

Predictors of Career Adaptability Skill among Higher Education Students in Nigeria

Amos Shaibu Ebenehi*, Abdullah Mat Rashid, and Ab Rahim Bakar

*Department of Science and Technical Education, Faculty of Educational Studies, University
Putra, Malaysia, 43400 Serdang, Selangor*

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Abstract: This paper examined predictors of career adaptability skill among higher education students in Nigeria. A sample of 603 higher education students randomly selected from six colleges of education in Nigeria participated in this study. A set of self-reported questionnaire was used for data collection, and multiple linear regression analysis was used to analyze the data. Results indicated that 33.3% of career adaptability skill was explained by the model. Four out of the five predictor variables significantly predicted career adaptability skill among higher education students in Nigeria. Among the four predictors, career self-efficacy sources was the most statistically significant predictor of career adaptability skill among higher education students in Nigeria, followed by personal goal orientation, career future concern, and perceived social support respectively. Vocational identity did not statistically predict career adaptability skill among higher education students in Nigeria. The study suggested that similar study should be replicated in other parts of the world in view of the importance of career adaptability skill to the smooth transition of graduates from school to the labor market. The study concluded by requesting stakeholders of higher institutions in Nigeria to provide career exploration database for the students, and encourage career intervention program in order to enhance career adaptability skill among the students.

Keywords: VET, Vocational Education and Training, Career adaptability skill, Higher education, Nigeria, Predictors, Students

*Corresponding author: ebenehias@yahoo.com

1 Introduction

The rapid changes in work environments and work structures as well as the continuous introduction of new technologies have brought about the need for new and multiple career skills that will effectively manage them. This drastic changes in the nature of career has made the terms boundaryless career and protean or intelligent career more relevant in career development theory of the 21st century. This changing structure of careers is also in tandem with the post-modern internationalization or globalization of the world economies, hence, the labor market demands for career adaptability skills of the workforce. Consequently, career adaptability skill or career intelligence enterprise that is based on personal aspiration and determination in a knowledge-driven economy with continuous emergence of new technologies, global trade, and widespread services is what matters most in the world labor market of today (Dickmann and Doherty, 2008; Ismail et al., 2012; Saari and Rashid, 2013; Ajake et al., 2014).

It is therefore imperative that higher education students in Nigeria be exposed to the idea of career adaptability skill to enable them transit from school to the rapidly changing labor market with adequate confidence in their competencies. The students can be made to learn to explore self and environment in order to understand their personal interests, values, aptitudes, and motivations for their chosen major courses that are preparing them for their career future, and as well creating in them a sense of career adaptability skill. This study therefore predicts career adaptability skill among higher education students in Nigeria from key career-related variables of vocational identity, career future concern, personal goal orientation, perceived social support, and career self-efficacy sources.

2 Adopted Research Approach for Career Adaptability Skill

Career adaptability skill may be seen as the ability to adjust carefully to enable one participate, cope or fit into changing work situations. Career adaptability skill makes individuals to always create rooms for continuous adjustments in order to smoothly respond to or fit into changing work situations. Savickas (1997, 254) conceptualized career adaptability skill as “the 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”. Career adaptability skill has been also viewed as a tendency affecting the way an individual views his or her capacity to plan and adjust to changing career plans in the face of unseen events (Rottinghaus et al., 2005). Hirschi (2009) also conceptualized career adaptability skill as an aggregate model, in which choice readiness, planning, exploration, and confidence collectively produce a high career adaptability skill. Many career development theorists and researchers have viewed career adaptability from management, and disengagement (Savickas, 2005; Rottinghaus et al., 2011).

From the perspectives of career construction theorists (Savickas, 2005; Savickas and

Porfeli, 2011), there are four Cs of career adaptability skill resources, which include concern, control, curiosity, and confidence. These four Cs are important to the understanding of predictors of career adaptability skill among higher education students (Hinrichs, 2014). Higher education students, as young adults mostly express concern about their vocational identity with a level of curiosity and sense of control which help them to explore self and environment in order to make appropriate career choices. Career future concern which denotes worries, stresses, and anxieties about future career are also usually experienced among these young adults which usually influence their level of confidence. In addition, perceived social support may help them to reduce stress and increase confidence in career decision process. Furthermore, confidence is required among them in order to develop personal goal and career self-efficacy that may predict their career adaptability skill. This therefore suggests that, higher education students' vocational identity, career future concern, personal goal orientation, perceived social support, and career self-efficacy sources with a genuine concern, a sense of control, an attitude of curiosity to explore self and environment, and confidence to design occupational future may predict their career adaptability skill.

2.1 Vocational Identity

Vocational identity seems to be one of the fundamental platforms by which young adults, such as, higher education students are identified in the society. The formation of vocational identity connects the young adults to the career environment of the society, where there will be interactions between them and the environment (Macovei, 2009). This makes vocational identity very important at the adult stage of life. Macovei (2009) further stressed that occupational or vocational identity is the most difficult to acquire by the young adults, because of the pressure involved in the process of discovering it. For examples, self-exploration and exploration of environment characterize the crystallization of vocational identity, but these processes enable the individuals to become more aware of their personal interests, skills, competences, and values, as well as preferences for some types of activities, jobs, interactions, and working environment.

Vocational identity is conceptualized as a set of vocational behaviors expected at a particular stage of an individual's career development (Super, 1957). Super's initial life stages of vocational development categorized these stages in chronological order. The stages include growth (before 14 years), exploration (14-15 years), establishment (to about 44 years), maintenance (to about 65 years), and decline (above 65 years). Super later modified the theory in recognition of external influences, life role differences, and how their effects determine individuals' behaviors during these developmental stages (Super, 1980). He further stressed that life roles usually interact with each other to support, compensate or complement the activities in vocational situations. Vocational identity derived status groups can be viewed from four dimensions, and these includes achievement, foreclosure, moratorium, and diffusion (Marcia, 1980; Hirschi and Herrmann, 2012; Hirschi, 2012). Persons with achievement status of vocational identity may likely demonstrate high career adaptability skill behavior. This study therefore, examines the extent vocational identity predicts career adaptability skill among higher

education students in Nigeria.

2.2 Career Future Concern

Young people all over the world are usually concerned about their future and this can be expressed in diverse manners, such as concerns for personal welfare, academic success, social life or interaction, family background, marriage, career choice, and employment. One of the most serious career development tasks confronting higher education students is career future concern, which could also have a link with their career adaptability skill. Career future concern have to do with individual's feeling condition of uneasiness, uncertainty, and apprehension of burdens related to future occupational life. Career future concern has been described as concerns about an individual's future career that depict worry or regret, anxiety, excitement or stress of planning for a future occupation (Savickas et al., 1988; Cairo et al., 1996; Creed and Fallon, 2009). Career future concern also refers to apprehension about managing what an individual rates as being personally important or essential to his or her career development (Code and Bernes, 2006). The stress associated with managing career-related tasks is considered as career concern (Yousefi et al., 2013).

Career future concern has four dimensions by which it can be better understood and measured. These dimensions express the severity of the career concerns by an individual about his or her career future and these include self-capacity, negative career outlook, career awareness, and work-life balance (Westbrook et al. 1985; Savickas, 2005; Fouad and Bynner, 2008; Rottinghaus et al., 2011a). Career future concern, which can be liken to the expression of fear for the unknown about one's career future may have some predictive power of career adaptability skill among higher education students in Nigeria. A study in Iran among Isfahan university students by Yousefi et al. (2013) reported that career concerns, learning and performance-prove goal orientations predicted career adaptability skill. This current study however, examines the extent career future concern predicts career adaptability skill among higher education students in Nigeria.

2.3 Personal Goal Orientation

Personal goal orientation suggests a kind of self-motivated behavior or autonomous action towards a specific task in a particular situation. Most human behaviors are usually goal-directed and actions or reactions are aimed at positive achievement outcomes or avoiding of negative ones (Bandura, 1986). The way people experience, act, and interpret in achievement situations usually has a lot to tell about the type of goal orientation they set for themselves at the onset, and theorists have considered personal goal orientation very important in career development process of the adolescents such as higher education students (Elliot and Harackiewicz, 1996; Dweck and Leggett, 1988; Garcia et al., 2012).

Bandura (1986) and Latham (2000) identified dimensions of personal goal orientation as learning goal orientation, performance-prove goal orientation, and performance avoid goal orientation. Learning goal orientation is a kind of flexible quality which seeks to

succeed by continuous efforts and experiences. Learning goal-oriented persons depend on efforts as a means of activating abilities, overcoming hurdles or obstacles, and increasing their competence (Creed and Fallon, 2009). They added that this efforts engender pride in their performance and encourage sense of explorations, creativity or initiative, and the pursuit of intellectual tasks that promote personal growth in life. Performance-prove goal-oriented individual sees intelligence as static or fixed, and as uncontrollable attribute, therefore, he/she seeks to gain approval and demonstrate abilities by achieving success. Whereas performance-avoid goal-oriented person has a fixed view of ability, and aims at avoiding normative incompetence, failure, and negative outcomes (Creed et al., 2011). Performance-avoid goal orientation evokes attitude of self-protection, and has a low exploratory tendency that can interfere with task engagement and goal-achievement motivation of an individual.

Research have shown that persons with high-learning goal orientation, seek to master new skills, complete difficult tasks, and succeed in overcoming obstacles (Meece et al., 2006; Garcia et al., 2012; Mesa, 2012). Students with high learning goal orientation may also be positively high in career adaptability skill, because their characteristics of seeking to master new skills, completing tasks, and overcoming obstacles are in tandem with career adaptability skill. This study therefore, examines how well personal goal orientation predicts career adaptability skill among higher education students in Nigeria.

2.4 Perceived Social Support

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, which can be in form of moral or material support from them. Conceptually, perceived social support has been viewed as the belief that one is cared for and loved, esteemed and valued, and belongs to a network of communication and mutual obligations (Cobb, 1976; Vietze, 2011). Among higher education students, perceived social support sources include family, friends or fellow students, lecturers, educational institution, and significant others (Weisenberg and Aghakhani, 2007). Perceived social support has been identified as the potential resource for career specific information and advice (Kracke, 2002). The function of perceived social support to higher education students is to facilitate their transitions from school to work life (Murphy et al., 2010).

Perceived social support is significantly and positively correlated with career development (Chen et al., 2012). It suggests that perceived social support may contribute in one way or the other to the development process of career adaptability skill among young adults, such as, higher education students in Nigeria. In a study conducted in Turkey to examine whether perceived social support predicts career exploration, it was found that family, friends, and significant others correlated significantly with career exploration (Turan et al., 2014). The study also reported that family, friends, and significant others predicted career exploration among young adults in higher education. This current study also examines the extent perceived social support predicts career adaptability skill among higher education students in Nigeria.

2.5 Career Self-Efficacy Sources

Bandura's social cognitive career theory (SCCT) 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 those 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. 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; Wan et al., 2011). These processes or self-efficacy sources are important to the understanding of career adaptability skill among students in higher education since their characteristics variables can help an individual to adjust and respond to career development situations.

A study on adaptability of career decision-making profiles of pre-freshman students at a university, reported that students with higher career aspirations mediated by decision-making self-efficacy are likely to have higher career adaptability (Gadassi et al., 2013a; 2013b; Creed, 2006). In a similar study, it was found that career search self-efficacy partially mediated the relationship between family support and career indecision among Italian youth (Nota et al., 2007). This indicates the importance of self-efficacy in most career-related decisions, it either plays the role of mediation between variables or directly influences them. Career decision-making self-efficacy was significantly related to learning goal orientation through the mediation of high student rating of parental support (Garcia et al., 2012). Self-efficacy also correlated significantly with work experience of counselors in Malaysia, and no differences were found in gender or program of study (Bakar, 2011). Career self-efficacy beliefs correlated with career exploration, and career self-efficacy beliefs also predicted career exploration (Gushue and Clarke, 2006). The researcher further reported that performance accomplishment showed the strongest influence on career self-efficacy. A similar research conducted on self-efficacy, perception of barriers, vocational identity and career exploration of high school students reported that higher level of career decision-making self-efficacy was associated with both higher vocational identity and greater career exploration engagement (Gushue et al., 2006). These previous studies have indicated that self-efficacy is an important construct in career development process. However, little or none of the research has specifically related career self-efficacy sources to career adaptability skill among higher education students in Nigeria. This present study therefore, examines the extent career self-efficacy sources predicts career adaptability skill among higher education in Nigeria.

3 Investigation Methods and Instruments

This section consists of the research design, participants, and instrument used for data collection.

3.1 Design

This study adopted a non-experimental quantitative research approach with predictive type of correlational design (Creswell, 2014). Data collection was done with a structured self-reported questionnaire (Huck, 2008; Fink, 2009; Fraenkel et al., 2012). The questionnaire was administered directly on the students during their lecture periods with the permission of the management of the selected colleges of education. The students were properly briefed on the how to respond to the questionnaire, and their participation was purely voluntary. The data was analyzed by the use of multiple linear regression (MLR) analysis with the aid of SPSS software version 22 (Morgan et al., 2011; Pallat, 2010)).

3.2 Participants

Participants were 603 technical and vocational education (TVE) students in all levels of Agricultural, Business, and Technical Education programs selected from six colleges of education in Nigeria. Male participants were 353 representing 58.5%, and female were 250 representing 41.5% with an average age of 22years. Agricultural education major represented 34.8%, business education major represented 36.0%, and technical education represented 29.2%. Participants from 100 level represented 33.3%, 200 level 34.2%, and 300 level represented 32.5%.

3.3 Instrument

Career adaptability skill was measured by the use of Career Adapt-Abilities Scale (CAAS) South African Form designed by Maree (2012) from International Form 2.0 (Savickas and Porfeli, 2012). The form is similar to Taiwan's form designed by Tien et al. (2012). The adopted South African Form consists of 24 items which are divided into four subscales to measure adaptability resources of concern, control, curiosity, and confidence. Participants responded on a 5 point Likert type scale format from 1 (*not strong*) to 5 (*strongest*). The reliability coefficient of CAAS- International Form 2.0 reported by Savickas and Porfeli (2012) was .92, while the subscales had .83 for concern, .74 for control, .79 for curiosity, and .85 for confidence. For South African Form, Maree (2012) reported reliability coefficients were a little lower, the total score was .91 while the subscales were .77 for concern, .71 for control, .78 for curiosity, and .80 for confidence respectively. However, in this study, the composite reliability of the instrument was $\alpha = .95$, while the subscales were $\alpha = .92$ for concern, $\alpha = .91$ for control, $\alpha = .89$ for curiosity, and $\alpha = .90$ for confidence.

Vocational Identity was measured by the use Occupational Identity Scale (OIS) first published by Melgosa (1987) and complemented by Veiga and Moura (1999, 2005). The adapted instrument has 28 items sorted into four statutes of vocational identity,

achievement, moratorium, foreclosure, and diffusion. Sample items include “After many doubts and considerations, I have it clearly in my mind what my occupation will be” and “It is too early for me to be concerned about my professional future” Participants responded on a 5 point Likert type scale format from *strongly disagree (1) to strongly agree (5)*. The initial Cronbach Alpha reliability coefficients for internal consistency of the four statutes (dimensions) of the instrument achieved were; $\alpha = .81$ for achievement, $\alpha = .82$ for moratorium, $\alpha = .76$ for foreclosure, and $\alpha = .83$ for diffusion (Veiga and Moura, 2005). For the current study, $\alpha = .93$ for achievement, $\alpha = .94$ for moratorium, $\alpha = .93$ for foreclosure, and $\alpha = .92$ for diffusion. The composite reliability of the instrument for this study was .90.

Career Future Concerns was measured by the use of Career Future Inventory-Revised Scale (CFI-RS) published by Rottinghaus et al. (2011a). The adapted instrument has 28 items designed to assess the perceived future career concerns. However, items 21-24 were deleted before it was used because the items were already being measured by another instrument in the study. The subscales include career agency (self-capacity), negative career outlook, occupational awareness (career awareness), support, and work-life balance. Sample items include “I doubt my career will turn out well in the future”, and “I lack the energy to pursue my career goals”. The participants responded on a 5-point Likert type scale of *strongly disagree to strongly agree*. Cronbach’s alpha internal consistency and reliability coefficient of .88, .77, .80, .77, and .75 were initially achieved for the subscales respectively from the validation sample of the instrument (Rottinghaus et al., 2011a). In this study, the values achieved for the subscales include; $\alpha = .93$ (self-capacity), $\alpha = .84$ (negative career outlook), $\alpha = .85$ (career awareness), and $\alpha = .89$ (work-life balance). The composite reliability of the instrument was $\alpha = .90$.

Personal Goal Orientation was measured by an adapted Person variables of Goal-orientation Scale (VandeWalle, 1997) which was used by Creed et al. (2009). It is a 13-item scale that measures three types of goal orientation; learning, performance-prove, and performance-avoid. Learning is measured by 5 items, performance-prove by 4 items, and performance avoid by 4 items. Sample item for learning orientation is “For me, development of my skills is important enough to take risks”. Sample for performance-prove include “I enjoy it when others are aware of how well I am doing”. Then, sample for performance-avoid include “I prefer to avoid situations where I might perform poorly”. The participants responded on a 5-point Likert type scale of *strongly disagree to strongly agree*. The original sample reported internal reliability coefficients of .89 for learning, .85 for performance-prove, and .88 for performance-avoid respectively. The internal reliability coefficients of the subscales for this current study are; $\alpha = .93$ for learning goal, $\alpha = .92$ for performance prove, and $\alpha = .90$ for performance avoid. The composite reliability for the instrument was $\alpha = .89$.

Perceived Social Support was measured by the use of Multidimensional Scale of Perceived Social Support which consists of a 12-item scale (Zimet et al., 1988; Yousefi et al., 2013) . The instrument was adopted to measure perceived social supports from family, friends, and significant others. It is divided into three subscales (4 items per subscale) which each of them measures one variable. Sample items include “My family really tries to help me” (family), “I can talk about my problems with my friends” (friends),

and “There is a special person who is around when I am in need” (significant others). Participants responded on a 5-point Likert type scale format of *strongly disagree* (1) to *strongly agree* (5). The previous internal reliability coefficients of .75 for family, .79 for friends, and .73 for significant others were reported by Yousefi et al. (2013). The current study achieved internal reliability coefficients of $\alpha = .91$ for family, $\alpha = .91$ for friends, and $\alpha = .93$ for significant others respectively. The composite reliability of the instrument was $\alpha = .91$.

Career Self-efficacy Sources was measured by the use of Career Self-Efficacy Sources Scale (CSESS) as published by Betz et al. (1996). The adopted instrument consists of 20 items based on Bandura’s (1977) four sources of self-efficacy belief. The scale has five subscales which are 1) Vicarious learning 2) Verbal persuasion 3) Emotional arousal positive 4) Emotional arousal negative, and 5) Performance accomplishment. Samples include “I see other students like me get good jobs after college” (vicarious learning), “people tell me that I should find a job easily” (verbal persuasion), “I feel really great when I am doing things to find a career” (positive emotional arousal), “I get sinking feeling when I think of working on my job search” (negative emotional arousal), and “I have done well in the past in finding jobs” (performance accomplishment). The participants responded on a 5 point Likert type scale of *never* to *very often*. Past studies have indicated acceptable levels of reliability and construct validity. In this current study, the internal consistency coefficients of the subscales were achieved as follow: $\alpha = .86$ for vicarious learning, $\alpha = .86$ for verbal persuasion, $\alpha = .86$ for emotional arousal positive, $\alpha = .87$ for emotional arousal negative, and $\alpha = .86$ for performance accomplishment. The composite reliability after reversing negatively worded items was $\alpha = .90$.

4 Findings and Implications

Multiple linear regression analysis was used to test the prediction of career adaptability skill by the independent variables of the study. Preliminary data analyses were earlier carried out to make sure that assumptions of normality, linearity, multicollinearity, and homoscedasticity were not violated. The results of some of the preliminary analyses are in the Appendix. The means, standard deviations, and inter-correlations for the variables of the study are as presented in Table 1. Collectively, the predictors (vocational identity, career future concern, personal goal orientation, perceived social support, and career self-efficacy sources) significantly predicted career adaptability skill among higher education students in Nigeria, $F(5, 597) = 59.58, p < .001$. The most statistically significant predictor was career self-efficacy sources with beta (β) = .36, $p < .001$, followed by personal goal orientation with $\beta = .21, p < .001$, then, career future concern with $\beta = .11, p = .010$, and perceived social support with $\beta = .10, p = .019$ respectively. Vocational identity was statistically not a significant predictor of career adaptability skill among higher education students in Nigeria, $\beta = -.02, p = .653$. The five predictor variables explained 33.3% of the total variance in career adaptability skill among higher education students in Nigeria. This is a large effect according to Cohen (1988). The summary of the results is as presented in Table 2.

Table 1: Means, Standard Deviations, and Inter-Correlations for Variables (N = 603)

| Variable | M | SD | 1 | 2 | 3 | 4 | 5 | 6 |
|---------------------------------|------|-----|---|-------|-------|-------|-------|-------|
| 1. Career Adaptability Skill | 3.38 | .82 | - | .14** | .38** | .42** | .36** | .48** |
| 2. Vocational Identity | 3.01 | .67 | - | - | .38** | .20** | .27** | .14** |
| 3. Career Future Concern | 3.30 | .66 | - | - | - | .50** | .49** | .33** |
| 4. Personal Goal Orientation | 3.38 | .84 | - | - | - | - | .53** | .30** |
| 5. Perceived Social Support | 3.48 | .92 | - | - | - | - | - | .29** |
| 6. Career Self-Efficacy Sources | 3.05 | .75 | - | - | - | - | - | - |

The findings of this study indicated that four out the five predictor variables statistically predicted the criterion variable. The four predictor variables that significantly predicted career adaptability skill among higher education students in Nigeria, according to their levels of prediction include career self-efficacy sources, personal goal orientation, career future concern, and perceived social support. The only variable of this study that did not statistically predict career adaptability skill among higher education students in Nigeria was vocational identity, even though they are correlated. This findings however, agreed with a previous study which reported that vocational identity was associated with greater career exploration engagement (Gushue et al., 2006). This results imply that higher education students in Nigeria who are high in any of the predictor variables (career self-efficacy sources, personal goal orientation, career future concern, and perceived social support) are more likely to be high in career adaptability skill. On self-efficacy for example, the results of this study is in consonance with reports from other studies which found that career self-efficacy or self-efficacy sources significantly predicted career adaptability skill among youth, students of higher education, as well as existing workers (Gushue and Clarke, 2006; Gadassi et al., 2013a; 2013b; Nota et al., 2007; Bakar, 2011; Loo and Choy, 2013). The results of this study is also consistent with some previous studies conducted among university students which reported that career concerns, learning and performance-prove goal orientations predicted career adaptability skill (Creed and Fallon, 2009; Yousefi et al., 2013).

The implication of this findings is that career adaptability skill among higher education students in Nigeria can be conveniently enhanced through the use the measures of self-efficacy sources, such as, past performance accomplishment or mastery, vicarious learning, verbal persuasion, and positive emotional arousal. The career adaptability skill among higher education students can also be enhanced by involving them in self-motivated goal setting activities, helping them to understand themselves, and their environment, establish plans for their future career, and to have control over their decisions.

Table 2: Multiple Linear Regression Analysis for Predictors of Career Adaptability Skill (N = 603)

| Variable | B | SE | β | t | p | Partial | Semi-part. |
|------------------------------|------|-----|---------|------|------|---------|------------|
| 1 (constant) | .80 | .18 | - | 4.51 | .000 | | |
| Vocational Identity | -.02 | .04 | -.02 | -.45 | .653 | -.02 | -.02 |
| Career Future Concern | .14 | .06 | .11 | 2.60 | .010 | .11 | .09 |
| Personal Goal Orientation | .20 | .04 | .21 | 4.98 | .000 | .20 | .17 |
| Perceived Social Support | .09 | .04 | .10 | 2.34 | .019 | .10 | .08 |
| Career Self-Efficacy Sources | .39 | .04 | .36 | 9.84 | .000 | .37 | .33 |

R = .577, R² = .333, F = 59.58

In addition, the higher education students need to have the attitude of learning goal, and performance prove to enrich their career adaptability skill. The higher education students can also improve their career adaptability skill through their engagement in some vital social support from family, peers or friends, and significant others around them. A study reported that career decision-making self-efficacy was significantly related to learning goal orientation through the mediation of high student rating of parental support (Garcia et al., 2012). The role of perceived social support from family, friends, and significant others cannot be overlooked in adolescent career development process, however, the use of social support should not override the adolescent's personal confidence, interests, talents, and abilities that enhance career adaptability skill.

Furthermore, the implication of this findings to the stakeholders of higher education in Nigeria is that vocational educators, career counselors, and managers of higher education institutions as well as families have a duty to ensure that their students are groomed with career adaptability skill. This can be done by using the measures of career self-efficacy sources, personal goal orientation, career future concern, and perceived social support through innovative instructions and counseling, creative administrative practices, and daily career interactive engagements with the students.

5 Conclusion and Recommendations

This study has been able to establish that self-efficacy sources, personal goal orientation, career future concern, and perceived social support statistically predicted career adaptability skill among higher education students in Nigeria respectively. It has further discovered that vocational identity did not predict career adaptability skill among higher education students in Nigeria. The study has added to the existing body of knowledge in career development process among young adults, especially higher education students.

It has also created awareness and provided empirical information on career adaptability skill among higher education students in Nigeria which are essential to the students, and the rest stakeholders of higher education. The limitations of this study however, are (i) not all students in all the program of studies in the higher institutions were used, therefore, caution must be exercised in the generalization of the results. (ii) Multiple linear regression (MLR) was used for the analysis, although, the use of structural equation modeling (SEM) or path analysis would have given more plausible causality details of the relationship between the predictors and the outcome variable. The choice of MLR for analysis was because the researchers were simply interested in understanding the basic relationship between the predictor variables and the criterion variable of the study (Creed and Fallon, 2009; Yousefi et al., 2013; Turan et al., 2014). For these reasons, the researchers wish to suggest that (i) future studies should be conducted to cover other academic program in the tertiary institutions in Nigeria, and (ii) that future researchers should endeavor to use SEM for analysis of causal relationship between the predictors and the outcome variables for more plausible results. In addition, the career adaptability skill predicted for students while they were studying does not necessarily imply that they have after their graduation an effective inclusion career adaptability skill at work. In this connection, it is necessary to conduct a career follow-up investigation at the workplace concerning the same generation of graduated students. Furthermore, this study should be replicated in other parts of the world, in view of the importance of career adaptability skill to the smooth transition of higher education students from school to the competitive labor market.

Finally, all the stakeholders in tertiary education in Nigeria should encourage the higher education students to enhance their career adaptability skill by providing enabling situations for exploration of self and environment, using the measures of self-efficacy sources, personal goal orientation, career future concern, and perceived social support from family, friends, and significant others. Institutions should take career adaptability skill of their students more seriously by providing career exploration database for them, and also by encouraging regular career intervention program using career development experts.

References

- Ajake, U. E., Oba, A. N., & Ekpo, T. E. (2014). Enriching higher education curriculum to meet the challenges of 21st century in Nigeria. *Journal of Educational and Social Research*, 4(3), 21-30.
- Bakar, A. R. (2011). Malaysian counselors' self-efficacy: Implication for career counseling. *International Journal of Business and Management*, 6(9), 141-147. doi:10.5539/ijbm.v6n9p141
- Bandura, A. (1977). Self-Efficacy: Toward a unifying theory of behavioural change. *Psychological Review*, 84(19), 211-215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37, 122-147.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Betz, N. E., Klein, K. L., & Taylor, K. M. (1996). Evaluation of a short form of the career decision-making self-efficacy scale. *Journal of Career Assessment*, 4(1), 47-57.
- Cairo, Peter C., Kritis, Kara J., & Myers, R. M. (1996). Career assessment and the adult career concerns inventory. *Journal of Career Assessment*, 4(2), 189-204.
- Chen, S., Fu, C., Li, R., Lou, J., & Yu, H. (2012). Relationship among social support, professional empowerment, and nursing career development of male nurses: A cross-sectional analysis. *Nursing Research*, 34(7), 862-882.
- Cobb, S. (1976). Social support as a moderator of stress. *Psychosomatic Medicine*, 38, 300-314.
- Code, M., & Bernes, K. (2006). Adolescents' perception of career concerns. *The National Consultation on Career Development (NATCON)*.
- Cohen, J. W. (1988). *Statistical power analysis for behavioral sciences* (2nd ed). Hillsdale NJ: Lawrence Erlbaum Associates.
- Creed, P. (2006). This is the author-version of a paper published as: Creed, Peter and Patton, Wendy and Prideaux, Lee-Ann (2006) Causal relationship between career indecision and career decision-making self-efficacy: A longitudinal cross-lagged analysis., 33, 47-65.
- Creed, P. A., Fallon, T., & H. M. (2009). The relationship between adaptability, person and situation variables, and career concerns in young adults. *Journal of Vocational Behavior*, 74(2), 219-229.
- Creed, P., Macpherson, J., & Hood, M. (2011). Predictors of new economy career orientation in an Australian sample of late adolescents. *Journal of Career Development*, 38(5), 369-389.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches*. Sage Publications, Inc.
- Dickmann, M., & Doherty, N. (2008). Exploring the career capital impact of international assignments within district organizational context. *British Journal of Management*, 19(2), 145-161.
- Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95(2), 256-273.

- Elliot, A. J., & Harackiewicz, J. M. (1996). Approach and avoidance achievement goals and intrinsic motivation: a mediational analysis. *Journal of Personality and Social Psychology*, 70(3), 461-475.
- Fink, A. (2009). *How to conduct surveys: A step-by-step guide* (4th ed.). Thousand Oaks, CA: Sage.
- Fouad, N. A., & Bynner, J. (2008). Work transitions. *American Psychologist*, 63(4), 241-251.
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education* (8th ed.). New York, NY: The McGraw-Hill Companies.
- Gadassi, R., Gati, I., & Wagman-Rolnick, H. (2013). The adaptability of career decision-making profiles: Associations with self-efficacy, emotional difficulties, and decision status. *Journal of Career Development*, 40(6), 490-507. doi:10.1177/0894845312470027
- Garcia, P. R. J. M., Restubog, S. L. D., Toledano, L. S., Tolentino, L. R., & Rafferty, a. E. (2012). Differential moderating effects of student- and parent-rated support in the relationship between learning goal orientation and career decision-making self-efficacy. *Journal of Career Assessment*, 20(1), 22-33. doi:10.1177/1069072711417162.
- Gushue, G. V., & Clarke, C. P. (2006). self-efficacy and career exploration behavior. *Journal of Career Development*, 33(1), 19-28.
- Gushue, V. G., Clarke, C. P., Pantzer, K. M., & Scanlan, K. R. L. (2006). Self-efficacy, perceptions of barriers, vocational identity, and career exploration behavior of Latino/a high school students. *The Career Development Quarterly*, 54(4), 307-317.
- Hinrichs, A.-C. (2014). Predictors of Collateral Learning Transfer in Continuing Vocational Training. Hg. v. *International Journal for Research in Vocational Education and Training*.
- Hirschi, a. (2009). Swiss adolescents' career aspirations: Influence of context, age, and career adaptability. *Journal of Career Development*, 36(3), 228-245. doi:10.1177/0894845309345844
- Hirschi, A., & Herrmann, A. (2012). Vocational identity achievement as a mediator of presence of calling and life satisfaction. *Journal of Career Assessment*, 20(3), 309-321. doi:10.1177/1069072711436158.
- Hirschi, A. (2012). Vocational identity trajectories: Differences in personality and development of well-being. *European Journal of Personality*, 26(1), 2-12. doi:10.1002/per.812.
- Huck, S. J. (2008). *Reading statistics and research* (5th ed.). Boston, MA: Allyn & Bacon.
- Ismail, M., Ali, A., & Arokiasamy, L. (2012). Career advancement of academics at public and private universities in malaysia: Implications for human resource development. *The Asia-Pacific Education Researcher*, 21(3), 648-658.

- Kracke, B. (2002). The role of personality, parents and peers in adolescents. *Journal of Adolescents*, 25(1), 19-30.
- Latham, G. P. (2000). Motivating employee performance through goal-setting. In E. Locke (2000). *The blackwell handbook of principles of organizational behavior*. London: Blackwell Business.
- Loo, C. W., & Choy, J. L. F. (2013). Sources of self-efficacy influencing academic performance of engineering students. *American Journal of Educational Research*, 1(3), 86-92. doi:10.12691/education-1-3-4.
- Macovei, C. M. (2009). The formation of vocational identity. *Buletin Stiintific*, 2(28), 74-79.
- Marcia, J.E. (1980). Identity in adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychology*, (pp158-187). New York: Wiley.
- Maree, J. G. (2012). Career adapt-abilities scale - South African form: Psychometric properties and construct validity. Department of Psychology, University of Pretoria, South Africa 1-11.
- Meece, J. L., Anderman, E. M., & Anderman, L. H. (2006). Classroom goal structure, student motivation, and academic achievement. *Annual Review of Psychology*, 57, 487-503.
- Melgosa, J. (1987). Development and validation of the occupational identity scale. *Journal of Adolescents*, 10, 385-397.
- Mesa, V. (2012). Achievement goal orientations of community college mathematics students and the misalignment of instructor perceptions. *Community College Review*, 40(1), 46-74. doi:10.1177/0091552111435663.
- Morgan, George A., Leech, Nancy L., Gloeckner, Gene W., & Barrett, K. C. (2011). *IBM SPSS for introductory statistics: Use and interpretation* (4th ed.). London: Taylor & Francis.
- Murphy, K. A., Blustein, D. L., Bohlig, A. J., & Platt, M. G. (2010). The college-to-career transition: an exploration of emerging adulthood. *Journal of Counseling & Development*, 88(2), 174-181.
- Nota, L., Ferrari, L., Solberg, V. S. H., & Soresi, S. (2007). Career search self-efficacy, family support, and career indecision with Italian youth. *Journal of Career Assessment*, 15(2), 181-193. doi:10.1177/1069072706298019.
- Pallat, J. (2010). *A step by step guide to data analysis using the SPSS program: SPSS survival manual* (4th ed.). Allen & Unwin.
- Rottinghaus, P. J., Buelow, K. L., Matyja, A., & Schneider, M. R. (2011). The career futures inventory-revised: Measuring dimensions of career adaptability. *Journal of Career Assessment*, 20(2), 123-139. doi:10.1177/1069072711420849.
- Rottinghaus, P. J., Day, S. X., & Borgen, F. H. (2005). The Career Futures Inventory: A measure of career-related adaptability and optimism. *Journal of Career Assessment*, 13(1), 3-24.
- Saari, H. A., & Rashid, A. M. (2013). Relationship between implementation of cooperative vocational education and job offering among apprentice of national dual training system in Malaysia. *Middle East Journal of Scientific Research*, 18(11), 1578-1583.

- Savickas, M. L. (1997). Career adaptability: An integrative construct for life-span, life-space theory. *The Career Development Quarterly*, 45, 247-259.
- Savickas, M. L. (2005). The theory and practice of career construction. In S. D. Brown, & R. W. Lent (Eds), *Career development and counseling: Putting theory and research to work*. Hoboken, NJ: John Wiley.
- Savickas, M. L., & Porfeli, E. J. (2012). Career adapt-abilities scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80(3), 661-673.
- Savickas, M. L., Passen, A. J., & Jarjouara, D. G. (1988). Career concerns and coping as indicators of adult vocational development. *Journal of Vocational Behavior*, 33(1), 82-94.
- Savickas, Mark L., & Porfeli, E. J. (2011). Revision of the career maturity inventory: The adaptability form. *Journal of Career Assessment*, 19(4), 355-374.
- Super, D. E. (1957). *The psychology of careers*. New York: Harper & Brothers.
- Super, D. E. (1980). A life-span, life-space approach to career development. *Journal of Vocational Behavior*, 16, 282-298.
- Tien, H.-L. S., Wang, Y.-C., Chu, H.-C., & Huang, T.-L. (2012). Career adapt-abilities scale Taiwan form: Psychometric properties and construct validity. *Journal of Vocational Behavior*, 80(3), 744-747. doi:10.1016/j.jvb.2012.01.010.
- Turan, E., Celik, E., & Turan, M. E. (2014). Perceived social support as predictors of adolescents' career exploration. *Australian Journal of Career Development*, 23(3), 119-124. doi:10.1177/1038416214535109.
- VandeWalle, D. M. (1997). Development and validation of work domain goal orientation instrument. *Educational and Psychological Measurement*, 57(6), 995-1015.
- Veiga, F. H., & Moura, H. (1999). Occupational identity scale (OIS). In *Occupational Identity* (p. 692-698). Braga: Universidade do Minho.
- Veiga, F. H., & Moura, H. (2005). Adolescents' vocational identity: Adaptation of the occupational identity scale (OIS). In *Careers in Context: New Challenges and Tasks for Guidance and Counseling* (p. 1127-1132). Acts da International conference AIOSP 2005, Lisbon: University of Lisbon.
- Vietze, D. L. (2011). Social support. In M. J. Bradford, B. B., & Prinstein (ed.), *Encyclopedia of adolescence* (p. 341-351). New York: Academic Press.
- Wan, M. W. J., Mohamed, O., Bakar, A. R., & Tarmizi, R. A. (2011). Counseling self-efficacy among trainee counselor in Malaysia. *Procedia- Social and Behavioral Sciences*, 30, 676-679. doi:10.1016/j.sbspro.2011.10.130.
- Weisenberg, F., & Aghakhani, A. (2007). An exploration of graduate students' career transition experiences. *Canadian Journal of Counseling*, 41, 107-123.
- Westbrook, B. K., Sanford, E. E., O'Neal, P., Horne, D. F., Fleenor, J., & Garren, R. (1985). Predictive and construct validity of six experimental measures of career maturity. *Journal of Vocational Behavior*, 27(3), 338-355.
- Yousefi, Z., Abedi, M., Baghban, I., Eatemadi, O., & Abedi, A. (2013). Personal and situational variables, and career concerns: Predicting career adaptability in young adults. *The Spanish Journal of Psychology*, 14(01), 263-271. doi:10.5209/rev_SJOP.2011.v14.n1.23

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, 52(1), 30-41.

Bibliographical notes

Amos Shaibu Ebenehi is a Ph.D candidate in the Faculty of Educational Studies at University Putra Malaysia. He is a principal lecturer in the Department of Technical Education in Kogi State College of Education, Ankpa, Nigeria. His research interests focus on technical and vocational education and training, career adaptability skill training and development, and basic science and technology education.

Dr Abdullah Mat Rashid is an associate professor in the Department of Science and Technical Education at the Faculty of Educational Studies, University Putra Malaysia. His primary responsibilities involve teaching courses and conduct research in career and technical education. Dr. Rashid research and consultancy interests are focused on technology based education, workplace learning, career and technology education, and distance learning associated with achieving scientific and technological literacy.

Dr Ab Rahim Bakar is a professor in the Department of Science and Technical Education at the Faculty of Educational Studies, University Putra Malaysia. His specialization is in technical and vocational education and training, especially, in employability skill training and development, and career self-efficacy.