

Personality as a Predictor of Burnout among Managers of Manufacturing Industries

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In the present study of 170 managers (mean age=32 years) from different manufacturing industries (multi-national) of private sector from India, the authors examine the relationship between burnout as measured by Maslach burnout inventory-general and the big five personality factors as measured by NEO-FFI. The findings from three separate stepwise multiple regression analysis reveals that neuroticism and extroversion are the most strong and consistent predictors of burnout. Neuroticism is positively related with exhaustion and cynicism but negatively related with professional efficacy. In addition, extroversion is negatively related with exhaustion and cynicism and positively related with professional efficacy.

Keywords: *Burnout, Big five personality factors, neuroticism, extroversion.*

India has confronted globalization and liberalization since the 1990s, the effects of which have been experienced by organizations and executives more severely during the past decade. A majority of the organizations have gone through a paradigm shift and one can clearly see the stress levels rising. Yet, there has been no national level study to indicate the magnitude of the problem that is adversely affecting both the executives and the organizations (Sharma, 2007). Burnout is becoming a major threat to the executives the world over and more so in a country like India where they are under pressure to produce higher and higher outputs with minimum inputs. Burnout has been identified as one particular type of chronic response to the cumulative, long-term negative impact of work stresses (Blase, 1982).

Burnout is a process that begins with excessive and prolonged levels of job stress. The stress produces strain in the worker (feelings of tension, irritability and fatigue). The process is completed when the worker defensively copes with the job and becomes

apathetic, cynical or rigid (Chernis, 1980). Burnout was firstly studied in extensive manner by Herbert Freudenberger in 1974. Simultaneously, Christina Maslach has studied burnout in such a manner which is accepted universally. From that time a huge contribution has been made by researches in the field of burnout. As mentioned earlier the most accepted view point on burnout is of C. Maslach. Maslach (1982) define burnout as "burnout is a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do 'people work' of some kind". This definition emphasis on three dimensions of burnout i.e. emotional exhaustion, depersonalization, and reduced personal accomplishment.

Emotional exhaustion (often denoted as Exhaustion outside the human services) refers to feelings of being emotionally overextended and depleted of one's emotional sources.

Depersonalization (often denoted as Cynicism outside the human services) refers to negative, cynical attitudes and feelings

about one's clients resulting in detached and callous response to them.

Reduced Personal Accomplishment (often denoted as professional efficacy outside the human services) refers to the tendency to evaluate oneself negatively, particularly with regard to one's work with clients.

Burnout proven to be negative for individuals as well as to the organizations. Maslach and Leiter (1997) suggests that burnout can cause such physical problems as headache, gastrointestinal illness, high blood pressure, muscle tension, and chronic fatigue and even to cardiac problem also. Burnout has been found linked with various mental problems also (Burke & Deszca, 1986; Maslach & Pines, 1977; Cordes & Dougherty, 1993). Psychological problems such as lowered self-esteem, depression, irritability, helplessness and anxiety are often found in burned-out individuals. Burnout can lead to absenteeism, greater intentions to quit and low productivity (Cordes & Dougherty, 1993). Thus, we can say the higher is the level of burnout the lower are levels of quality and quantity of production.

Personality has been conceptualized from a variety of theoretical perspectives, and at various levels of abstraction or breadth. Each of these levels has made unique contributions to our understanding of individual differences in behavior and experience. But a relatively better consensus has emerged about the usefulness of the Five Factor Model (FFM) to measure personality traits (Costa & McCrae, 1995). Research has found that five factors provide a useful typology or taxonomy for classifying them and are labeled "the Big Five" (McCrae & Costa, 1987; McCrae & John, 1992). The five-factor personality traits include Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness (McCrae & Costa, 1987). However, these five categories are usually described as follows:

Neuroticism: Individuals high in this trait tend to experience emotional instability, anxiety, moodiness, irritability, and sadness.

Extraversion: This trait includes characteristics such as excitability, sociability, talkativeness, assertiveness, and high amounts of emotional expressiveness.

Openness: This trait features characteristics such as imagination and insight, and those high in this trait also tend to have a broad range of interests.

Agreeableness: This personality dimension includes attributes such as trust, altruism, kindness, affection, and other pro-social behaviors.

Conscientiousness: Common features of this dimension include high levels of thoughtfulness, with good impulse control and goal-directed behaviors. Those high in conscientiousness tend to be organized and mindful of details.

Every individual experience stress in his life but not all the individuals tend to experience burnout. So, there are some certain individual differences which lead a person to be a case of burnout. Indeed, during the last two decades, quite a few studies have indicated the possibility that personality plays an important role in the development of burnout. Several researchers (e.g. Deary, Blenkin, Agius, Endler, Zealley & Wood, 1996; Hills & Norvell, 1991; Mills & Huebner, 1998) have found that neuroticism is positively related to burnout. Grundy (2000) found that, neuroticism predicted approximately 21% of the variance in emotional exhaustion, 9% of the variance in depersonalization, and almost 7% of the variance in personal accomplishment. It has been found that neuroticism significantly predicted both the exhaustion and depersonalization dimensions (Zellars, Liu, Bratton, Brymer, & Perrewe, 2004) Several studies have shown a negative relationship between extraversion and exhaustion

component of burnout. More specifically, Eastburg, Williamson, Gorsuch, and Ridley (1994); Francis, Loudon, and Rutledge (2004); Michielsen, Willemsen, Croon, De Vries, and Van Heck (2004); and Piedmont (1993) has found in their studies that extroversion is negatively related to exhaustion. Among big five personality factors, neuroticism and openness found to predict emotional exhaustion in a positive manner (Schaufeli & Enzmann, 1998). A negative relation has been found between Extraversion and burnout, and Agreeableness and level of burnout (Mills, 1995). Mills and Huebner (1998) found that Extraversion, Agreeableness and Conscientiousness are also significantly correlated with emotional exhaustion. It has been found in the researches that openness is positively related with personal accomplishment (Deary et. al. 1996; Zellars, Perrewe, & Hochwarter, 2000). In, some past researches, agreeableness correlates negatively with emotional exhaustion and depersonalization and positively correlates with personal accomplishment (Piedmont 1993; Deary et al. 1996; and Zallers et. al. 2000). Piedmont (1993), Deary et al. (1996), and Deary, Watson, and Hogston (2003) have found a positive relationship between conscientiousness and personal accomplishment. More recently, LePine, LePine, and Jackson (2004) found a negative association between conscientiousness and emotional exhaustion. In the present study we related an integral modal of personality (i.e. big five factor modal) to burnout among executives from manufacturing industries. Moreover, this study will help us to identify individuals who are at risk for developing burnout.

Method

Sample:

The participants for the present study were Indian executives (middle level) who worked with different manufacturing industries

(only multi national industries were included) of private sector (e.g. Maruti udhyog ltd., Hero Honda ltd., Johnson & Johnson ltd., Escort tec. ltd., ESP ltd. all situated in NCR). The sample include 170 male, with mean age of 32 years ($SD=9.21$ years). All of the participants were having work experience of at least 5 years. None of the participants were selected from sales department or human recourses department. Of the participants, 63% were from production department and 37% were from finance department of their respective industries.

Measures:

NEO-FFI: In 1992, Costa and McCrae published the 240-item NEO Personality Inventory, Revised (NEO PI-R; Costa & McCrae, 1992) which permits differentiated measurement of each Big Five dimensions [neuroticism (N), extroversion (E), openness (O), agreeableness (A), and conscientiousness (C)]. For many research applications, the NEO PI-R is rather lengthy. To provide a shorter measure, Costa and McCrae (1992) developed the 60-item NEO-FFI, an abbreviated version based on an item factor analysis of the 1985 version of the NEO PI (Costa & McCrae, 1985). The 12-item scales of the NEO-FFI include the items that loaded most highly on each of the five factors in that analysis. For the present, study the shorter version i.e. NEO-FFI (n, e, o, a, & c) has been used. To assess the reliability of the test, Cornbach's alpha coefficient has been used and results for each variable have been: 0.82, 0.77, 0.71, 0.67, and 0.75 for N, E, O, A, and C respectively.

MBI-GS: Burnout was measured by using Maslach burnout inventory-general survey. It consists of 16 items as total. The subscales of MBI-GS include exhaustion, cynicism, and professional efficacy with 5 items, 5 items, and 6 items respectively. Items are scored on 7 point Likert scale ranging from 0 (never) to 6 (every day). Several studies have shown that MBI-GS has excellent

psychometric properties (Bakker, Demerouti, & Schaufeli, 2002; Schutte, Toppinnen, Kalimo, & Schaufeli, 2000)

Procedure:

For the present study subjects were contacted on their respective localities (offices). Of the 230 managers who were approached, 170 expressed their willingness to participate in the study. After establishing a good rapport, the initial willingness and oral consent was taken. The date and time of the test administration was decided. They were again contacted on their respective location for test administration. Both the tools were administered carefully after giving the proper instructions. There was no time limit to complete the tests but they were asked to complete all the questionnaires as early as possible.

Results

The participants for the present study were 170 middle level managers from different manufacturing industries (all were multinational companies) of private sectors. The complete sample was taken from plants of different manufacturing companies situated in NCR (i.e. National Capital Region). SPSS software version 15.0 was used for statistical analysis. The descriptive statistic (mean & standard deviation), correlation analysis, and multiple regression analysis were used for analysis of the data.

Descriptive statistics:

The descriptive statistics shows that extroversion has the highest mean value i.e. 34.59 among predicting variables (i.e. big five personality factors) and professional inefficacy has the highest mean value i.e. 4.326 among criterion variables (i.e. burnout). We also find from descriptive statistics that among predicting variable conscientiousness has highest S.D. value i.e. 3.249 and among criterion variable professional inefficacy has the highest S.D. i.e. 0.703 (see table 1.)

Table 1. The descriptive statistic for predicting and criterion variables

Variables	Mean	SD
Neuroticism	22.79	3.024
Extroversion	34.59	2.726
Openness	27.98	2.581
Agreeableness	31.6	2.246
Conscientiousness	34.29	3.249
Exhaustion	2.64	0.316
Cynicism	1.472	0.287
Professional inefficacy	4.326	0.703

Correlation analysis

The correlation analysis reveals that among predicting variables neuroticism is significantly correlated with all three component of burnout, with exhaustion and cynicism it is correlated in positive way while with professional inefficacy it is related in negative manner. Extroversion is negatively correlated with exhaustion and cynicism and positively with professional efficacy; all correlation coefficients were found significant. Agreeableness is meaningfully correlated with cynicism and professional efficacy in negative and positive manner respectively (see table 2.)

Table 2. Correlation between predicting and criterion variables.

Criterion Variables	Exhaustion	Cynicism	Professional efficacy
Predicting Variables			
Neuroticism	0.576**	0.405**	-0.475**
Extroversion	-0.449**	-0.345**	0.281*
Openness	-0.187	-0.113	0.201
Agreeableness	-0.211	-0.223*	0.242*
Conscientiousness	-0.065	-0.095	0.081

*p<.05; **p<.01

Stepwise multiple regression analysis

To examine the relation between big five personality factors and burnout, we first conducted a stepwise multiple regression analysis with neuroticism, extroversion, openness, agreeableness, and conscientiousness as predicting variable and exhaustion (first component of MBI-GS) as

criterion variable (see table 3). The results reveal that neuroticism is positively related with exhaustion having $\hat{\alpha}=0.494$, $p<.0001$ and secondly extroversion predicts exhaustion negatively with $\hat{\alpha}$ value of -0.174 , $p<.009$. These predictors accounted for 40.4% of variance in feeling of exhaustion.

Table 3. Stepwise regression analysis: predictors of Exhaustion in managers of manufacturing industries.

Predicting variable	$\hat{\alpha}$	Sig.	% of variance covered
Neuroticism	0.494	.0001	40.4 %
Extroversion	-0.174	.009	
Openness	-0.008	.863	
Agreeableness	-0.077	.256	
Conscientiousness	-0.017	.113	
Criterion variable: Exhaustion (EX).			

Second stepwise multiple analysis was conducted with same predicting variable as in the first one but cynicism as criterion variable. The results of this stepwise regression analysis shows that neuroticism and extroversion predict cynicism with $\hat{\alpha}=0.324$ ($p<.0001$) and $\hat{\alpha}=-0.166$ ($p<.004$) respectively. These two predicting variables accounted for 21.4 % variance in cynicism (see table 4).

Table 4. Stepwise regression analysis: predictors of Cynicism in managers of manufacturing industries.

Predicting variable	$\hat{\alpha}$	Sig.	% of variance covered
Neuroticism	0.324	.0001	21.4 %
Extroversion	-0.166	.004	
Openness	0.025	0.642	
Agreeableness	-0.052	0.501	
Conscientiousness	-0.092	0.089	
Criterion variable: Cynicism (CY).			

In third stepwise regression, we regressed professional efficacy on the big five personality factors. The findings suggest that out five predicting variables only two i.e. neuroticism and extroversion with $\hat{\alpha}=-0.397$ ($p<.001$) and $\hat{\alpha}=0.19$ ($p<.006$) respectively. Neuroticism predict professional efficacy in a negative way but extroversion predict

professional efficacy in positive manner. These two predicting variables cover 35.8% variance in professional efficacy (see table 5).

Table 5. Stepwise regression analysis: predictors of Professional efficacy in managers of manufacturing industries.

Predicting variable	$\hat{\alpha}$	Sig.	% of variance covered
Neuroticism	-0.397	0.001	35.8 %
Extroversion	0.19	0.006	
Openness	0.025	0.595	
Agreeableness	0.131	0.081	
Conscientiousness	0.112	0.062	
Criterion variable: Professional efficacy (PE).			

Discussion

The present study was aimed to examine the relationship between personality and burnout using an integral model i.e. big five personality model. The present findings show that out of big five personality factors neuroticism and extroversion predicts burnout among managers of manufacturing industries.

We find in the results that neuroticism predicts all three component burnout (i.e. exhaustion, cynicism, & professional efficacy). But neuroticism is positively related with exhaustion and cynicism while negatively related with professional efficacy. Other researches too, have arrived at same findings (for e.g. Hills & Norvell, 1991; Deary et al., 1996; Zellars et al., 2000, Lingard, 2003; LePine et al., 2004; Goddard, Patton, & Creed, 2004; Garcia, Munoz, & Ortiz, 2005; Langelaan, Bakker, van Doornen, & Schaufeli, 2006; Kokkinos, 2007; Shimizutani, Odagiri, Ohya, Shimomitsu, Kristensen, Maruta, & limoro, 2008 and Lue, Chen, Wang, Cheng, & Cheng, 2010). A person who is high on neuroticism tend of experience anxiety, irritability, underestimation of self-performance, a tendency to react with strong emotion and self criticism in stressful situations (Eysenck, 1947; McCrae & Costa, 1986; Van Heck, 1997). So, inference can be taken that an individual who is high on

neuroticism is prone to experience burnout.

The findings of the present study reveal that extroversion is the second most consistent predictor of burnout. Extroversion is meaningfully related to all the three component of burnout. A negative relation has been found between extroversion and two component of burnout i.e. exhaustion and cynicism but it is positively related with professional efficacy. The results were in line with the findings of previous researches who reported as same (Storm, & Rothmann, 2003; Ghorpade, Lackritz, & Singh, 2007; Bakker, Van Der Zee, Lewig, & Dollard 2007; Chung & Harding 2009).

So, inference can be made that a person who is having tendencies like gregariousness, assertiveness, tend to be cheerful in disposition, and outgoing feels more positive emotions in comparison to others, these all qualities makes them less prone to burnout. Hence, an individual; with low neurotic tendency and high extrovert tendency is tend to be less prone for burnout (Iverson, Oleklans, & Erwin, 1998). It is interesting that less neuroticism and high extroversion exactly encompass the healthy personality type in Grossarth Marticek and Eysenck's (1990) classification of disease-prone personalities.

Conclusion

Researches on relationship of personality and burnout, particularly on Indian sample, rather quit less and in infancy stage. The present study is one of its kind Indian study, in which the researches studied the relationship between personality and burnout among Indian executives. Despite of its limitations, some findings are noteworthy.

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