DEMOGRAPHIC PREDICTORS IN SATISFACTION WITH ACADEMIC MAJOR AND NEGATIVE CAREER THOUGHTS RELATION: IMPLICATION FOR CAREER INTERVENTIONS IN VOCATIONAL EDUCATION IN NIGERIAN UNIVERSITIES

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Abstract

To successfully progress in achieving the objective of vocational and technical education, it is necessary to determine the students’ satisfaction levels with the programmes as it relates to their career decision efficacy. This research, therefore, determined the demographic predictors in the relation between academic major satisfaction and negative career thoughts. The research was guided with four hypothesized research questions. Cross-sectional design that embedded a correlational survey was employed. The participants were 622 vocational education undergraduates selected from a public state-owned university in South-west Nigeria. The students’ demographic variables (e.g. gender, academic level of study, age, and subject areas of specialization), academic major satisfaction scale, and negative career outlook sub-scale were the main constituents of the questionnaire that was used for data collection. Data analyses were performed using mean, standard deviation, bivariate correlation, and regression analyses. Results depicted that the students’ satisfaction with their academic major significantly predicted their negative career thoughts. It was also found that gender, academic level and subject areas of specializations were the demographic variables that predicted satisfaction with one’s academic major, as well as negative career thoughts. Intervention studies were therefore recommended for career behaviour modification among vocational education undergraduates.

Keywords: academic major satisfaction, career thought, demographic variables, vocational education students.

Introduction

While it is a common practice among university fresh graduates to embark on job search especially in their areas of study, it is necessary for an individual to consider his/her abilities and skills in career decision making. It has been advised that young adults should consider the following questions in making career decisions: “what are my interests and preferences; what would I like to do; what am I good at; what are my abilities and skills” (Ng & Feldman, 2010; Vertsberger & Gati,
2016), and what is my academic strength/satisfaction level? However, in an academic programme where students tend to exhibit dissatisfaction with their major, these sets of questions may help to guide against the fear of career failure upon graduation. In vocational and technical education in Nigeria, many seem to perceive its programmes as less prestigious; which may lead to academic major dissatisfaction among students (Chukwuedo, 2018).

The level at which a student tends to exhibit a positive attitude, acceptance, inclination, as well as have a psychological bond to his/her major dovetails to academic major satisfaction. Just as job satisfaction represents an indicator for career decision making among employees (Abdulla, Djebarni, & Mellahi, 2011), academic major satisfaction reflects “a more proximal index of the efficacy of career decisions or interventions among college students in their fields of study” (Nauta, 2007; p. 447). Studies have affirmed and established that students’ academic success or outcomes can be influenced by their satisfaction with academic major (e.g. Eun, Sohn, & Lee, 2013; Milson & Coughlin, 2017). In a wider scope, this study theorized that since academic major satisfaction predicts academic achievement (Kim & Lee, 2015; Nauta, 2007) and that since academic achievement of students has a significant link with their career outcomes (Kool, Mainhard, Jaarsma, Brekelmans, & van Beukelen, 2016), it is, therefore, possible that students’ level of academic satisfaction determines their career thoughts and self-doubt behaviours. This implies that a high level of academic major satisfaction may lead to reduced career self-defeating behaviours or thoughts. Conversely, this study also proposes that a low level of satisfaction with a major may lead to increased negative career thoughts.

Negative career thoughts are self-doubt behaviours and related beliefs that deter an individual’s positive and proactive behaviours towards his/her present or future career prospect and related decision-making abilities. Negative career thinking is the “product of the internalized beliefs, attitudes, and feelings regarding making career decisions” (Belser, Prescod, Daire, Dagley, & Young, 2018, p. 178). These thoughts are pessimistic beliefs (Creed, Patton, & Bartrum, 2002) that are associated with career decision-making efficacy (Rottinghaus, Buelow, Matyja, & Schneider, 2012). Negative career thoughts have also been found to have a significant link with depression and hopelessness (Dieringer, Lenz, Hayden, & Peterson, 2017). Since negative career thoughts affect career decision making (as academic major satisfaction has a link with career choice), it becomes imperative to empirically determine the link between academic major satisfaction and career thoughts (especially in vocational education in Nigeria where the prospects of the programmes have been wrongly perceived).

In Nigeria, vocational and technical education (herein also referred to as vocational education) programmes are offered at the secondary and tertiary education levels (Ekpenyong, 2011; Federal Republic of Nigeria, FRN, 2013). However, this study focuses on university undergraduates of the programmes. Vocational education at the universities in Nigeria is commonly offered under different broad subject areas of specializations (viz. Agricultural, Business, Computer, Home Economic and Industrial Technical Education). In this research, students undertaking Computer Education were not considered because this subject area is not available in the institution used for data collection.

**Theoretical Framework**

This research was supported with the theories of social cognitive career (SCCT – Lent, Brown, & Hacket, 1994) and cognitive information processing (CIPT - Peterson, Sampson, & Reardon, 1991). The SCCT placed emphasis on the career development of young adults and adolescents as a function of the socio-cognitive behavioural framework. The SCCT premised that individuals tend to develop patterns that tilt towards their career/occupational development, of which the individual develops interest and makes a firm decision. The CIPT postulates that individual’s effective information processing in career planning, problem-solving, and decision making is required in self-employment, occupational knowledge, and decision-making skills. These theories are relevant to this study in that satisfaction with an academic major is a developmental process for career transition and outcomes in a social or cognitive context. Similarly, negative career thoughts are a function of information processing for career decision making within social and cognitive frameworks.
Problem of Research

Technical and vocational education programmes are expected to inculcate in their recipients the needed career skills for smooth school-to-work transition in order to function effectively in the world of work. By its objectives, the graduates of these programmes should be able to be self-employed and contribute meaningfully in industrial, economic, commercial, and agricultural development (FRN, 2013). Thus, the graduates should have been able to exercise some level of confidence in their future career; but the poor perception towards these programmes may hamper the students’ level of satisfaction in their majors, which may, in turn, lead to career self-doubt. Until this relationship, among others, is established, vocational educators and counsellors may continue to fantasize on the direction of intervention that can help to re-orient the students’ and societal views towards the programmes. Therefore, the researchers investigated the vocational education students’ demographic variables that predict satisfaction with their majors as well as their career thoughts; and the relationship between their satisfaction with their major and negative career thoughts.

Research Focus

Although research on career development appears quite enormous, there are still calls for continuous studies on career behaviours and the relationship with their antecedents and consequences (Fouad, Kim, Ghosh, Chany, & Figueiredo, 2016; Hargrove, Inman, & Crane, 2005). The importance of academic satisfaction in career decision making has also been acknowledged by career and vocational counsellors (Milson, & Coughlin, 2017). However, in vocational and technical education, there seems to be a paucity of literature on students’ academic satisfaction, career decision making and the relationship between academic major satisfaction and career thoughts (c.f. Dames, Mansaray, & McDowell, 2016). Similarly, there is little or no literature on students’ demographic variables (e.g. sex, age, academic level, and subject areas of specialization) as determinants of academic major satisfaction and negative career thoughts (c.f. Dames et al, 2016), especially in vocational and technical education. Established empirical studies that are tilted towards these directions would help vocational education students, teachers, counsellors, and researchers to determine the next line of action in the profession. Thus, the hypothesized model of this research was based on the following research questions:

1. What is the relationship between the students’ demographic characteristics, academic major satisfaction, and negative career thoughts?
2. Do the students’ level of satisfaction with their major significantly predict their negative career thoughts?
3. Do the students’ demographic characteristics significantly predict their level of satisfaction with their academic major?
4. Do the students’ demographic characteristics significantly predict their negative career thoughts?

Research Methodology

General Background

This research was quantitative research that employed the cross-sectional design with specific emphasis on the correlational survey. A cross-sectional design has to do with the collection of data in a snapshot, where data is collected once from a target population or sample (Gall, Gall, & Borg, 2007; Gay, Mills, & Airasian, 2011). The correlational survey was employed because this study determined the relationship between predictor variables and criterion variables (Gay et al., 2011; Uzoagulu, 2011). Since this research collected data in a single administration of research instrument and determined the relationship between variables, a cross-sectional design that embedded correlational survey was considered suitable as the adopted research design.
Sample of Research

The participants of this research were initially 663 undergraduates of vocational and technical education programmes in a State publicly owned university in South-west Nigeria (2015/2016 academic session), but 622 participants were used for data analysis. Although the population was 739 students, the purposive and non-proportionate random sampling techniques were employed to select the participants. Purposive sampling technique was considered because the researchers' intent was to collect data from a large number of students that will represent over 85 percent of the population. This was to enable the researchers to collect appreciable data for relative generalization. Non-proportionate stratified sampling enabled the researchers to group the students into strata of academic levels (100 level: \( n = 144; \) 200 level: \( n = 156; \) 300 level: \( n = 171; \) and 400 level: \( n = 151; \)), subject areas of specialization (Agricultural Education: \( n = 60; \) Business Education: \( n = 411; \) Home Economic Education: \( n = 76; \) and Industrial Technical Education: \( n = 75; \)), and gender (male: \( n = 292; \) female: \( n = 330; \)). There were 539 participants aged 17 to 22 years, while the remaining 83 were aged above 22 years. These participants were therefore conveniently reached during the administration and retrieval of the research instrument. However, no student was coerced to participate in this research; but they were reached by convenience, having obtained a permitted written informed consent from the head of the department.

Instrument and Procedures

The questionnaire was the research instrument used for data collection. The questionnaire was made up of two sections (A & B). Section A elicited demographic information of the students based on their sex, age (range: 17-22 years, and above 22 years), academic levels, and subject areas of specialization. Section B was made up of 10 items on the scales that were used to measure academic major satisfaction of the students in their respective subject areas of specialization, and negative career thought toward one’s career. Academic major satisfaction (AMS) was assessed with a self-reported measure containing six items (AMSS - Nauta, 2007; e.g. I wish I was happier with my choice of academic major). Participants responded to each item statement of the AMSS using a 5-point Likert scale ranging from strongly agree (1) to strongly disagree (5). The students’ negative career thoughts were assessed with career outlook subscale (containing four items) of the career futures inventory-revised (CFI-R - Rottinghaus, Buelow, Matyja, & Schneider, 2012; e.g. I doubt my career will turn out well in the future). Conversely, participants responded to each item statement using a 5-point Likert scale ranging from strongly agree (5) to strongly disagree (1).

In order to collect data with the questionnaire, consent of the heads of the subject areas and head of the department were sought by the researchers. Then, the researchers employed on the spot administration and retrieval of the questionnaires with the help of four research assistants who were the students’ course/class coordinators in each subject areas of specialization. This was done via face-to-face administration during a general lecture that brings all the subject areas together at each academic level. At this stage, 663 questionnaires were successfully administered, but only 610 questionnaires were retrieved on the spot. However, 33 questionnaires were later retrieved by the class coordinators; while 20 questionnaires were not retrieved at all. In all, a total of 643 questionnaires were retrieved but only 622 questionnaires were properly completed and were used for statistical data analyses; while 21 retrieved questionnaires were not used for data analysis because there was unmanageable missing information from the responses.

Data Analysis

Mean, standard deviation, bivariate correlation, and regression were employed for data analyses. Mean, standard deviation and bivariate correlations were used as descriptive statistics; while regression was used as an inferential statistic at an alpha level of or less than .05. To determine the extent and direction of correlations between variables, ranges of correlation coefficients (Gay et al., 2011) were employed. Thus, correlation coefficients ranging between -.35 to +.35 for weak/no correlation; +.35
to +.65 or -.35 to -.65 for moderate correlation; and +.65 to 1.00 or -.65 to -1.00 for strong correlation were applied. The positive or negative signs explain the direction of the relationship. Correlation coefficient with unity (1) is regarded as a perfect correlation, while zero (0) coefficient means none or no correlation.

**Research Results**

The results are presented in the order of the hypothesized research questions:

**Table 1. Bivariate correlations of the study variables.**

| Variables                              | M   | SD  | 1    | 2    | 3    | 4    | 5    | 6    |
|----------------------------------------|-----|-----|------|------|------|------|------|------|
| 1. Gender                              | 1.53| .493|      |      |      |      |      |      |
| 2. Level                               | 2.53| 1.095| -.008|      |      |      |      |      |
| 3. Age                                 | 1.13| .335| -.129**| .293**|      |      |      |      |
| 4. Subject Areas of Specialization     | 2.27| .794| -.081*| -.029| .095*|      |      |      |
| 5. Academic Major Satisfaction         | 2.85| .503| .019| .575**| .126**| -.103*| (.802)|      |
| 6. Negative Career Thoughts            | 3.10| .802| .061| -.687**| -.222**| .072| -.428**| (.873)|

Note. M = mean, SD = standard deviation, Cronbach’s alpha values are in brackets and in bold, gender (male = 1, female = 2), Level (100 = 1, 200 = 2, 300 = 3, & 400 = 4), age (17-22 = 1, above 22 = 2), subject areas (Agric. = 1, Bus. = 2, Home Econs. = 3, & Ind. Tech. = 4).

Table 1 reveals the correlations of demographic characteristics with academic major satisfaction and negative career thoughts. The results showed that gender has a very weak positive correlation with academic major satisfaction \( r = .019 \), and a very weak negative correlation with career thoughts \( r = .061 \). Conversely, academic level showed a moderate positive relationship with academic major satisfaction \( r = .575 \), but a strong negative relationship with negative career thoughts \( r = -.687 \). The results of subject areas of specialization revealed a weak positive correlation with academic major satisfaction \( r = .126 \), but a weak negative correlation with negative career thoughts \( r = -.222 \). The mean results showed the students’ levels of satisfaction with major and negative career thoughts, which depicted a low level of satisfaction with their academic majors, and high level of negative career thoughts.

**Table 2. Regression for academic major satisfaction on negative career thoughts.**

| Variables                      | B(SED) | Beta | t    | p     |
|--------------------------------|---------|------|------|-------|
| Academic major satisfaction    | 5.041(1,167) | -.428 | -11.783 | .001  |
| Constant                       | -.682(0,58)    | 30.104 |       | .001  |

Overall Model: \( F(1, 620) = 138.842, R = .428, R^2 = .183, \text{Adjusted } R^2 = .182, .001 \)

Table 2 shows the results of the coefficient estimates and the overall model of academic major satisfaction predicting negative career thoughts. The results showed that academic major satisfaction significantly predicted negative career thoughts \( F = 138.842, \beta = -.428, p < .001 \) of the students. The adjusted R – square of .182 revealed that academic major satisfaction explained 18.2 percent of variances in negative career thoughts. This implies that the significant effect of satisfaction with one’s major on his/her negative career thoughts is relatively large.
Table 3. Regression for demographic characteristics on academic major satisfaction.

| Variables                | Academic Major Satisfaction |          |       |       |
|--------------------------|-----------------------------|----------|-------|-------|
|                          | B(SEB)                      | Beta     | t     | p     |
| Sex                      | .013(.033)                  | .013     | .379  | .705  |
| Level                    | .268(.016)                  | .583     | 16.999| .001  |
| Age                      | -.052(.052)                 | -.035    | -1.002| .317  |
| Subject areas of specialization | -.052(.021)           | -.081    | -2.469| .014  |

Overall Model: F(4, 617) = 79.271, R = .583, R² = .339, Adjusted R² = .335 .001

Table 3 reveals the results of the coefficient estimates and the overall model of students’ demographic characteristics predicting academic major satisfaction. The results showed that academic level of the students (β = .585, p < .001) and their subject areas of specializations (β = -.081, p < .05) significantly predicted the students’ satisfaction with their academic major. Conversely, sex and age were not statistically significant (p > .05). However, the overall model revealed significantly combined effects (F = 79.271, p < .001) of demographic characteristics on academic major satisfaction. The adjusted R – square of .335, therefore, depicted that 33.5 percent of variances in academic major satisfaction is explained by demographic characteristics. This implies that the influence of students’ academic level and subject areas of specializations on their satisfaction with their academic major have large effects.

Table 4. Regression for demographic characteristics on negative career thoughts.

| Variables                | Negative Career Thoughts |          |       |       |
|--------------------------|---------------------------|----------|-------|-------|
|                          | B(SEB)                    | Beta     | t     | p     |
| Sex                      | .093(.047)                | .058     | 1.960 | .050  |
| Level                    | -.497(.022)               | -.678    | -22.240| .001  |
| Age                      | -.051(.074)               | -.021    | -.694 | .488  |
| Subject areas of specialization | .060(.030)           | .059     | 2.010 | .045  |

Overall Model: F(4, 617) = 141.276, R = .691, R² = ., Adjusted R² = .182 .001

Table 4 conveys the results of the coefficient estimates and the overall model on students’ demographic characteristics predicting negative career thoughts. The results showed that students’ sex (β = .058, p = .05), academic level (β = -.678, p < .001) and their subject areas of specializations (β = -.059, p < .05) significantly predicted the students’ negative career thoughts. Although age was not statistically significant (p > .05), the overall model revealed significantly combined effects (F = 141.2, p < .001). The adjusted R – square of .182 depicted that 18.2 percent of variances in a negative career is explained by demographic characteristics. This result depicts a relatively large effect.

Discussion

The focus of this research is on the relationship between academic major satisfaction and negative career thoughts among vocational education undergraduates in Nigeria. The study also meant to ascertain the relationship of the students’ demographic variables (viz., sex, age, academic level of study, and subject areas of specialization) with academic major satisfaction as well as their career thoughts. The study’s preliminary results revealed a low level of satisfaction with their academic major and high negative career thoughts. These results concur with prior studies that indicated that uncounseled college students, as well as those who had no guidance on career planning in their
Studying major, had no reduced negative career outlook/thoughts (Alchin, Mcllveen, & Perera, 2018; Belser et al., 2018).

In this research, it was uniquely found that students’ satisfaction with academic major significantly predicted the students’ career thoughts. This implies that low academic major satisfaction led to high negative career thoughts. In other words, the expression of dissatisfaction with one’s academic major leads to increased expression of negative career thought. Thus, the reverse is also applicable (e.g. Nauta, 2007). This finding is implicitly consistent with previous studies on the fact that job satisfaction is an indicator of career decision making among employees (Abdulla, et al, 2011). The result also implicitly agrees with the fact that negative career thoughts have a significant link with communication apprehension (Meyer-Griffith, Reardon, & Hartley, 2009).

It was also revealed that students’ demographic characteristics (e.g. gender, academic level of study, and subject areas of study) determined their satisfaction with an academic major, as well as their negative career thoughts. The results revealed that academic level and subject areas of study are significant predictors of expression of satisfaction with one’s major. Similarly, sex, academic level, and subject areas of study are significant determinants of the students’ negative career thoughts. Although these results represent another novel contribution of this research, the results complemented the findings of Dames et al. (2016) who found that age, education, and marital status have a significant relationship with dysfunctional career thoughts of persons diagnosed with End Stage Renal Disease (ESRD) on hemodialysis.

Implications of the Research

This research has both theoretical and practical implications. Theoretically, this study has added to the existing literature on academic and career development. It has also provided results that support social cognitive career theory (Lent et al., 1994), as well as cognitive information processing theory (Peterson et al., 1991). Practically, the findings have created awareness to vocational education practitioners and students, as well as vocational counsellors and career trainers on the need for students to possess positive academic behaviours with their major to translate to proactive and effective career decision-making efficacy. Hence, the need for career behaviour intervention.

Limitations of the Research

Despite the relative contributions of this study, it has some levels of limitations. First, it is a cross-sectional survey, which limits the generalization of findings. Thus, longitudinal survey or experimental study is recommended for future studies. Second, this research did not cover all aspects of students’ demographic characteristics; hence, further studies on this are hereby encouraged. The third limitation has to do with the homogeneity of the participant; therefore, the study can be replicated for a heterogeneous sample. Fourth, the responses of the participants may not be devoid of common method bias (e.g. common rater effects, and implicit theories/illusory correlations - Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). Hence, future researchers may adopt approaches to overcome such bias.

Conclusions

Little was empirically known from previous research findings on the link between academic major satisfaction and negative career thoughts among students, as an indicator of students’ career-related dysfunctional behaviours as well as poor self-career management. Based on the findings of this research, the researchers conclude that the low level of satisfaction with academic major as expressed among vocational education students has led to their increased negative career thoughts. Thus, academic major satisfaction predicts career thoughts. Similarly, this research concludes that students’ demographic characteristics (e.g. gender, academic level of study, and subject areas of specialization) are considerable determinants of satisfaction with one’s academic major and negative career thoughts. It is, therefore, imperative that career intervention studies are carried out among vocational education undergraduates in Nigeria for academic- and career-related behaviour modifications.
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