DETERMINATION OF COMPETENCY FRAMEWORK FOR TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) EDUCATORS IN NIGERIAN TERTIARY INSTITUTIONS

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DEDICATION

This thesis is dedicated to my father, Adamu Mohammed Fulani and my mother Aisha Mohammad Adamu.

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ABSTRACT

Lack of competent TVET Educators in Nigerian institutions has led to several problems such as low quality graduates and unemployment. Competency is a vital element for assessing the quality of technical and vocational education and training (TVET) Educators. Therefore, this research investigated the TVET Educators ' perceptions on competency needs in Nigerian tertiary institutions based on Malaysian Human Resource Development Practitioners (MHRDP) competency model for workplace learning and performance (WLP). Apart from that, this study also aimed at investigating the perception differences on competency elements among difference TVET tertiary institutions in order to enhance their quality. The study was fully quantitative and 218 questionnaires were systematically distributed to the TVET educators from five tertiary institutions based on the stratified sampling technique. A total of 205 questionnaires were returned. Descriptive and inferential statistical methods such as mean, EFA and ANOVA were used to analyse the data. The research found that Nigerian TVET educators perceived all the competency elements (25 constituents) as important; 19 out 25 constituents of competency framework were significantly related to Nigerian tertiary institutions. The research findings also revealed that there was no statistically significant differences among the TVET educators perception on competency elements across different types of TVET tertiary institutions. The developed competency framework for Nigerian TVET tertiary institutions contributes originally to the body of knowledge. The research recommends that government and other relevant authorities should emphasize on the implementation of the framework to tertiary institutions in Nigeria. A similar research should be undertaken to extend the result to reflect other Non-TVET educators in Nigeria.

ABSTRAK

Kekurangan guru PLTV yang kompeten di Institusi Pengajian Tinggi (IPT) di Nigeria telah menyebabkan beberapa masalah, antaranya adalah kualiti graduan yang rendah dan kadar pengangguran yang tinggi. Kompetensi merupakan salah satu elemen penting untuk mengatasi masalah tersebut serta menilai kualiti Pendidikan dan Latihan Teknikal dan Vokasional (PLTV). Oleh itu, penyelidikan ini dilaksanakan untuk mengkaji persepsi guru-guru PLTV tentang keperluan kompetensi di IPT di Nigeria berdasarkan Model Kompetensi Pengamal Pembangunan Sumber Manusia Malaysia (MHRDP-Malaysia Human Resource Development Practitioners) untuk Prestasi Pembelajaran berasaskan Kerja (WLP-Workplace Learning Performance). Selain itu, penyelidikan ini juga bertujuan untuk mengkaji perbezaan persepsi pendidik PLTV mengenai komponen kompetensi (Kompetensi Pemikiran, Kompetensi Aplikasi dan Kompetensi Organisasi) antara kategori IPT PLTV. Kajian ini menggunakan pendekatan kuantitatif di mana sebanyak 218 borang soal selidik telah diedarkan kepada guru-guru PLTV dari lima IPT berdasarkan teknik persampelan berstrata. Sejumlah 205 borang soal selidik telah dikembalikan. Kaedah statistik deskriptif dan inferens seperti nilai min, EFA dan ANOVA telah digunakan untuk menganalisis data. Hasil kajian menunjukkan guru-guru PLTV di Nigeria beranggapan bahawa semua unsur kompetensi (25 unsur kompetensi) adalah penting. Selain itu, didapati 19 daripada 25 unsur dalam model kompetensi sangat berkaitan dengan IPT di Nigeria. Hasil kajian juga menunjukkan bahawa tidak terdapat perbezaan yang signifikan mengenai persepsi guru PLTV terhadap elemen kompetensi antara kategori IPT di Nigeria. Sebagai kesimpulan, kerangka kompetensi yang dibangunkan sesuai digunakan untuk semua kategori IPT PLTV di Negeria. Kajian ini mencadangkan agar kerajaan dan pihak berkuasa yang berkaitan harus memberi penekanan terhadap pelaksanaan kerangka ini kepada IPT di Nigeria. Selain itu, kajian lanjut juga boleh dilakukan untuk mengkaji kompetensi guru-guru yang bukan dalam bidang PLTV di Nigeria.

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LIST OF SYMBOLS AND ABBREVIATION

AGPS	- Australian Government Publishing Service
ANOVA	- Analysis of Variance
APP	- Application Competency
ASTD	- American Society for Training and Development
AT	- Apprenticeship Training
ATAP	- Abubakar Tatari Ali Polytechnic
ATBU	- Abubakar Tafawa Balewa University
AU	- African Union
BIEIS	- Bauchi Institute of Education and Islamic Studies
COE	- College of Education
COM	- TVET Educator Competency
CTE	- Career and Technical Education
D	- Difference
DF	- Degree of Freedom One
EFA	- Exploratory Factor Analysis
EI	- Extremely Important
EU	- European Union
F	- Frequency
FE	- Further Education
FMOE	- Federal Ministry of Education
HND	- Higher National Diploma
HOD	- Head of Department

HRD	- Human Resource Development
I	- Important
ILO	- International Labour Organisation
IOE	- Institute of Education
KMO	- Kaiser- Meyer- Olkin measure
K S	- Kolmogorov-Smirnov
M	- Mean
MANOVA	- Multivariate Analysis of Variance
MAX	- Maximum
MHRDP	- Malaysian Human Resource Development Practitioners
MIN	- Minimum
MOE	- Ministry of Education
MS	- Mean Sum
N	- Number
NATT	- National Association of Technology Teachers
NBTE	- National Board for Technical Education
NCCE	- National Commission for Colleges of Education
NCE	- National Certificate of Education
ND	- National Diploma
NERDC	- Nigerian Educational Research and Development
NI	- Not Important
NPE	- National Policy on Education
NUC	- National University Commission
OE	- Occupational Education
ORG	- Organisational Competency
PCA	- Principal Component Analysis
PVE	- Professional and Vocational Education
R	- Ranking
RI	- Ranking of Importance
SD	- Standard Deviation

SE	- Standard Error
SI	- Slightly Important
SIG	- Significance
SPSS	- Statistics Package for Social Science
SS	- Sum of Square
TAFE	- Technical and Further Education
TE	- Technical Education
THI	- Thinking Competency
TTTP	- Technical Teachers Training Programme
TRCN	- Teachers Registration Council in Nigeria
TVET	- Technical and Vocational Education and Training
USES	- United State Elementary Schools
VE	- Vocational Education
VET	- Vocational and Technical Education
VI	- Very Important
WE	- Workforce Education
WLP	- Workplace Learning and Performance

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Competency is a vital element for assessing the quality of technical and vocational education and training (TVET) Educators. This research investigates the TVET Educators perceptions of competency need in Nigerian tertiary institutions. Due to the importance of competency needs of TVET educators in some developing countries that desired for rapid educational development, necessitate this research study. Though, the challenges of TVET educators are common in developing countries; it affects the success, career development, future planning and their competencies. Oluwasola, (2014) found that negligence and inadequacy of curricula implementation in TVET institutions, over dependence on improvised materials for instruction against real equipment and non-involvement of TVET educators in decision making were among the factors that lead to the turnover of incompetent TVET educators in the Nigerian TVET institutions. These problems could be contextualized from the perspective of the different competency components such as organisational, thinking and application competency. For instance, one of the elements of organisational competency is work environment analysis which deal with the nature of the environment in which the employee operates. Therefore linking the problem of workplace performance and leadership in TVET institutions are some of the element of thinking competency while, the issues regarding selection or retraining of TVET educators in order to improve their career development is more related to application competency. This calls for the need to explore the competency needs of TVET educators in Nigeria from the perspective of the

Malaysian Human Resource Practitioners Development (MHRDP) Competency Model (Salleh, 2012).

This research developed a competency framework for Nigerian TVET tertiary institutions which can be replicated to all levels of education together with organisational domain. This competency framework is a comprehensive structure that describes the different elements of competency such as organisational competency, thinking competency and application competency with its specific set of behavioural constituents which can be applied to primary, post primary and tertiary institution. The relevance of this study to the established competency framework were reviewed to suit the TVET educators in Nigerian tertiary institutions. Moreover, the competency framework for this study was founded based on a MHRDP competency model developed by (Salleh, 2012). Therefore, this introductory chapter discusses the background of the study, problem statement, research objectives, research questions, significance of the study, scope, conceptual framework, operational definition of the study and the chapter conclusion.

1.2 Background of the study

The word competency was initially discussed and assessed by David McClelland in the early 1970's as a real features that individuals possesses such as skills, knowledge and ability of worker performance which can be predicted, measured and assessed. Although, the first research of competency that came out with human resource development was done by McLagan in 1989 who believed competency is an area of knowledge and skills of individuals to produce vital key output (McLagan, 2002). Competencies of technical and vocational education and training (TVET) TVET educators as illustrated by Andersson and Köpsén, (2015); Arfin and Rasid, (2017) are exactly those skills, knowledge, attitudes, values, tasks and appreciations that are well considered as critical success by getting them in life. Globally, TVET educators should be competent in managing classroom, skill acquisitions and workshop, how to use the teaching aids, assessed and evaluated students, good methodology of teaching, to recognized their students, to meet the needs of their students in the classroom, to become a role model to their students, and more

importantly to be able to transfer the necessary technical knowledge and vocational skills efficiently and effectively (Okoye, 2015; Oluwasola, 2014; Oni, 2007).

Nigeria as developing country in the world, needs to have competent TVET educators for educational development and socioeconomic advancement that would lead to an egalitarian society with full of opportunities. In order to be among the successful countries of the world, higher learning institutions need to provide competent TVET educators with diverse technical know-how and advance skills to meet the challenges of real time in tertiary institutions (Ismail & Mohammed, 2015). A lot of challenges have been taking place in the world of work including Nigerian tertiary institutions as revealed by (Berg & Chyung, 2008; Oni. 2007). However, this has resulted in the need for continuous learning and updating competencies of employees or TVET educators across all ages (Paloniemi, 2006). Therefore, competency needs are categorized in many dimension of life endeavour such as ability, skills, knowledge, attitude and behaviour possessed by employee in order to perform a task effectively and efficiently (Boyadzis, 2008). It is more valuable for employees to develop and improve their work ability, capability and skills thoroughly most especially for TVET educators (Billett, 2001). Lack of competency in the higher learning institutions can bring more challenges which will require new ways to accomplish teaching and learning processes as justified by the works of (Ali, 2015; Salleh, Sulaiman, Mohamed & Sern, 2015). It is accurate, to note that challenges relating to competency affect many institutions worldwide of which the Nigerian TVET tertiary institutions are not an exception. However, the competency model has been used as a veritable tool for minimizing these unconditional challenges.

Competency model is an element that identifies the needed competencies in order to minimize the challenges that are currently existing in the institutions (Fogg, 1999). Consequently, many institutions are adapting and adopting competency based model in order to achieve their objectives. (Berge, de Verneil, Berge, Davis, & Smith, 2002).

Furthermore, this study investigated the TVET educators' perceptions on competency needs in Nigerian tertiary institutions, based on Malaysian Human Resource Development Practitioners (MHRDP) competency model for workplace

learning and performance (WLP) developed by Salleh, (2012). The model has three elements (organisational, thinking and application competency) and 25 different constituents of competencies which has been used and tested in industries, Community Colleges and Skill Institutes of Malaysia (Ahmad, 2015; Ahmad, 2016; Salleh, 2012).

This study will determine the competencies needed for TVET educators in Nigerian tertiary institutions, though, the use of the Malaysian HRD practitioners' competencies questionnaire as a yardstick for TVET educators to study which competencies are suitable and best to comprehend in tertiary institutions based on Nigerian educational system.

Education plays a vital role in supporting the economic development for both developed and developing nations (Dufera, 2008). The educational system in Nigeria is based on 6- 3- 3- 4 system. This system consist of six years for primary school, three for junior secondary school, three for senior secondary school and four years for higher or tertiary institutions. The responsibility of running such institutions is shared, thus primary schools is monitored by Local Government (LG), secondary schools by the State and Federal Government (SG & FG) through the intervention of State and Federal Ministries of Education (MOE & FMOE). Furthermore, the Federal Government (FG) is directly involved with tertiary education. The tertiary institutions consist of Universities, Polytechnics, and Colleges of Education. Moreover, the Federal Ministry of Education (FMOE) is responsible for regulating the policies of all the educational sector in the country (Ada, 2014).

TVET is an aspect of formal educational system that combined the three levels of education (Primary, Secondary and Tertiary) with the aims of meeting the nation's need for skilled and semi-skilled manpower and reinforcing the economic state of people and the country in general (Descy & Tessaring, 2005). Moreover, TVET, is a type of education that promotes the improvement of Knowledge, attitudes and Skills which enrich the heart of individuals. That means it is the education for those that really need it, those that really want it and those who really want to progress by it (Okoye & Okwelle, 2013). According to National Policy on Education NPE (2013), TVET is an aspect of education which lead to the acquisition of

practical and applied skills as well as basic scientific knowledge for the development of the nation. It was introduced in Nigeria with the aims to:

a. Provide trained man power in the applied sciences, technology and business, particularly at craft, advance craft and technical levels.
b. Provide the technical knowledge and vocational skills necessary for Agriculture, Commerce, Industry and Economic development of the nation.
c. Give training and impart the necessary skills and knowledge to individuals for self-reliance economically.

TVET Educator programmes are designed to empower TVET educators through the development of their skills, knowledge, abilities, cognitive understanding, attitudes, work habits and competence. This is expected to prepare them practically for self-employment and to graduate competent TVET educators from the institutions (Oni, 2007). Similarly, Olaitan, (2010) TVET educators are precisely trained for competency in the classroom and laboratory instructions. Therefore, the TVET educators must have confidence in technical content as well as methodology of improving the knowledge.

A trained workforce is one of the most basic requirements for accomplishing defensible national security and development of any nation. It is the key for building holistic technical skills and entrepreneurial workforce for sustainable developments of a nation (Okoye & Okwelle, 2013). However, UNESCO, (2014) provide a general as well as academic perception of the TVET educator both in line with general education and TVET which is regarded as the backbone of education and training system. Therefore, TVET educators are the key players of any nation's educational setting and their competencies matters a lot. In a nut shell, the education sector cannot be under estimated, since no country can rise above the quality of its educational system. Thus, it is the same to mention that, no educational system can rise above the competency of its TVET educators (Akhuemonkhan & Raimi, 2013; Oni, 2007).

Notwithstanding the modern importance attached to TVET educators as the solution providers and the most appropriate state owned machineries for tackling the growing unemployment in developing countries, for the development and application

of TVET in many countries at large and Nigeria in particular, this structured program yet has numerous challenges (Okoye at el., 2013). The effectiveness of delivery of TVET application is very low because the institutions give more emphasis on theory and certification instead of acquiring skills, proficiency testing and competency (Oluwasola, 2014). Furthermore, Igberadja, (2014); Nwogu and Nweanoruo (2011), reported that the challenges of TVET educators among others are numerous such as, inadequate instructional material, poor quality and quantity in terms of material resources, lack of financing of TVET programmes, poor infrastructural facilities, lack of quality preparation of lesson by TVET educators and lack of employable skills among the TVET educator for them to impart or to transfer it to their students. Furthermore, poor training of Educators , obsolete equipment and lack of instructional materials are some of the key factors for concern (African Union, 2007). Eze (2013), observed that the set objectives of the Nigerian Government about TVET programme is still facing a lot of problems and further highlighted the major to be of inadequate funding Therefore, all the above mentioned challenges may not allow the Educators to function effectively

In order to improve the quality of delivery, the professional development program is necessary to evaluate the current performance of TVET educators. According to Hanimastura, Hairulliza, and Meriam (2016), the curriculum of TVET is based on a career title which plays a vital role in producing skilled and semi-skilled manpower in the world. Therefore, the usefulness and the competency of TVET educators should be given more concern in order to ensure the productivity of human capital accomplishes the prerequisite of job market and industries. Similarly, Alexander (2008), opined that technological knowledge is a vital competency required by every TVET educators to produce other means of instructional methods. Nowadays, technological knowledge is no longer realised as instrument used to conduct teaching and learning processes but has becomes a necessity and compulsory knowledge (competency) every TVET educator must have (Mishra & Koehler, 2008; Tang, Wong, & Cheng, 2016).

Unfortunately, Akhuemonkhan et al., (2013); Kigwilu and Githinji, (2015) reported that TVET educators were lacking of technological knowledge competencies which had led to an unproductive teaching and learning process

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