

Studying the Relationship between Personality Traits of HSE Managers and Burnout. Case Study: Industry Leaders in Karaj Road

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Abstract *The aim of this study is to investigate the relationship between personality traits of HSE managers and burnout. In this order, a general hypothesis and five secondary hypotheses are formed. Research method is applied kind and is descriptive aspect of data collection and cross correlation and model-based structural equation. The sample of study has been considered using Cochran formula and included 200 industry executives in Karaj road. The research data were collected using a questionnaire and the validity and reliability is appropriate. Alpha Cronbach coefficients of questionnaire for burnout and personality traits of managers are 0.85 and 0.79 respectively. Findings show that there is a significant relationship between personality traits of managers (OCD - extroversion- Flexibility - Adaptability - Generosity) with burnout and are -0.27, 0.38, -0.41, -0.25, 0.36, and 0.49 respectively. Results suggest that whatever the personality traits of managers be more positive and productive, job burnout in managers becomes less and equals 0.27. In other words, with an increase of one unit in the personality traits of managers, burnout in these people decreases to 0.27.*

Key words Burnout, HSE managers, neuroticism, extroversion, generosity, adaptability, flexibility

JEL Codes: M31

1. Introduction

Recently due to stressful working conditions and high competition which have imposed on human forces provided reasons until researchers study human forces frequently to present suggestions against job burnout. Because a successful organization depends on a competent manager, HSE managers who guarantee job safety and security have been considered perfectly. So due to the role of HSE managers in preventing job accidents and burnout and increasing productivity in organization and also due to lack of related studies. (Executive leadership method and municipality commitment, 2012), in this study, we decided to investigate the relationship between personality traits of these managers and their job burnout in order to remove obstacles facing the business and the factors damaging managers.

The most important asset of any organization is its human resources. When the forces enter into organization, bring a set of needs, desires, and expectations (Hakann and Shuffle, 2012). The relationship between the organization and the personnel in the organization is mutual, which the efficiency and effectiveness of the organization depend on efficiency and effectiveness of its human resources. One of the factors affecting the productivity of the workers is burnout. Burnout can be defined as a mental condition that involves a series of physical symptoms such as fatigue, emotional exhaustion and lack of motivation (Hakann and Shuffleboard, 2012).

Increased attention to burnout in recent years can be attributed to increased knowledge about burnout and negative impact on people's work. Because this factor provides financial problems for organization and society such as long absence, less working motivation, mental disorders, coronary disorders and even hospitalization also burnout on job performance, such as motivation, quality of work and responsibility come true. In other words, burnout is long-term response to stressors relationship between the individual and his job title (Ahola Korsi and Hakann, 2007). And now the impression has been created that burnout may occur in any job (Sepan, 2003), and evidence suggests that this syndrome for all those who are active in a variety of jobs, can be considered a huge threat (Shirom *et al.*, 2004).

In addition to the causes of burnout, other factors that influence and serious impact on the success or failure of the organization are their personality characteristics in the work environment. Personality includes set of psychological characteristics and internal mechanisms which is relatively stable and affect on interactions and compatibility of social, physical and psychological dimensions (Lars and Bass, 2008; Putan *et al.*, 2013). So, due to the importance of managers' decision making in organizational success, we intend to study the role of personality traits of HSE managers in job burnout in these group manager as industry leaders in Karaj road.

2. Theoretical literature review

2.1. Burnout

Within three decades some studies have been done about job burnout among employees in different jobs and every researcher completed his or her study based on determined hypotheses (Lai Ping, 2007). Since that burnout decreases quality in services and also dissatisfaction so it is necessary to recognize and prevent burnout to increase quality (Sherman, 2004). Although researchers have done researches in the field of burnout, still this subject is controversial which what exactly is that burnout? For instance, some consider mistakenly pressed burnout or depression. Burnout in fact is considered as individual patterns of response to stressors. Also, burnout differs from depression, because burnout is for the content of work exhaustion, but depression

includes all aspects of personal life (Swaider and Zymrman, 2010). Burnout is a new term which is used to describe human responses against stresses in environment (Lakrit and James, 2004). Maslach *et al.* (2001) consider that burnout has three main components:

1. Emotional exhaustion: this factor is the major cause and the most obvious sign of burnout. After that burnout implies that it is the main response to stress. In fact, emotional exhaustion is a dimension to define burnout and without it the concept of burnout is incomplete. Specifically, emotional exhaustion causes employees dislike their works and perhaps the way to deal with the pressures of work.
2. Depersonalization, depersonalization usually occurs after emotional exhaustion and it is a direct response to stress. Depersonalization of emotional response, abusive and violent towards the clients (service recipients) and colleagues and burnout syndrome negative feelings and negative attitudes with others blame.
3. The individual inefficiency (lack of personal accomplishment): the relationship between the individual inefficiency with other aspects of burnout is complex but this has not been confirmed yet and these factors grow in parallel with each other. On the other hand personal accomplishment is realized with progress. People with lack of personal accomplishment feel negative and failure and results with no professional effort.

2.2. HSE management

HSE standards in some industries is used to integrate dominant view in health and safety and environment under supervision of management and eventually HSE standards is formed perfectly and in some industries, quality control is added to the collection and in fact HSE standards is management process covers the weaknesses of health and safety in an industrial complex. The goal of HSE standards is minimizing disadvantages of industry on environment and increasing proper effects along with safety for employees in organization and removing all accidents and potential factors and protecting the environment at all levels of human resources and the environment (Yazdani, 2013). About the character of these managers which is the focus of this article, we first have to define personality. Personality is defined as the nature of an individual so that it affects others (Schultz and Schultz, 2005).

Costa and Mccary (1990) in their theory introduced 5 features of personality as follow:

1. Neuroticism: neuroticism relates to compatibility, emotional stability of person, incompatibility and neuroticism. Having negative feelings such as fear, sadness, excitement, anger, guilt, feelings of frustration on this scale are permanent and pervasive including quantity and severity of a person's social interaction with other people (Parvin and Servon, 2010).

2. Extroversion: extroverted people are sociable, but social being only one of the characteristics of these individuals. In addition, they are decisive action, or from conversations are active. These people love the excitement and dynamism and believe and hope the success of future. Extroversion scale represents the interests of people to develop the industry and its work. The agreement on the thoughts shows feelings and actions toward others (Parvin and Servon, 2010).

3. Flexibility (openness to experience): components of openness to experience include active imagination, aesthetic sensitivity, emotional experience and these people are curious about internal and the world experiences and have full of experiences life. These people want to enjoy the new theories and values of positive and negative emotions, including features such as anxiety, depression, aggression and any harsh and unpleasant emotions (Parvin and Servon, 2010).

4. The agreement (consistency and compatibility) as extroversion, agreed indicators, the trends of interpersonal communication are necessary. Compatible person is essentially altruistic, sympathetic respect others, and eagers to help them. He believes that others have the same relationship with him. In contrast, incompatible person is self-centered, and suspects to the intention of the others and enjoys more competition to cooperation. Faculty of imagination describes aesthetics, feelings, ideas, and actions and values (Parvin and Servon, 2010).

5. Conscientiousness (conscientiousness): self-control to activate the process of planning, organizing and carrying out the tasks and individual differences in this area are based on the index of conscientiousness. In short, two major features the ability to control impulses and desires and to implement plans for behaviors in achieving the objectives of the index are conscientiousness (Garossi Farshi 2001). Also this factor describes taking responsibility, hardworking and objective oriented in line with the behaviors of organization (Parvin and Servon, 2010).

3. Empirical literature review

Moharramzadeh and colleagues (2014) stated their results so that people with higher levels of neuroticism and lower levels of extroversion, agreeableness and conscientiousness and openness to experience are more susceptible to burnout, and if organizations use personality assessment as a part of the employment process and system can identify employees who are likely to suffer from burnout and more accurate planning and organizing staff to perform the obligations of their future careers.

Aghayee *et al.* (2013) suggested that burnout affects on behavior of organizational citizenship and organizational climate and organizational climate on burnout and behavior of organizational citizenship and organizational culture on the burnout and behavior of organizational citizenship and organizational climate. Other researches

done in this field can be: Maslesh *et al.* (2001), Garman (2002) and Kokinos (2007) all results have been similar to this.

Mohajer (2003) in a research entitled studying the relation among personality traits, occupational history and the monthly salaries and burnout of teachers of ministry of education in Tabriz, 280 teachers were studied. The results showed that there is negative relationship among occupational history, the salaries, the extroversion oriented personality, conscientiousness and agreeableness and burnout, but the relationship between personality trait neuroticism and job burnout is a positive relationship. Also between female and male teachers in the study there was a significant difference in terms of burnout and burnout of male teachers was higher than female teachers respectively. Personality differences between female and male teachers in the study were significant with conscience and the conscience of female teachers was higher than male teachers. Based on the results of the regression analysis, the predictors of this study, neuroticism and agreeableness variables were significant predictors.

Rasoulilian (2003) conducted a research entitled, the relationship between burnout and personality characteristics of nurses. His results showed that emotional exhaustion of burnout in nurses is medium, in the domain of depersonalization is low and in personal accomplishment and qualification is a medium, person with obsessive - compulsive showed highest level of emotional exhaustion and lowest levels of personal accomplishment. Histrionic and narcissistic people showed the highest rates of depersonalization and personal accomplishment and burnout in addition to associated with occupational and demographic variables showed different dimensions in personality groups. A study was conducted by Samuel (2011) entitled: Job stress and burnout among the speakers: personality and social support of moderation factors. The main purpose of this study was to investigate the relationship between job stress, social support, personality and burnout among students as teachers of ministry of education. The second goal was to evaluate how personality and social support can have negative effects of stress on burnout, respectively. The results showed that job stress, social support and personality dimensions jointly and separately predict burnout. Personality characteristics and social support in interaction with stress predict personal success. The results show that environmental factors (job stress and social support) and personal factors (personality traits) have impact on job burnout.

In the research of Tanakody *et al.* (2009), entitled the effects of burnout and social support supervisor on work and family conflicts and intention of work leave (the study on Australian workers suffer from cancer), information collected from workers of 114 Cancer Centers, were tested by Path analysis and the assumptions relating to the

mediation of burnout between work and family conflicts and turnover intention, according to the mediator, supervisor of social support was also outstanding. Lindblom *et al.* 2006 conducted a study in Sweden and found that there is direct and significant relation among burnout and stress and anxiety. In this study the levels of burnout have been studied in public neglecting job and relations. Also in this research, sleep disorders, mental disorders, burnout and social mental factors in working places were studied perfectly. Under study population was a random sample included 3000 people with 20-60 years old and questionnaires were sent to them and 61% responded questionnaires. High level 18%, low level 19%, medium level 63% were considered for burnout. In high level: 50 years old persons, women, persons who had experienced mental disorders and persons in weak working conditions aspect of mentality. Analyses showed that, mental factors relating to burnout are considered important without nature of the job.

4. Methodology of research

Table 1. General structure of research methodology

Research direction	Applied
Research philosophy	Positivism
Research approach	Comparative
Research goal	Descriptive
Research strategy	Survey-cross section
Method	Correlative-analytic
Research background	Quantitative
Research instruments	Questionnaire
Data collection method	Library

The study population consists of HSE executives of industries in Karaj Special Road, which numbers 900 people. In this paper, using Cochran formula, 200 HSE managers have been selected as sample. To assess the characteristics variables of HSE managers, the standard questionnaire of Mehryar and Tabatabai (2001) has been used. As well as to check burnout variable, Maslesh's standard questionnaire (1993) has been used.

Table 2. Cronbach Alpha coefficients for burnout questionnaire

Burnout questionnaire		
Variable	No. of questions	Validity coefficient
Emotional exhaustion	9	0.758
Depersonalization	5	0.729
Individual inefficiency	8	0.716
Burnout (all dimensions)	22	0.853

Table 3. Cronbach Alpha coefficients for personality traits of HSE Managers questionnaire

Personality traits of HSE Managers		
Variable	No. of questions	Validity coefficient
neuroticism	12	0.742
extroversion	12	0.792
flexibility	12	0.816
compatibility	12	0.911
generosity	12	0.744
personality traits of HSE Managers (all dimensions)	60	0.796

5. Research hypotheses

5.1. The main hypothesis

There is a significant relationship between personality traits of HSE managers and burnout.

5.2. Secondary hypotheses

1. There is a significant relationship between neuroticism and burnout.
2. There is a significant relationship between extroversion and burnout.
3. There is a significant relationship between flexibility and job burnout.
4. There is a significant relationship between compatibility and burnout.
5. There is a significant relationship between conscientiousness and burnout.
6. Conceptual model of research.

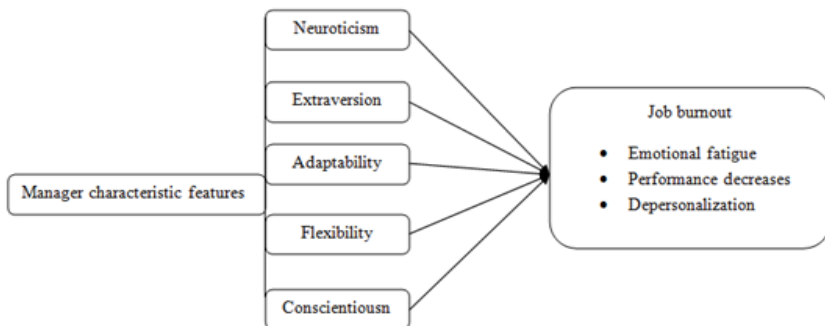


Figure 1. Conceptual model

7. Research data analysis using structural equations model

7.1. The main hypothesis

Model in the standard estimation mode

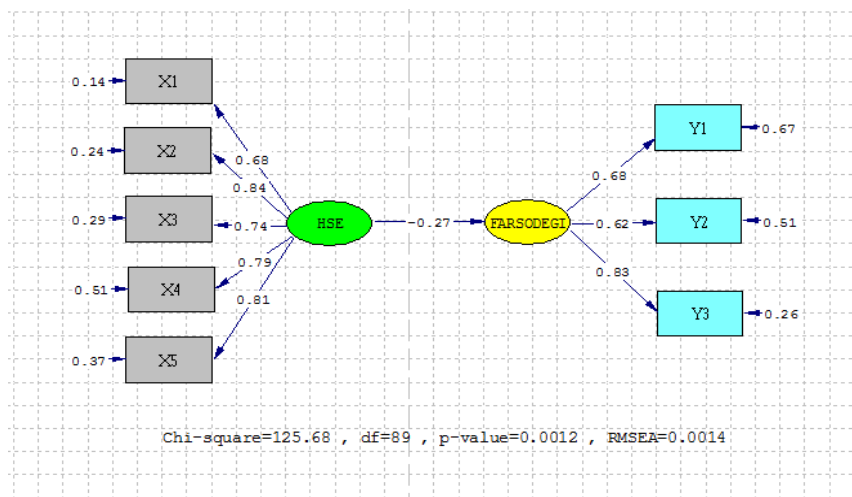


Figure 2. Model in the standard estimation mode

Model of significance coefficient

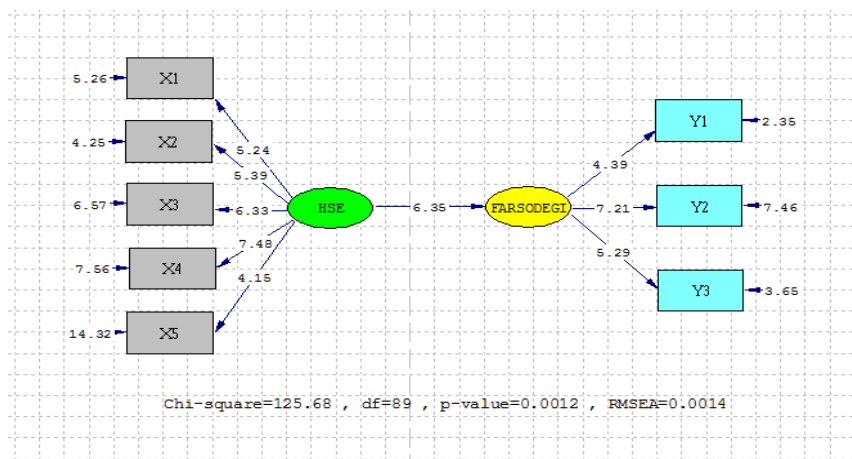


Figure 3. Model of significance coefficient

7.2. Sub-hypotheses

Model in the standard estimation mode

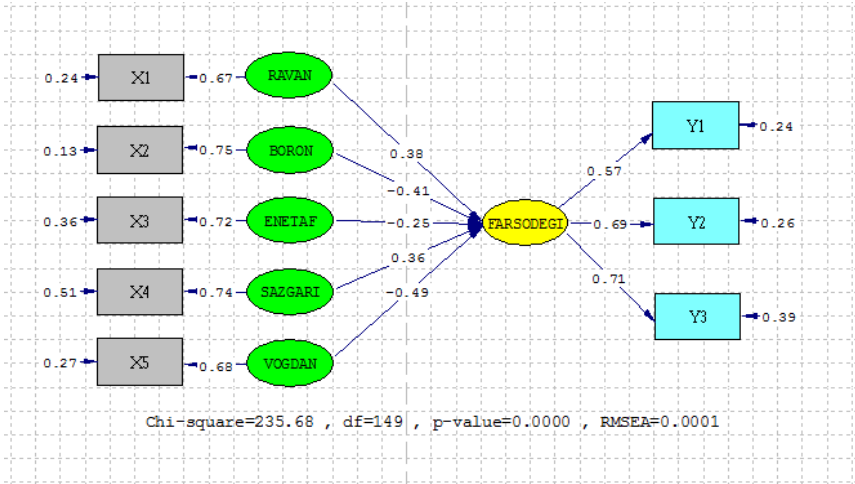


Figure 4. Model in the standard estimation mode

Model of significance coefficient

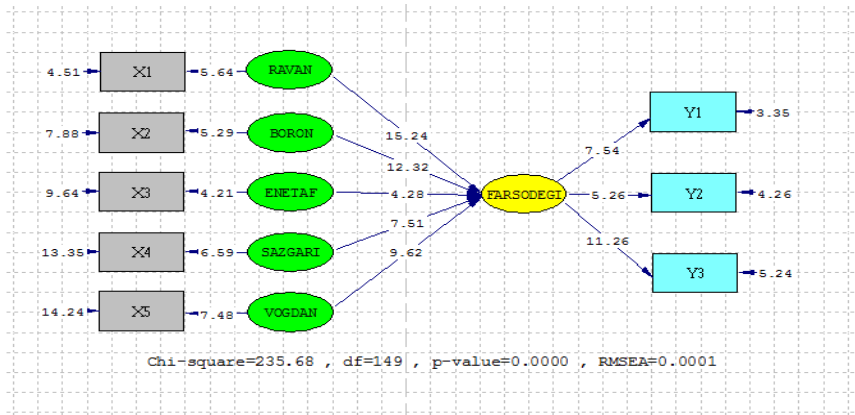


Figure 5. Model of significance coefficient

7.3. Research findings and studying research questions using structural equations

In this study, we prove the hypotheses. Two models are available, one of them belongs to main assumption and other belongs to secondary hypotheses. in the following both models are explained in detail.

The following table shows indicators such as chi-square model, RMSEA, GFI If the amount of χ^2 be low then the ratio of χ^2 to the degree of freedom (DF) will be less than 3, RMSEA less than 1, and GFI and AGFI are greater than 90% and it can be concluded that the model is proper. The standard rate relationship when the value of t is greater than 1.96 or less than - 1.96 would be significant in 99 percent.

Table 4. Structural equations model for Amin Hypotheses and sub-Hypotheses

Structural equations model				
Evaluation	T-value	Effect (standard mode) B		
Confirmed	6.35	-0.27		
	Index model amin Hypotheses			
	RMSEA	p-value	d.f	Chi-square
	0.0014	0.0012	89	125.68
	NFI	CFI	AGFI	GFI
	0.96	0.92	0.95	0.91
Evaluation	T-value	Effect (standard mode) B		
Confirmed	15.24	0.38		
Confirmed	12.32	-0.41		
Confirmed	4.28	-0.25		
Confirmed	7.51	0.36		
Confirmed	9.62	-0.49		
	Index model sub- Hypotheses			
	RMSEA	p-value	d.f	Chi-square
	0.0001	0.0000	149	235.68
	NFI	CFI	AGFI	GFI
	0.92	0.94	0.88	0.95

As can be seen, due to the significance of the value t, validity and appropriate fitness of model is confirmed, because the amounts of chi, the RMSEA and the ratio of X to the degree of freedom are low and the amount of GFI and AGFI is also above 90 percentages.

8. Discussions and Conclusions

The aim of this study is to investigate the relationship between personality traits of HSE executives and burnout among industry leaders in Karaj road. Hence, in order to review this item a general hypothesis and five secondary hypotheses have been propounded. And to examine the personality characteristics of managers (OCD - extroversion-Flexibility - Adaptability-Generosity) with burnout with amount of these relations -0.27, 0.38, -0.41, -0.25, 0.36, -0.49 respectively.

In H1, the load factor of 0.38 indicates a positive relationship between neuroticism and burnout and this implies that whatever the score of a person in neuroticism is high likely that person is burnout. In H2 -0.41 represents inverse relationship between burnout and extroversion and this implies that the higher scores of a person on extroversion and building positive relationships with others, the less is the risk of burnout. Factor -0.25 represents the inverse relationship between burnout and flexibility and high score in individual flexibility so the risk of burnout is less. Factor 0.36 in hypothesis 4 confirmed positive relationship between burnout and compatibility and in H5 as well as factor -0.49 shows an inverse relation between generosity (duty) and burnout.

However, in general it should be assumed that whatever the personality traits of managers are more positive and productive, job burnout of managers will be less and this equals -0.27. In other words, with an increase of one unit in the personality traits of managers, burnout reduces 0.27.

The results of this research are same with Mahajer's study results (2003), the results of the study show that there is negative relation among the job background, the salaries, extroversion personality dimensions, conscientiousness and agreeableness and burnout. But the relationship between neuroticism and burnout is positive, in our research as well as there is negative relation among the generosity and conscientiousness, extroversion and burnout and there is a positive and significant relationship between neuroticism and burnout as well as the investigation found that two data confirmed each other and are in line with together.

As well as research findings are in line with findings of Rasouljan (2003) and also the research findings are same with findings of Samuel (2011), Tanakody *et al.* (2009) and Lynblom and colleagues (2006), and confirm together.

Such restrictions of this research including time and place, so it is suggested to other researchers to study this subject in other time and place and compare their results with these results perfectly.

Other restrictions are access to managers to complete the questionnaires and the lack of participation in regular time, the research process has been difficult.

Also it is suggested to managers and responsible of organizations to create conditions in their organizations to minimize burnout and this can be reduced by increasing compatibility of individuals with organizations and determined goals respectively and these goals must be clarified to all people in organization with the skills and interests of the persons to be more compatible with their job and organization.

Also creating generosity and dedication spirit in organization causes to internalize this positive behavior and also makes people be sociable.

On the other hand, creating flexibility and freedom on the part of certain individuals within the organization reduces the amount of burnout in people.

It is suggested to future researchers to consider variables such as cultural and social capital such as trust, solidarity and cooperation with other independent variables and the dependent variable of this study is and study this research again.

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