



***CAREER ADAPT-ABILITIES AMONG TECHNICAL AND VOCATIONAL
EDUCATION STUDENTS IN COLLEGES OF EDUCATION, NIGERIA***

AMOS SHAIBU EBENEHI

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By

AMOS SHAIBU EBENEHI

**Thesis submitted to the School of Graduate Studies, Universiti Putra Malaysia, in
Fulfilment of the Requirements for the Degree of Doctor of Philosophy**

February 2016

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DEDICATION

This Thesis is dedicated to God Almighty by whose divine mercy, inspiration, guidance, and provision, this study was made possible.



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirements for the Degree of Doctor of Philosophy

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Chairman : Associate Professor Abdullah Mat Rashid
Faculty : Educational Studies

This study sought to understand the relationship between vocational identity, career future concern, personal goal orientation, perceived social support, career self-efficacy, and career adapt-abilities, and also the significant predictors of career adapt-abilities among technical and vocational education (TVE) students in colleges of education in Nigeria respectively. The study used 603 TVE students from six randomly selected colleges of education in Nigeria. The selected TVE students, who cut across all the three levels of the TVE program of the colleges, were drawn from agricultural, business, and technical education course majors. Correlational research design was used for the study. A set of self-reported structured questionnaire was used for data collection through direct administration of the instrument on the participants by the researcher. Descriptive statistics (frequencies, percentages, mean, and standard deviations), as well as, inferential statistics were used to analyze the data, based on the research questions, and hypotheses of the study. The findings of the study revealed that the mean scores of male TVE students were higher than those of the females in vocational identity, career future concern, personal goal orientation, career self-efficacy, and career adapt-abilities, but, females scored higher than males in perceived social support. The findings indicated that the relationship between vocational identity, personal goal orientation, perceived social support, career self-efficacy, and career adapt-abilities among TVE students was in each case positively significant with substantial strength of relationship. The findings also showed that personal goal orientation, and career self-efficacy were significant predictors of career adapt-abilities among TVE students in colleges of education in Nigeria. On the other hand, vocational identity, and perceived social support were not significant predictors of career adapt-abilities among the TVE students. However, all the predictors collectively accounted for a reasonable variance of the total variance in career adapt-abilities among TVE students in colleges of education in Nigeria. Furthermore, the findings indicated that, there was a direct mediation effect of career self-efficacy on the relationship between personal orientation and career adapt-abilities among TVE students in colleges of education in Nigeria. The study suggested that TVE managers, educators, and counselors should provide career adapt-abilities awareness and enhancement programs using especially, the measures of personal goal orientation, perceived social support, and career self-efficacy, to enrich career adapt-abilities among their students. In addition, special career orientation program, trips to industries, flexible and creative projects, career public lectures, problem solving techniques, and career interactive forum through innovative instructions, research, and counseling

services should be encouraged and sponsored by the management of TVE colleges to enhance career adapt-abilities among the students. The management of the TVE colleges should provide adequate career adapt-abilities resources for students' career exploration, and make it a policy to ensure proper monitoring of the career adapt-abilities progress of their students through regular assessment exercise from their point of entry into the colleges to the time of their graduation from the colleges. Proper monitoring will help the management to plan relevant career adapt-abilities intervention programs for the TVE students. Suggestions were also made for further studies on career adapt-abilities.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Doktor Falsafah

**KEBOLEHSUAIAN KERJAYA DI KALANGAN PELAJAR-PELAJAR
PENDIDIKAN TEKNIKAL DAN VOKASIONAL DI KOLEJ-KOLEJ
PENDIDIKAN , NIGERIA**

Oleh

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Februari 2016

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Fakulti : Kajian Pendidikan

Kajian ini ingin memahami perhubungan di antara identiti vokasional, keprihatinan terhadap kerjaya masa depan, orientasi matlamat peribadi, persepsi sokongan sosial, kecekapan sendiri kerjaya, dan kebolehsuaian kerjaya, serta peramal-peramal signifikan kebolehsuaian kerjaya di kalangan pelajar-pelajar pendidikan teknikal dan vokasional (TVE) di kolej-kolej pendidikan di Nigeria. Kajian menggunakan 603 orang pelajar TVE dari enam kolej pendidikan yang telah dipilih secara rawak di Nigeria. Pelajar-pelajar TVE terpilih ini, yang berada dalam tiga aras program TVE kolej-kolej berkenaan, diambil dari pengkhususan pertanian, bisnes dan pendidikan teknikal. Rekabentuk kajian korelasi telah digunakan untuk kajian ini. Satu set soal-selidik berstruktur laporan sendiri telah digunakan untuk pengumpulan data melalui pengurusan langsung instrumen ke atas peserta oleh pengkaji. Statistik deskriptif (frekuensi, peratusan, min dan sisihan berpiawai), begitu juga dengan statistik inferens telah digunakan untuk menganalisa data, berdasarkan soalan-soalan kajian, dan hipotesis kajian. Dapatan kajian menunjukkan bahawa skor min pelajar-pelajar lelaki TVE adalah lebih tinggi daripada perempuan dalam identiti vokasional, keprihatinan terhadap kerjaya masa depan, orientasi matlamat peribadi, kecekapan sendiri kerjaya dan kebolehsuaian kerjaya tetapi pelajar perempuan menunjukkan skor lebih tinggi dalam persepsi sokongan sosial. Dapatan menunjukkan bahawa perhubungan di antara identiti vokasional, orientasi matlamat peribadi, persepsi sokongan sosial, sumber kecekapan-kendiri kerjaya, dan kebolehsuaian kerjaya di kalangan pelajar-pelajar TVE dalam setiap kes adalah signifikan secara positif dengan kekuatan perhubungan itu. Dapatan juga menunjukkan bahawa orientasi matlamat peribadi, dan kecekapan-kendiri kerjaya adalah peramal-peramal signifikan kebolehsuaian kerjaya di kalangan pelajar-pelajar TVE di kolej-kolej pendidikan di Nigeria. Sebaliknya, identiti vokasional, dan persepsi sokongan sosial bukanlah peramal signifikan kebolehsuaian kerjaya di kalangan pelajar-pelajar TVE. Walaubagaimanapun, semua peramal menjadi sebab kepada varian yang sewajarnya dalam aspek kebolehsuaian kerjaya di kalangan pelajar-pelajar TVE di kolej-kolej pendidikan di Nigeria. Tambahan pula, dapatan menunjukkan bahawa, terdapat satu kesan perantara langsung kecekapan-kendiri kerjaya ke atas perhubungan di antara orientasi peribadi dan kebolehsuaian kerjaya di kalangan pelajar-pelajar TVE di kolej-kolej pendidikan di Nigeria. Kajian menyarankan agar pengurus TVE, para pendidik dan kaunselor memberikan kesedaran terhadap kebolehsuaian kerjaya dan program peningkatan menggunakan kaedah-kaedah orientasi matlamat peribadi, persepsi

sokongan sosial, dan kecekapan-kendiri kerjaya, untuk memperkayakan lagi kebolehsuaian kerjaya di kalangan pelajar-pelajar mereka. Seterusnya, program orientasi kerjaya khas, lawatan-lawatan ke industri, projek-projek fleksibel dan kreatif, kuliah kerjaya umum, teknik-teknik menyelesaikan masalah, dan forum interaktif kerjaya melalui arahan inovatif, kajian dan khidmat kaunseling perlu digalakkan dan ditaja oleh pihak pengurusan kolej TVE untuk meningkatkan lagi kebolehsuaian kerjaya di kalangan pelajar. Pihak pengurusan kolej TVE perlu menyumbang kebolehsuaian kerjaya yang mencukupi dan sesuai untuk penerokaan kerjaya pelajar, dan membuat dasar untuk memastikan pemantauan yang betul ke atas progres kebolehsuaian kerjaya pelajar-pelajar mereka melalui latihan penilaian yang dijalankan secara berkala dari titik kemasukan mereka sehinggalah mereka lulus pengajian mereka masing-masing. Pemantauan yang baik akan membantu pihak pengurusan merancang program-program intervensi kebolehsuaian kerjaya yang relevan untuk pelajar-pelajar TVE ini. Cadangan juga telah dibuat untuk kajian-kajian lanjutan berkenaan dengan kebolehsuaian kerjaya.



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This thesis was submitted to the Senate of the Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follow:

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LIST OF ABBREVIATIONS

AMOS	Analysis of Moment Structures
AU	African Union
AVE	Average Variance Extracted
CAS	Career Adaptability Skill
CFA	Confirmatory Factor Analysis
CFC	Career Future Concern
CR	Construct Reliability
CSE	Career Self-Efficacy
DV	Dependent Variable
EFA	Exploratory Factor Analysis
FCT	Federal Capital Territory
FRN	Federal Republic of Nigeria
ILO	International Labor Organization
IV	Independent Variable
NBS	National Bureau of Statistics
NCE	Nigeria Certificate in Education
NSEDP	National Strategic Economic Development Program
PGO	Personal Goal Orientation
PSS	Perceived Social Support
SCCT	Social Cognitive Career Theory
SEM	Structural Equation Modeling
SPSS	Statistical Package for Social Sciences
TVE	Technical and Vocational Education
TWA	Theory of Work Adjustment

UNESCO	United Nations Educational, Scientific, and Cultural Organization
VID	Vocational Identity



CHAPTER 1

INTRODUCTION

This chapter is outlined under the following sub-headings: the background of the study, statement of the problem, objectives of the study, significance of the study, scope and limitations, assumptions of the study, and operational definitions of terms.

1.1 Background of the Study

Career adapt-abilities is a psychosocial construct that refers to an individual's resources for coping with current and anticipated career tasks, occupational transitions, and work trauma (Savickas, 1997; Tien, Wang, Chu & Huang, 2012). In recent times, the local and global labor markets' demand for career adapt-abilities has been on the increase (UNESCO, 2012). This demand for career adapt-abilities seems to be more among the developing nations bedeviled with high rate of unemployment than the developed nations of the world where unemployment rate is relatively low.

Career adapt-abilities is an important psychosocial construct that simply denotes career readiness skill for coping with changes in career situation (Savickas, 1997). Career adapt-abilities seem to be indispensable in the 21st century labor market. This is because the old traditional structures of work and the ways of doing them are drastically giving way to new structures and ways of accomplishing them. It is also a common experience today that, single or narrow career skill is no longer as marketable as it used to be in the 20th century labor market. This is because, most employers of labor nowadays are looking for employees with multiple skills who can solve multiple career tasks in their organizations (Jarvis, & Keeley, 2003; Carroll, 2008; Saari & Rashid, 2013; Barto, 2015). There is therefore, no doubt that, career adapt-abilities is needed by today's workforce to effectively cope with the rapidly changing nature or structure of work and its environments.

These rapid changes are due to the continuous impact of new technologies on almost every occupational field, and have consequently continued to create new job opportunities with their inherent skill challenges (Sabatés, 2013; Stoltz, Wolff, Monroe, Farris & Mazahreh, 2013). These persistent changes in work and work situations demand corresponding changes in career skills required of the workers to effectively perform in the new work situations. The existing adult workforce as well as the prospective ones, like the unemployed graduates and students, need career adapt-abilities to overcome these challenges. Career adapt-abilities enable even existing workers to change jobs easily when necessary, cope with changes in the current career tasks, and also become more satisfied with their jobs (Eshelman, 2013; Gurvis & Calarco, 2004). Students also, as adolescents and prospective workers, need career adapt-abilities for smooth transition from school to the labor market. Career adapt-abilities is crucial to the career preparation process and readiness of higher education students, especially, technical and vocational education (TVE) students, because, they are at the most difficult and sensitive stage of crystallizing their career choices which

will enhance their transition process (Magruder, 2012; Eshelman, 2013; Creed, Macpherson & Hood, 2011).

At this point, it is important to differentiate some career-related terms such as career employability, career adapt-abilities, and career readiness being used in this study. Career adapt-abilities seems to extend beyond career employability, in the sense that, the former requires wider skill acquisition than the latter, while career readiness may refer to a state of being already prepared to effectively take up an occupation. Employability has been described as a set of achievements, such as, attributes, skills, and knowledge that participants of labor market possess to enable them to be effective in their place of work to the benefit of themselves, their employer, the community, and the wider economy (CBI, 2010; Pegg, Waldock, Hendy-Isaac & Lawton, 2012; Poon, 2014). Career readiness on the other hand, has been described as the capacity of an individual to take career decision correctly (Sampson Jr, McClain, Musch & Reardon, 2013; Coetzee, Ferreira & Potgieter, 2015). From these literature, it is obvious that there is just a thin line between career employability, career adapt-abilities, and career readiness. In a nutshell, career adapt-abilities has to do with multiple engagement of employability skills and other personal attributes, in order to have the career readiness needed to cope with the changing labor market.

The pivotal role of technical and vocational education (TVE) in socio-economic development of both the developed, and the developing nations of the world cannot be over-emphasized. The practically skilled workforce needed to meaningfully drive the economies of the world at middle and high sub-professional levels are usually trained by the instrumentality of TVE. Some years ago, United Nations (UN) Secretary General pointed out the importance and role of TVE in economic and social life of continents and nations of the world by stating that African Union (AU) has a vision of an integrated, peaceful, prosperous Africa, driven by its own people to take its rightful place in the global community and knowledge economy by engaging in strategic revitalization of TVE (Draft, 2007). This vision of AU, according to Dung-Gwom (2010), is predicated on the training and development of human resources available in the continent with career adaptability skills. He also stressed that in the plan of action of AU for the second decade of education (2006-2015), it recognizes the importance of TVE as a means of empowering individuals to take control of their lives economically, and consequently impact the economy of the continent (Africana, 2015), he then recommends the integration of vocational training into the general education system. It suggests therefore that, TVE is a viable tool for equipping individuals with career adapt-abilities for their socio-economic life satisfaction and relevance in this rapidly changing world of work.

Nigeria, as one of the highly populated developing nations of Africa and a member of AU identified with the vision of AU by recognizing the importance and role of TVE in career adaptability skill training for her socio-economic development. Adopting the definition by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and International Labor Organization (ILO), the termed TVE is

“the aspects of educational process involving, in addition to general education, the study of technologies and related sciences and the

acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life” (ILO, 2002, p.7).

Technical and vocational education (TVE) is therefore a crucial human resource development element as it can connect youths and adults’ skill competences with employers’ needs. Technical and vocational education (TVE) includes preparation for employment in any occupation where specialized training is required, for which there is a societal demand or need, and which training is most appropriately carried out in schools (Wenrich & Wenrich, 1974 ; Alam, 2008). They also stressed that TVE is concerned with the whole hierarchy of occupations, from those with short-period training to long-period specialized occupational preparation. It includes the whole spectrum of the skilled labor force, from semi-skilled to technicians and para-professionals (Wenrich & Wenrich, 1974). It has been observed however, that the level and kind of skilled labor force demands in any society are always influenced by the structure of the economy and its dynamism. In the light of the above, the key role of TVE should be to ensure continuous relevant skill training and development for the dynamic economies of the nations of the world, Nigeria inclusive. The role of TVE in preparing its graduates with career adapt-abilities for the changing work structures and economic environments is however quite challenging. This is because, as the structures of work and their environments are changing drastically, the career skills needed to handle them are also changing (Savickas, 2005a ; Atsumbe & Saba, 2008). Workplace learning has helped higher school completion rates and better employment transitions among upper secondary vocational education and training courses (Polidano & Tabasso, 2014).

Bringing technical and vocational education (TVE) closer to the needs of dynamically changing or evolving world labor markets and economies can help young adults move into productive and sustainable jobs (Eichhorst, Rodríguez-planas & Zimmermann, 2012). However, it is now obvious that, the career adapt-abilities needed for the 21st century employment and smooth career transitions among TVE graduates globally and in Nigeria in particular, will demand more commitment to knowledge of the pattern of relevant skill development and understanding of the rapidly changing work structures and situations in the globalized economies and emerging technologies (Rashid, 2011). This understanding can help career educators and counselors to be more innovative in their practices in preparing TVE students with relevant skills demanded for jobs and effective transition into the current labor market. Career adapt-abilities has been identified and recommended by vocational psychologists, sociologists, career educators, career counselors and researchers as a viable means of effective participation in today’s changing career structures and work roles (Super, & Knasel, 1981; Savickas, 2005; Koen, Klehe, Van Vianen, Zikic & Nauta, 2010; Rottinghaus & Van Esbroeck, 2011; Tien et al., 2012).

Although career adapt-abilities has been most commonly used in relation to career readiness among existing adult workers or employees for coping with changing work and workplace situations, this study rather focused on the career adapt-abilities of students (prospective workers). This may help to reveal the state of career adapt-abilities potentials among these students (the future job seekers) in this globalized economy. It is important to understand the TVE students’ career adapt-abilities, so that,

appropriate career development interventions can be organized for those who may demonstrate low career adapt-abilities before they transit from school to work. At the moment, career adapt-abilities of graduates of higher education, especially, TVE students in colleges of education in Nigeria is yet to be adequately explored (Obinne, 2012). He further stressed that Nigeria has a lot to do in preparing her workforce for the challenges of the rapidly changing global economy. This deficiency in career adapt-abilities among graduates can be noticed from the rate of skilled manpower shortage, unemployment, under-employment, and skill mismatching in Nigerian labor market (Fuandai, 2007; Aiyedogbon & Ohwofasa, 2012; Asaju, Arome & Anyio, 2014; Shenge, 2014).

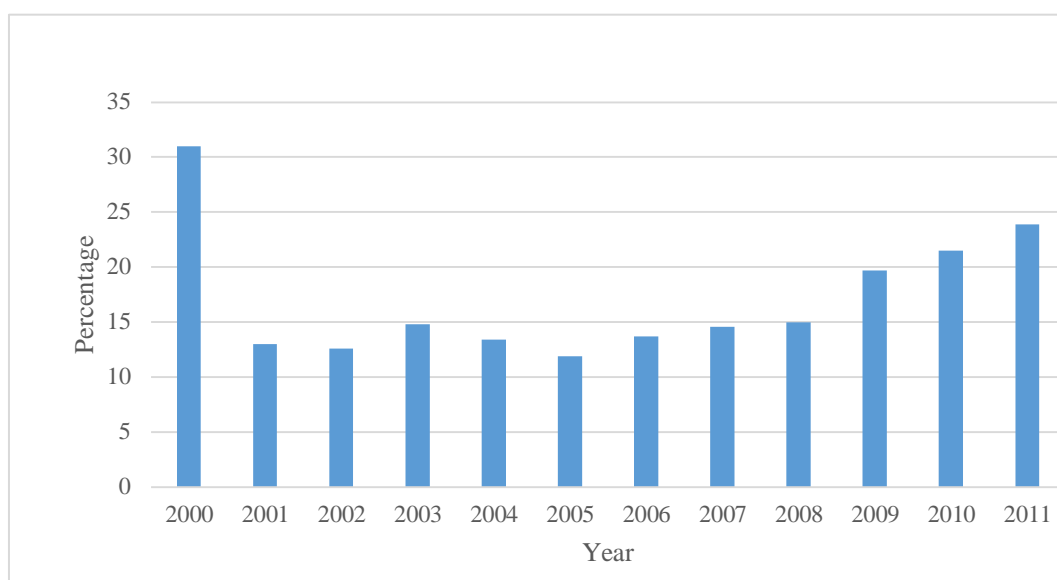
These common skilled labor market challenges observed in today's changing world of work seem to be mainly connected to lack of career adapt-abilities among the teeming youth population seeking for employment. Literature has further indicated that, despite the importance of career adapt-abilities, not much research attention has been given to it in TVE in Nigeria (Yusuff & Soyemi, 2012). This gives rise to unemployment not only in Nigeria but the world over.

World Development Report by World Bank indicated that 1.3 billion youth aged 15 to 30 years live in the developing world, and that young people are about half of the unemployed in the world (Hawley, 2007; Bank, 2011). United Nations (UN) reported that more than 79% of the world's youth live in Africa, Asia and Oceania (UN-HABITAT, 2012). The report also shows that about 100 million new jobs needed to be created in North Africa and the Middle East by the year 2020 to meet fresh entrants into the labor market of the region. It further reported that surveys have indicated that the greatest concern among Eastern Europe, East Asia, and Central Asia youth is access to job opportunities.

Recently, the National Bureau of Statistics (NBS) of Nigeria reported that youth unemployment rate in Nigeria rose from 21.1% in 2010 to 23.9% in 2012 and to 29.5% in 2013 (Audu, Kamin & Balash, 2013). It has been estimated that this rate of unemployment will rise by at least, 2% in 2014. In 2012, it was reported that 54% of Nigerian youth were unemployed, and this represents 20.3 million youths (NBS of Nigeria, 2012). The bulletin of labor statistics in Nigeria published annually by Policy Analysis, Research and Statistics Department of the Federal Ministry of Labour and Productivity has consistently reported from 2009 to 2013 that employment rate has been very low (Federal Republic of Nigeria, 2013). It was estimated that 3 out of 20 (15%) of the unemployed youth are TVE graduates. A part of unemployment report covering a period of 12 years is as shown in Table 1.1. It is likely that this ugly trend of high unemployment rate can be reduced in future if the prospective graduates are prepared with career adapt-abilities.

These reports imply that a lot needs to be done about the career development of Nigerian graduates generally, and TVE students in particular. It is in the light of the above challenges that, this study was intended to focus on the aspect of career adapt-abilities of technical and vocational education (TVE) students in colleges of education in Nigeria.

Table 1.1 Rate of Unemployment in Nigeria between Year 2000 and 2011



Source: National Bureau of Statistics (NBS) of Nigeria (2012)

To investigate career adapt-abilities among TVE students in colleges of education in Nigeria, this study mainly used social cognitive career theory as the underlying theory, three others as complementary career theories/models. The four theories include social cognitive career theory (SCCT) developed by Bandura (1977a; 1997), theory of work adjustment (Dawis & Lofquist, 1984; Dawis, 2002, 2005), self-concept theory (Super, 1969, 1980; Savickas, 2002), and life-span, life-space theory of career development (Super, 1990), with SCCT forming the basis for the research framework. Unlike the past research on career adapt-abilities that have used either one or at most two theories/models, this study used four theories/models to consolidate the multidimensional nature of the phenomenon for an extensive insight. The identified factors from literature which include, personal and situational career-related constructs of vocational identity, career future concern, personal goal orientation, perceived social support, and self-efficacy were examined in relation to career adapt-abilities in order to understand the phenomenon among TVE students in colleges of education in Nigeria based on the objectives of the study and the supporting theories/models. The concepts of these identified variables for this study are hereby described below

1.1.1 Career adapt-abilities

Career adapt-abilities simply mean career readiness skills or potentials for coping with changes in career situations (Koen, Klehe, Van Vianen, Zikic & Nauta, 2010). The drastic changing world of work, has indeed affected the overall structure of organizations, the kind of works available, and the ways they are performed (Super, 1990). To cope with the changes, and effectively participate in the work situations in these organizations after graduation, vocational educators, career counsellors, and researchers need to create the awareness of the importance of career adapt-abilities among students and also prepare them with these essential career skills (career adapt-abilities). Career adapt-abilities emphasis among students is about assisting them to become career self-regulating, self-reliance, and healthy citizens, who will be able to

cope with constant changes at future workplace and also maintain balance between life and work roles (Savickas, 1997).

The conceptualization of career adapt-abilities here is viewed from the postulation of the career development psychologist (Savickas, 1997). After his proposal to replace career maturity of Super (1955) with career adapt-abilities, Savickas (1997) defined career adapt-abilities as individual's readiness to cope with the predictable tasks of preparing for and participating in the work role and with unpredictable adjustments prompted by changes in work and working situations. Hirschi (2009) also conceptualized career adapt-abilities as an aggregate model, where choice readiness, planning, exploration, and confidence jointly produce a high career adapt-abilities. Other career development theorists and researchers have viewed career adapt-abilities from similar dimensions (Rottinghaus, Buelow, Matyja & Schneider, 2011). In this present study, the researcher will examine the relationships and predictive abilities of vocational identity, career future concerns, personal goal orientation, perceived social support, and self-efficacy sources in regards to career adapt-abilities among technical and vocational education (TVE) students in colleges of education in Nigeria.

1.1.2 Vocational identity

Vocational identity at adolescent stage of life is very crucial to the development of personality and career. Erikson's (1959) psychosocial development theory described the characteristic crises of identity that adolescents pass through in their process of growth, and referred to this stage as identity versus role confusion. Erikson later discovered that it was the inability of the adolescents to settle for an occupation that disturbs them, and he therefore identified vocational identity as the prime important factor in the development of an individual (Erikson, 1963; Koo & Kim, 2016). To conceptualize vocational identity, Holland, Gottfredson, and Baker (1990), Holland, and Holland (1997), and Holland, Johnston, and Asama (1993), defined vocational identity as the possession of a clear and stable picture of one's goals, interests, and talents. Having a clear picture of one's goals, interests and talents can aid the development of sound career adapt-abilities behavior. This is because career adapt-abilities may be developed from an existing talents of an individual with defined personal career identity and goals.

Vocational identity derived status groups can be viewed from four dimensions, and these includes achievement, foreclosure, moratorium, and diffusion (Marcia, 1980; Hirschi, 2012). These four identity statuses were developed by Marcia (1980) from Erikson's theory of ego development. Achievement status of vocational identity refers to a stage where an individual has successfully resolved identity crisis, and is now committed to his/her chosen career goals; depicting high commitment, and high exploration. Foreclosure status refers to premature identification of a person with a role model without much prior exploration, and crisis, therefore leading to high commitment, low exploration. Vocational identity moratorium status refers to an active on-going process of career exploration and crisis, and lack of readiness or an unwillingness to commit to a certain vocation; depicting high exploration, but low commitment. Identity diffusion status of vocational identity means a lack of engagement in occupational identity formation process, leading to low exploration and low commitment.

1.1.3 Career future concern

Another career development task confronting TVE students in higher education is the issue of career future concerns with regards to career adapt-abilities. Career future concern may have to do with individual's feeling condition of uneasiness, uncertainty, worries, and apprehension of burdens related to future occupational life. Savickas, Passen, and Jarjouara (1988) , and Cairo, Kritis, and Myers (1996) described career future concern as a concern about an individual's future career that depict worry or regret about recent career task failure, anxiety, excitement or stress of planning for a future career-related task. Career future concern refers to apprehension about managing what an individual values as being personally very important or essential to his or her career development (Code & Bernes, 2006) . The stress associated with managing career-related tasks is considered as career concern (Yousefi, Abedi, Baghban, Eatemadi & Abedi, 2013). Students have to adjust to the structured educational experience, monitor, resolve issues regarding their career direction, and manage educational and life demands as they grow as young adults (Creed, Fallon & Hood, 2009). In addition, the students have to manage these career-related tasks in the context of family, peer, and educational institution expectations.

Career future concern has four dimensions by which it can be measured and these include self-capacity, negative career outlook, career awareness, and issues associated with work-life balance (Westbrook, Sanford, O'Neal, Horne, Fleenor & Garren, 1985; Rottinghaus et al., 2011a). Career future concerns, which can be liken to the expression of worry or fear for the unknown career future may have some predictive power of career adapt-abilities among TVE students.

1.1.4 Personal goal orientation

In connection with career adaptability skill among TVE students, personal orientation of Bandura's social cognitive career theory (1986) becomes more relevant. Bandura (1986) opined most human behaviors were goal-directed and that actions were performed to achieve positive outcomes or to avoid negative ones. The way people experience, perform, and interpret in achievement situations usually depends on the type of goal orientation used at the beginning (Elliot & Harackiewicz, 1996). Personal goal orientation may be described as individual's disposition towards pursuing or performing a set task in achievement circumstances. Bandura (1986), and Latham (2000) identified variables of personal goal orientation to include learning goal orientation, performance-prove goal orientation, and performance avoid goal orientation. Research, for example, have shown that persons with high-learning goal orientation, seek to master new skills, complete difficult tasks, and succeed in overcoming obstacles (Meece, Anderman & Anderman, 2006; Garcia, Restubog, Toledano, Tolentino & Rafferty, 2011). Students with high learning goal orientation may also be positively high in career adapt-abilities, because their characteristics of seeking to master new skills, completing tasks, and overcoming obstacles are in tandem with career adapt-abilities.

1.1.5 Perceived social support

Since individuals cannot be independent of social environment, social supports from others in the environment are needed to cope with life roles and career-related stress.

Career adapt-abilities formation may be strengthened with positive perceived social support from the environment. Social support is viewed as an important factor in the process of career development (Cohen & Matthews, 1987). This social environmental variable, (perceived social support) is also a construct in social cognitive career theory (SCCT) which can be linked to career adapt-abilities. SCCT emphasizes the importance of understanding perceived social support aspect of the environment (Lent, Brown & Hackett, 2002). Perceived social support is essential to young people especially at the stage of making crucial decisions in life such as their career future.

Perceived social support can be described as a kind of personal perception or feeling that one is being cared for by other persons. Perceived social support is usually defined by the characteristics of social environment, social networks, and the benefits they provide (Cohen & Matthews, 1987). Conceptually, Cobb (1976) referred to perceived social support as the individual belief that one is cared for and loved, esteemed and valued by others, and a feeling of belongingness to a network of communication, relationship, and mutual obligations. Perceived social support is the potential of a network of people to help each other in situations of need (Yousefi et al., 2013). Among higher education students, perceived social support sources mainly include family, friends, educational institution, and significant others (Weisenberg & Aghakhani, 2007). Kracke (2002) identified social support as the potential resource for career specific information and advice. The function of perceived social support to students is to facilitate their transitions from school to work life (Murphy, Blustein, Bohlig & Platt, 2010). It suggests that perceived social support may contribute to the development process of career adapt-abilities among young adults like TVE students in colleges of education in Nigeria.

1.1.6 Career self-efficacy

The career self-efficacy of the TVE students of colleges of education in Nigeria could be a significant predictor of their career adapt-abilities. The propositions of self-efficacy theory of career development by Bandura (1977b) were first applied by Hackett, and Betz (1981) in their study of career development of women. The authors found that self-efficacy beliefs of men and women influenced their career decisions, achievements, and adjustment behaviors. Their results confirmed Bandura's social cognitive theory which proposes that individuals' beliefs and confidence in their ability to perform a given tasks and behaviors successfully (self-efficacy expectations) influence their choices, performance and persistence in these tasks and behaviors (Bandura, 1986). Bandura further stressed that, while low self-efficacy expectations would lead to avoidance behavior, high self-efficacy expectations would encourage approach behavior towards specific tasks or behaviors. The concept of self-efficacy expectations simply suggests that people can be better predicted or assessed by their beliefs about their capabilities than by their actual capabilities. This makes self-efficacy to be one of the most theoretically, heuristically, and practically useful concepts ever developed in the field of psychology, is being extensively used in other fields today (Bandura, 1986).

Career self-efficacy belief is developed and increasingly expressed via four major processes and sources of information. These sources include a) past performance accomplishments and successful mastery experience, b) vicarious learning experiences through observing the performance of role models and modelling them, c) verbal

persuasion, such as social influences in response to one's abilities and encouragements from others, and d) emotional arousal, such as anxiety and other negative psychological states (Bandura, 1982). Career self-efficacy is important to the understanding of career adapt-abilities among TVE students in colleges of education because of their characteristics of helping an individual to adjust and respond to career development situations.

1.2 Statement of the problems

In Nigeria, the challenge of graduate unemployment is on the increase annually despite the presence of many public and private organizations due to lack of career adaptabilities among the graduates. The National Bureau of Statistics of Nigeria (Federal Republic of Nigeria, 2014) reported that 54 percent of Nigerian youths were unemployed in 2012, and this represents 20.3 million youths, and that youth unemployment rate rose from 21.1% in 2010 to 29.5% in 2013. In addition, the Federal Ministry of Labor and Productivity has consistently reported from 2009 to 2013 that employment rate has been very low (Federal Republic of Nigeria, 2013) to the extent that 3 out of 20 (15%) of the unemployed youth are TVE graduates. The report further pointed out that, the trend will continue to rise in subsequent years if nothing is done to intervene.

Researchers have found in recent times that, low career adapt-abilities among graduates is traceable to lack of multiple occupational engagement skills (Hager & Holland, 2006; Jarvis & Keeley, 2003; Turner, Trotter, Lapan, Czajka, Yang & Brissett, 2006; Mcardle & Waters, 2007; Achor, 2011; Shu'ara, 2010). UNESCO (2012) also reported that, skill mismatch, unemployment and under-employment in today's ever-changing competitive global labor market are partly due to insufficient career adapt-abilities among the young adult job seekers. This has become a global labor market challenge, such that, UNESCO recommended building of enduring and adaptable career skills among youth.

Career adapt-abilities are no doubt, in high demand in modern day labor market to cope with the rapid changes in job structures and its environments (Hirschi, 2009). Today's employers of labor all over the world, are looking for workers with career adapt-abilities that can effectively handle multiple tasks resulting from the rapid changes in their organizations (Klehe, Zikic, Van Vianen, Koen & Buyken, 2012; Jarvis & Keeley, 2003; Savickas, 2005b; Rashid, 2011). Therefore, it is imperative to understand the career adapt-abilities of the prospective work force, such as, TVE students in colleges of education in Nigeria.

In Nigeria, not much has been done in order to understand the relationship of key career-related variables with career adapt-abilities of graduates (prospective employees), especially, TVE students as much as in adult career development issues (Creed & Fallon, 2009; Ochedikwu, Ukuma & Attah, 2013; Saba, Igwe, Mogaji & Mustapha, 2013; Idris et al., 2012; Ohiwerei & Nwosu, 2013; Yusuff & Soyemi, 2012). So far, emphasis of career-related research in Nigeria, have been mainly anchored on curriculum, enrollment, funding, facilities, and students' acquisition of traditional practical skills in specialized areas (Atsumbe & Saba, 2008; Achor, 2011; Ebenehi & Oguiche, 2013; Idris et al., 2012).

In the light of the above challenge, the technical and vocational education (TVE) students in Nigeria, as prospective work force, need to be prepared with career adapt-abilities to enable them overcome the challenges in the labor market after graduating from school. However, TVE students will be better prepared by using relevant career intervention programs, if only one understands the key variables significantly related, and predictive of their career adapt-abilities behavior. Therefore, this study investigates career adapt-abilities among TVE students in colleges of education in Nigeria by examining relationship of vocational identity, career future concern, personal goal orientation, perceived social support, career self-efficacy, with career adapt-abilities respectively. The study also examines the most significant predictors of career adapt-abilities from these key career-related variables, and further examines the mediating effect of career self-efficacy on the relationship between career future concern, personal goal orientation, and career adapt-abilities among TVE students in colleges of education in Nigeria.

1.3 Aim and objectives of the study

The aim of this study was to investigate career adapt-abilities among technical and vocational education (TVE) students in colleges of education in Nigeria. The objectives were to specifically:

- (1) Explore the demographic profile of the respondents.
- (2) Explore the dimensions of vocational identity, career future concern, personal goal orientation, perceived social support, career self-efficacy, and career adapt-abilities among TVE students.
- (3) Examine relationship among vocational identity, career future concern, personal goal orientation, perceived social support, career self-efficacy, and career adapt-abilities among TVE students respectively.
- (4) Examine the most significant predictors of career adapt-abilities among TVE students.
- (5) Examine the mediating effect of career self-efficacy on the relationship between career future concern, personal goal orientation and career adapt-abilities among TVE students.

1.4 Research questions and hypotheses

The purpose of this study was to investigate career adaptability skill among TVE students in colleges of education in Nigeria. Quantitative approach was adopted for the study. Research questions and hypotheses proposed for the study are outlined below.

1. Is there a relationship between vocational identity and career future concern among TVE students?
2. Is there a relationship between vocational identity and personal goal orientation among TVE students?
3. Is there a relationship between vocational identity and perceived social support among TVE students?
4. Is there a relationship between vocational identity and career self-efficacy among TVE students?

5. Is there a relationship between career future concern and personal goal orientation among TVE students?
 6. Is there a relationship between career future concern and perceived social support among TVE students?
 7. Is there a relationship between career future concern and career self-efficacy among TVE students?
 8. Is there a relationship between personal goal orientation and perceived social support among TVE students?
 9. Is there a relationship between personal goal orientation and career self-efficacy among TVE students?
 10. Is there a relationship between perceived social support and career self-efficacy among TVE students?
 11. Is there a relationship between vocational identity and career adapt-abilities among TVE students?
- Ho: There is no significant relationship between vocational identity and career adapt-abilities among TVE students.
12. Is there a relationship between career future concern and career adapt-abilities among TVE students?
- Ho: There is no significant relationship between career future concern and career adapt-abilities among TVE students.
13. Is there a relationship between personal goal orientation and career adapt-abilities among TVE students?
- Ho: There is no significant relationship between personal goal orientation and career adapt-abilities among TVE student.
14. Is there a relationship between perceived social support and career adapt-abilities among TVE students?
- Ho: There is no significant relationship between perceived social support and career adapt-abilities among TVE students.
15. Is there a relationship between career self-efficacy and career adapt-abilities among TVE students?
- Ho: There is no significant relationship between career self-efficacy and career adapt-abilities among TVE student.
16. What are the most significant predictors of career adapt-abilities among TVE students?
17. Is there a significant direct mediating effect of career self-efficacy on the relationship between career future concern, personal goal orientation and career adapt-abilities among TVE students respectively?
- Ho: There is no significant direct mediating effect of career self-efficacy on the relationship between career future concern, personal goal orientation and career adapt-abilities among TVE students respectively.

1.5 Significance of the study

This study was to investigate career adapt-abilities among technical and vocational education (TVE) students in colleges of education in Nigeria. The rationale for this study is to understand the career adapt-abilities readiness of the TVE students in colleges of education. Awareness of TVE students' career adapt-abilities will have both theoretical and practical values to the field of education in general and technical and vocational education (TVE) in Nigeria in particular. Theoretically, this study applied multiple theories/models to strengthen the use of multiple variables to address career adapt-abilities among TVE students, thereby adding to the existing body of knowledge

in career development of higher education students. This study, unlike most of the previous ones, has also helped to explain the career adapt-abilities of TVE students (prospective workers) in colleges of education in Nigeria instead of already existing workers whose career adapt-abilities may be different and have been more frequently studied, thereby creating a new insight into students' career adapt-abilities. This insight is an added knowledge that will assist vocational educators and counselors in their professional practice. Practically, this study will benefit the TVE students and other stakeholders in education in the following ways:

1. Awareness and better understanding of career adapt-abilities among TVE students in colleges of education would have been created which can assist them to be effectively prepared for smooth transition from school to the changing world labor market.
2. Insight into the career adapt-abilities among TVE students would have been created with the empirical evidence, which reveals where they need assistance to make them more employable and skill adaptive through innovative instructions and learning, career counseling and intervention program.
3. Improvement in career adapt-abilities among TVE students will therefore lead to more effective participation or contribution to the economy of the society, and consequently, this will reduce the rate of unemployment among the TVE graduates.
4. The study becomes one of the empirical reference materials that may be useful to future relevant research studies in this area.
5. It has policy implications for TVE in its curriculum and practice in colleges of education in Nigeria.

1.6 Scope of the study

This study which investigates career adapt-abilities among technical and vocational education (TVE) students in colleges of education was conducted in Nigeria. Nigeria has 36 States and a Federal Capital Territory (FCT). The study specifically focused on the TVE students in colleges of education located within the North Central States and the Federal Capital Territory (FCT) of Nigeria. This geographical area of Nigeria lies between the Northern and the Southern regions of the country and it constitutes most of the minority tribes in the country. The North Central States include Benue, Kogi, Kwara, Nasarawa, Niger, and Plateau. There are 14 accredited colleges of education in North Central States and the FCT. The study was to specifically investigate career adapt-abilities among students of technical education, agricultural education, and business education in these colleges of education. This selection was due to the limited available resources, such as time, and the level of importance attached to these courses by the researcher. This study adopted a quantitative research approach with a cross-sectional data collection technique for the investigation of career adapt-abilities among TVE students in colleges of education in Nigeria.

1.7 Limitations of the study

This study included only TVE students in colleges of education within the North Central States and FCT and not all the TVE students in Nigeria as a whole. Other TVE tertiary

institutions such as universities of technology, polytechnics and monotechnics students are not included in the study, therefore the generalizability of the results of this study is limited to the colleges of education within the North Central region and the FCT that formed the population of the study. Another limitation was the inability of the study to include all the students in other course majors in the colleges of education. This means that, caution must be taken when making interpretations, as well as, in the applications of the results of the study. Another limitation was uneven number of male and female TVE students' sample population from the sampled colleges. This was a demographic limitation of the study.

The assumptions of this study are that:

1. All the colleges of education in North Central States of Nigeria and the FCT will give the researcher permission and adequate cooperation to collect data from their students. This assumption was satisfied because all the selected colleges of education permitted the researcher and gave their cooperation in the course of data collection.
2. All the TVE students (participants) will respond to the survey questionnaire honestly. This assumption was not fully realized because not all the participants responded honestly to the questionnaire.
3. The instruments for data collection will accurately measure what they are meant to measure in the study. This was realized from the results of the reliability tests.
4. All the TVE students (participants) will understand the survey questions and respond accurately. This was not totally achieved because some of the participants could not understand the questions.
5. Most of the independent variables will significantly predict career adapt-abilities among TVE students. The results indicated that most of them did.
6. The population sample will be adequate for the study to be effectively conducted. This assumption was achieved even after data cleaning.

1.8 Operational definition of terms

In order to eliminate any ambiguity that may arise from the use of key terms in this study, the following terms are carefully defined for clarity as they are used in this study: career adapt-abilities, vocational identity, career future concern, personal goal orientation, perceived social support, career self-efficacy, technical and vocational education (TVE), adolescent, and career development.

Career Adapt-Abilities: Career adapt-abilities refer to individuals' career readiness to cope with the predictable tasks of preparing for and participating in the work role, and with unpredictable adjustments prompted by changes in work and working conditions (Savickas, 1997; .Duffy & Blustein, 2005). In this study, career adapt-abilities shall be used to denote career-related potential abilities or skills of TVE students in colleges of education to adapt in terms of career concern, control, curiosity and confidence in order to cope with their prospective work role and adjustments caused by changes in work and

working situations. Career adapt-abilities, career adaptability, and career adaptability skills shall be interchangeably used in this study.

Vocational Identity: Vocational identity is conceptualized as a set of vocational behaviors expected at a particular stage of an individual's career development (Super, 1957; Gustad, 1958; Macovei, 2009). In this study, vocational identity will be used to denote a set of vocational behaviors expected of TVE students in colleges of education at their present stage or level of technical and vocational training and development. This behavior has to do with their vocational identity achievement, moratorium, foreclosure, and diffusion as it relates to career adapt-abilities.

Career Future Concern: This refers to the severity of worries expressed over the uncertainties of the security of the present career, or career future by an individual (Code & Bernes, 2006). However, in this study, career future concern shall refer to fears, anxieties, and worries that TVE students may express over the uncertainty of their future occupations in terms of self-capacity, negative career outlook, career awareness, and work-life balance in relation to their career adapt-abilities.

Personal Goal orientation: Personal goal orientation is defined as an autonomous action towards a specific task in a particular situation (Bandura, 1986; Garcia et al., 2012). This term is interchangeably used with person-goal orientation or goal orientation, which in this study means, career-related behaviors of TVE students that are personally goal-directed towards positive achievement outcomes or avoidance of negative outcomes such as learning goal, performance prove, and performance avoid goal orientations in relationship with career adapt-abilities.

Perceived Social Support: Cobb (1976) and Vietze (2011) viewed perceived social support as a belief that one is cared for, esteemed and valued, and belongs to a network of communication and mutual obligations. In this study, perceived social support refers to any form of encouragement, such as, moral, emotional, and material that TVE students perceived or considered to be important to their career adapt-abilities which are being received from family, friends, and significant others (Chen, Fu, Li, Lou & Yu, 2012). Perceived social support is interchangeably used with social support in this study.

Career Self-Efficacy: Career self-efficacy is a belief one has in his/her capability to successfully perform an action, a given behavior, tasks, and attain desirable performance outcomes (Bandura, 1997; Betz, 2006). In this study, career self-efficacy shall denote TVE students' beliefs in their individual capabilities in terms of past performance accomplishment, vicarious learning, verbal persuasion, and emotional arousal and to successfully carry out courses of action, perform given behaviors, accomplish given tasks, and get desired results in relation to their career adapt-abilities.

Technical and Vocational Education (TVE): Technical and vocational education refers to those aspects of educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills,

attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life (ILO, 2002). However, technical and vocational education (TVE) in this context shall refer to both technical as well as vocational programs offered in universities, colleges of education, polytechnics, and monotechnics in Nigeria leading to award of Degrees, Nigeria Certificate in Education (NCE), and Diploma certificates (Federal Republic of Nigeria, 2004). However, this study will only be concerned about TVE in colleges of education level awarding NCE (Technical/Vocational) certificates.

Adolescent: The term adolescent in this study shall be used interchangeably with young adults which refers to the TVE students who are in higher education and at the stage of making concrete career decisions, crystallizing career choice, and also preparing themselves with career adapt-abilities necessary for their smooth transition from school to work.

Career Development: In this study, career development refers to all the available means within and outside of the school environment by which TVE students learn about occupations, make choices, and equip themselves with the knowledge, skills, and attitudes for effective participation in the ever-changing world of work.

1.9 Chapter summary

This chapter started with the background of the study under which its phenomenon (career adapt-abilities) was generally described along with the independent variables of the study (vocational identity, career future concern, personal goal orientation, perceived social support & career self-efficacy). The statement of the problem of the study was presented after which the four specific objectives were outlined. Research questions generated from the objectives and their hypotheses were respectively outlined. The theoretical as well as practical significance of the study were highlighted. Lastly, in this chapter, the scope, limitations, and operational definition of terms were stated.

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