ | 0.020  | 0.087 | -0.292 | $0.299^{**}$ | -  | 1.000 |
| SV               | $0.248^{**}$ | 0.002  | 0.083 | -0.282 | $0.329^{**}$ | -  | -     |

Table 2: The impact of human capacity building on the enterprise performance

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

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

Legends HEQ = Highest Educational Qualification of the Respondents YBO = Years of business operation YSA = Years spent as apprentice YSTE= Years spent in Technical Education NTWA= Number of Technical workshops attended PL = Profit level SV = Sales volume

Table 3 shows the significance of relationship between the human capacity building of the operators and the performance of MSTEs in Southwestern Nigeria. The Table reveals performance as result of sales volume and profit level transformed. The human capacity building is both formal education and informal education. The formal education is otherwise known as STI mode of learning process and informal education is otherwise known as DUI mode of learning process. Hence, Table 3 shows that 31% of relationship exit between human capacity building of the enterprises' operators and the enterprise performance. In addition, Table 3 shows that 9.5% of variation in the performance of the enterprise was explained by the human capacity building of the operators while 90.5% of variation in the enterprise performance was explained by the variables that were not included in the regression analysis. The variables were both external and internal to the enterprise such as government policies, infrastructure and operational routine of the firms etc. The study showed that relationship between the human capacity building of the operators and enterprise performance was statistically significant (F<sub>2, 71</sub> = 3.712, p<5%), see appendix ii. Therefore, the tested hypothesis "there is no significant relationship between human capacity building and enterprise performance" is now being rejected and alternative hypothesis is now being accepted, the study concluded that, "there is significant relationship between human capacity building and enterprise performance".

performance of the enterprise Model R F Sig. R Adjusted Std. Error of Square R Square the Estimate 1 0.308<sup>a</sup> 0.095 0.069 1.16208 3.712 0.029<sup>b\*</sup>

Table 3: The regression table of impact of human capacity building on the

#### \*significant = p<5%

This study corroborated previous studies. Atsu and Ojong (2014) revealed that there is a significant relationship between the provision of human capacity building programmes by government and development of MSMEs in Nigeria. Ogaboh et al., (2015) revealed that human capital is significantly and positively influencing the performance of enterprises in Nigeria. Likewise, Subramaniam and Youndt (2005) showed that humanware is an essential ingredient for enabling improved organization performance (radical innovation). The study also corroborated the reviewed theories; Knowledge based and Resource Based theories. Such as Grant (1996); Kogut and Zander (1992) that assert the importance of knowledge acquired via human capacity building to the achieving favourable entrepreneurial outcome. Likewise, Penrose, (1959); Nickerson and Zenger (2004) that believed that knowledge acquired will enhance entrepreneur's capability to exploit opportunities to stay abreast competitors. In addition, Salami (2016) reported that "no organization can perform beyond the competency of the leadership and as any organization will rise and fall depending on the leadership competency of the organization".

Furthermore, the theory of vocational choice determines the tenacity of entrepreneurs in successfully managing their businesses (Holland, 1985). The theory corroborate the choices of respondents' vocational choices such as *Automobiles, Salon (hairdressing and barbing), Graphic design (Art design, painting, photography and video), construction (build and bricks laying), block fabrication, aluminum fabrication (welding), publishing and printing, wood and wood products (furniture, carpentry and carving), food and beverages (meat processing), textiles, clothing, garment and leather works (leather shoe making, upholstery and tailoring) and farming (poultry and fishery).* The respondents are expertise in their vocation due to the knowledge they acquired (Grant, 1996).

### V. CONCLUSION AND POLICY RECOMMENDATION

The study has revealed that the number of actors of MSTEs that have higher education qualification is low, likewise the number of technical workshop training the actors attended. Hence, the study concluded that forms of learning mode (*formal and informal form*  *of human capacity building)* is very important in venture management. Hence, improved learning activities of the operators of MSTEs via both learning mode will lead to increase in the enterprise performance.

Therefore, the study recommends that capacity building should be paramount to the technical operators and policy makers in Southwestern Nigeria.

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# REFERENCES

- Adejuwon, O.O., Taiwo, K. A., Ilori, M.O. (2014): Promoting technology adoption in the small-scale oil palm fruit processing sector in south-western Nigeria: an innovation systems approach. *African Journal of Science, Technology, Innovation and Development*, 6(2):75-92. DOI: 10.1080/20421338.2014.924267.
- Adelakun, O. J. (2011): Human Capital Development and Economic Growth in Nigeria. *European Journal of Business and Management*, 3(9):29-39.
- Adeleke, O. B; Jiangsu, D. and Uchechi, O. (2015): Influence of Education, Experience, and Location on Work Satisfaction in Micro, Small and Medium Enterprises in Nigeria. *Journal of Management and Sustainability, Canada*, 5(2), 119-128. Accessed at URL:http://dx.doi.org/10.5539/jms.v5n2p119 on 27<sup>th</sup> July, 2016.
- Agba, A. M. Ogaboh; Frank M. Attah & Edem Ebong, (2015): Dwindling Performance of Small and Medium Enterprises in Nigeria: Can funding and better Working conditions be A Panacea? *Journal of Good Governance and Sustainable Development in Africa (JGGSDA)*, 2(4):88-95. Accessed on 28<sup>th</sup> July, 2016 at Website: http://www.rcmss.com
- Ahlstrom, D. and Bruton, G. D. (2006): Venture capital in emerging economies: Networks and Institutional change. *Entrepreneurship Theory and Practice*, 30(2), 299-320.
- Alan, K. M. A., Altman, Y., & Roussel, J. (2008): Employee Training Needs and Perceived Value of Training in the Pearl River Delta of China: A Human Capital Development Approach. *Journal of European Industrial Training*, 32(1), 19-31.
- Amao, I. (2016): Human Capital Development for Economic Growth and Poverty Alleviation in the Niger Delta Creating a New Generation of Nigerians and Niger Delta Youth.Lonadek Oil and Gas Consultants. Accessed at <u>www.lonadek.com</u> on 06<sup>th</sup> June, 2016.

- Amuchie, A. A., Asotibe, N. and Audu, C. T. (2013): An Appraisal of the Universal Basic Education in Nigeria. *Global Journals Inc. (USA.)*. Accessed on 4<sup>th</sup> June, 2016 at <u>https://globaljournals.org/GJMBR\_Volume13/1-An-Appraisal-of-the-Universal-basic.pdf</u>
- Arlbjørn, J. S. and Halldorsson, A. (2002): Logistics knowledge creation: reflections on content, context and processes, *International Journal of Physical Distribution and Logistics Management*, 32 (1), 22-40. DOI http://dx.doi.org/10.1108/09600030210415289
- Atsu, I. A. and Ojong, C. M. (2014): The Role of Government in the Development of MSMEs in Nigeria between 1991 and 2102. *International Journal of Business and Social Research*, 4(12), 16-26. Accessed on 27<sup>th</sup> July, 2016. Accessed at <u>http://thejournalofbusiness.org/index.php/site/article/viewFile/636/485</u>.
- BAM, (2014): Business model adaptation in new ventures: are technology-based firms different?*The British Academy of Management UK*,<u>http://www.bam.ac.uk/</u>. Accessed on 6/3/2016.
- Brews, A. (1994): The Capacity Building Debate, MULBERY Series, OLIVE (Organization Chapagain, Chandi Prasad (2004).*Human Resource Capacity Building, Through Appreciative Development and Training*), 23 Acacia Road, Glenwood, Durban, 4001. Accessed on 14/05/2015.

Dada, A. D., Siyanbola, W. O., Ilori, M. O. and Olamide, M. O. (2011): On the Nexus between

Technological Innovations and Competitions of SMEs in a Developing Economy. *Technology and the Global Challenges:Security, Energy, Water and the Environment.* Proceedings of the 20<sup>th</sup> International Conference on Management of Technology (IAMOT 2011), Miami Beach, Florida, USA, April 10-14.

- Ekpenyong, D. B., and Nyong, M. O. (1992): Small and medium-scale enterprises in Nigeria: their characteristics, problems and sources of finance. *Evolutionary Theory of the Firm.* H. Hanusch and A. Pyka (eds.) (2006), Elgar Companion to Neo-Schumpeterian Economics. Chaltenham, Nothampton, Ma: Edward Elgar.
- Grant, R. M. (1996): Toward a knowledge-Based Theory of the firm, *Strategic Management Journal*. 17, 109-122.
- Hitt, M. A., Ireland, R. D. Camp, S. M. and Sexton, D. L. (2001): Guest Editors' Introduction to the Special Issue Strategic Entrepreneurship: Entrepreneurial Strategies for Wealth Creation, *Strategic Management Journal*, 22, 479-491.
- Holland, J, L. (1985): *Making Vocational Choices*, 2<sup>nd</sup> ed. Englewood Cliffs, NJ: Prentice Hall.
- Inglis, I and Richmond, K. (2013): The technology company development journey from concept to commercialization. *FRASER ECONOMIC COMMENTARY*. Accessed on 26<sup>th</sup> July, 2016.

- Ilori, M. O. (2010): Technical Entrepreneurship Development, Paper Presented at the Yaba College of Technology Lagos. Accessed on 10/12/2014.
- Jensen, M. B., Johnson, B., Lorenz, E., Lundvall, B. (2007): Forms of knowledge and modes of innovation. *Research Policy 36*: 680–693. Accessed at Sciencedirect.com, on 28<sup>th</sup> July, 2016.
- Kogut, B., and Zander, U. (1992): Knowledge of the Firm, Combinative Capabilities, and the Replication of Technology, *Organization Science*, 3(3), 383-397.
- Li, H., and Zhang, Y. (2007): The Role of Managers' Political Networking and Functional Experience in New Venture Performance: Evidence from China's Transition Economy. *Strategic Management Journal*, 28, 791-804.
- Machlup, F. (1982): Issues in the Theory of Human Capital: Education as Investment. *The Pakistan Development Review*, 21(1),1-17.
- Madubueze, M. C., Ananti, M. O., Onyekwelu, R. U., and Okpalibekwe, N. U. (2015): Manpower Development and Utilization in Nigeria's Local Government System: A Study of Ayamelum Local Government Area, Anambra State. *Research on Humanities and Social Sciences*, 5(8), 105-121.
- Marconi, S. (2011): *Applicability of Operation Research in Manufacturing Logistics*. Doctoral Theses, Published at NTNU. Accessed on 27<sup>th</sup> June, 2016.
- Marvel, M. R. and Lee, I.H. (2011): Gender and the Innovation Activity of Entrepreneurs: A Multilevel Analysis, *Frontiers of Entrepreneurship Research*. 31(8). Accessed at: <u>http://digitalknowledge.babson.edu/fer/vol31/iss8/1</u>.
- NBS AND SMEDAN (2010): Survey Report on Micro, Small and Medium Enterprises (MSMEs) in Nigeria. Preliminary Report. Accessed on 20/12/2015 and Retrieved from http://www.nigerianstat.gov.ng/pages/download/67.
- Nickerson, J.A. and Zenger, T. R. (2004): A Knowledge-Based Theory of the Firm: The Problem-Solving Perspective, *Organization Science*, 15(6), 617-632. Accessed at http://www.jstor.org/stable/30034765.
- Nyang'ori, R. (2010): Factors influencing performance of micro and small enterprises: a case of Kisumu City Bus Park-Kenya.*erepository.uonbi.ac.ke*.Accessed at on 3<sup>rd</sup> July, 2016. https://kca.academia.edu/RuthNyangori.
- Odu, K.O. (2011): Human Capital Development in Science and Technology Education: Challenges and New Responsibilities of the Teacher. *Contemporary Educational Technology*, 2(3), 238-249.
- Olatunle, M. A., Makulu E. and Orwa G, (2015): Effects of Career Development on the Performance of Small and Medium Textile Manufacturing Enterprises in Nigeria. *International Journal of Development Strategies in Humanities, Management and Social Sciences.* 5(2), 280-294.

- Osotimehin, K. O., Jegede, C. A., Akinlabi, B. H., and Olajide, O. T. (2012): An evaluation of the challenges and prospects of micro and small scale enterprises development in Nigeria. *American International Journal of Contemporary Research*, 2(4), 174-185.
- Penrose, E. T. (1959): *The theory of the growth of the firm.* 3<sup>rd</sup> edition, Oxford University Press: Oxford. Accessed on 20/12/2015.
- Peteraf, M. and Bergen, M. (2003): Scanning dynamic competitive landscapes: a market based and resource-based framework, *Strategic Management Journal*. 24, 1027-1041.
- Porta, R. L., and Shleifer, A. (2014): The unofficial economy in Africa. In *African Successes:* Sustainable Growth. University of Chicago Press.
- Rahmeyer, F. (2006): From a Routine-Based to a Knowledge-Based View: Towards an Inquiry Approach in Achieving Developmental Goals. Ph.D. Dissertation Published by Madison University, U.S.A.
- Rai, S.K., (2008): Indian entrepreneurs: an empirical investigation of entrepreneur's age and firm entry, type of ownership and risk behavior. *Journal of Service Research*, 8(1).
- Report of the Vision 2020. (2009): National Technical Working Group on Small and Medium Enterprises (SMEs). Accessed on 20/12/2015 and Retrieved from <u>http://www.npc.gov.ng/vault/files/small%20and%20medium%20enterprises%20ntwg</u> <u>%20report.pdf</u>
- Ropega, J. (2011): The reasons and symptoms of failure in SME. *International Advances in Economic Research*, 17(4), 476-483. <u>http://dx.doi.org/10.1007/s11294-011-9316-1</u>
- Salami, A. (2016). Moving Great Ife A Notch Higher (2016-2021). Accessed on 27<sup>th</sup> July, 2016.
- Subramaniam, M. and Youndt, M. A. (2005): The Influence of Intellectual Capital on the types of innovative capabilities. *Academy of Management Journal*. 48(3): 450-463.
- Sullivan, D. and Marvel, M. (2011): How Entrepreneurs' Knowledge and Network Ties Relate to the Number of Employees in New SMEs. *Journal of Small Business Management*, 49(2), 185-206.

#### Appendix

### Appendix

| ANOVAª |            |                |    |             |       |                   |  |
|--------|------------|----------------|----|-------------|-------|-------------------|--|
| Model  |            | Sum of Squares | df | Mean Square | F     | Sig.              |  |
|        | Regression | 10.025         | 2  | 5.012       | 3.712 | .029 <sup>b</sup> |  |
| 1      | Residual   | 95.881         | 71 | 1.350       |       |                   |  |
|        | Total      | 105.905        | 73 |             |       |                   |  |

a. Dependent Variable: Performance

b. Predictors: (Constant), Highest Education of the Respondents, Number of Technical workshops attended