



**Modeling the causal relationships between motivational factors and mental health with mediation of hygiene factors
(Case study: The employees of Keshavarzi Bank in Tehran)**

1. Fatemeh Poorani, 2. Dr. Kamran Ganji

1. Department of Psychology, Faculty of Humanities, Saveh Branch, Islamic Azad University, Saveh, Iran

2. Department of Psychology, Faculty of Humanities, Malayer Branch, Islamic Azad University, Malayer, Iran

Abstract

This study is conducted with the aim of investigating the relationship between motivational and general health with mediation of hygienic factors in employees of Keshavarzi Bank in Tehran. The research is descriptive and correlational. The study population consisted of all the employees of Keshavarzi Bank in Tehran in the second half of 2015. The sample consisted of 200 employees who were selected using random cluster sampling. The research tools included General Health Questionnaire and Herzberg's Motivation and Hygiene Factors Questionnaire. To analyze the data, Pearson correlation method with structural equation model was used. The results showed there is a significant negative relationship between general health and motivational and hygienic factors at the significant level of 1%. Also, structural equation modeling of general health, hygienic and motivational factors of employees of Keshavarzi Bank based on indicators of fitting model was proved and finally motivational factors with mediation of hygienic factors is effective on general health.

Key words: general health, motivational factors, hygienic factors, employees of Keshavarzi bank.

1. Introduction

Mental health is including challenging concepts that there are various explanations about it in psychology literature. Humans spend more than a third of their lives in the workplaces that have hazardous factors. In a part of the Rio World Summit Declaration in the field of Environment and Sustainable Development, Occupational Health is considered as an important strategy that not only the health of employees but also it has a significant and positive impact in productivity and products quality, work motivation, job satisfaction, and ultimately the quality of total life of the people. (World Health Organization, 2007).

The historical process of this concept shows that we are facing with three main paradigm in this connection. In a paradigm, it is believed that mental health means the absence of symptoms and psychiatric disorders in people. In the second paradigm, it is believed that the mental health is equal to empowerment and prosperity of inner capabilities and in the third paradigm, mental health is defined a state of complete well-being that person acts beyond his abilities (Bratun and Fyts 2007, Herman Ski Haarr 2005; Lyons and Chamberlin, 2006; quoted by Fakhri et al., 2012).



In this regard, some of the factors that can be associated with mental health of organization is hygienic and motivational factors. In fact, a healthy organization is a place where people come to workplace with interest and are proud to work in this place. In fact, the health of organization physically, mentally, safety, belonging, merit and value to the knowledge, expertise and character of stakeholders and developing their capabilities and perform tasks assigned by their Meta systems in effectiveness of any system has a considerable impact (Korkmaz, 2007 quoted by Zamani, 2012).

To increase productivity in the organization, the need to supply conditions is felt that the most important of it is the human factor. Herzberg (1966) in the theory of motivation and mental health states that the needs can be introduced that on the one hand creates satisfaction and success for human sources and on the other hand, lack of satisfaction creates incuriosity. In the case of meeting these requirements, the person will be satisfied. Satisfying factors of the needs are occupational factors, internal and not environmental and include success, acclaimed for doing work, more responsibility and grow in work. Thus by improving the business environment should stimulate the creative impulses of man. Also, according to the theory of motivation, success seeks to understand the incentives that causes someone else does more effort and wants success in work and tries to somehow create it in people who do not relish (Feist et al., 2011). Motivational needs are needs that people are indifferent to the non-fulfillment of them and in the case of satisfying them are motivated and achieve to optimum satisfaction. These needs usually resolve by internal factors of job, such as greater responsibility, career advancement, success and nature of work. These factors are called motivating factors (Ghasemi, 2011). Pinder (1998, quoted by Lundberg, 2009) defines the motivation as a set of forces that requires man from both inside and outside to do special activities in workplaces. The research results of Swarnalatha and Prasanna (2012) showed that job satisfaction, employee engagement and organizational citizenship behavior, including factors that can justify intensive behavior of employee in the workplace, and based on them, employees provide their work with passion to success of organization and engage themselves and following that sense of empowerment have greater impact (Fakhri, et al., 2012).

On the other hand, in addition to motivational factors can be mentioned the hygiene factors in workplace health. Herzberg believed, lack of dissatisfaction not means satisfactory so hygienic factors assure us to the lack of dissatisfaction. But if there is not motivating factor, it cannot be said that there are really job dissatisfaction, but it can be concluded that there is no satisfaction (Delange et al., 2002). In a study, Rezai Sufi and Shabani (2013) showed lack of hygienic factors in workplace grow negative attitudes and cause job dissatisfaction. Thus, it is concluded that job satisfaction by providing the motivation factors mediation of hygienic factors is created. In other words, in the case of upgrading hygienic factors, motivational factors cause to increase and promote job satisfaction in employees, however, if hygienic factors to be reduced, this leads to a reduction in job satisfaction, in any case, if hygienic factors to be improved and motivational factors to be reduced, a kind of indifference to the job will be provided and this can be considered a threat to mental health. The research results of Raeisi and Shokuhande (2013) in the study of the relationship between mental health of nurses and their motivation in doing nursing duties showed there is a significant relationship between these two variables. As well as there is a significant relationship between each dimension of mental health and motivational aspects. Also, Otoofi et al (2013) evaluated and



compared motivation-hygiene factors of employees based on the Herzberg's theory and showed that the most important hygiene factors was job security and supervision, and the most important motivational factors was success and appreciation. Hygiene factors had more importance to motivational factors in both the hospital. The research results of Shafiabadi and Khalaj Asadi (2010) also showed, there is a significant relationship between job satisfaction and mental health (Mehrmand, 2011). The research results of Ram and Prabhaker (2011) confirmed the relationship between work engagement and health perceptions and organizational support and its impact on the sense of empowerment and organizational behavior.

Therefore, regarding motivated and effective employees as one of the main pillars of the bank need to prepare themselves for the jobs, so evokes the work environment, their relationships with each other, and management style and different emotions in employees that this sentiment has a major role in providing mental health. It can also be argued that human beings according to their needs are stimulated and motivated and these needs over time and according to different situations are different. Identify human needs will be only the first step in determining the extent of its influence on the work and activity (Amuzad Mehdiraji, Rezavi Haji Agha, 2010). Given that creating more motivation and direct to the healthy impulses is one of the tools in the application of human resources, this research can provide effective and practical solutions in order to motivate employees to be able to use the maximum power of the human resources working in banks in order to provide other people in society and also for investigating the mental health of employees, it is necessary to study the important factors involved in this issue.

2. Research Hypothesis

The main hypothesis:

The relationship of motivational factors, hygienic factors and mental health of a model constitutes causal relationships.

Sub hypotheses:

1. Motivational factors have directly relationship with mental health of employees of Keshavarzi Bank.
2. Hygienic factors directly have relationship with metal health of employees of Keshavarzi Bank.

3. Research Methodology

The research method in this study, in terms of procedure and the nature is descriptive and correlation and based on purpose is placed in the category of fundamental research. The study population consisted of all employees in the branches of Keshavarzi Bank of Tehran with the



number of 1177 in the second half of 2015. In the meantime, using random cluster sampling and among five regions North, South, East, West and Center, 20 branches were randomly selected and tested. It should be noted that based on the vision of Klein (2010) in the study of the correlation for each item, 5 – 2/5 sample should be selected should be at least 200 people. Thus, the sample size is selected between 200 and 250 people.

Questionnaire was used to assess the variables: a) General Health Questionnaire GHQ, consist of 28 questions that is made by Goldberg and Hillier (1979) for non-psychotic mental disorders screening has been used. This scale consists of four subscales: somatic symptoms, anxiety, social dysfunction and depression that are scored by the way of Likert rating scale. Chang (1994) reported reliability coefficient of this scale by the method of retest for the whole scale 0.55. Also Yaghubi (1996) has reported the reliability coefficient of the questionnaire by the method of retest 0.88 (quoted by Amini et al., 2009). B) motivation-hygiene factors questionnaire, this questionnaire is raised by Dunnett and colleagues in 1996 based on Herzberg's theory and has 30 questions. The scale of questionnaire is 5-point Likert type. In thin questionnaire, 11 factors associated with job motivation are evaluated (Mokhberi, 2009, quoted by Raeisi and colleagues (2014). Its reliability has been reported by him 0.96. As well as its reliability by Mokhberi (2009) 0.93 and Rezaei Sufi and Shabani (2013) 0.86 is reported. After collecting the data, to analyze the data, descriptive and inferential statistics are used. Accordingly and in the level of descriptive statistics, measures of central tendency, dispersion and distribution indices such as mean, standard deviation, tilt coefficient and elongation coefficient is calculated. Also, in the level of inferential statistics, statistical models of Pearson correlation coefficient using statistical software spss and structural equation modeling using LISREL software is used. To model fit, the fit index such as Chi-Chi (χ^2/df), the comparative fit index (CFI), fit index (GFI), adjusted index of fitness (AGFI) and RMSEA was used.

4. Results

4-1 descriptive statistics

4.1.1 Describe the demographic characteristics of subjects

According to the results from descriptive results, 52.5 percent of subjects are women. Also, 95 people equivalent to 47.5 percent of the subjects are men. Also, in terms of education level, 66 people equivalent 32.70 percent of subjects have Bachelor degree. Also, the minimum frequency is related to the subjects that their education level is diploma and in terms of work experience, major subjects 44.10 percent of them equivalent to 89 people has work experience between 10 to 20 years. Also, the lowest frequency in work experience was related to the work experience 20-30 years ie 16.80 percent of individuals.

4-1-2- describe the dispersion and central indices of variables

In the following, Table 1, 2 and 3 shows the description of scores in three variables;

Table (1): the description of subjects' scores in Herzberg's motivational factors and its subscales



Index	Number	Mean	SD	Tilt coefficient	Elongation coefficient
Motivational factors	200	10.978	9.06	0.19	0.26
Occupational success	200	11.97	2.10	-0.45	-0.88
Progress	200	7.94	1.40	0.08	-1.25
Work nature	200	11.53	2	0.30	0.94
Identification	200	11.69	2.19	0.19	1.08
Growth	200	11.75	1.87	0.06	-0.16

In Table 1, the mean of scores of subjects in the questionnaire of Herzberg's motivational factors is displayed. Accordingly, the mean of scores of subjects in motivation factors is 10.978. The mean of scores of subjects in subscales of occupational success, progress, nature of work, identify and growth is respectively 11.97, 7.94, 11.53, 11.69 and 11.75.

Table (2): the description of scores of subjects in Herzberg's hygienic factors and its sub scales

Index	Number	Mean	SD	Tilt coefficient	Elongation coefficient
Hygienic factors	200	10.39	10.49	0.16	-0.25
Company policy	200	11.70	2.19	0.16	0.18
Relationship with colleagues	200	11.29	2.05	0.08	1.05
Job security	200	11.64	2.21	0.12	-0.20
Communicating with Supervisors	200	11.60	1.79	0.02	-1.12
Money	200	8.27	1.13	-0.42	-0.43
working conditions	200	7.86	1.39	0.12	-1.24

According to the findings of Table 2, the mean of scores of subjects in the hygienic factors and its subscales is displayed. Accordingly, the mean of scores of subjects in hygienic factors is 10.978. Also in subscales of company policy, relations with colleagues, job security, relationship with supervisor, money and working conditions is respectively 11.70, 11.29, 11.64, 11.60, 8.27 and 7.86.

Table (3): the description of scores of subjects in General Health Questionnaire

Index	Number	Mean	SD	Tilt coefficient	Elongation coefficient
Physical symptoms	200	9.69	1.92	0.14	0.27
Anxiety	200	9.67	2.11	0.48	-0.85
Social function	200	11.72	2.46	0.08	1.01
Depression	200	10.16	1.98	0.07	1
Total score of general health	200	41.26	8.24	0.12	-0.29

According to the table 3, the mean of scores of subjects in the subscales of physical symptoms, anxiety, social functions and depression is respectively 9.69, 9.67, 11.72 and 10.16. Also, the mean of score of subjects in the General Health Questionnaire is equal to 41.26, which represents the level of average public health.



Also, because the absolute value of the tilt and elongation coefficient for general health and subscales of Herzberg's motivation and hygiene factors is less than 2, so the distribution of general health and its subscales with normal distribution not has significant difference and to analyze the variables and its subscales can be used parametric tests.

4-2 analytical findings (test of hypotheses)

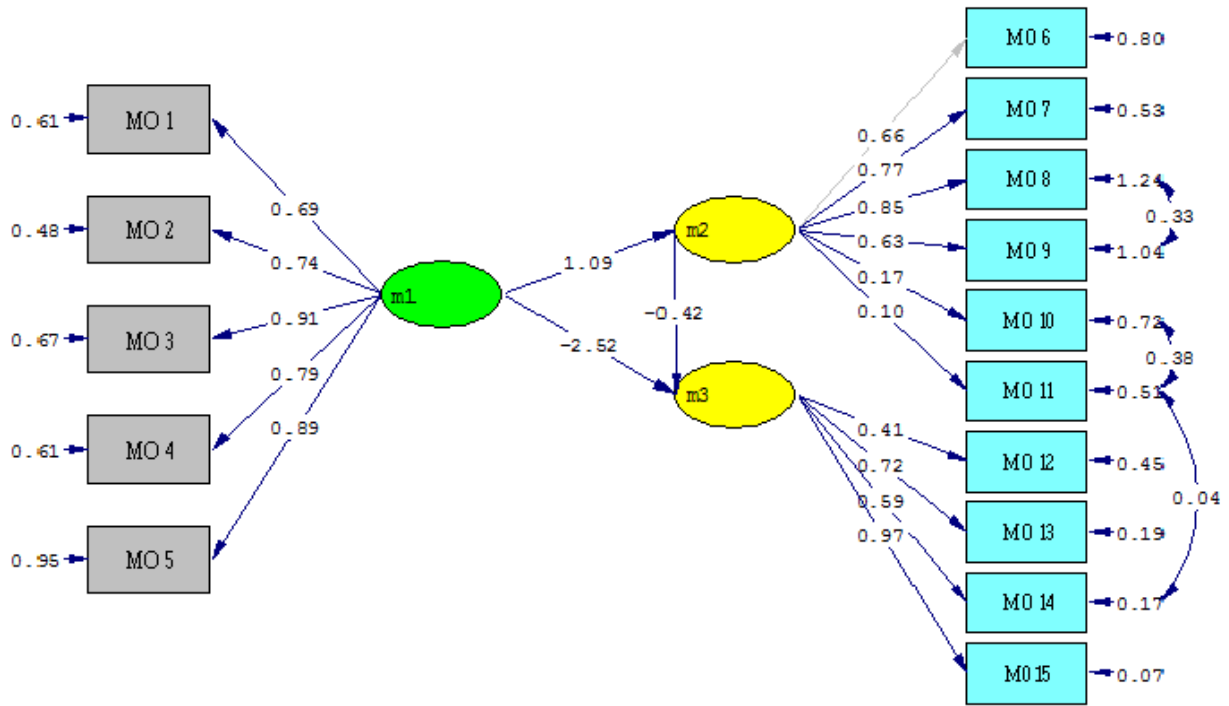
4-2-1The main hypothesis: The relationship of motivational factors, hygienic factors and mental health of a model constitutes causal relationships.

To investigate the main hypothesis of research, obtaining a model with SEM technique of causal relationships has been investigated, values obtained for the indicators is shown below;

Table 4: Fit indicators of model

Fit indicators	χ^2	Df	χ^2/df	RMSEA	GFI	AGFI	CFI
Values of indicators	129.72	72	1.80	0.037	0.87	0.83	0.92

Based on the above table, fit indexes showed, Chi square for the measurement model in this study was 1.80 that expresses acceptable fit of model with data. Comparative fit index (CFI) was higher than 0.9 and fit index (GFI) was equal to 0.87 and adjusted fit index (AGFI) was 0.83 and also RMSEA was equal to 0.037 that based on the results obtained, it can be said that the model obtained has a good fit with data. The model including path coefficients is as below figure.



Chi-Square=129.72, df=72, P-value=0.0060, RMSEA=0.037

Figure 1: model, including path coefficients

According to the model: all indicators of fitness of the model have appropriate values and coefficients of all paths are significant and it can be said:

Motivational factors of subscales of job success, progress, nature of work, identification and growth are saturated of a factor that, motivational factors (m1 in model) are called. Subscales of company policy, relations with colleagues, job security, and relationship with supervisor, money and working conditions are saturated of a factor that, hygienic factors (m2 in model) are called.

Subscales of physical symptoms, anxiety, social functions and depression are saturated of a factor that, general health (m3 in model) is called.

Motivational factors have a direct impact on general health with path coefficient -2.52. Negative path coefficient is because in general health questionnaire, less score indicates greater health. The fewer symptoms will lead to higher motivation. Motivational factors through hygienic factors indirectly have an indirect impact on general health with path coefficients 1.09 and -0.42. Hygienic factors have direct impact on general health with path coefficient -0.42.



4.2.2 Sub hypotheses

To answer sub hypotheses, because variables are quantitative and a violation of the normality of the data was not observed, the Pearson correlation coefficient was used.

First sub hypothesis: there is a significant relationship between motivational factors and general health and its subscales in employees of Keshavarzi bank.

Second sub hypothesis: there is a significant relationship between hygienic factors and general health and its subscales in employees of Keshavarzi bank.

Table 5: Investigating the relationship between general health and motivational factors in employees of Keshavarzi Bank

Sub hypotheses	Index	Motivation factors	Significant level
First sub hypothesis	Physical symptoms	-0.214	0.001
	Anxiety	-0.159	-0.003
	Social function	-0.150	0.006
	Depression	-0.177	0.001
	general health	-0.215	0.001
Second sub hypothesis	Physical symptoms	-0.257	0.001
	Anxiety	-0.249	0.001
	Social function	-0.310	0.001
	Depression	-0.319	0.001
	general health	-0.345	0.001

The result of investigating the first sub hypothesis based on the information of Table 5 indicates that the correlation of hygienic factors and general health and its subscales in employees of Keshavarzi Bank is negative and significant ($P < 0.05$). The negative correlation indicates that the more the person gains higher score in general health and its subscales (ie, the less health), hygienic factors will be lower in him.

Also, the result of investigating the second sub hypothesis suggests that the correlation of hygienic factors and general health and its subscales in employees of Keshavarzi Bank is negative and significant ($P < 0.05$). The negative correlation indicates that the more the person gains higher score in general health and its subscales (ie, the less health), hygienic factors will be lower in him.

5. Conclusion

The present study was conducted aimed to investigate the mediation role of hygienic factors on mental health and motivational factors. In this regard, one main hypothesis and two sub hypotheses were tested.



To investigate the main hypothesis based on that the correlation of motivational factors, hygienic factors and mental health constitutes a model of comparative relations. Model schema using drawing the relationships between variables was developed. Path coefficients and the model fit indicators were calculated and evaluated. All of the fit indicators of the model had good values and all path coefficients were significant. The research results obtained are consistent with the results of Otoofi et al (2013) that have referred the relationship between motivational and hygienic factors, research results of Ram and Prabhaker (2011) about the relationship between passion and job motivation with individual health, Dolavard and Baker (2010), Vadhoon et al (2005) that in their model have referred to the role of work motivational factors with mental health.

In theoretical explanation of findings obtained could be acknowledged, Herzberg in his theory considers two factors effective in the quality and promote job activities that one of them is motivational factors and the other hygienic factors (Densten, 2002, Bayren, 2011). Among the factors affecting the mental health regarding the impact of organizational and job components is motivational factors. This is because every human being with having high work motivation and enthusiasm has been much more useful and can provide better services, so encourage and motivate can be effective on the general health (Donoso et al., 2015). At the same time, considering hygienic factors as a component that is mainly external with motivational factors as an internal factor increases mental health of individuals. Because when one can have passion to do his assignments and duties with respect to the encouragements and correct managerial planning and yet, experience more successful feeling in his career, feel organizational justice and have good communication and interaction with supervisors, colleagues and subordinates, and eventually have working conditions and job security (Lundberg, Gudmunson and Anderson, 2009).

In investigating the first sub hypothesis, results showed that the correlation of motivational factors and general health and its subscales in employees of Keshavarzi Bank is negative and significant ($P < 0.05$) General health is one of the most important structures that have a direct correlation between individual and social performance and prevent many individual harm and subsequently social. In fact, its main purpose is not only the absence of mental illness, but follows the promotion of mental health of the population. In this context in which it must be said, it cannot be distinguished career and work factors from mental health. The research results of the present research are consistent with the research results of Raeisi and colleagues (2014) that have referred to the relationship between mental health of nurses with different aspects of motivation, the results of Delanzh (2004), Ram and Prakharm (2011), Dolavard and Baker (2010), results of Surak et al (2002) about the relationship between motivational job factors with performance and social relationships. So managers and organizational rules by influencing the motivation of people to cooperate in order to achieve the objectives of the organization can affect the health of their employees (Franco, 2012).

In investigating the second sub hypothesis, results showed that the correlation of hygienic factors and general health and its subscales in employees of Keshavarzi Bank is negative and significant ($P < 0.05$). Including the basic principles that is raised in order to maintain and enhance the hygiene and mental health of individuals is to respect to his character and others,



understanding limitations of self and others, the ability to understand the nature and behavior analysis and the causes of occurring them and consequences of each, identify the basic needs that causes human behavior and actions, which may be physical, psychological and social (Shamloo, 1997). In the meantime the enjoyment of appropriate and predictable organizational system in which all matters and minor details are paid attention and yet to meet individual accommodations and living expenses in addition to individual to be satisfied of professional status and job and feels security in it (DeLangs et al., 2005). Research findings in this case are consistent with the research results of Rezai and colleagues (2013) on the impact of hygienic factors on mental health component.

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