Personality as a Predictor of Occupational Stress, General Health and Job Satisfaction among IT Professionals

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ABSTRACT

The study aims to highlight Personality as a Predictor of Occupational Stress, General Health, and Job Satisfaction among IT Professionals (government and private). Four hundred fifty respondents of IT professional (Government and private sector in India) (Male=298, Female=152), having at least 3 years of experience in IT sector from Delhi-NCR, Bangalore, and Pune. The age ranged from 22 - 49 year (Mean Age 25). Stratified random sampling was used. A total six hundred respondents were collected out of which 150 were not appropriate for the study (unfulfilled data). The psychometrically standardized questionnaires were used i.e. Occupational Stress Indicator – OSI, General Health Questionnaire 12, NEO Five-Factor Inventory and Minnesota Job Satisfaction Questionnaire. The result revealed that there was no significant difference between males and females on job satisfaction and general health. Further, there was a significant difference between the private and government sectors of IT professional's on job satisfaction and occupational stress. The coefficient of correlation indicated a significantly positive correlation between occupational stress and personality. Regression analysis revealed that the level of job satisfaction depends upon negative affectivity. These findings indicated that negative affectivity has emerged as one of the important contributing factors to general health and job satisfaction on IT professionals. Preventive measures are suggested based on findings on how to reduce occupational stress of IT employees which would contribute to maintain a satisfied and contented staff.

Keywords: Personality; Occupational stress; General health; Job satisfaction; IT professionals

1. INTRODUCTION

The study of personality is proved beyond doubt that personality which pursues a consistent path during one's life predicts job performance. It is because of this, personality tests are gaining significance in the personnel selection systems. Study found that personality variables are more highly correlated with contextual performance than with task performance¹. However, Borman & Motowidlo² proposed that ability variables predict the task performance more strongly than individual differences in personality. Negative Affectivity is one of the personality traits. Negative affectivity refers to a general disposition to experience of negative emotions. Negative affectivity (NA) is possibly the individual differences variable that has the most potential to influence self-report measures of occupational stressors and subsequent perceptions of strain³⁻⁸.

1.1 Occupational Stress

Occupational (job, work or workplace) stress has happen to one of the most serious health issues in the modern world⁹⁻¹¹ as it occurs in all jobs and is even more prevalent today than decades ago. The world of work has undergone changes

considerably and differs largely from the working environment that existed 40 year ago: longer hours at work are not unusual, frequent changes in culture and structure are often cited, as well as the loss of lifetime career paths¹²⁻¹³. Stress, in general, can be defined as the reaction of individuals to demands (stressors) imposed upon them¹⁴. Individual differences affect our perceptions and interpretations of events around us. They contribute to our experience of stress (primary appraisal), and our decisions what to do to deal with the stressor - our choice of coping process (secondary appraisal)^{15,11}. The personality variables that have been linked to stress include self-esteem, type A behaviour pattern, hardiness, and negative affectivity¹⁶⁻¹⁸. Demographic variables that are proven to relate to someone's job stressor / health relationships include gender, age, marital status, job tenure, job title, and hierarchical level¹⁷⁻¹⁹ among which gender, age and hierarchical level were found to be the most significant, as further explanations reveal. General tendency exists in the literature according to which females experience higher levels of occupational stress regarding gender-specific stressors and have different ways of interpreting and dealing with problems related to their work environment^{13,20-21} found that males have statistically significant lower job stress scores as compared to female. This study found that female teachers experienced significantly higher levels of occupational stress compared to their male counterparts²⁰.

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1.2 Job Satisfaction

Job satisfaction can be described as a positive emotional state resulting from evaluating one's job experiences and job dissatisfaction occurs when these expectations are not met²²⁻²⁶. It has been established that job satisfaction can be categorised according to dimensions of work as well as construed as uni-dimensional or general²⁷. Dimensions of work that have been identified from studies of schools have included teacher principal relationships, recognition, relations with colleagues, relations with students, participation in decision-making, pay, work conditions, school culture, communication, responsibility, feedback from others and the work itself²⁸⁻³³. Job dissatisfaction has been associated with several outcomes for employees in organisations. For schools, these often lead to the added cost of disrupted learning for students. Among the many the most costliest ones to the organisation are absenteeism and turnover (which together can be classed as withdrawal), lowered commitment, lowered productivity (often a result of the preceding outcomes) and diminished health of staff members³⁴⁻ ^{40.} The construct of job satisfaction has been one of the most widely research factors in organisational behaviour.

1.3 Need/ Gap for the Study

The goal of this study is to explore personality as a predictor of occupational stress, general health and job satisfaction among IT professionals. Personality and occupational stress process including stressors, strains (health) and outcomes (job satisfaction) of stress. There is a lack of empirical literature showing relation between personality and occupational stress. There is a need for a greater understanding to study the causes and effect of stress due to the growing incidence of occupational stress in the Indian workforce. The present study attempts to enhance our perceptive of the dynamics of the workplace by examining how certain individual and organisational variables affect perception of occupational stressors and how they affect stress-related outcomes. In the light of the given literature the objective of this study was Personality as a Predictor of Occupational Stress, General Health and Job Satisfaction among IT Professionals (government and private).

2. METHOD

2.1 Sample

A cross-sectional study was conducted in the Delhi, NCR, Pune and Bangalore, India. Four hundred fifty (Male=298, Female=152) Engineers from government and private sector having at least 3 year of experience in IT sector were selected. Stratified random sampling technique was used. The age of the engineers ranged from 22-49 year. Total six hundred respondents were collected out of which 150 were not appropriate for the study.

Inclusion Criteria

- The minimum qualification of the engineers was BTech in engineering.
- Engineers from government and private sector having at least 3 years of experience IT sector
- Age of the engineers ranged from 22-49 years.

Exclusion Criteria

- Incomplete data was not considered for the study
- Diploma holders were excluded
- Age below 22 and above 49 were not included

2.2 Tools

Following tools were used

- (i) Occupational Stress Indicator (Copper, Sloan & Williams, 1988)¹² The Occupational Stress Indicator (OSI) developed Cary. L. Copper, Stephen. J. Sloan & Steve Williams (1988) was used. The spilt half reliability range of 0.36- 0.77 for How you feel about your job, for How you feel about your job, for How you feel about your job, for How you behave generally in the range of 0.25- 0.33, How you interpret events around you in the range of 0.36- 0.77 and for How you cope with stress you experience in the range of 0.07 0.59.
- (ii) The General Health Questionnaire 12 (GHQ-12) (Goldberg & Williams, 1988)⁴²: The GHQ-12 comprised of 12 items and is a shortened version of the GHQ-60 (which has 60 item). The reliability of test is 0.83 (spilt half reliability) and Cronbach Alpha 0.94.
- (iii) NEO Five-Factor Inventory-Costa and McCrae's (1992)⁴¹: NEO Five-Factor Inventory (NEO-FFI) was selected and only Neuroticism factor items were taken. This scale consists of 48 item. The reliability of test is 0.86 (internal reliability).
- (iv) Minnesota Job Satisfaction Questionnaire (Weiss, Dawiss England & Lofquist (1967)⁴³ - It has been developed by Weiss, Dawiss England and Lofquist (1967). The scale consists of 20 item. The reliability of test is 0.80.

2.3 Data Analysis

Data was analysis using SPSS-16 software. Data was obtained, coded and descriptive analyses was carried out. The significant relationship between stress, personality, general health and job satisfaction were determined by using the Pearson correlation coefficient. 't' test was also apply for 'Gender' (male and female) differences in the group. The hierarchical regression analysis was used to test the criterion and predictor variables on the two outcome measures (General health and job satisfaction).

3. RESULTS

Table 1 result revealed that females mean score was higher than males on coping with stress (Occupational stress) and job satisfaction. Whereas males mean score was higher than female on General health, Negative Affect and Type A behaviour. The mean difference on 't' test indicated that significant difference was found at 0.05 level on Occupational stress, General health, job satisfaction & Type A Behaviour, whereas on negative affect was found significant at 0.01 level.

Table 2 results revealed that private sector individuals mean score were higher than government sector on occupational stress, general health and negative affect. Mean score of job satisfaction and type a behaviour were higher of government

Variables	Gender	Ν	Mean	S. D.	t
Occupational stress	Male	298	670.91	51.20	0.19*
	Female	152	672.28	46.84	
General health	Male	298	7.15	3.69	0.76*
	Female	152	6.79	2.71	
Negative affect	Male	298	74.36	18.78	3.34**
	Female	152	65.84	16.56	
Job satisfaction	Male	298	140.08	22.00	1.87*
	Female	152	145.83	21.09	
Type A	Male	298	83.23	11.22	.59*
	Female	152	82.32	10.11	

Table 1. Mean, S.D and 't' on gender differences among study variables

**p < 0.01, *p < 0.05

 Table 2.
 Mean, S.D and sector differences among study variables

Variables	Sector	Ν	Μ	S. D.	t
Occupational stress	Private	192	679.22	47.14	2.06*
	Govt.	258	665.53	50.87	
General health	Private	192	7.40	3.29	1.39**
	Govt.	258	6.76	3.45	
Negative affect	Private	192	72.68	19.65	.84*
	Govt.	258	70.59	17.56	
Job satisfaction	Private	192	139.00	24.67	1.80*
	Govt.	258	144.27	19.22	
Type A	Private	192	82.46	11.23	0.55*
	Govt.	258	83.26		

**p<0.01, *p< 0.05

sector than private sector. The 't' test indicate that Type general health is highly significant at 0.01 level and Occupational stress, Job satisfaction, negative affect and type A behaviour was significant at 0.5.

Table 3 results revealed that Pearson's correlation of coefficient was found significant positive correlation between Type A behaviour and Occupational stress (r = 0.325, p < 0.01) and also negative affectivity with GHQ (r = 0.445, p < 0.01). Whereas Job satisfaction was negative correlated with Occupational stress (r = -0.134, p < 0.05), GHQ (r = -0.316, p < 0.01) and negative affectivity (r = -0.295, p < 0.01).

The hierarchical regression analysis was used to test the independent predictive power of the predictor variables on the

Table 5. Correlation coefficients among study variables (1) 450	Table 3.	Correlation	coefficients	among	study	variables	(N=450
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Variables	Type A	Occupational stress	General health	Negative affectivity	Job Satisfaction
Type A	1.0				
Occupational stress	0.325**	1.0			
General health	-0.05	0.037	1.0		
Negative affectivity	-0.098	0.237	0.445**	1.0	
Job satisfaction	-0.02	-0.134*	-0.316**	-0.295**	1.0
** * * * *					

**p<0.01, *p< 0.05

two outcome measures (General health and job satisfaction) while controlling effects of the demographical variables.

Hierarchical regression analysis (Table 4) revealed that the demographical variables such as; age, gender, and sector did not explain a significant portion of variance in predicting general health.

Hierarchical regression analysis (Table 5) revealed that the demographical variables such as; age, gender, and sector did not explain a significant portion of variance in predicting job satisfaction.

In general, the findings of hierarchical regression analyses corroborated the results obtained in correlation analyses. Hence we can say negative affectivity has come out to be a great predictor to influence job satisfaction and general health.

Table 4. Hierarchical regression analysis for prediction of general health

Predictor	$\Delta \mathbf{R^2}$	β
Step 1	0.03	
Control variable		
Step 2	0.20	
Negative affectivity		0.37**
Total R ²	0.24**	
Ν	450	

 $R^2 = .035$; for Step 1: $\Delta R^2 = 0.20$ (*ps*<.01). ***p*<.01 *Control variables included: Age, Gender, and Sector

Table 5. Hierarchical regression analysis for prediction of job satisfaction

Predictor	$\Delta \mathbf{R^2}$	β
Step 1		
Control variable	0.056	
Step 2		
Negative affectivity		-0.391**
Total R ²	0.196**	
Ν	450	

Dependent Variable: Job Satisfaction

 $R^2 = .056$; for Step 1: $\Delta R^2 = 0.19$ (ps<.01). **p<.01

*Control variables included: Age, Gender and Sector

4. **DISCUSSION**

The primary goal of the study was to check personality as a predictor of Occupational stress, General Health and Job Satisfaction among IT Professionals. The study revealed that there is no significant difference between male and female when it came to job satisfaction and general health. Result revealed that females mean score was higher than males on coping with

stress (Occupational stress) and job satisfaction. Research study supported that Offerman & Armitage, 1993;^{13,21-20}. Davidson, *et al.* 1995. The impact of gender difference on general health and job satisfaction is an interesting area that has been explored in the recent past. In our study as it has come out that there is no significant difference between the genders and that can be associated to the changes in the lifestyle and the social fabric. The women today are conscious of physical and mental fitness. They are regularly on to yoga, aerobics and other exercise regimes that make them equally strong physically.

Further there was a significant difference between the private and the government sectors when it came to job satisfaction and work stress. It means job satisfaction was high for government sectors and low level of private sector. It is obvious that the competitive environment in the private sector increases the stress level and insecurity which in turn would be a factor for reduced job satisfaction. The government sector on the other hand has a generally tolerant attitude and has less of accountability but still more secured thus it enhances the job satisfaction. There existed a positive and significant correlation between occupational stress and personality. There is significance in the relationship between negative affectivity, occupational stress and health amongst IT professionals. If we look at the sectors there is more stress in the case of private than the government and the difference has come out significantly. Some relevant study supported are Chaplain, 1995; Dinham & Scott, 1996; 1998; McCormick & Solman, 1992a; 1992b; Scott & Dinham, 2003^{28-33.}

The regression analysis on general health indicated that negative affectivity has an effect on general health, even if age, sector and gender variables are kept constant. Similarly, Coping with Stress Dimension of occupational stress indicated that the level of general health will increase with the increase in the level of coping with stress, if the effect of all the other variables like age, sector and gender variables is kept constant. It implies that when there is a change (increase/decrease) in the scores of the independent variables i.e., Negative affectivity and Coping with stress the dependent variable (general health) would also change respectively. Our study reveals that negative affectivity has emerged as one of the important contributing factor to General health and job satisfaction IT Professionals. Some relevant research studies supported⁹⁻¹¹. Given the findings and our interpretation of their possible meaning, the effects of affective traits on job cognitions should be investigated in future research.

5. CONCLUSIONS

Conclusion of this study uses Indian employee's data to explore the factors influencing job satisfaction and occupational stress among IT Professional working in government and private sectors. It should be recognised, that the experiences of other professionals across the country and in various sizes of organisation and in other countries may differ from the group considered here. As a result, there are some factors which cannot be considered in this study and further research could shed additional light on the complexities.

6. LIMITATIONS

The study was based exclusively on significance in relations and establishing the predictor for health and job satisfaction using the small sample size. It means that further replication is needed before drawing firm conclusions especially on the mediating role of state effect on the trait affectivity–job satisfaction relationship. The study also limited itself to only work place. However the relationship between workplace job satisfaction and the moods at home can be the implications or future scope for study.

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