Personality and Undergraduate Performance: An Assessment of the Big Five Personality Model

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Abstract

The purpose of this paper is to investigate the relationship between Personality and Job Performance. In order to construct the above mentioned relationship with related to job performance we have used the dimensions of the big five personality model dimensions which are Extroversion, Conscientiousness, Emotional Stability, Open to Experience and Agreeableness. As the methodology, a questionnaire was used as the research instrument.Particularly, the study was conducted in the University of Kelaniya, Sri Lanka, among the undergraduates of the Faculty of Commerce and Management studies. Multiple regression analysis of the study was used to prove the stated hypothesis of the study and the researcher concludes that the dimensions in the big five personality model make an impact on the job performance of the undergraduates. Finally, the researcher suggests the Job performance levels varies among high and low categories of Open to experience, Emotional Stability, Agreeableness, Extroversion and Conscientiousness.

Keywords: Big five personality model, Job Performance, Extroversion, Conscientiousness, Emotional Stability, Open to Experience, Agreeableness

Paper Type: Model Testing.

Introduction

Personality is a subject area which is coming under the discipline of Psychology. Even though academically it is accepted like that personality is a subject which goes beyond the theory. It is a very practical subject which helps people to understand each other and understand the reasons for behavior of people. According to the Stephen P. Robbins, personality is "The sum total of ways in which an individual reacts and interacts with others." That definition says us personality is about people behavior (Robbins, 2005).

Personality is defined by the qualities, behavioral patterns and traits of an individual which differentiates the individual from others. The construct

personality is vital to each and every human being in the society. Specially understanding own personality, is important when people selecting their career and also it is important to HR Managers when they recruiting people. According to the personality of people, type of employment which they are matching is differed. Not only in selecting career but also as people it is helpful for us to improve our human skills by understanding others personalities and our own personality.Personality has an impact on the undergraduates, employees, school students and on general public.Regardless of the context, assessing personality is considered as important since it has a great impact on their career development and also when they go ahead in their lives.

There is a considerable gap between an undergraduate's actual job and the job which is most suitable for him depending on his existing personality. Therefore we have selected to assess personality of undergraduates of University of Kelaniya.

There are many models and theories to assess personality traits of people. Those models are Freud's Theory, Eysenck's Personality Theory, All port's Trait Theory and Big Five model etc. In order to assess the personality types of undergraduates, we have selected the Big Five Model in our research. The five broad personality traits described by the theory are Extraversion which describes the sociable, gregarious, and assertive people, Agreeableness which describes the good-natured, cooperative, and trusting people, Openness which describes imaginativeness, artistic, sensitivity, and intellectualism people, Conscientiousness which describes responsible, dependable, persistent, and organized people and Neuroticism which describes calm, self-confident, secure people(Robbins, 2005).

There is a considerable gap between an undergraduate's actual job and the job which is most suitable for him depending on his existing personality.

The objective of this research is to assess personality types of undergraduates of Department of Commerce and Financial Management, University of Kelaniya in relation to Big Five Model. So this study will help undergraduates of university of Kelaniya to understand their personality and find the career which is matching to their personality and also to improve their understanding with their colleagues and improve their relationships with them.

Literature review

Personality

This section presents a review of individual and multiple studies involving the relationship between personality (big five model) and Job performance. Personality refers to cognitive and behavioral patterns that show stability overtime and across situations (Cattell, 1965). Therefore, it is reasonable to expect that personality traits influence personal values and attitudes, as most recent empirical research has demonstrated (Oliver, 2003).

Job Performance

Job performance measures an individual against his or her goal, with an emphasis on whether outcomes match the expected goal (Thorndike, 1913). Hall, D.T. and Goodale, J.G. , (1986)pointed out that job performance is how an employee performs his or her tasks using time, techniques and interactions with others. Schermerhorn, (1989) Heldthat job performance represents the quantity and quality of work achieved by an individual or a group, stressing whether the task has been achieved effectively.

Big five model

The "big five" or five-factor model of personality represents a taxonomy to parsimoniously and comprehensively describe human personality, whose validity is strongly supported by empirical evidence (Digman, 1990).Because of its validity and wide acceptance the big five has been extensively utilized in recent organizational and other applied research (Salgado, 1997).Therefore, it is important to establish the relationship between the big five traits and vital organizational behavior variables, including job performance. The big five consists of the following traits: neuroticism, extroversion, openness, agreeableness and conscientiousness (Digman, 1990).

The broad dimension of Extraversion encompasses such more specific traits as talkative, energetic, and assertive. Agreeableness includes traits like concerned, kind, and sincere. Conscientiousness includes traits like organized, methodical, and planned. Neuroticism called the emotional stability and it contains traits like anxious, moody, and nervous. Openness to Experience means the intelligence or the imagination and it include the traits like having wide interests, and being creative and aware.

Linking personality and Job satisfaction

Cheng-Liang Yang and Mark Hwang, (2014)State that there is a bilateral relationship between Job performance and job satisfaction that is simultaneously influential, in their study regarding the three important variables (personality traits, job performance and job satisfaction) in the management of Chinese employees. Further they found that all big five personality traits have significant influence on job performance but agreeableness and extraversion are the two most influencing personality traits on job performance. They also found extraversion is the only one personality trait that can influence over job satisfaction.

In a study of personality and work involvement of full time workers employed on clerical, administrative and managerial positions found that, employees who possess characteristic of agreeableness on low level are seems to have high degree of job involvement. Job involvement level of people who possess combination of characteristics of extraversion and openness is high(Bozionelos, 2004)

Adrian Furnham and Andreas Eracleous and Tomas Chamorro-Premuzic, (2009) State that big five traits and demographic variables has an impact of job motivation in their study which is based on the Hertzberg's two factor theory. According to the scores used in study demographic variables and personality traits are significantly correlated with job satisfaction.

The determination of the present study was to explore the relationship between the personality and Jobperformance.

All in overall, the study derived following hypothesis to be tested.

H_{1a}: Job performance levels varies among high and low categories of Open to experience
H_{1b}: Job performance levels do not vary among high and low categories of Open to experience
H2a: Job performance levels varies among high and low categories of Emotional Stability
H2b: Job performance levels do not vary among high and low categories of Emotional Stability
H_{3a}: Job performance levels varies among high and low categories of Agreeableness

H$_{3b}$: Job performance levels do not vary among high and low categories of Agreeableness

H$_{4a}$: Job performance levels varies among high and low categories of Extroversion

H$_{4b}$: Job performance levels do not vary among high and low categories of Extroversion

H$_{5a}$: Job performance levels varies among high and low categories of Conscientiousness

H$_{5b}$: Job performance levels do not vary among high and low categories of Conscientiousness

Conceptual model of the study.
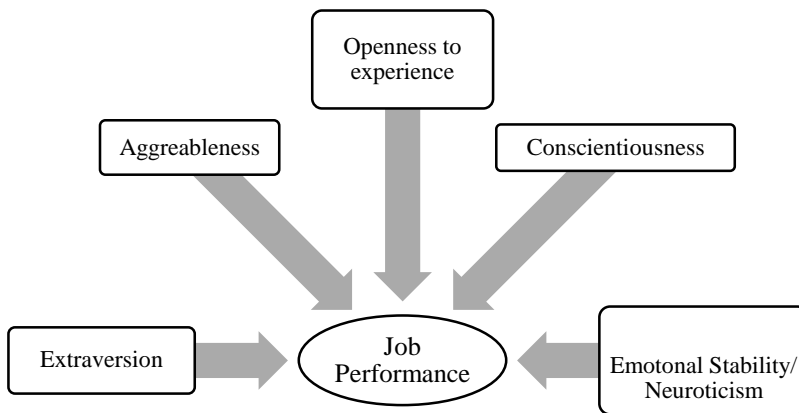
Methodology

As mentioned above, Big Five Model is the basic theory behind this study. To assert the relationship between personality of undergraduates and their job performance the researchers have adopted tested scales with slight adjustments. The complete questionnaire comprises with 03 sections, namely, personal data, type of personality and job performance. Mainly, the questionnaire is with closed-ended questions with 7-point likert scales. The research was carried among 35 undergraduates of the Faculty of Commerce and Management Studies of University of Kelaniya. This shows that the responses given by the respondents were highly reliable as the Reliability Coefficient is closer to 1 (One). To identify the significant determinants of entrepreneurial intention the researcher used multiple regression analysis and to test the hypotheses stated the researcher practiced t-test. Since the study was limited to Faculty of Commerce

and Management Studies in the University of Kelaniya, Sri Lanka, the respondents are randomly selected.

To achieve the objectives of the study, the researchers categorized continues variables of agreeableness, Neuroticism, conscientiousness, extraversion and Openness to categorical. This process was followed by the multi-group analysis and independent sample T test as suggested by the previous authors of literature.

Results and Data analysis

Quality of data

We evaluated quality of the data set by assessing the Cronbach alpha to test the reliability of the questionnaire used. As the construct of personality is identified by the TIPI personality scale of the big five model we did not evaluate its reliability as the scale has been already tested. The Cronbach value in relation to the construct of job performance is depicted below. As the alpha value set closer to one (01), we observed the data reliability and justified the quality of the data.

Table 1: Reliability Statistics

Dimension	Cronbach's alpha
Job performance	.863

Source: Research data

Description of the sample
In order to provide strength to the research study a descriptive analysis was conducted to identify the relationship between personality and job performance

Table 2: Descriptive Statistics							
	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Dpt	35	4	1	5	1.54	.780	.608
Gender	35	1.00	1.00	2.00	1.7714	.42604	.182
Company type	35	2.00	1.00	3.00	1.9143	.56211	.316
Valid N (listwise)	35						

According to the statistics majority of sample belongs to the Department of Commerce and Financial Management (mean is closer to 1). Majority of the sample are females (mean is closer to 2). Most of them are employed in private sector because mean of the company type is closer to 2.

Independent Sample T test

Open to Experience and Job Performance relationship.
As per the statistics calculated in the table 04 (group statistics) the researchers observed a difference of the mean among the high and low Open to Experience categories (5.63333) and that difference is significant at 10% level of significance. Therefore we retain H_{1a} which is, Job performance levels varies among high and low categories of Open to experience. Also the variations among the groups of the study held constant as depicted by the Levene's Test for Equality of Variances.

Emotional Stability and Job Performance relationship.
In this table 06 and 07, depict the relationship between Emotional Stability and job performance with the analysis of the independent t-test model, As per this table, significance P value which is 0.001 less than 0.05 significance level, therefore we reject H2a which is, Job performance levels varies among high and low categories of Emotional Stability.

Agreeableness and Job Performance relationship
In this table 08 and 09, depict the relationship between Agreeableness and job performance with the analysis of the independent t-test model, As per this table, significance P value which is 0.332 greater than 0.05 significance level, therefore we retain H_{3a} which is, Job performance levels varies among high and low categories of Agreeableness.

Extraversion and Job Performance relationship
In this table 10 and 11, depict the relationship between Extroversion and job performance with the analysis of the independent t-test model, As per this table, significance P value which is 0.532 greater than 0.05 significance level, therefore we retain H_{4a} which is, Job performance levels varies among high and low categories of Extroversion.

Conscientiousness and Job Performance relationship
In this table 5, depicts the relationship between Conscientiousness and job performance with the analysis of the independent t-test model, As per this table, significance P value which is 0.619 greater than 0.05 significance level, therefore

we retain H_{5a} which is, Job performance levels varies among high and low categories of Conscientiousness.

Hypothesis Testing

Summary of the data Analysis is given below through hypothesis testing

No	Hypothesis	Result	Tools
H_{1a}	Job high performance levels varies among and low categories of Open to experience	Accepted	Independent Sample T-Test
H_{2b}	Job performance levels do not vary among high and low categories of Emotional Stability	Accepted	Independent Sample T-Test
H_{3a}	Job performance levels varies among high and low categories of Agreeableness	Accepted	Independent Sample T-Test
H_{4a}	Job performance levels varies among high and low categories of Extroversion	Accepted	Independent Sample T-Test
H_{5a}	Job performance levels varies among high and low categories of Conscientiousness	Accepted	Independent Sample T-Test

Source: Research data

Discussion of Findings and Recommendations

This research was mainly conducted with the use of Big five model which is finally related to job performance of undergraduates of Faculty of Commerce and Management studies in the University of Kelaniya. As a result of the study we have identified the relationship of job performance and big five model of personality as below. Person who gets exposed to more experience during their career have high tendency to have more performance at their jobs. Simply, more the person gets opened to experience has high job performance. Emotional Stability also has a positive impact on Job performance levels. As a result of our study we identified that agreeableness of a person and job performance has a positive relationship. Extroversion is characterized by sociability, talkativeness, assertiveness and excitability. So if the person is more extroverts he tends to have more job performance as a result. The methodology used in order to assess the

above mentioned results was through a questionnaire and finally, the researcher suggests the Job performance levels varies among high and low categories of Open to experience, Emotional Stability, Agreeableness, Extroversion and Conscientiousness.

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Annexes

Table 2: Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Dpt	35	4	1	5	1.54	.780	.608
Gender	35	1.00	1.00	2.00	1.7714	.42604	.182
Company type	35	2.00	1.00	3.00	1.9143	.56211	.316
Valid N (listwise)	35						

Table 3: Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Extraversion	31	8.00	6.00	14.00	8.8387	1.46280	2.140
Agreebleness	33	11.00	3.00	14.00	9.3939	2.65682	7.059
Conscientiousness	35	7.00	7.00	14.00	11.0571	1.86205	3.467
Emo_Stability	35	5.00	7.00	12.00	9.6571	1.60775	2.585
Open_to_Experience	35	7.00	7.00	14.00	11.4286	1.71988	2.958
Valid N (listwise)	29						

Table 04: Group Statistics

	Open_cat	N	Mean	Std. Deviation	Std. Error Mean
Performance	high	20	87.7000	7.33485	1.64012
	low	15	82.0667	9.66929	2.49660

Table 05: Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
Performance	Equal variances assumed	.893	.351	1.962	33	.058	5.63333	2.87078	-.20731	11.47398	
	Equal variances not assumed			1.886	25.229	.071	5.63333	2.98714	-.51597	11.78263	

Table 06: Group Statistics					
	Emo_stab_cat	N	Mean	Std. Deviation	Std. Error Mean
Performance	high	18	89.9444	5.60957	1.32219
	low	17	80.3529	8.88778	2.15560

		Levene's Test for Equality of Variances		t-test for Equality of Means						
Table 07: Independent Samples Test										
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Performance	Equal variances assumed	4.164	.049	3.841	33	.001	9.59150	2.49696	4.51141	14.67160
	Equal variances not assumed			3.793	26.741	.001	9.59150	2.52880	4.40049	14.78251

	Agree_cat	N	Mean	Std. Deviation	Std. Error Mean
Table 08: Group Statistics					
Performance	high	21	84.0952	9.08793	1.98315
	low	14	87.0714	8.21316	2.19506

Table 09: Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
Performance	Equal variances assumed	.081	.778	-.985	33	.332	-2.97619	3.02034	-9.12111	3.16873	
	Equal variances not assumed			-1.006	29.924	.322	-2.97619	2.95824	-9.01836	3.06598	

Table 10: Group Statistics	Extra_cat	N	Mean	Std. Deviation	Std. Error Mean
Performance	high	19	84.4211	8.67510	1.99020
	low	16	86.3125	9.00902	2.25226

Table 11: Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Performance	Equal variances assumed	.463	.501	-.631	33	.532	-1.89145	2.99558	-7.98601	4.20312
	Equal variances not assumed			-.629	31.544	.534	-1.89145	3.00559	-8.01711	4.23421

Table 12: Group Statistics	Con_cat	N	Mean	Std. Deviation	Std. Error Mean
Performance	high	22	85.8636	9.58320	2.04314
	low	13	84.3077	7.38675	2.04872

Table 13: Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Performance	Equal variances assumed	.941	.339	.503	33	.619	1.55594	3.09518	-4.74126	7.85314
	Equal variances not assumed			.538	30.500	.595	1.55594	2.89339	-4.34908	7.46097