Do Demographic Variables Moderate the Relationship Between Job Burnout and its Consequences?

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Abstract
Many studies have already been conducted to understand the various dimensions of the burnout. The purpose of the present research is to investigate the moderating effect of demographic variables on the relationship between job burnout and its consequences among the staff of an Iranian public sector company. In this research, job burnout is considered as independent variable; organizational commitment, intention to leave and the employees’ job satisfaction are dependent variables; and the age, gender, marital status and educational level are moderating variables. The results of this study show that firstly, the job burnout of employees in organizations leads to the decrease of organizational commitment and job satisfaction, and the increase of intention to leave; secondly, the demographic variables in this research don't affect on the relationship of job burnout with its consequences.

Keywords
Job burnout, organizational commitment, job satisfaction, intention to leave, demographic variables.

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Introduction

Burnout is defined as a psychological response to job stress. Changes in what an individual wants and what he/she should do or, in other words, significant disharmonies between job nature and job owner's nature lead into burnout (Maslach & Leiter, 2005). As a metaphor, burnout points the quench of candle or a fire; if the fire does not receive adequate resources, it will be quenched after a while (Schaufiel et al., 2009).

Now, many authors have achieved a relative concurrence on burnout aspects. These aspects include: (1) emotional exhaustion which means energy discharge and consumption of emotional resources. This dimension can be considered as the cornerstone of job burnout. (2) Depersonalization which separates workers from others and causes pessimism to colleagues, customers and organization. This dimension of the job burnout is prevalent among those staffs who regularly communicate to other persons (such as teachers, students, customers, patients). (3) Diminished personal accomplishment by which the person comes to a negative self-assessment (Maslach & Leiter, 2005; Maslach & Jackson, 1981; Pines & Maslach, 1981).

Maslach and Leiter (2005) identified two groups of factors which dominate the person before burnout. The first group called situational predictors which include six antecedents: (1) workload, (2) control, (3) award, (4) social network, (5) job fairness, and (6) values. The second group includes individual antecedents such as age, gender, marital status and experience. Cordes et al. (1997) categorized burnout-related factors into three groups: (1) job and role characteristics, (2) organizational characteristics and (3) personal characteristics.

Literature Review

Since past decades, various studies are conducted to investigate the various dimensions of burnout phenomenon (Schwab & Iwanicki, 1982; Singh et al.,1994 ; Brewer & Shapard, 2004; Akhavan Anvari et al., 2011; Gholipour et al., 2011). Several researches are done to study the impacts of burnout on such variables as the intention to leave, job satisfaction and organizational commitment in different jobs. As an example, Schwab and Iwanicki (1982) show that burnout among teachers and pupils impact on their satisfaction and pupils may have burnout experiences as same as to their teachers (Schwab & Iwanicki, 1982). Many other researchers indicate that those employees who suffer burnout are located in lower levels of job satisfaction which cause reduction in their motivation and performance (Rocca & Konstanski, 2001; Bettina & Piko, 2006). During past ten years, several studies are conducted on the
impacts of burnout on organizational commitment, job satisfaction (Moore, 2000; Singh et al., 1994), turnover and intention to leave (Rake & Yadama, 1996; Geuts et al., 1998; Koeske & Koeske, 1993). Overall, job burnout is correlated with many job negative reactions. Conducted studies show that burnout relates to job satisfaction and organizational commitment negatively and to intention to leave positively (Schaufeli & Enzmann, 1998).

Organizational commitment is defined and measured in different ways. In Oxford dictionary, organizational commitment is defined as engagement with a work or obligation which limits freedom (Oxford Dictionary, 2008). Mathieu and Zajac (1990) consider it as an individual's dependency to an organization. Rusbult and Farrel (1983) have defined organizational commitment as the possibility of an individual's loyalty to his/her job and psychological belonging whether it is satisfactory or not. Also, job satisfaction is a well-known variable in organizational behavior studies. It is defined as being satisfied of various job elements (Herzberg & Mausner, 1959). Conrad et al. (1985) call job satisfaction as the adaption between individuals' perception on their needs and the awards they receive from their jobs. Individuals’ emotional orientation toward their works is considered as a newer definition of job satisfaction (Price, 2001). Finally, employees' turnover can be too costly for organizations. A significant relationship is reported between intention to leave and employees' morale reduction, job satisfaction and costumers' perception on the quality of provided services (Gray et al., 1978). Intention to leave is defined as informed and deliberate enthusiasm to leave in near future (Moleby et al., 1978). In a study by Steel and Ovalle (1984) which conducted via meta-analysis method, a strong significant relationship was observed between intention to leave and actual turnover.

Meanwhile, the relationship between demographical variables and job burnout is severally examined. Maslach et al. (2001) reported that in terms of age, the rate of younger employees' burnout is greater than those employees who are in their 30s or 40s. Teaching is a studied job on the relationship between demographical variables and burnout. For example, in some studies, emotional exhaustion and depersonalization among young teachers is greater than older ones. In other researches, older teachers' job burnout is greater than younger ones and vice versa (Brewer & Shapard, 2004).

Previous studies show that gender is not a strong predictor for job burnout. In some studies, job burnout is greater among female, it is greater among male in other studies and some researches show there is no significant difference between them. In some studies, women have more
scores than men in terms of emotional exhaustion and men have more scores than women in terms of pessimism (Maslach et al., 2001).

In terms of marital status, singles especially men are more exposed to burnout than married individuals. It seems that single individuals have more burnout than divorcees (Maslach et al., 2001). In some studies, married employees’ job burnout is reported higher than single ones (Russell et al., 1987).

Some studies indicate that people with higher educational levels suffer more job burnout. Perhaps, they are more exposed to burnout due to their heavier responsibilities or because of their higher expectations (Maslach et al., 2001).

Overall, several studies are conducted on the relationship between demographic variables and burnout. For example, there are various studies on the relationship between demographic variables and burnout among nurses and teachers (Schaufelli et al., 2009). Researchers like Cordes and Dougherty (1997) report that the rate of burnout among married employees is less than single ones, and researchers such as Jackson (1993) have found significant differences among employees’ burnout in terms of gender, age and marital status. There are also researchers who have not reported a significant relationship between demographic variables and burnout (Dillon & Tanner, 1995; Friedman & Faber, 1992). Overall, a kind of remarkable disharmony is seen regarding the relations between demographic variables and burnout in academic researches. If resolvable, it could help HR professionals devising more objective preventive plans to reduce job burnout (Brewer & Shapard, 2004).

Preliminary researches show that burnout consequences can emerge in various types such as commitment mitigation, increase in absenteeism and turnover, productivity decrease, morale reduction, and decrease in human consideration (Cordes & Dougherty, 1993; Maslach & Pines, 1977; Maslach, 1978). Maslach et al. (2001) expound burnout consequences in two job performance and health aspects. In terms of job performance, burnout accompanies with job withdrawal, absenteeism, intention to leave and turnover. Those people who keep their work despite of their burnout are facing with productivity and effectiveness decrease. Accordingly, burnout accompanies with job satisfaction decrease as well as job or organizational commitment mitigation. In terms of health, burnout can cause mental dysfunctions which lead into anxiety, depression and self-esteem decrease (Maslach et al.).

Considering the literature, following model in Figure 1 is presented as the research conceptual framework. Researchers studied how burnout variables such as gender, marital status, educational level and age impact
on other variables like organizational commitment, job satisfaction and intention to leave in a public company of Iranian oil and gas industry.

Hypotheses
Research hypotheses according to conceptual framework are as follows:
1. Gender moderates the relationship between job burnout and employees’ organizational commitment.
2. Marital status moderates the relationship between job burnout and employees’ organizational commitment.
3. Educational level moderates the relationship between job burnout and employees’ organizational commitment.
4. Age moderates the relationship between job burnout and employees’ organizational commitment.
5. Gender moderates the relationship between job burnout and employees’ job satisfaction.
6. Marital status moderates the relationship between job burnout and employees’ job satisfaction.
7. Educational level moderates the relationship between job burnout and employees’ job satisfaction.
8. Age moderates the relationship between job burnout and employees’ job satisfaction.
9. Gender moderates the relationship between job burnout and
employees’ intention to leave.
10. Marital status moderates the relationship between job burnout and employees’ intention to leave.
11. Educational level moderates the relationship between job burnout and employees’ intention to leave.
12. Age moderates the relationship between job burnout and employees’ intention to leave.

**Methodology**

The purpose of the present research is to study the role of quadruple variables, including gender, marital status, educational level and age, in moderating the impacts of job burnout on employees’ job consequences in an Iranian public company. In research analytical model, job burnout is independent variable, employees’ organizational commitment, intention to leave and job satisfaction are dependent variables; and gender, marital status, educational level and age are moderating variables. The present study is conducted in autumn and winter 2009 and spring 2010.

**Research scales and techniques**

There are some scales to measure job burnout which the MBI questionnaire is the most famous one. It is devised by Maslach in early 1980s and then it was revised and completed in the following years (Helbesleben et al., 2004). Despite of the fame of the MBI questionnaire, some criticisms are also provided. For example, Bouman et al. (2002) reported that the way of ranking items on individual success impacts on respondents’ answers. A newer measuring tool is Oldenburg burnout Inventory (OLBI) which was devised to decrease the biases of the MBI questionnaire. On the whole, more evidences are required to prove OLBI validity and one can yet replace MBI with OLBI (Helbesleben et al., 2004).

Questionnaire is used to measure the provided variables of the model. Developed questionnaire has twenty three items as well as demographic data such as gender, marital status, educational level and age of respondents. The first twenty two questions address to burnout. The items of this questionnaire measure three aspects of job burnout namely emotional exhaustion or EE (nine items), diminished personal accomplishment or PA (eight items) and depersonalization or DP (five items). In the second part, the first six items address to organizational commitment and the next three questions investigate intention to leave and, finally, remained six items measure job satisfaction. To measure organizational commitment, a questionnaire devised by Porter et al. (1974) and to measure intention to leave, developed questionnaire by
Cammann et al. (1979) and to measure job satisfaction, the scale by Hackman and Oldham (1975) are used. Finalized questionnaire was submitted to several elites and some questions were revised in order to be simpler and clearer. Chronbach’s alpha was used to determine questionnaire reliability which led into 73.6%, 86.9% and 86.1% respectively in an initial pretest sample for three aspects of job burnout. Alpha chronbach rates for three variables of organizational commitment, intention to leave and job satisfaction were 75.2%, 88.3% and 92% respectively which indicate high reliability of the questionnaire.

**Statistical population and sampling method**

Statistical population of the research consists of all employees at studied company. Based on sampling formula in a limited population with random sampling method, a sample with two hundred subjects was selected. Overall, one hundred and fifty four questionnaires were filled and returned.

**Data analysis**

65% and 35% of respondents were male and female respectively, 77% of them were married and 23% were single. In terms of educational level, 42% were under high school diploma, high school diploma and associate degree, 40% had BA, 13% had MA and 5% had not clarified their educational level. If we consider 27-to-35 year-old as young, 35-to-45 as middle-age and over 45 year-old as old, the results of the statistical analysis show that 44% were young, 27% were middle-aged and 23% were old. In the meantime, 6% of respondents had not mentioned their age.

There are several methods to test the impacts of moderating variables:

1. Subgroup analysis (SA): it is used when X and Y are quantitative while Z is qualitative moderating variable.
2. Moderated regression analysis (MRA): it is used when X, Y and Z are quantitative variables.
3. Analysis of covariance: it is used when X is qualitative while Y and Z are quantitative.

According to above consideration, SA method was used in the present research.

H_{0}: subgroup analysis was used to study the moderating role of gender variable in explaining the impact of job burnout on employees' organizational commitment.

\[ r_{1} = r_{2} \] \hspace{1cm} H_{1}: r_{1} \neq r_{2}

Initially, correlation coefficient between job burnout and commitment among both male and female groups were calculated.
separately by Select Case technique as follow:

\[ r_1 = -0.247 \]
\[ r_2 = -0.487 \]

Due to negative relationship in both groups, both have been assumed as positive. After computing \( r_1 \) and \( r_2 \), \( Z_{r_1} \) and \( Z_{r_2} \) were computed by using Fisher's \( z' \) transformation and then its weighted mean, called \( Z_0 \), was calculated. Finally, Chi square statistic was calculated by following formula and was compared with table's Chi square statistic. If the observed statistic is greater than the table's statistic, it is concluded that moderating impact exists.

\[
Z_{r_1} = \frac{1}{2} \ln \frac{1 + r_1}{1 - r_1} = \frac{1}{2} \ln \frac{1 + 0.247}{1 - 0.247} = 0.252
\]
\[
Z_{r_2} = \frac{1}{2} \ln \frac{1 + r_2}{1 - r_2} = \frac{1}{2} \ln \frac{1 + 0.487}{1 - 0.487} = 0.532
\]
\[
Z_0 = \frac{n_1 Z_{r_1} + n_2 Z_{r_2}}{n_1 + n_2} = \frac{54 \times 0.252 + 52 \times 0.532}{54 + 29} = 0.349
\]
\[
\chi^2 = \sum_{k=1}^{2} (N_k - 2)(Z_{r_k} - Z_0)^2 = 1.393
\]

Since observed Chi square (1.393) is not greater than table's Chi square (3.84), \( H_0 \) is not rejected. So, gender has no impact on the relationship between employees' job burnout and organizational commitment.

\( H_2 \): correlation coefficient between job burnout and organizational commitment was calculated while marital status as married= 1 and single= 2. Results are:

\[ r_1 = 0.286 \]
\[ r_2 = 0.471 \]

Then, \( Z_{r_1} \) and \( Z_{r_2} \) were computed and weighted \( Z_0 \) was calculated. Finally, Chi square statistic was compared to table's Chi square.

\[ Z_{r_1} = 0.294 \]
\[ Z_{r_2} = 0.511 \]
\[ Z_0 = 0.369 \]
\[
\chi^2 = 0.811
\]

Since the observed Chi square (0.811) is not greater than the table's Chi square (3.84), \( H_0 \) is not rejected. So, marital status does not moderate the relationship between employees' job burnout and organizational commitment.

\( H_3 \): correlation coefficient between job burnout and organizational commitment was calculated while educational level as associate degree and lower levels= 1, BA= 2, MA and higher levels= 3. Calculations indicate that:

\[ r_1 = 0.508 \]
\[ r_2 = 0.237 \]
\[ r_3 = 0.637 \]

Then, \( Z_{r_1} \), \( Z_{r_2} \) and \( Z_{r_3} \) were computed and weighted \( Z_0 \) was calculated.
Finally, Chi square statistic was compared to table's Chi square.

\[ Z_{r_1} = 0.560 \quad \quad Z_{r_2} = 0.241 \]

\[ Z_0 = 0.450 \quad \quad \chi^2 = 2.475 \]

Since the observed Chi square (2.475) is not greater than the table's Chi square (5.99), Hₐ is not rejected. So, educational level does not moderate the relationship between employees' job burnout and organizational commitment.

H₄: correlation coefficient between job burnout and organizational commitment was calculated while age as young= 1, middle-age= 2 and old= 3. Calculations indicate that:

\[ r_1 = 0.413 \quad \quad r_2 = 0.109 \quad \quad r_3 = 0.452 \]

Then, \( Z_{r_1}, Z_{r_2} \) and \( Z_{r_3} \) were computed and weighted \( Z_0 \) was calculated. Finally, Chi square statistic was compared to table's Chi square.

\[ Z_{r_1} = 0.439 \quad \quad Z_{r_2} = 0.102 \]
\[ Z_{r_3} = 0.487 \quad \quad Z_0 = 0.354 \]
\[ \chi^2 = 1.729 \]

Since the observed Chi square (1.729) is not greater than the table's Chi square (5.99), H₀ is not rejected. So, employees' age does not moderate the relationship between employees' job burnout and organizational commitment.

H₅: correlation coefficient between job burnout and job satisfaction was calculated while gender as male= 1 and female= 2. Calculations indicate that:

\[ r_1 = 0.495 \quad \quad r_2 = 0.267 \quad \quad r_3 = 0.381 \]

Then, \( Z_{r_1} \) and \( Z_{r_2} \) were computed and weighted \( Z_0 \) was calculated. Finally, Chi square statistic was compared to table's Chi square.

\[ Z_{r_1} = 0.37 \quad \quad Z_{r_2} = 0.48 \]
\[ Z_0 = 0.40 \quad \quad \chi^2 = 1.004 \]

Since the observed Chi square (1.004) is not greater than the table's Chi square (3.84), H₀ is not rejected. So, gender does not moderate the relationship between employees' job burnout and job satisfaction.

H₆: correlation coefficient between job burnout and job satisfaction was calculated while marital status as married= 1 and single= 2. Calculations indicate that:

\[ r_1 = 0.371 \quad \quad r_2 = 0.465 \]

Then, \( Z_{r_1} \) and \( Z_{r_2} \) were computed and Weighted \( Z_0 \) was calculated. Finally, Chi square statistic was compared to table's Chi square.

\[ Z_{r_1} = 0.389 \quad \quad Z_{r_2} = 0.503 \]
\[ Z_0 = 0.428 \quad \quad \chi^2 = 0.223 \]

Since the observed Chi square (0.223) is not greater than the table's Chi square (3.84), H₀ is not rejected. So, marital status does not moderate
the relationship between employees' job burnout and job satisfaction.

\( H_7 \): correlation coefficient between job burnout and job satisfaction was calculated while educational level as associate degree and lower levels= 1, BA= 2, MA and higher levels= 3. Calculations indicate that:

\[ r_1 = 0.528 \quad r_2 = 0.269 \quad r_3 = 0.802 \]

Then, \( Z_r1 \), \( Z_r2 \) and \( Z_r3 \) were computed and weighted \( Z_0 \) was calculated. Finally, Chi square statistic was compared to table's Chi square.

\[ Z_{r1} = 0.587 \quad Z_{r2} = 0.275 \quad Z_{r3} = 1.04 \quad Z_0 = 0.525 \]

\[ \chi^2 = 4.742 \]

Since the observed Chi square (4.742) is not greater than the table's Chi square (5.99), \( H_0 \) is not rejected. So, educational level does not moderate the relationship between employees' job burnout and job satisfaction.

\( H_8 \): correlation coefficient between job burnout and job satisfaction was calculated while age as young= 1, middle-age= 2 and old= 3. Calculations indicate that:

\[ r_1 = 0.495 \quad r_2 = 0.267 \quad r_3 = 0.381 \]

Then \( Z_{r1} \), \( Z_{r2} \) and \( Z_{r3} \) were computed and weighted \( Z_0 \) was calculated. Chi square statistic was compared to table's Chi square.

\[ Z_{r1} = 0.495 \quad Z_{r2} = 0.273 \quad Z_{r3} = 0.401 \quad Z_0 = 0.429 \]

\[ \chi^2 = 0.933 \]

Since the observed Chi square (0.933) is not greater than the table's Chi square (5.99), \( H_0 \) is not rejected. So, it is obvious that age does not moderate the relationship between employees' job burnout and job satisfaction.

\( H_9 \), \( H_{10} \), \( H_{11} \) and \( H_{12} \): to study the moderating role of demographic variables in explaining the relationship between job burnout and employees' intention to leave, we can also use Subgroup Analysis technique. Before starting the computations, we found that the significance of correlation between job burnout and intention to leave is 0.102 which shows that it is not possible to reject \( H_0 \). Therefore, one cannot claim the existence of a correlation between job burnout and employees' intention to leave. Consequently, it is not necessary to test the impacts by moderators. So, \( H_9 \), \( H_{10} \), \( H_{11} \) and \( H_{12} \) are all rejected.
Research Findings

The purpose of the present study was to identify the impact of job burnout on organizational commitment, job satisfaction and intention to leave by considering the moderating impacts of demographic variables including age, gender, marital status and educational level among the employees of an Iranian public company. The findings are: employees' job burnout leads to their organizational commitment and job satisfaction mitigation. On the other hand, job burnout leads into increase in employees' intention to leave. Studying the role of demographic variables as moderators of relationship between job burnout and organizational consequences, shows that variables of age, gender, marital status and educational level do not influence (moderate) on the relationship between job burnout and organizational commitment, job satisfaction and intention to leave.

Conclusion

Obtained validity and reliability by Maslach's questionnaire show that mentioned questionnaire is a proper measuring tool to study the rate of job burnout among organizational members. The results of statistical tests also indicate the significant impacts of job burnout on employees' organizational commitment, job satisfaction and intention to leave. However, the role of demographic variables as moderators of relationship between job burnout and organizational consequences was fully rejected. It is in contrast to some of the previous researches. For example, Maslach et al. (2001) and Russell et al. (1987) found a significant relationship between demographic variables and job burnout (Maslach et al., 2001; Russell et al., 1987). On the other hand, the findings of some researchers are similar to the present findings. For instance, Dillon and Tanner (1995) and Freidman and Farber (1992) did not report a significant relationship between demographic variables and job burnout (Dillon & Tanner, 1995; Freidman & Farber, 1992). Hence, it is recommended to increase the sample size in future researches and to test the role of demographic variables in clarifying the relationship between job burnout and organizational consequences in various industries and organizations. It is possible to influence on employees' organizational commitment, job satisfaction and intention to leave variables in Iranian public organizations if one tries to decrease job burnout through making proper decisions and implementing scientific and effective interventions. Common interventions to decrease job burnout involve a broad scope. Such intervention can enjoy individual orientation, organizational orientation or their combination. Among individual interventions one can
point out improving job competencies and increasing individual skills, social support or relaxation exercises. There are diverse organizational interventions such as reorganization, increasing the control on job and involving personnel in decision-makings. Establishing job advisory plans in organizations is among the most productive approaches to decrease job burnout (Gorter et al., 2001).

Obviously, the negative consequences of job burnout are too costly for organizations. As mentioned before, job burnout encompasses a wide scope including productivity mitigation, organizational commitment decrease, turnover and absenteeism, morale reduction and job satisfaction mitigation. Therefore, it is necessary to control this phenomenon in organizations seriously and to devise proper plans to decrease its consequences.
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آیا متغیرهای جمعیت‌شناسی بایندی میان تحلیل رفتگی شغلی و بیاندهای آنها تغییر می‌کند؟

حسن زارعی متنین، نادر سیدکلاته، محمدرضا اخوان انواری

چکیده

تکنیک مطالعات بسیاری برای پی بردن به ابعاد گوناگون تحلیل رفتگی انجام شده است.

هدف پژوهش حاضر بررسی تأثیر تعیین متغیرهای جمعیت‌شناسی بر رابطه میان تحلیل رفتگی شغلی و بیاندهای آن در میان کارکنان شرکتی در بخش دولتی ایران می‌باشد. در این پژوهش، تحلیل رفتگی شغلی به عنوان متغیر مستقل و تعدادی از متغیرهای تعیین‌کننده به ترتیب: ویژگی‌های اجتماعی، اقتصادی، و سیاسی و سطح تخصصی و عضویت در توبنده از نگاه نظر کیفیتی نشان داد.

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