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Research Paper

Personality correlates of career maturity

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ABSTRACT

The purpose of this study was to explore the relationship between Personality traits as measured by the 16PF Questionnaire and Career Maturity Variables as measured by the Indian Adaptation of Crites's Career Maturity Inventory by Dr. Nirmala Gupta. The participants (sample) were 158 (104 male & 54 female) first year engineering college students of an engineering college in Jalna city of Marathwada region of Maharashtra state. To study the relationship between personality traits and career maturity the Pearson's Correlation Coefficients were calculated. The Findings: (1) Overall it could be concluded that most of the personality traits were found not to be correlated with career maturity variables. Only five personality traits correlated significantly with some of the career maturity variable and they were: Intelligence (B), Dominance (E), Guiltproneness (O), Rebelliousness (Q1), and Compulsivity (Q3). Of these Rebelliousness and Compulsivity correlated significantly with most of the aspects of career maturity. (2) Personality Traits that correlated significantly with Attitudinal Career Maturity or Career Choice Attitudes aspect of CM were Dominance (E-), Guiltproneness (O-) and Compulsivity (Q3+). (3) Personality trait that correlated significantly with Self-Appraisal (SA) competency was Rebelliousness (Q1+). (4) Personality trait that correlated significantly with Occupational Information (OI) competency was Rebelliousness (Q1+). (5) No Personality trait correlated significantly with Goal Setting (GS) competency. (6) Personality traits that correlated significantly with Planning (PL) competency were Intelligence (B+), Rebelliousness (Q1+) and Compulsivity (Q3+). (7) Personality traits that correlated significantly with Problem Solving (PS) competency were Boldness (H+) and Rebelliousness (Q1+). (8) Personality traits that correlated significantly with Total Competency and Overall Career Maturity were Rebelliousness ((Q1+) and Compulsivity (Q3+).

Keywords: Personality, Trait, Career Maturity, Career Choice Attitudes, Competency, Self-Appraisal, Occupational Information, Goal Setting, Planning, Problem Solving

The concept of Vocational or Career Maturity [CM] was first introduced by Donald E. Super in the decade of 1950s in his career development theory. Since then it has been investigated, measured and debated on a large scale (Coertse & Schepers, 2004) in the field of career psychology. Super defined the concept of CM normatively in terms of the congruence between an individual's vocational behaviour and the expected vocational

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behaviour at that age. The closure the correspondence between the two, the greater the individual's vocational maturity (Osipow & Fitzgerald, 1996). John O'Crites has operationally defined CM in two parts: career choice attitudes and career choice competencies (Herr & Enderlein, 1976). The attitudinal CM [CM-ATT] contains five affective components involved in realistic career decision making: decisiveness, involvement, independence, orientation & compromise. The competency component includes five cognitive aspect involved in career decision making: Self-Appraisal [SA], Occupational Information [OI], Goal Setting [GS], Planning [PL], and Problem Solving [PS] (Gupta, 1989). Thus according to Rojewski (1995) CM provides a means of measuring the degree of affective and cognitive career development attained by an individual.

REVIEW OF THE LITERATURE

Correlates of Career Maturity(CM): CM has been found to be associated with many psychosocial variables such as age, sex, grade, locus of control, Socio-economic status, work salience, race, ethnic & cultural differences (Naidoo, 1998) and also with vocational identity, career decision/indecision, courses of study, role salience and paid work experience (Patton & Lokan, 2001). In previous studies, the present researcher also found sex & grade (Kumbhakarn, 2009) and rural-urban background (Kumbhakarn, 2010) as significant correlates of CM in respect of the higher secondary students. Personality traits has also been found to be significant correlates of CM, for example, Gupta (1989) found personality traits measured in terms of High School Personality Questionnaire [HSPQ] to be significantly associated with career maturity for boys as well as girls. Two major personality dimensions self-concept and Locus of Control [LOC] - have also found to be correlated significantly with career maturity (Kaur, S., 2010). Significant correlations between intelligence & CM and Self-esteem & CM have also been reported by Sachdeva, J.K. (2005). According to Savickas, Briddick & Watkins (2002) a leading personality researcher (Goldberg, 1993) explicitly recommended researchers to concentrate on linking personality structure to career development and following his recommendations researchers successfully tried linking vocational interests to personality. This prompted Savickas & et al (2002) to investigate the relation of career maturity to personality and social adjustment by linking Super's model of career maturity to Gough's three-dimensional model of personality organization. For this 200 college students responded to Gough's California Psychological Inventory and Super's Career Development Inventory. Results indicated that planful competence in career development related to greater realization of one's potential and a higher degree of social adjustment. The results also showed that more mature attitudes towards career planning and exploration related to an adjustment style characterized by extroversion in interpersonal relationship and by a positive orientation to social norms. Coertse & Schepers (2004) investigated career maturity in relation to personality and some cognitive variables in a South African context and found personality factors to be significantly associated with career maturity in terms of the differences in personality traits between career mature and career immature students. They found statistically significant differences between the mean score of career mature and career immature students in respect of the several traits of the 16 Personality Factors Questionnaire: Reserved - Outgoing (A), Less Intelligent - More Intelligent (B), Affected by Feelings - Emotionally Stable (C), Humble - Assertive (E), Expedient - Conscientious (G), Shy - Venturesome (H), Practical - Imaginative (M), Forthright - Astute (N), Self Assured - Apprehensive (O), Undisciplined Self Conflict -Controlled (Q3) and Relax – Tense (Q4). The results indicated that the career mature students were more outgoing, displayed higher levels of intelligence, were emotionally stable, were more assertive, and were generally more conscientious and venturesome. Further the results showed that career mature students were practical minded, astute, self assured and generally

more controlled and relaxed. It seems from above review those variables other than personality traits has received much attention and the relationship between personality and career maturity needs to be explored further with different populations and samples. This study would try to explore this relationship on a sample of students from engineering college.

Objective

Main purpose of this study was to explore the relationship between personality traits and career maturity variables. It tried to explore the nature and direction of the relationship between personality traits and career maturity variables in terms of the correlation coefficients obtained on the collected data. The personality traits included in this study were taken from well known 16 Personality Factors Questionnaire [16PF] (Cattell & IPAT Staff, 1997) and Career Maturity variables were taken from the Indian Adaptation of Crites' Career Maturity Inventory [CMI] (Gupta, 1989).

- 1) To explore the relationship between personality traits and career maturity.
- 2) To study the nature, strength and direction of the relationship between personality traits and career maturity variables in terms of the correlation coefficients obtained after the statistical analysis done on the collected data.

Hypothesis

Career Psychology is in its infancy in India and we do not have our own model or a theory of career psychology as such that would explain the career behaviour in an Indian situation (Arulmani & Nag-Arulmani, 2004). As there is no strong supporting Indian data to make any directional hypothesis this study would propose following null hypothesis:

Null Hypothesis: There would be no significant relationship between personality traits and career maturity.

Research Hypothesis: There would be significant relationship between personality traits and career maturity.

This hypothesis would be tested in terms of the correlation coefficients between 16 personality traits and all the career maturity variables.

METHODOLOGY

Sample: The participants available for this study were 158 first year engineering college students studying in an engineering collage in Jalna city of Marathwada region of the Maharashtra state. Among these 158 students, 104 were male and 54 were female. The sample for this study was purposive and convenient because random sampling procedure was not possible to follow. The distribution of the participants as per their sex, age and rural-urban background is presented in the following table no. 1.

		Sex							
			Male		Female				
		Rural/Urban		Total	Rural/	Total			
		Rural	Urban	Totai	Rural	Urban	Total		
Age	17	7	7	14	3	15	18		
	18	27	39	66	8	24	32		
	19	12	4	16	2	1	3		
	20	3	1	4		1	1		
	21	1	1	2					
	22		1	1					
	24	1		1					
Total		51	53	104	13	41	54		

Table -1 Sample distribution

Variables and Research Design: There were two main variables included in this study including their major components. One is personality traits and the other is career maturity. The 16 bipolar personality traits included in this study were taken from the 16 Personality Factors Questionnaires (form C) (Cattell & IPAT Staff, 1997). They are listed in the following table no. 2

FACTOR	Low Score Description	High Score Description		
[A] Warmth	Cool / reserved	Warm / outgoing		
[B] Intelligence	Less Intelligent (Concrete thinking)	More intelligent (Abstract thinking)		
[C] Ego Strength	Emotionally less stable	Emotionally more stable		
[E] Dominance	Submissive	Dominant		
[F] Impulsivity	Sober / restrained / serious	Enthusiastic / spontaneous		
[G] Group Conformity	Expedient	Conscientious		
[H] Boldness	Shy	Bold		
[I] Sensitivity	Tough-mindedness	Tender-mindedness		
[L] Suspiciousness	Trusting	Suspicious / skeptical		
[M] Imagination	Practical / conventional	Imaginative / unconventional		
[N] Shrewdness	Forthright	Shrewd / Astute		
[O] Guilt proneness	Self-assured / Secure	Apprehensive / Guilt prone		
[Q 1] Rebelliousness	Conservative	Experimenting / Radical		
[Q 2] Self-sufficiency	Group-oriented / group dependency	Self-sufficient		
[Q 3] Compulsivity	Self-conflict / careless of social rules	ss of Follow self-image / self discipline / compulsive		
[Q 4] Tension / Anxiety	Relaxed	Tense		

 Table -2
 Sixteen Primary Traits Covered by 16 PF Test

The **Second variable** included in this study was **Career Maturity** and it includes two components: **1**) **Attitudinal Career Maturity** (**CM-ATT**) and 2) Cognitive aspect covering **five types of Competencies:** 1) Self-appraisal (SA) 2) Occupational Information (OI) 3) Goal Setting (GS) 4) Planning (PL) and 5) Problem Solving (PS).

Correlational research refers to "studies in which the purpose is to discover relationship between variables through the use of correlational statistics (Gall & et al, 2007). The basic design in correlational research involves collection of data on two or more variables for each individual in a sample and calculating a correlation coefficient. As stated above, the specific research approach of this study is a basic associational / correlational approach. In this approach set of variables are studied without influencing or manipulating them. This study followed the Correlational approach and tried to explore relationships between following variables: 16 Personality Traits and Career Maturity. Correlation does not imply causation, however prediction is possible.

Tools / Instruments

1) 16 Personality Factors Questionnaire [Form C] (16PF): - This test is originally developed by Cattell & IPAT staff. The Indian Adaptation is done by S. D. Kapoor. The Sixteen Personality Factors Questionnaire (16PF) is an objectively scoreable test devised by basic research in psychology to give the most complete coverage of personality possible in a brief time. The test is designed for use with individuals aged

16 and above (Cattell, 1997). This test is primarily used to assess the personality of normal populations. The 16PF is a highly reliable and a valid instrument. The test-retest reliability for immediate retest to two-week interval ranges from .52 to .78 for form C and .75 to .92 for form A. (manual,1997, p-11). The factor theoretic or direct concept validities (construct validity) of the 16PF scales range from .45 to .91 for form C+D and from .53 to .94 for form A+B. (manual 1997, p-16).

2) Indian Adaptation of Crites' Career Maturity Inventory (CMI) by Dr. Nirmala Gupta: - The inventory consists of two parts. The first part is an Attitude Scale which measures attitudinal maturity regarding career decision making. The second part is a competence test which consists of five parts and measures the competencies & skills required in career decision making. The CMI is a reliable and valid instrument of career maturity. The test-retest reliability of *attitudinal scale* with an interval of one month is reported to be from .78 to .82. The scale has a high content and constructs validity. The split-half reliabilities for all the five parts of *competence test* ranges from .54 to .88 as reported in the test manual. The scale has a high content and constructs validity.

Procedure & Statistical Analysis

The 16 PF Questionnaire and the Indian Adaptation of Crites' CMI were administered to the participants of this study in their classroom in a group setting. Rest of five minutes was given between the administrations of both the tests. The total time taken was two hours including time for instructions and explanations. The answer sheets were collected after students finished responding and these were hand scored with the help of the scoring key provided with the respective test sets. After scoring the data were tabulated and put to statistical treatment. Pearson Correlation Coefficients were calculated for all the personality factors and for all the career maturity variables. The obtained bivariate correlation coefficients for sixteen personality traits and components of career maturity are shown in table 3.

RESULTS & DISCUSSION

It is quite clear form **table 3** that some of the personality traits are significantly correlated with the career maturity variable and many of them did not show any relation. Overall, it is evident that the relationship between personality traits and career maturity is week to moderate. Still it could not be ignored.

	CAREER MATURITY VARIABLES							
Personality Traits↓	CM- ATT	SA	OI	GS	PL	PS	COMP Total	CM- TOTAL
[A] Warmth	0.032	0.000	0.071	0.154	0.070	0.062	0.101	0.083
[B] Intelligence	-0.022	0.117	0.003	0.047	0.179*	0.047	0.112	0.081
[C] Ego Strength	0.105	-0.023	-0.119	0.002	0.083	-0.022	-0.018	0.033
[E] Dominance	-0.166*	-0.043	0.016	0.004	0.046	-0.033	0.002	-0.100
[F] Impulsivity	-0.043	-0.042	-0.056	0.106	-0.048	-0.041	-0.022	-0.027
[G] Group Conformity	0.050	0.092	0.027	0.086	-0.008	0.007	0.055	0.084
[H] Boldness	0.038	-0.071	-0.100	0.030	0.047	0.228**	-0.074	-0.030
[I] Sensitivity	-0.033	-0.014	0.021	0.032	0.149	0.001	0.065	0.038
[L] Suspiciousness	-0.097	-0.018	0.082	0.036	-0.073	-0.054	-0.005	-0.053
[M] Imagination	0.002	0.075	-0.022	0.004	-0.117	0.024	-0.020	-0.012
[N] Shrewdness	-0.087	0.033	-0.018	-0.122	-0.063	-0.062	-0.070	-0.118
[O] Guilt proneness	-0.177*	0.089	0.042	0.007	-0.022	0.068	0.048	-0.026

 Table 3 Correlation Coefficients between Personality Traits and Components of Career

 Maturity [N=158]

	CAREER MATURITY VARIABLES							
[Q1] Rebelliousness	0.107	0.165	0.221**	0.136	0.225**	0.248**	0.275**	0.271**
[Q ₂] Self-sufficiency	-0.100	-0.038	-0.040	-0.061	0.031	0.031	-0.020	-0.033
[Q ₃] Compulsivity	0.232**	0.142	0.158	0.134	0.199	0.036	0.193#	0.264**
[Q4] Tension / Anxiety	0.059	0.026	-0.054	0.054	-0.016	0.111	0.024	0.061

*Significant at 0.05 level, **Significant at 0.01 level, #Significant at 0.02 level.

(1) It is clear from the table 3 that personality trait correlated significantly and positively with Attitudinal Career Maturity (CM-ATT) (or career choice attitudes) for the sample was Compulsivity (Perfectionism) (r = 0.232) and **negatively** with Dominance (r = -0.166), and Guiltproneness (Apprehension) (r = -0.177). The attitudinal career maturity consists of affective aspect of career decision making which includes decisiveness, involvement, independence, orientation and compromise. According to the 16PF manual people who score high on Factor Q₃ i.e. Compulsivity tend to have strong control on their emotions, are socially aware & careful, they care for self-respect, they have high regard for social reputation and they are perfectionists. This means that those high on attitudinal CM would tend to have control on their emotions and they would be perfectionist. With this they would be little bit apprehensive and worrying and tend to have a strong sense of obligation and high expectations of themselves. They would also be sociable, bold, ready to try new things, and spontaneous. According to the 16 PF manual the persons scoring low on Factor O i.e. Guiltproneness (Apprehension) tend to be placid, secure, have mature & unanxious confidence in themselves and has capacity to deal with things. These personality traits help one gain the career maturity required in realistic career decision making. Previous research (Coertse & Schepers 2004) also indicates a significant relationship between 16PF Factors Q3, i.e. Compulsivity, H i.e. Boldness and O i.e. Apprehension and career maturity in terms of differences between career mature and immature students in those personality traits. Career mature students were found to be higher on Compulsivity and Boldness than their career immature counterparts. Another study (Gupta, 1991) found career choice attitudes to be correlated significantly with the factor Boldness for twelfth grade male and female students. The results obtained in this research are to some extent on line of the previous research findings.

The second aspect of CM includes five competencies related to career decision making which are also called as cognitive aspects of CM: Self-appraisal (SA), Occupational Information (OI), Goal-selection (GS), Planning (PL), and Problem Solving (PS). These were found to be correlated significantly with some of the personality traits.

(2) The only personality trait correlated significantly and positively with the Self-Appraisal (SA) component was Rebelliousness (Q₁) (r = 0.165). The SA aspect of career maturity competency refers to Self-Knowledge. This includes one's competency to appraise one's job related abilities and interests and knowing one's strengths and weaknesses. The persons who score high on Rebelliousness tend to be interested in intellectual matters. They are skeptical and make enquiry regarding old and new ideas. They are more informed and inclined to experiment in life generally and more tolerant of inconvenience and change. The persons scoring low on this factor are generally conservative and traditional. This means that the personality trait of Rebelliousness helps one gain an idea of one's own knowledge about abilities and interests and strengths and weaknesses. The more the person is experimenting the more maturity is gained in matters related to career choice.

(3) Personality trait that correlated significantly with Occupational Information (OI) component of career maturity is again Factor Q_1) i.e. Rebelliousness or Radicalism (r = 0.221, p < 0.01). As stated above the person with the high amount of this trait displays skeptical and enquiring tendencies and tends to be better informed. Occupational information aspect of career maturity includes knowledge of the world of work and using that knowledge to make wise career decisions. These two aspects are found to be related to each other in this research. It seems this trait facilitate students in acquiring greater occupational information.

(4) None of the Personality traits were found to be statistically significantly correlated with the **Goal Setting (GS)** aspect of career maturity. Though statistically insignificant (as the sample is small), it seems that the traits of Warmth (A) (r = 0.154, (near/close to the table value for 0.05 level) Rebelliousness (Q₁) (r = 0.136, p < .10) and Compulsivity (Q₃) (r = 0.134, p < .10) are related to Goal Setting competency. The **Goal Setting (GS) competency** refers to one's skill in matching personal characteristics with requirements of an occupation. One who selects a goal appropriate to one's capacities is considered as career mature. Those students who are competent enough to select a job according to their own characteristic would tend to be warm, outgoing, kindly, easygoing, participating, emotionally expressive, ready to cooperate, adaptable and they are generous in personal relations and less afraid of criticism. These personality traits may facilitate them in selecting appropriate jobs.

(5) Personality traits that correlated significantly and positively with **Planning** (**PL**) competency were Intelligence (B) (r = 0.179, p < 0.05), Rebelliousness (Q₁) (r = 0.225, p < 0.01) and Compulsivity (Q₃) (r = 0.199, p < 0.02). This means those students who are more intelligent, bright, quick to grasp ideas and fast learners (Intelligence) and experimenting, critical, liberal, analytical and free-thinking, and well informed (Rebelliousness/Radicalism) and also they would tend to have a strong control on themselves, be socially aware and careful, perfectionist, and obstinate (Compulsivity) would show enough competencies for planning their career.

(6) Personality traits that correlated significantly and positively with **Problem Solving (PS)** component or competency of career maturity were Boldness (H) (r = 0.228, p < 0.01) and Rebelliousness (Q₁) (r = 0.248, p < 0.01). The PS is a cognitive aspect of career maturity which refers to one's effectiveness in dealing with the problems faced in the process of career decision making. It is assumed that a vocationally mature person will solve his/her problem in an integrative, socially acceptable and personally satisfying way. The result here indicate that the PS competency is related to one's being venturesome, socially bold, uninhibited, spontaneous and ready to try new things (boldness) and also that the PS competency is related to one's be interested in intellectual matters, skeptical and inquiring regarding ideas whether new or old, more informed, more tolerant of inconvenience and change. These traits facilitate Problem Solving competency.

Scores on the five sub-tests of competency or cognitive aspect of Career Maturity were combined to form a single score for the Competency aspect of CM and it was termed as COMP **Total** (see table 3) which means **Total Competency**. Further the scores on all the aspects of career maturity (attitude & Competencies) were combined to form a single score for Overall Career Maturity (CM-Total, table 3). These were also found to be correlated significantly with two personality traits.

(7) Personality traits that correlated significantly and positively with **Total Competency** were Rebelliousness (Q₁) (r = 0.275, p < 0.01) and Compulsivity (Q₃) (r = 0.193, p < 0.01). This means that the traits of Rebelliousness and Compulsivity are associated with total competency regarding career decision making. The experimenting, critical, liberal, analytical, free-thinking and radical person would show high competency in career decision making and with this the person with high self-control and are self-disciplined (perfectionist) would show greater competency in handling career related matters.

(8) Personality traits that correlated significantly and positively with **Overall Career Maturity** were Rebelliousness (Q₁) (r = 0.271, p < 0.01) and Compulsivity (Q₃) (r = 0.264, p < 0.01). This means those students who are experimenting, critical, liberal, and analytical and radical would show greater overall career maturity. Also, the students, who tend to have strong control of their emotions, are socially aware & careful, care for self-respect, have high regard for social reputation and are perfectionist (compulsivity) would show greater career maturity. They would take realistic career decisions and show maturity in handling career related matters.

CONCLUSION

Following conclusions could be drawn for the sample (participants in the study) on the basis of the findings obtained in this piece of research for the kind of sample included in this study for the relationship between personality traits and career maturity components.

- Overall it could be concluded that most of the personality traits were found **not** to be correlated with career maturity variables. Only five personality traits correlated significantly with some of the career maturity variable and they were: Intelligence (B), Dominance (E), Guiltproneness (O), Rebelliousness (Q1), and Compulsivity (Q3). Of these Rebelliousness and Compulsivity correlated significantly with most of the aspects of career maturity.
- 2. Personality Traits that correlated significantly with Attitudinal Career Maturity or Career Choice Attitudes aspect of CM were Dominance (E-), Guiltproneness (O-) and Compulsivity (Q₃₊).
- 3. Personality trait that correlated significantly with Self-Appraisal (SA) competency was Rebelliousness (Q1+).
- 4. Personality trait that correlated significantly with Occupational Information (OI) competency was Rebelliousness (Q_1 +).
- 5. No Personality trait correlated significantly with Goal Setting (GS) competency.
- 6. Personality traits that correlated significantly with Planning (PL) competency were Intelligence (B+), Rebelliousness (Q1+) and Compulsivity (Q3+).
- 7. Personality traits that correlated significantly with Problem Solving (PS) competency were Boldness (H+) and Rebelliousness (Q1+).
- 8. Personality traits that correlated significantly with Total Competency and Overall Career Maturity were Rebelliousness ((Q1+) and Compulsivity (Q3+).

Limitations & Suggestions

This piece of research has its own limitations. The approach in this study was simple associational or correlational. Hence no causal relationships could be drawn from this study. In this study no regression analysis was carried out as the number of significant correlation coefficients was very small. So, no predictions either. No broad generalizations cold be drawn on the basis of the results found in this study because the sample was quite small in comparison to the number of variables included in this study. The sample was taken from

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only one engineering college from the city and it was purposive and convenient. A study with casual model could be suggested for further research. Similar studies with large random samples from different educational streams could be suggested.

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Conflict of Interest

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