Personality Type and Career Preferences Among Young Adults in Post-Recession Greece

Alexandros Sahinidis, Eleni Gkika, Panagiotis A. Tsaknis, and Dimitris Stavroulakis

Abstract The literature findings on the predictive power of the Big Five personality model on career choice students make is scant. The purpose of this study is to investigate the relationship between personality type and career selection. A 56-item questionnaire was used to measure personality traits and demographics, including three questions regarding preferences to work in the public sector, in the private sector and as a self-employed person. Approximately half the population of the Business Department students answered the questionnaire (N = 417), using Google docs in class. The results indicated that of the five traits only Neurotism and Agreeableness related to career choice. Although further studies need to be conducted to examine the aforesaid variable relationships, based on the findings reported here, career advisors and school counselors could be of greater benefit to students if they focused more on those possessing the two traits to an above average extent.

Keywords Big five · Five factor model · Career preferences

1 Introduction

The Greek public university system is one with limited choices for the students, centralized in its nature, with the Ministry of Education playing a major role in decisions pertaining to the yearly student intake, Program offerings, budget sizes and the university policies by and large. One such policy uniform to the country's university system is the prohibiting of the students to change their major or the department they enrolled, once they enter the university (typically at the age of 18). The student's decision at that age to enter a specific department of a school, determines his/her academic path, in most cases, whether they like it or not. Since

A. Sahinidis (✉) · E. Gkika · P. A. Tsaknis · D. Stavroulakis
West Attica University, Athens, Greece
e-mail: asachinidis@uniwa.gr

there seems to exist no interest in making university offerings to students more flexible, it is becoming increasingly important for students to make the right school and department choice when deciding they field of study they want to pursue.

Students that are happy with their field of study, will more likely excel at it, will probably attend more frequently and will probably seek employment in workplaces related to their studies.

The purpose of this paper is to investigate the relationship of college student career preferences with their personality traits, as measured by the Five Factor Model, or the Big Five Personality traits. The results of the study are expected to offer some insight into the relationship above, in addition to assessing the effectiveness of existing career orientation mechanisms and to offer suggestions for the improvement of the matching between personality type and career choices.

The literature on the Big Five and career choice is scant, mostly focused on Holland's work on Personality and Vocational Interests [1–3]. We will make an effort in this contribution, examining the relationship of the Big Five traits with three career choices, self-employment, public sector work and private sector employment.

2   Career and the Big Five Personality Characteristics

A variety of definitions in the literature cause problems when comparing the findings of one study to those of the next. While some scholars view career as a concept with attitude and behavioral dimensions, others consider it as a sequence of positions in a person's working life [2, 4, 5] defined it as "a set of occupational experiences and roles that make up a person's working life." Career in this paper will be defined as the path the student wants to follow in his/her work life in the private sector, the public sector or as self-employed. We decided not to address the vocational interests of the students because our sample included only the first-year students. In line with the extant literature short definitions of the Big Five Factors will be used, encapsulating the adjectives we used in the questionnaire to measure each factor [6]. Briefly, Extraversion implies an energetic, spontaneous, adventurous, assertive, sociable person, with positive emotions [7, 8]. Agreeableness or likability is related to traits such as being friendly, generous, altruistic, tender-minded, trusting, and modest [2, 8]. Conscientiousness describes an individual's level of achievement, impulse control, organization and planning, acceptance of traditional norms and feeling responsibility toward the others [6, 9, 10], that facilitates task- and goal-directed behavior, such as thinking before acting, delaying gratification, following norms and rules, and prioritizing tasks. Neuroticism contrasts emotional stability and characterizes individuals as tense, anxious, nervous and emotional [1, 2, 11]. Finally, Openness to Experience describes the imaginative, artistic, conventional, curious and being interested in a variety of things [3, 12]. Based on the limited

literature on the topic of the Big Five and Career selection, the following hypotheses were derived:

H1: There is a relationship between extraversion as strong personality trait and the career choice students make

H2: There is a relationship between conscientiousness and career choice

H3: There is a relationship between Agreeableness and career choice

H4: There is a relationship between Neuroticism and career choice

H5: There is a relationship between openness to experience and career choice

3 Methodology

In our effort to make our study as useful as possible, we chose the first-year students as our sample, since they have not immersed in the deeper concepts of the more advanced classes in their specialization and have not yet identified with their major (e.g. marketing or accounting). The questionnaire has been used in the past by the first author and its reliability and validity have been checked in at least two other studies [13, 14]. The classes were asked to connect to the internet at the site where the questionnaire was placed. Half the students used their mobile phones and completed the questionnaire in-class (N = 417). We used SPSS, v.21, to conduct our analyses. We used Factor analysis and ANOVA to test our hypotheses.

4 Results

The calculation of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) is an indication that the variables are able to group to smaller set of underling factors. According to Pallant (2006) [15] this measure is acceptable since Pallant gives KMO test equal or greater than 0.60 and in our research KMO is 0.81 indicating the appropriateness of using the technique for factor analysis. This appropriateness was further supported by the Barlett's Test of Sphericity, ($\chi 2 = 4565.4$; $p < 0.001$). Therefore, the factor analysis is feasible. The EFA was performed to determine the underling dimensionality of "career choice" by analysing patterns of correlations among 41 attributes. Principal Component Analysis and orthogonal Rotation with Varimax method was applied to increase the explanatory ability of the model. Varimax method, attempts to minimize the number of variables that have high loadings on each factor [16]. A five factor solution was chosen representing 37.8% of the total variance. In order to determine the number of factors extracted the Kaiser's criterion was applied, where the eigenvalue of a factor represents the

amount of the total variance explained by that factor and eigenvalue should be greater than one. Other criteria examined were scree plot, percentage of variance, item communalities and factor loadings [16].

The communalities of the variables ranged from 0.34 to 0.90 suggesting that the variances of each original variable were reasonably explained by the five-factor solution. Factor loadings of the variables ranged from 0.340 to 0.766 above the suggested threshold of 0.30 for practical and statistical significance [16].

The Crombach's alpha for the five factors varied from 0.75 to 0.79 (0.735 in total model) higher than the generally agreed upon lower limit of 0.60 for research at exploratory stage [17, 18] indicating internal consistency among the variables within each factor. The five factors were labeled based on the core variables that constituted them: Extraversion, Agreeableness, Consciousness, Neurotism, Openness to experience.

Five composite variables were created and used as indicators for the latent construct "Career choice" in the subsequent SEM.

SEM was applied to testing the Career choice model in which 5 hypotheses were developed based on a comprehensive review of the literature. Various measures of overall model goodness fit and measurement model fit were assessed to determine if the proposed model was acceptable.

At first, we test the sample for Positive Definiteness, where the determinant (=1,28E005) of the correlation matrix was not equal zero (Fig. 1).

H1: There is a relationship between extraversion as strong personality trait and the career choice students make.

Equal variances assumed, the hypothesis of relationship between extraversion and career choice is not supported [$F(3, 417) = 1002$ $p = 0.392 > 0.05$].

H2: There is a relationship between consciousness and career choice.

Equal variances assumed, the hypothesis of relationship between consciousness and career choice is not supported [$F(3, 417) = 1238$ $p = 0.295 > 0.05$].

H3: There is a relationship between Agreeableness and career choice.

Equal variances assumed, the hypothesis of relationship between Agreeableness and career choice is supported [$F(3.417) = 3072$ $p = 0.028 < 0.05$]. Post hoc analysis did not reveal any differences among different career choices made by students having the trait agreeableness as their main personality characteristic.

H4: There is a relationship between Neuroticism and career choice.

Equal variances assumed, the hypothesis of relationship between consciousness and career choice is not supported [$F(3, 417) = 0.282$ $p = 0.839 > 0.05$].

H5: There is a relationship between openness to experience and career choice.

Equal variances assumed, the hypothesis of relationship between openness to experience and career choice is supported [$F(3, 417) = 6708$, $p = 0.00 < 0.05$]. Post-hoc analysis reveals differences among different career choices made by students having the trait of openness to experience as their main characteristic. Students that prefer their career to be as entrepreneurs or free-lancers are

Factors	Factor Loadings	Eigenvalue	Variance Explained (%)	Crombach's Alpha
Extraversion		6,1	14,7	0,79
I am extrovert and sociable	,766			
I am talkative	,722			
I am full of energy	,694			
I am a happy person	,660			
I cause enthusiasm in others	,552			
I have a dynamic personality	,518			
I like to work with others	,512			
I am original, with new ideas	,460			
I have a vivid imagination	,352			
Conscientiousness		3,5	8,38	0,75
I like to be respected	,601			
I want to have control of the situations	,548			
The feeling of success is important to me	,537			
I am interested in my personal development and improvement	,518			
I am efficient in what I do	,470			
I am reliable person	,466			
I am ambitious person	,453			
I like to feel free and independent	,452			
I am generally a person of trust	,377			
I like to deal with practical issues	,369			
I am realistic	,352			
I am curious about many different things	,341			
Agreeableness		2,4	5,62	0,70
I tend to be disorganized	,723			
I tend to be lazy	,674			
I may be somewhat careless	,661			
My attention is easily distracted	,597			
I have patience until I finish what I do R	,400			
I make plans and implement them in detail R	,397			
I worry too much	,376			
I like to have my things clean and tidy R	,355			
Neurotism		2,0	4,8	0,68
I quarrel with others	,655			
I have high temper	,605			
Sometimes I behave rudely towards others	,600			
I tend to emphasize the mistakes of others	,503			
I am often tense	,454			
I help others un-sellfishly R	,433			
I am in favor or people equality R	,487			
Openness to experience		1,8	4,3	0,55
I concern myself with art, music, literature	,635			
I believe that the end justifies the means R	,452			
I am resourceful	,431			
My studies are in the field of	,430			
I prefer routine work R	,371			

Fig. 1 Factors (five personality traits)

more open in experiences than students who prefer to work in private sector (mean = 0.1566 > mean = −0.1589). Also students who prefer their carrier to be named as "other" (not in private sector, not in public sector nor as entrepreneurs) are more open to experience than students willing to work at the private sector (mean = 0.2267 > mean = −0.46023).

Regression analysis revealed R2 of the model = 0.28% (Fig. 2).

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Extraversion	Between Groups	3,006	3	1,002	1,002	,392
	Within Groups	416,994	417	1,000		
	Total	420,000	420			
conscientiousness	Between Groups	3,708	3	1,236	1,238	,295
	Within Groups	416,292	417	,998		
	Total	420,000	420			
agreeableness	Between Groups	9,081	3	3,027	3,072	,028
	Within Groups	410,919	417	,985		
	Total	420,000	420			
neurotism	Between Groups	,850	3	,283	,282	,839
	Within Groups	419,150	417	1,005		
	Total	420,000	420			
openness to experiene	Between Groups	19,336	3	6,445	6,708	,000
	Within Groups	400,664	417	,961		
	Total	420,000	420			

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,487[a]	,238	,098	,738

Fig. 2 Model summary

5 Conclusion

The present study examined the relationship between the big five personality factors and employment preferences of first-year university students. Although not all factors related significantly to students' employment choices, openness to experience and agreeableness did. Students scoring high in these two traits are affected by their personality when they decide what career path to take. More research is needed to delve into the dynamics of the type of relationship between career choice and the two traits. This is important for career counselors and teachers who engage in helping out students who are trying to make career decisions at a critical juncture in their lives.

References

1. Kimongo Kemboi RJ, Kindiki N, Misigo B (2016) Relationship between personality types and career choices of undergraduate students: a case of Moi university, Kenya. J Educ Pract 7:102–112
2. Alkhelil AH (2016) The relationship between personality traits and career choice: a case study of secondary school students. Int J Acad Res Prog Educ Dev 5:139–152. https://doi.org/10.6007/ijarped/v5-i2/2132

3. Costa P, McCrae R, Holland J (1984) Personality and vocational interests in an adults sample. J Appl Psychol 69:390–400. https://doi.org/10.1037/0021-9010.69.3.390
4. Newton DA, Grayson MS (2003) Trends in career choice by US medical school graduates. J Am Med Assoc 290:1179–1182. https://doi.org/10.1001/jama.290.9.1179
5. Mcoetzee C, Schreuder A (2002) The relationship between career patterns and personality type. SA J Ind Psychol 28:53–59. https://doi.org/10.4102/sajip.v28i1.41
6. Costa PT, McCrae RR (1992) NEO PI-R professional manual. Psychological Assessment Resources, Odessa, FL
7. Clark Mh, Schroth CA (2010) Examining relationships between academic motivation and personality among college students. Learn Individ Differ 20:19–24. https://doi.org/10.1016/j.lindif.2009.10.002
8. Trapmann S, Hell B, Hirn JW, Schuler H (2007) Meta-analysis of the relationship between the big five and academic success. J Psychol 215:132–151. https://doi.org/10.1037/e518532013-271
9. Zhao H, Scott E, Seibert G, Lumpkin T (2009) The relationship of personality to entrepreneurial intentions and performance: a meta-analytic review. J Manag 36:381–404. https://doi.org/10.1177/0149206309335187
10. Roberts BW, Chernyshenko O, Stark S, Goldberg L (2005) The structure of conscientiousness: an empirical investigation based on seven major personality questionnaires. Pers Psychol 58:103–139. https://doi.org/10.1111/j.1744-6570.2005.00301.x
11. De Feyter T, Caers R, Vigna C, Berings D (2012) Unraveling the impact of the big five personality traits on academic performance: the moderating and mediating effects of self-efficacy and academic motivation. Learn Individ Differ 22:439–448. https://doi.org/10.1016/j.lindif.2012.03.013
12. Hazrati-Viari A, Tayarani AR, Sayed ST (2012) The effect of personality traits on academic performance: the mediating role of academic motivation. Procedia Soc Behav Sci 32:367–371. https://doi.org/10.1016/j.sbspro.2012.01.055
13. Sahinidis, A G, Frangos C, Fragkos K (2013) Does the five factor model help predict academic performance? Evidence from a School of Business, Proceedings of the 22nd International Business Information Management Association Conference, 13–14 Nov 2013, Rome, Italy, pp 503-530
14. Sahinidis A, Stavroulakis D, Kossieri E, Varelas S (2019) Entrepreneurial intention determinants among female students. The influence of role models, parents' occupation and perceived behavioral control on forming the desire to become a business owner. In: Kavoura A, Kefallonitis E, Giovanis A (eds) Strategic innovative marketing and tourism springer proceedings in business and economics, pp 173–178. https://doi.org/10.1007/978-3-030-12453-3_20
15. Pallant J (2006) SPSS survival manual. Open University Press, Berkshire
16. Hair JFJ, Anderson RE, Tatham RL, Black WC (1998) Multivariate data analysis with readings. Prentice-Hall, Englewood Cliffs, NJ
17. Nunnally JC, Bernstein IH (1994) Psychometric theory. McGraw-Hill, New York. https://doi.org/10.4236/jep.2011.24038
18. Kavoura A, Sahinidis AG (2015) Communicating corporate social responsibility activities in Greece in a period of a prolonged economic crisis. Procedia Soc Behav Sci 175:496–502. https://doi.org/10.1016/j.sbspro.2015.01.1228