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Impact of Personality Traits and Role Efficacy on Stress Level: An Empirical Study

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Abstract

Stress has been recognized as a major challenge to not only individual mental and physical health but also to organizational health (ILO 1986). It may cripple organizational growth and productivity. Though numerous studies examine the relationship of stress with other individual level factors including personality, the relationship of the five factor model of personality and role efficacy with stress has been studied much less, especially in Asian countries. In fact, no such study has been undertaken on a sample set comprising Indians. This paper seeks to bridge this gap by examining whether personality and role efficacy act as predictors of employee stress or not. The results of the study reveal that out of the big five, only neuroticism is significantly related to the stress of the employees. The study also reveals that only the centrality and growth aspects of role efficacy significantly explain the variance in the stress of the employees.

Keywords: Employee stress, Role efficacy, Personality, Five factor model, Conscientiousness, Personality traits.

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1. Introduction

Stress and its management have attracted a lot of attention of late, as it is a malady, which appears to affect nearly every person at one time or the other. This trend is more visible in the workplace, which makes it of special interest to the behavioural scientist who is interested in the dynamics of employee interaction and its consequences. It has been recognized as a major challenge to not only individual mental and physical health but also to organizational health (ILO 1986). There is a greater likelihood for a stressed worker to be poorly motivated and less productive at work. The organizations having such stressed workforce are obviously likely to lose out to their competitors in the market. The impact of stressed workers, however, are not only confined to the company which has such workforce. As per an estimate (Palmer, Cooper & Thomas. 2004), work-related stress costs the national economy a huge amount in sick pay, lost productivity, health care, litigation costs etc.

Several studies have been conducted in the past to understand the dynamics of stress in the workplace. However, stress management, being a wide and complex subject, there are still many dimensions that can be explored. Given the enormous importance of the issue of stress at workplace, a vast literature has examined various aspects of the issue. Personality, in particular, has been extensively studied as a source of or cure for such stress. In fact personality can impact the manner in which an individual evaluates a situation (Eaton & Bradley, 2008) through primary appraisal (Lazarus, 1966). When faced with a stressor, individual differences can determine the manner in which a person would cope with a situation through secondary appraisal (Lazarus & Folkman, 1984). Personality characteristics can act as personal resources that may protect individuals from developing strains (Hobfoll, 1989). Though the relationship between personality and stress has been extensively examined, the relationship between five broad dimensions of personality which are often referred to as the 'Big Five Personality Traits' have not been studied, especially with a sample set comprising Indians. The gap begs to be filled with urgency.

This apart, the relationship between stress and its potential source i.e. "role efficacy" has also not been adequately studied in Indian context. When an individual joins an organization, he is apprised of the duties he has to perform. At the same time, he projects his own expectations from the role. Synchronization between these two factors determine to a large extent the per-

formance of the employee. If the individual lacks the requisite knowledge, technical competence, and skill for the role, he cannot be effective. Similarly, if the role does not allow him to utilize his potential and his technical skill, his effectiveness is likely to be low. Integration between the person and the role is possible only when the role is able to fulfill the needs of the individual and the individual is able to fulfill the demand or meet the expectations of the role.

This study fills the gap in the body of literature by investigating the relationship between big five model of personality and role efficacy with the stress of employees. Understanding the impact of these two dimensions i.e. big five model of personality and role efficacy on stress level of employees is absolutely vital for the organizations. The study is, however, purely exploratory in nature and stems from a desire to know more about the 'stress epidemic' which is slowly but steadily threatening to engulf a greater part of our working population.

2. Literature Review

2.1 Big Five Personality Traits

Traits are consistent patterns of thoughts, feelings or actions that distinguish people from one another (John, Robins & Pervin, 2010). Traits are basic tendencies that remain stable across the life span, but characteristic behavior can change considerably through adaptive processes (Garza, Castillo & Valdez, 2011). A trait is an internal characteristic that corresponds to an extreme position on a behavioral dimension (Shen, Brdiczka & Liu, 2013).

The big five represents taxonomy (classification system) of traits that some personality psychologists suggest capture the essence of individual differences in personality. Strict trait personality psychologists go so far as to say our behavior is really determined by these internal traits, giving the situation a small role in determining behavior (Garza et al., 2011). In other words, these traits lead to an individual acting a certain way in a given situation. Allport, Norman and Cattell were influential in formulating this taxonomy which was later refined. Allport compiled a list of 4500 traits. Cattell reduced this list to 35 traits. Others continued to analyze these factors and found congruence with self- ratings, ratings by peers and ratings by psychological staff that eventually became the big five factors. The factors of the big five and their constituent traits can be summarized as (OCEAN):

- Openness to experience
- Conscientiousness
- Extraversion
- Agreeableness
- Neuroticism/ Stability

Openness to experience (versus closed-mindedness) describes the breadth, depth, originality, and complexity of an individual's mental and experiential life (John & Srivastava, 1999). It is a general appreciation for art, emotion, adventure, unusual ideas, imagination, curiosity and variety of experience. People who are open to experience are intellectually curious, appreciative of art, and sensitive to beauty. They tend to be, when compared to closed people, more creative and more aware of their feelings. They are more likely to hold unconventional beliefs.

Conscientiousness describes socially prescribed impulse control that facilitates task and goal-directed behaviour, such as thinking before acting, delaying gratification, following norms and rules and planning, organizing and prioritizing tasks (Makori, Musoke, & Maiga, 2014). It is a tendency to show self-discipline, act dutifully and aim for achievement against measures or outside expectations. The trait shows a preference for planned rather than spontaneous behavior.

Extraversion implies an energetic approach to the social and material world and includes traits such as sociability, activity, assertiveness and positive emotionality (John & Srivastava, 1999). It is characterized by positive emotions, surgency and the tendency to seek out stimulation and the company of others. The trait is marked by pronounced engagement with the external world. Extraverts enjoy being with people and are often perceived as full of energy. They tend to be enthusiastic, action-oriented individuals. Introverts, on the other hand, are more reserved and comfortable with solitude (Howard & Howard, 1995).

Agreeableness contrasts a prosocial and communal orientation toward others with antagonism and includes traits such as altruism, tender-mindedness, trust and modesty (Gerber et al., 2011). It is a tendency to be compassionate and cooperative rather than suspicious and antagonistic towards others. It is a trait related to service orientation, harmony seeking and the propensity to defer to others. Individuals who are high in accommodation are known to be more courteous, good natured, cooperative and caring. Individuals low in accommodation focus on their own needs, are interested in power and tend to be more competitive (Howard & Howard, 2001).

Neuroticism contrasts emotional stability and even-temperedness with negative emotionality, such as feeling anxious, nervous, sad and tense (Laidra, 2007). It is the tendency to experience negative emotions, such as anger, anxiety, or depression. It is sometimes called emotional instability or is reversed and referred to as emotional stability. Those who score high in neuroticism are emotionally reactive and vulnerable to stress. They are more likely to interpret ordinary situations as threatening and minor frustrations as hopelessly difficult.

Five Factor Model or FFM is one of the most adopted and researched "trait" models of personality during the last two decades (Saucier & Goldberg, 2003; Walsh & Eggerth, 2005). There is considerable debate concerning the number of personality factors needed to predict and understand work behavior. Hough and Ones (2001) provided a detailed review of this debate, and they made the following points: Tupes and Christal's (1961) analysis of trait ratings is the contemporary foundation for the big five. Substantial research has supported the robustness and generalizability of the five factors across different types of assessments, rating sources, language and culture. Nevertheless, some researchers have criticized the big five factors as an incomplete taxonomy and have suggested that important relationships are obscured when analyses are limited to the big five rather than a seven-factor model.

2.2 Stress

Stress is a normal physical response to events that make one feel threatened or upsets ones balance in some way. When one senses danger – whether it is real or imagined – the body's defenses kick into high gear in a rapid, automatic process known as the "fight-or-flight" reaction, or the *stress response (*Jadoun, Kushwah, Barodiya, & Holani, 2012) When working properly, the response helps in staying focused, energetic and alert.

The cognitive symptoms of stress include memory problems, inability to concentrate, poor judgment etc. The emotional symptoms could include moodiness, irritability or short temper, agitation, inability to relax, feeling overwhelmed, sense of loneliness and isolation and depression or general unhappiness. The physical symptoms include aches and pains, diarrhea or constipation, nausea, dizziness, chest pain, rapid heartbeat, loss of sex drive and frequent colds etc. (Jadoun et. al, 2012).

The situations and pressures that cause stress are known as *stressors*. Usually the stressors are thought as being negative, such as an exhausting work sched-

ule or a rocky relationship. However, anything that puts high demands on one or forces him or her to adjust can be ultimately stressful and the ambit of such things include positive events such as getting married, going to college or receiving a promotion. According to Selye's stress theory, there are two distinct forms of stress: distress, or "negative" stress, and eustress, or "positive" stress (Schernhammer et.al, 2004). Eustress or positive stress occurs when the level of stress is high enough to motivate one to move into action to get things accomplished; and distress or negative stress occurs when the level of stress is either too high or too low and the body and/or mind begin to respond negatively to the stressors. The stress may progress in three broad stages alarm stage, resistance Stage; and exhaustion Stage (Selye, 1974).

2.3 Role Efficacy

The performance of a person working in an organization depends on his own potential effectiveness, technical competence, managerial experience as well as the design of the role that he performs in the organization. It is the integration of the two that ensures a person's effectiveness in the organization. Unless a person has the requisite knowledge, technical competence and the skills required for the role, he cannot be effective. If the role does not allow the person to use his competence, and if he constantly feels frustrated in the role, his effectiveness is likely to be low. The integration of a person and the role come about when the role is able to fulfill the needs of the individual, and when the individual in turn is able to contribute to the evolution of the role. The more we move from role taking to role making, the more the role is likely to be effective. Effectiveness of a person in a role in an organization will depend on his own potential effectiveness and the potential effectiveness of the role, and the organizational climate. Role efficacy is the potential effectiveness of a role (Pestonjee & Shweta, 2000). Role efficacy has several aspects (Pareek, 2003). These aspects can be classified into three groups or dimensions:

Dimension 1: Role Making

It consists of the following four aspects:

a. Role Integration

Every person has his strengths, experience, technical training, special skills, and some unique contribution that he may be able to make. The more the

role a person occupies provides an opportunity for the use of such special strengths and the higher the efficacy is likely to be. This is called self-role integration. The self or the person and the role get integrated through the possibility of a person's use of his special strengths in the role. Our special strengths are used in the role so that it may be possible for us to demonstrate how effective we can be. Integration contributes to high role efficacy. On the other hand if there is a distance between the self and the role, role efficacy is likely to be low.

b. Proactivity

A person who occupies a role, responds to the various expectations that people in the organization have from that role. While this certainly gives him satisfaction, it also satisfies others in the organization. However, if he is also expected to take initiative in starting some activity, the efficacy will be higher. Reactive behavior helps a person in being effective to some extent, but proactivity contributes much more to efficacy. If a person feels that he would like to take initiative but has no opportunity to do so in the role that he occupies in the organization, the efficacy will be low.

c. Creativity

It is not only initiative which is important for efficacy. An opportunity to try new and unconventional ways of solving problems or an opportunity to be creative is equally important. If a person perceives that he has to perform only routine tasks, it is detrimental towards a high role efficacy. If he feels that the role does not allow any time or opportunity to be creative, the efficacy is bound to be low.

d. Confrontation

If people in an organization avoid problems or shift the problems to others; their role efficacy will be low. The tendency to confront problems and find relevant solutions contributes to efficacy. When people facing inter-personal problems sit down, talk about these problems, and search out solutions, their efficacy is likely to be higher when compared with situations in which they either deny such problems or refer them to their higher officers.

Dimension 2: Role Centering

It consists of the following two aspects:

a. Centrality

If a person occupying a particular role in an organization feels that the role he occupies is central in the organization; his role efficacy is likely to be high. Every employee would like to feel that his role is important to the organization. If persons occupying various roles feel that their roles are peripheral i.e. not very important, their potential effectiveness will be low.

b. Personal Growth

If a person feels that he is stagnating in a role without any opportunity to grow he is likely to have a low role efficacy. In many institutes of higher learning, the roles of the staff pose problems of low efficacy. The main factor behind this is the lack of opportunity for them to grow systematically in their roles. Institutes which are able to plan the growth of such people in the roles will have higher efficacy and obtain a great deal of contribution from them.

Dimension 3: Role Linking

It consists of following three aspects:

a. Inter-role Linkage

Linkages of one's role with other roles in the organization increases efficacy. If there is a joint effort in understanding problems, finding solutions, the efficacy of the various roles involved is likely to be high. The feeling of isolation of a role reduces role efficacy.

b. Helping Relationship

If the person performing a particular role feels that they can get help from some source in the organization whenever the need arises, they are likely to have higher role efficacy. On the other hand, if there is a feeling that no help is forthcoming when asked for, or that the respondents are hostile, role efficacy will be low.

c. Super Ordination

When a person performing a particular role feels that what he does is likely to be of value to a larger group, his efficacy is likely to be high. Roles in which

people feel that what they are doing is helpful to the organization in which they work, role efficacy will be high. On the other hand, if a person feels that he does not get an opportunity to be of help to a larger group, the role efficacy is likely to be low.

2.4 Relationship between Personality Traits, Role Efficacy and Stress

Big five traits have been correlated with academic performance like GPA and SAT scores. Recent years have witnessed an upsurge of interest in how personality affects the stress process. In Grant & Langan-Fox (2007), the role of the big five traits in the occupational stressor–strain relationship was investigated among 211 managers. Direct, mediated, and moderated effect models were used to investigate whether the big five affect strain directly (independently of stress), indirectly (via stress and coping) or interactively with stress. Personality, stress, coping and strain variables were measured and analyzed with path analysis and hierarchical regression. The Neuroticism–physical strain relationship was partially mediated by perceived role conflict and substance use, and the Neuroticism–psychological strain relationship was mediated by perceived stress. Extraversion had a direct, positive effect on physical and psychological strain, and there was preliminary support for a moderating role of Conscientiousness in the perceived stressor–strain relationship. Agreeableness and Openness were unrelated to strain.

The big five personality dimensions were examined as possible risk, resource, vulnerability, or protective factors in the link between work-family conflict and psychological distress. Data were derived for 75 men and 80 women from the Jyväskylä Longitudinal Study of Personality and Social Development (JYLS) (Pulkkinen, 1986), in which the NEO Personality Inventory was completed at age 33, and work-family conflict and psychological distress were assessed at age 36. Neuroticism was positively linked to work-to-family conflict (WFC), family-to-work (FWC) conflict, and psychological distress in both genders. Neuroticism was also a moderator strengthening the link between WFC and psychological distress in women. Openness to experience was positively linked to FWC in men, and Agreeableness was negatively linked to psychological distress in both genders.

Bolger & Zuckerman (1995), suggest both direct and indirect linkages between personality and work-family interference. Personality may directly relate to work-family interference, influencing people's interpretation of situations. Indirectly, it may relate to work-family interference through its relation with stress. Personality affects the coping strategies of people (e.g., Brebner, 2001) and the type of coping strategy, in turn, determines how people react to stressors (Lazarus &

Folkman, 1984). Stress may then increase experiences of work family interference. As a result of cognitive preoccupation with the source of stress or of reduced levels of psychological and physical energy, the ability or willingness to meet obligations of other roles may be undermined (Frone, 2003).

Wierda, Gerris & Vermulst (2009) provided insight into the linkages between personality, domain-specific stress and work-family interference. The findings suggest that the use of couple data and inclusion of personality in the model offer a valuable extension of Frone, Yardley & Markel's (1997) framework. As expected, job stress was related to WFC and parenting stress to FWC. The findings also suggest that personality functions as an indirect predictor of work-family interference.

According to Westman (2002), personal attributes such as big five personality traits may impact one's own and one's partner's stress and work-family interference.

McManus, Keeling & Paice (2004) suggest that personality and learning style are not merely *correlates* of approaches to work, workplace climate, stress, burnout and satisfaction with a medical career, but are *causes*, events later in time being predicted by events earlier in time. Doctors with greater stress and emotional exhaustion, who were less satisfied with medicine as a career, had higher neuroticism scores and were more likely to be surface-disorganized. Lower conscientiousness on the personality measure also predicted greater stress. Extraverts reported more personal accomplishment and were more satisfied with medicine. The personality measure of agreeableness predicted a more supportive-receptive work environment.

Seventy-one couples living in a stepfamily context reported interpersonal family stressors and related coping strategies daily for 1 week in a daily process study in Lee-Baggley, Preece & DeLongis (2005). The role of personality and of the stressful context in each of the spouse's coping was examined. Personality was assessed via the Five-Factor Model. Two types of stressors emerged as primary dimensions of stepfamily stress: marital conflict and child misbehavior. These were treated as contextual factors in multilevel modeling analyses examining the independent and interactive effects of personality and situation on coping. Nine subscales of coping were examined based on three main functions of coping: problem-, emotion- and relationship-focused. Both the situational context and the five dimensions of personality examined were significantly and independently related to coping-strategy use. Moreover, there were significant personality-by-context interactions.

3. Objectives of the Study

The primary objectives of the study were to:

- Gain insight into the relationship that exists between the big five personality traits and the stress experienced by the employees
- Gain insight into the relationship that exists between the role efficacy and the stress experienced by the employees

4. Hypotheses

With a view to achieve the aforementioned objectives the following hypothesis was developed in respect of big five traits of personality.

H1: The big five traits of personality of an employee significantly explain the stress felt by the employee in the job environment.

This hypothesis can be developed into five separate hypotheses.

H1a: Extraversion trait of the personality of the employee significantly explains the stress felt by the employee in the Job environment.
H1b: Agreeableness trait of the personality of the employee significantly explains the stress felt by the employee in the Job environment.
H1c: Conscientiousness trait of the personality of the employee significantly explains the stress felt by the employee in the Job environment.
H1d: Neuroticism trait of the personality of the employee significantly explains the Stress felt by the employee in the job environment.
H1e: Openness to experience trait of the personality of the employee significantly explains the stress felt by the employee in the job environment.

Apart from this the following hypotheses were also developed in respect of role efficacy and stress of the employee.

H2: The role efficacy of an employee significantly explains the stress felt by the employee in the job environment.

This hypothesis can be developed into nine separate hypotheses related to different aspects of role efficacy of the employee.

H2a: The self-role integration aspect of role efficacy of an employee signifi-

cantly explains the stress felt by the employee in the job environment.

H2b: Proactivity aspect of role efficacy of an employee significantly explains the stress felt by the employee in the job environment.

H2c: Creativity aspect of role efficacy of an employee significantly explains the stress felt by the employee in the job environment.

H2d: Confrontation aspect of role efficacy of an employee significantly explains the stress felt by the employee in the job environment.

H2e: Centrality aspect of role efficacy of an employee significantly explains the stress felt by the employee in the job environment.

H2f: Personal growth aspect of role efficacy of an employee significantly explains the stress felt by the employee in the job environment.

H2g: Inter-role linkage aspect of role efficacy of an employee significantly explains the stress felt by the employee in the job environment.

H2h: Helping relationship aspect of role efficacy of an employee significantly explains the stress felt by the employee in the job environment.

H2i: Super ordination aspect of role efficacy of an employee significantly explains the stress felt by the employee in the job environment.

5. Sampling and Instrumentation

The sample size used for examining the relationship between role-efficacy and stress was 83. The sample size for examining the relationship between personality traits and stress was 38. The samples were drawn from amongst the Grade-I and Grade-II level officers of the public sector banks in Delhi NCR region. Convenient sampling technique was used for the purpose of sampling the respondents.

A combined questionnaire was developed. The questionnaire had three parts: (a) Perceived Stress Scale, (b) Big Five Personality Traits; and (c) Role-efficacy. The big five personality traits were captured using the short form of the Workplace Big Five Profile (WPB5) which is an abridged version of a 107-question FFM personality assessment especially designed for the workplace. Stress was captured using the perceived stress scale which is a 14-item questionnaire and is the most widely used psychological instrument for measuring the perception of stress. Both these models use Likert scale as a basis for answering the questions. The role efficacy was captured using Udai Pareek's Role efficacy scale. Its scoring was done on the basis of the instructions given in the related booklet.

While Howard and Howard (2001) did not discuss the content validity in the professional manual for the WPB5, they did explain in detail how the manual

was developed. Specifically Howard and Howard analyzed all the items contained in several important FFM instruments available at the time including Costa & McCrae's NEO PI-R(1992), Hogan's HPI (Hogan, 1983) and Raymond Cattell's 16-PF (Cattell,1946) . This original research resulted in 800 items. The 107 items included in the long form of the WPB5 result from a purging of these items considering labour regulations (the items were analyzed by a labour attorney), item analyses (any item resulting in more than 80 % of the responses in the same category was discarded) and alpha coefficients. From the original 107 items, 48 items that most strongly correlated with the key five factors were selected for the short form.

The Perceived Stress Scale (PSS) is a measure of the degree to which situations in one's life are appraised as stressful. Items were designed to tap how unpredictable, uncontrollable and overloaded respondents find their lives. The scale also includes a number of direct queries about current levels of experienced stress. The PSS was designed for use in community samples with at least a junior high school education. The items are easy to understand and the response alternatives are simple to grasp. Moreover, the questions are of a general nature and hence are relatively free of content specific to any sub-population group. The questions in the PSS ask about feelings and thoughts during the last month. In each case, respondents are asked how often they felt a certain way. The role efficacy scale is a structured instrument consisting of 20 triads of statements.

5.1 Scoring of the Instrument

In order to facilitate data collection, respondents were physically handed over the questionnaires to fill. The role efficacy scale is a structured instrument consisting of 20 triads of statements. Respondents marked the one statement in each triad that describes his role most accurately. The 3 alternatives are preweighted. There are 2 statements for each dimension of role efficacy and the scoring pattern followed is +2, +1 or -1. Perceived stress scale was scored using Likert where the lowest score was 1 and the highest being 5. The respondents had to choose from never, almost never, sometimes, fairly often and very often. Personality traits questionnaire is also based on 5 point Likert scale i.e. from strongly agree, agree, neutral, disagree and strongly disagree.

6. Data Analysis

In the sample relating to role efficacy and stress (sample size 83), 43% were

females and 57% were males. In this sample, 48 % respondents were in the age group 20-30 Years, 45% were in the age group of 30 to 40 years and 7% were in the age group of 40 to 50 years. In the sample relating to personality trait and stress (sample size 38), approximately 58% (22) were male and 42% (16) were females. Out of this sample of 38 respondents, 24% lie in the age group of 30-40, 8% lie in 40-50 age group and 68% lie in 22-30 age group.

The following table gives descriptive statistics of five factors of personality and stress:

Table 1: Personality Traits and Stress Score Statistics

	N	E	O	C	A	SS
Mean	31.39	42.34	17.65	54.34	9.52	36
Standard Error	1.04	0.82	0.91	1.43	0.20	0.86
Median	31	43	17	55	9.5	36
Mode	32	40	15	58	9	31
Standard Deviation	6.43	5.07	5.64	8.84	1.24	5.35
Sample Variance	41.38	25.74	31.85	78.28	1.55	28.64
Kurtosis	11.97	1.90	23.47	13.90	0.61	-0.14
Skewness	2.83	-1.039	4.35	-2.95	-0.50	0.08
Range	38	25	37	54	6	23
Minimum	23	26	11	12	6	23
Maximum	61	51	48	66	12	46
Sum	1193	1609	671	2065	362	1368
Count	38	38	38	38	38	38

N=Neuroticism, E=Extraversion, O=Openness to Experience, C=Conscientiousness, A=Agreeableness; and SS=Stress Score.

The stress scores were obtained from the respondents on a Likert scale ranging from 1 to 5. Hence the minimum possible score for stress would be 23 and maximum would be 46. Scores ranging from 40 to 46 would indicate highly stressed employees, scores from 23 to 30 would indicate low stressed employees and a score from 30 to 40 would be indicate employees suffering from medium level of stress. The mean score of stress was found to be 36, indicating an average (stagnation) level of stress amongst the employees.

Table 2: Level of Stress

	Level of Stress					
	Low		Medium		High	
Age Group	No of respondents	%*of respondents	No of respondents	%*of respondents	No of respondents	%*of respondents
20-30	6	15.78	8	21.05	12	31.57
30-40	2	5.26	5	13.15	2	5.26
40-50	1	2.63	2	5.26	0	0

*Expressed as the percentage of total sample size.

The mean values for of neuroticism, extraversion, openness to experience, conscientiousness and agreeableness were found to be 31.3, 42.34, 17.65, 54.34 and 9.5 respectively. The minimum and maximum values for neuroticism were found to be 23 and 61 respectively, for extraversion these scores were 26 and 51, for openness to experience these scores were 11 and 48, for conscientiousness these scores were found to be were 12 and 66 and for agreeableness these scores were noted as 6 and 12.

For the purpose of scoring the respondents were asked to indicate their marks for that statement which describes his role most accurately. The 3 alternatives were pre-weighted. There were 2 statements for each dimension of the role efficacy and the scoring pattern followed was +2, +1 or -1. Hence the minimum possible score for role-efficacy was 9 and maximum was 23. The mean values of various aspects of role efficacy were found to be as follows: centrality (2.13), integration (3.43), proactivity (2.68), creativity (2.5), inter-role linkage (2.9), helping relationships (3.6), superordination (2.14), influence (2.78), growth (2.91) and confrontation (3.9). The mean score of stress was found to be 36 indicating an average stress level amongst the employees.

7. Results and Discussions

To test our hypotheses H1, H1a to H1e, relating to the five factors of personality and stress scores of employees, five simple linear regressions were run. In each of these, stress scores were the dependent variable. The results are summarized in Table 3.

Table 3: Simple Linear Regression of Each of the Big Five Personality Traits with Stress

		SE	*t*(36)	*p*
r	.314215			
r Squared	.098731			
Intercept	33.7444	4.4251	7.625486	5.05E-09
B1 (Neuroticism)	.307741	.1381	2.2282	.034771
r	.290593			
r Squared	.084444			
Intercept	48.9797	7.172773	6.82566	5.52E-08
B1 (Extraversion)	-.30654	0.168228	-1.82219	.076742
r	0.10825			
r Squared	0.01171			
Intercept	34.1870	2.9093613	11.75072	7.05-14
B1 (Openness)	0.10266	0.1571329	0.653885	0.51766
r	0.10215			
r Squared	0.01043			
Intercept	39.3582	5.526182	7.12.9876	2.22E-08
B1 (Conscientiousness)	-0.0618	0.1002961	-.61615	0.54167
r	0.17421			
r Squared	0.03035			
Intercept	28.8727	6.770002	4.264801	.000138
B1 (Agreeableness)	.754816	0.704814	1.061512	0.295527

It is apparent from the results of the regressions of the big five personality traits that only neuroticism significantly explains the variation in the stress of the employees ($r^2 = 0.098731$) and that this relation is statistically significant B=0.307741, $t(36) = 2.2282$, $p<.05$. None of the other four personality traits significantly explain the variation in the stress level of the employees. Therefore, we reject our hypotheses H1a, H1b, H1c, and H1e as we do not find significant relationship between stress and extraversion, agreeableness, conscientiousness, and openness to experience.

To examine hypotheses H2 i.e. H2a to H2h relating to relationship between role efficacy and employee stress several simple linear regressions were conducted. The first was regression between the composite role efficacy score and stress and then regression between various aspects of role efficacy and stress were also conducted. The results are summarized in the Table 4.

Table 4: Simple Linear Regressions between Role Efficacy and Stress and Various Aspects of Role Efficacy and Stress

		SE	*t*(81)	*p*
r Squared	.219434			
Intercept	50.37791	3.1732	15.8758	1.37E-26
B1 (Role Efficacy)	-0.5138	0.1076	-4.77188	7.97E-06
r Squared	0.0977			
Intercept	40.12888	1.67491	23.93884	1.62E-38
B1 (Centrality)	-2.21298	0.747244	-2.961527	.004016
r Squared	.039859			
Intercept	2.882084	0.316199	9.114779	4.71E-14
B1 (Integration)	0.258684	0.141069	1.833739	.070366
r Squared	.007366			
Intercept	2.446984	0.325045	7.5287	6.34E-11
B1 (Proactivity)	0.112431	0.145015	0.775307	0.440416
r Squared	0.070927			
Intercept	2.347349	0.399131	5.881156	9.76E-08
B1 (Creativity)	0.113955	0.178068	0.639951	0.52401
r Squared	0.008193			
Intercept	2.691956	0.348103	7.73322	2.51E-11
B1 (Inter Role)	0.133151	0.155530	0.857362	0.393774
r Squared	0.004308			
Intercept	3.439671	0.310334	11.08376	6.6E-18
B1 (Helping Relationship)	0.081962	0.138453	0.591988	0.5553081
r Squared	0.18619			
Intercept	1.637112	0.430274	3.804814	0.000274
B1 (Superordination)	0.237965	0.191962	1.239643	0.218687
r Squared	0.007358			
Intercept	2.5466179	0.3208050	7.93821	9.94E-12
B1 (Influence)	0.1109079	0.1431239	0.774909	0.44065
r Squared	0.0489125			
Intercept	2.218464	0.359043	6.178811	2.46E-08
B1 (Growth)	0.3269347	0.160183	2.040988	0.044508
r Squared	0.0013825			
Intercept	3.8848263	0.134602	28.86152	2.2E-44
B1 (Confrontation)	0.0201096	0.0600514	0.334879	0.738585

It is apparent from the results of the regressions that the role efficacy does significantly explain the variation in the stress of the employees, $r^2=.219434$, and that this relation is statistically significant b=-0.5138, t (81) = -4.77188, $p<.001$.

The exploration of the other aspects of role efficacy indicates that only centrality and growth aspects significantly explain the variance in the stress of the employees. For centrality $r^2=0.0977$, B=-2.21298, $t(81) = -2.961527$, $p<.05$. For growth aspect, $r^2=0.0489125$, B=-0.3269347, $t(81)= 2.040988$, $p<.05$. None of the other aspects of role efficacy significantly explain the variation in the stress of the employees. Therefore, we reject all hypotheses from H2a to H2h except H2e (centrality aspect of role efficacy) and H2f (growth aspect of role efficacy).

8. Conclusion

Stress has been recognized as a major challenge to not only individual mental and physical health but also organizational health so much so that it may cripple organizational growth and productivity. Therefore, it becomes imperative to advance research on the construct thus leading to a better appreciation and application of the same in the interest of the organization. This apart, though, within the general body of research on stress, its relationship with individual level factors like personality has already been explored to a large extent, the relationship of the big five model of personality is particularly missing, especially in the Indian context. Also, the relationship between stress and job efficacy also begs to explore much more extensively. In view of this, the paper sought to understand whether personality acts as a predictor of employee stress or not. This research paper also sought to explore the relationship between role efficacy and stress level of the employees.

The results of the study revealed that no significant relationship exists between personality, extraversion, agreeableness, conscientiousness, and openness to experience (four out of the big five) to stress. However, a significant relationship was found to exist between stress and neuroticism of an employee. The study also revealed that the role efficacy does impact upon the stress of the employee and so does two out of the ten aspects of role efficacy i.e. centrality aspect and growth aspect.

9. Limitations and Future Research

Further qualitative and quantitative research can be done to explain as to why certain personality traits lead to an employee being more stressed at the work-

place while others have less significance. Research can also be undertaken with the long form of Work Place Big Five Profile. This 105-item instrument allows for the analysis of not only the five factors of personality but also of 24 sub factors. Bigger sample size would have provided better results. Studies related to other factors affecting stress level of employees also need to be conducted to develop a framework wherein the workplace stress of employees could be better explained. The study could also be conducted on a wider scale including the employees working at other offices and also those working at the local level in the organization.

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