

Is workaholism antecedent of Burn out?

< Hamidizadeh, Ali >¹, < Koolivand, Hasan >², < Hajkarimi, Fatemeh >³

¹ Assistant Professor, Faculty of Management,
Farabi Campus, University of Tehran, Iran
Hamidizadeh@ut.ac.ir

² MA, Management, Master of Khatamolanbia University, Iran
koolivandhasan@yahoo.com

³ MA, Management, Human resource expert
Qom electrical power distribution company, Qom province, Iran
Hoda_karimi_64@yahoo.com

Abstract: The main purpose of this research is explaining workaholism in role of antecedent of burn out. For this 77 faculty members of Qom universities selected in random sampling method. Workaholism and burn out (consisted from three components: Emotional exhaustion, Personal accomplishment and Depersonalization) are variables of research. In measuring workaholism questionnaire of Spence and Robbins is used and For measuring burn out, Maslach burnout inventory-general scale (MBI-GS) is used. To analyze causal relationships between constructs, the structural equation modeling (SEM) approach with Warp pls 3.0 software, is adopted. According to obtained results, Workaholism is significantly linked to Emotional exhaustion, Personal accomplishment and Depersonalization. Therefore it can be considered as antecedent of components of burn out

Keywords: Emotional exhaustion, Personal accomplishment, Depersonalization, burn out, workaholism

1. Introduction

The research community is beginning to respond to the needs of individuals, organizations, society [1] and Burn out is a serious problem in today's society as is reflected not only in problems at work, such as an increase in sick leaves and absenteeism [2], but also in mental health problems [3]. High employee burnout may lead to negative organizational outcomes, such as job dissatisfaction [4], low organizational commitment [5], low job performance [6], and increased employee turnover [7]. Not surprisingly, a substantial amount of research has been carried out on the antecedents and consequences of burn out [8,9,10]. About any phenomena, if we could identify antecedents then we could manage it. Andersson [11] mentions that burnout has been suggested as a potential consequence of "workaholism". Workaholism is generally described as a tendency to work excessively hard [12],[13], and is marked by being obsessed with work and unwillingness to disengage from work (i.e. psychological dependence on work) [14],[15]. Workaholics have an extremely powerful desire to achieve [16],[17], and hence are unable to resist a compulsive need to work [18]. In pursuit of achievement, workaholics expend a lot of energy on work without sufficient recovery [19],[20]. The most obvious characteristic of workaholics is an addiction to work, meaning that they tend to work harder than is required and reject other life contexts [21]. Berglass [22] found workaholics' lack of the capacity or willingness to engage in intimacy with others (i.e. a propensity to social pessimism).

Thus, focusing on work may serve as an excuse to avoid participating in social functions at work. As a consequence they have poor relationship quality [23], and poor life satisfaction [24],[25]. Workaholism with these consequences can lead to burn out?

2. Literature Review

2.1 Workaholism

The term "workaholic", coined by Oates [26], refers to people whose need to work has become so exaggerated that it may constitute a danger to their health, personal happiness, interpersonal relations and social functioning.

In contemporary modern English "-holic" is a suffix that can be added to a subject to denote an addiction to it. The term is derived from alcoholism, one of the first addictions to be widely identified both medically and socially. It should be noted that the word alcoholism is broken up into the root, "alcohol", and the suffix "-ism", not "alco" and "-holism". The suffix "-holism" is truly a new invention, having taken the syllable hol directly from the root word.

The term "-holism" is not an accepted medical term, but is a fairly prominent neologism. As such, despite its widespread usage, it lacks a formal definition. The term can be used in many ways ranging from describing a physical or psychological dependency to something (e.g. sexaholism), to a tendency to do something obsessively (e.g. workaholism, shopaholism).

Workaholism has been differentially defined and classified in the literature. Four distinguishing aspects are whether [27]:

1. It is defined behaviorally [28],[29] or attitudinally [30];
2. It is considered to be an addiction [26],[29];
3. It is viewed positively [31] or negatively [26],[29]; and
4. It is recognized as having different types with various antecedents and outcomes [28],[30],[32].

Fassel [33] defines workaholism as pathology. She suggests that ‘workaholism is a progressive, fatal disease in which a person is addicted to the process of working’. She suggests that due to the addiction, the person’s personal life becomes unmanageable in relation to work. This ‘fatal disease’ perspective, though, seems rather drastic [34]. While this definition can alert people to the seriousness of workaholism and therefore invite attention to the topic, it can also promote denial from workaholics themselves. Many victims may resist being classified as ‘diseased,’ especially if the disease has a strong ‘mental health’ component.

Unlike Fassel’s [33] emphasis on addiction and progression, Spence and Robbins’ [30] definition focuses more on the roots of workaholism. In fact, their definition is the one most often cited in the literature [35],[36]. They suggest that workaholism consists of the dimensions of enjoyment of work, inner drive to work, and work involvement. However, the factor structure of these three dimensions has not been fully replicated in empirical studies[33],[35]. In addition, as we discuss in more detail below, there is an important distinction to be drawn between enjoyment of work and enjoyment of working. Overall, Spence and Robbins’ definition promotes a multi-dimensional perspective of workaholism, even though there is still disagreement with regard to the validity of the specific content dimensions they propose.

Some researchers have attempted to integrate the literature by developing typologies of different types of workaholics. Unfortunately, some of these typologies are largely a theoretical because the processes by which they were generated are unspecified or unable to be replicated. For instance, some researchers [26],[32] argue that there are different types of workaholics, but the underlying theoretical dimensions used to differentiate among types of workaholics are neither transparent nor explicitly addressed. Some other typologies of workaholics do have stronger theoretical rationales because the authors create the typologies based on elements of workaholism suggested in the literature, such as work involvement and enjoyment [28],[30],[37].

Most of the research on the consequences of workaholism has focused on its negative side [38],[39]. Burke [36] observes that ‘these writers . . . depict workaholics as unhappy, obsessive, tragic figures who were not performing their jobs well and were creating difficulties for their coworkers’. Not surprisingly, some have suggested that workaholism is a clinical problem that requires professional assistance [37],[40],[41]. Other writers are more sanguine about workaholism, suggesting that it might sometimes be beneficial for individuals or organizations [31],[42]. Snir and Harpaz [43] showed the three main alternative views concerning workaholism (the positive view, the negative view and the posited existence of different types of workaholism).

Table 1: The main alternative views concerning workaholism

Workaholism as a positive phenomenon	Workaholism as a negative phenomenon	Existence of different types of workaholics
Workaholism as derived from the love of work [30]	Workaholism as irrational commitment to excessive work [44]	Job-involved, compulsive [37]
Workaholism as an intrinsic desire to work long and hard [31]	Workaholism as an addiction [26],[38],[40],[45]	Workaholic, enthusiastic workaholic [work enthusiast not regarded as a workaholic] [30]
		Compulsive-dependent, Perfectionist, Achievement-oriented [28]

Some researchers have proposed the existence of different types of workaholic behavior patterns, each having potentially different antecedents and associations with job performance, work and life outcomes [28],[30],[37]. Naughton [37] presents a typology of workaholism based on the dimensions of career commitment and on obsessive-compulsive tendencies. Job-involved workaholics (high work commitment, low obsession-compulsion) are hypothesized to perform well in demanding jobs and be highly job satisfied, with low interest in non-work activities. Compulsive workaholics (high work commitment, high obsession-compulsion) are hypothesized to be potentially poor performers (staff problems resulting from impatience and ritualized work habits).

Spence and Robbins [30] define workaholism based on their notion of a "workaholic triad". The workaholic triad consists of three properties:

1. Work involvement,
2. A feeling of being driven to work,
3. Work enjoyment.

Workaholics score high on work involvement and on feelings of being driven to work and low on work enjoyment. In contrast, work enthusiasts score high on work involvement and work enjoyment, and low on the compulsion to work [30]. Enthusiastic workaholics score high on all three components. In their research, workaholics were found to score higher than work enthusiasts on measures of perfectionism, nondelegation of responsibility, and job stress. They also scored higher on a measure of health complaints [30].

Scott, Moore, and Miceli [28] identify three types of workaholism patterns:

1. Compulsive-dependent
2. Perfectionist
3. Achievement-oriented

They suggest that compulsive-dependent workaholism is positively related to levels of anxiety, stress, and physical and

psychological problems, and negatively related to job performance, job and life satisfaction. Perfectionist workaholism (when there are inadequate opportunities for the workaholic to gain control) is supposed to be positively related to levels of stress, physical and psychological problems, hostile interpersonal relationships, as well as voluntary turnover and absenteeism. It is also supposed to be negatively related to job satisfaction and performance (when the job requires overview and perspective). Finally, achievement-oriented workaholism is positively related to job and life satisfaction (when there are organizational rewards for achievement and personal demands are low), physical and psychological health, job performance, and pro-social behavior. It is also supposed to be negatively related to stress and voluntary turnover (when there are organizational rewards for achievement) [28].

Kanai et al. [35], for example, classified two “workaholic” subgroups including only the Drive and Enjoyment of Work subscales. The Drive and Enjoyment of Work subscales were divided into high scores and low scores at the midpoint of each subscale, and thereafter used to identify: workaholics, high in Drive and low in Enjoyment of Work and work enthusiasts, high in Drive and Enjoyment of Work [46].

Robinson [29] defining dimensions of workaholic: level of work initiation and work completion. He identifies types of workaholism patterns:

1. Relentless workaholic (high initiator of work, high in work completion, work compulsively and constantly in work and non-work times, no down times, hurried and relentless in meeting deadlines and often ahead of schedule),
2. Bulimic workaholic (low initiator of work, high in work completion, Vacillating work patterns from binging to purging),
3. Attention deficit workaholic (high initiator of work, low in work completion, adrenaline-seeking, easily bored, constantly seeks stimulation, difficulty in staying task focused)
4. Savoring workaholic (low initiator of work, low in work completion, slow, deliberate and methodical, method-oriented rather than results-oriented, savours work so prolongs and creates extra work when projects nearly finished, detail-oriented impedes ability to initiate and complete work) .

2.2. Burn Out

Burnout is essentially a dislocation between what a person wants to do and what that person has to do; in other words, burnout arises when there is significant disharmony between the nature of a person’s job and the nature of the person doing the job [47]. Burnout is thus not a personal problem; rather, it is a social/environmental problem related to a person’s occupation. Burn out is prolonged job stress, ie. demands in the workplace that tax or exceed an individual’s resources. Referring to Selye’s adaption syndrome explanation of stress, Etzion argue that burn out is a latent process of psychological erosion resulting from prolonged exposure to job stress [48]. Burn-out is a costly and distressing phenomenon, which damages both individuals and organizations. Employees feel undervalued and

frustrated, the quality of their work deteriorates, and ultimately they may leave the organization. If companies could recognize the signs and causes of burn-out, it might be possible to intervene to prevent it. Recent research has identified some factors which might be involved and offers some practical steps to prevent the loss of valuable staff through burn-out. Kuruuzum et al., [49] stated that Burnout is especially prevalent in occupations that entail face-to-face contacts with people. The phenomenon thus has serious consequences in the service professions [50]. Frequently cited examples of important service-sector workers in whom burnout is relatively common include nurses [51], social workers [52], and educators [53]. The sequela to burn out can include: diminished job performance; desire to leave a job; absenteeism; marital and familial disharmony; diminished self-esteem; difficulties in concentration; social isolation; adverse physical symptoms (sleep disorders, headache, and so on); alcohol and drug abuse; and psychological disorders (such as anger, depression, anxiety, and apathy) [54],[55],[56],[57]. Empirical evidence shows that burn out can result in negative outcomes at various levels including individual, organizational and service level. At the individual level, burn out can result in various negative physical and mental health problems. Emotional consequences include conflict and deterioration of marital, family and social relationships. At the organizational level, it may result in decreased organizational commitment and job satisfaction. Nurses tend to display high turnover and absenteeism, tendencies to withdraw from patients and take long breaks including overall decreases in the quality and quantity of job performance. Hus the organization suffers in wasted resources and decreased productivity. At the service level, research indicates that burn out can lead to deterioration in the quality of care or service of patients [58]. Maslach and Jackson [59] found that several negative health and life issues can occur as a result of job burnout. These issues include increased reports of personal distress, such as physical exhaustion, trouble sleeping, alcohol and drug use, and marital and family problems. Kuruu`zu`m et al., [49] point out, Scholarly reviews of the evolution of the concept of burnout have been undertaken by various authors [60],[61]. Initial studies on burnout were exploratory and qualitative [59],[62],[63]. recent studies have shifted to quantitative methodologies with the objective of developing standardized measures of burnout [64],[65],[66] and the latest studies have focused on the antecedents and consequences of burnout in various professions [67],[68],[68],[70]. The negative consequences of stress can include headaches, ulcers, illnesses, or other physical disabilities. Maslach and Jackson [59] separated the consequences of stress into three dimensions of burnout:

- (1) Emotional exhaustion (EE).
- (2) Depersonalization (DP).
- (3) Personal accomplishment (PA).

The first of these, emotional exhaustion, is associated with low levels of energy and the feeling of being drained. This situation brings tension and frustration as workers are unable to carry out their occupational tasks and gradually lose their usual sense of responsibility towards clients and customers. The second dimension, depersonalization, is characterized by negative and inappropriate attitudes towards customers, frustration, loss of idealism, and withdrawal. A distinctive feature of depersonalization is a perception of customers as

objects, rather than persons. The third dimension, reduced personal accomplishment, is characterized by a loss of efficiency and capability, low morale, and inability to cope [46].

2.3. Workaholism and Burn out

Schaufeli et al. [7] concluded that burnout, engagement and workaholism are three different kinds of employee well-being. Burnout and engagement were negatively correlated while burnout and workaholism were positively correlated in a sample of 587 highly educated and experienced managers in a Dutch telecom company. Workaholism, to them, was the root cause of burnout. Not surprisingly, workaholism overlapped considerably with absorption (one of the engagement scales) but not with the two other engagement scales [71].

It is mentioned that Burnout has been suggested as a potential consequence of “workaholism” [11],[24],[28],[45],[72]. “Work engagement” has been defined as a direct opposite of burn out and is characterized by energy, involvement, and efficiency [73], and as a relatively stable condition characterized by vigor, dedication, and absorption [74].

Burke examines the prediction of job satisfaction, burnout and health complaints by personal demographic characteristics, work situation characteristics, personality factors, workaholism components according to Spence and Robbins’ [30] triad model, and organizational life factors. Data were gathered from 496 nursing-home employees in Norway. Workaholism components accounted for more variance than did the other blocks of predictors only on job satisfaction. Also, respondents scoring higher on work enjoyment not surprisingly reported more job satisfaction, while those scoring higher on feeling driven to work indicated more burnout. None of the workaholism components had an independent and significant relationship with subjective health complaints. This is quite intriguing, since according to past research the drive component of workaholism appears to be consistently and positively related to health complaints [13].

Salmela-Aro and Nurmi mention that work overload and pressure time have been shown to be the major antecedents of burnout, particularly of the emotional exhaustion and depersonalization components [75]. Maslach and Leiter [73] argued recently that burnout is due to a prolonged mismatch in the job-person relationship. It occurs when work overload is associated with a lack of personal control, insufficient reward, the absence of fairness, breakdown in the working community, or conflicting values.

With regard to the literature mentioned, the research model is as follows:

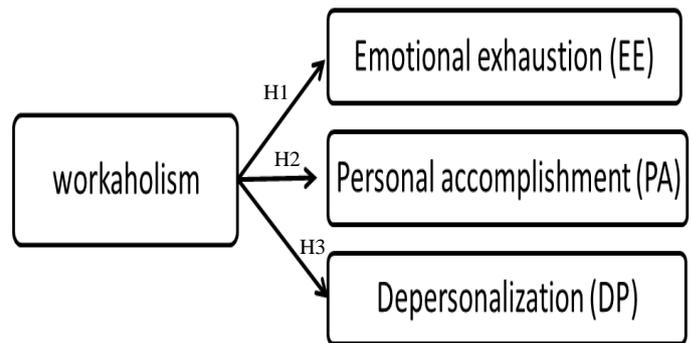


Figure 1: research model

The following hypotheses is proposed to be tested in this study to draw meaningful conclusions about role of workaholism in resulting burn out.

- H1: Workaholism is result in Emotional exhaustion
- H2: Workaholism is result in Personal accomplishment
- H3: Workaholism is result in Depersonalization

3. Research Method

Research methods can be classified based on two criteria: the purpose of the research and the way the data is gathered. Accordingly, the present study is applied with regard to purpose and descriptive-survey considering data collection. Faculty members of universities of Qom city, formed the participants of this study. a sample of 77 faculty members was selected in the current study using random sampling method. In measuring variables, for workaholism is used Spence and Robbins [30] questionnaire. They derived three components on the basis of an extensive literature review: work involvement, feeling driven to work and work enjoyment. Their measures were used in this study. Work involvement ($\alpha = .908$) had eight items (e.g., “I get bored and restless on vacations when I haven’t anything productive to do”). Feeling driven to work ($\alpha = .906$) had seven items (e.g., “I often feel that there’s something inside me that drives me to work hard”). Work enjoyment ($\alpha = .848$) had seven items (e.g., “My job is more like fun than work”) (22 items, $\alpha = 0.956$). For measuring burn out, Maslach burnout inventory-general scale (MBI-GS) is used. This questionnaire was constructed to measure three components of “burnout syndrome” [75]. Burnout was measured on a continuum from engaged to burned out. The questionnaire measures three dimensions of burnout; Emotional exhaustion (EE) ($\alpha = 0.912$) had nine items (e.g., “I feel emotionally drained from my work”) is related to the work demands, ambiguous directives and time pressure, and is a reflection that the employees feel drained of physical and psychological energy. Depersonalization (DP) ($\alpha = 0.841$) had five items (e.g., “I worry that this job is hardening me”) is the dimension that reflects an indifferent or distanced attitude toward work, and can also be an expression of lack of enthusiasm. Personal accomplishment (PA) ($\alpha = 0.918$) had eight items (e.g., “PA/I feel exhilarated after working closely”) is the dimension that aims to capture the individual expectations about mastery in work. Burnout was defined by high scores on the two first

dimensions (EE & DP) and low score on the PA dimension [76] (22 items, $\alpha = 0.953$). All the items mentioned above are measured by a five-point Likert-type scale ranging from ‘strongly agree’ (=5) to ‘strongly disagree’ (=1). gathered data is analyzed by pls-smart software.

4. Result

To analyze causal relationships between constructs used in the study, the structural equation modeling (SEM) approach was adopted. Structural equation modelling is a statistical technique used for testing and estimating causal relationships based on statistical data and qualitative causal assumptions. The SEM technique can be divided into two parts. The measurement model is the part which relates measured indicators to latent variables. The structural model is the part that relates latent variables among one another. The estimation of the model requires calculating of the parameters related to both measurement model and structural model using appropriate estimation methods. Analysis of the research model was done using the Partial Least Square (PLS) based software, Warp PLS 3.0. The choice of Partial Least Square Analysis was justified on two counts. The first was that PLS can accommodate both reflective and formative scales easily, compared to covariance structure analysis. The second aspect was that PLS does not require any a priori distributional assumptions and a relatively small sample size is acceptable [77]. The major features of Warp PLS 3.0 include model fit indices, ‘p’ values for path coefficient and latent variable coefficients to assess reliability and validity considerations. Warp PLS 3.0 evaluates both measurement model as well as structural model simultaneously. The PLS regression algorithm with boot strapping method of re-sampling was used for estimation of the model that maximises the variance explained in the latent variable scores by the latent variable indicators. The estimates included path coefficients with ‘p’ values, indicators' weights, loadings, and factor scores [78].

The validity and reliability criteria vary depending on the nature of the construct. The guidelines are shown in Table 2. For evaluation of measurement indicators, the loading/weights of the indicators should be more than 0.5 and the corresponding ‘p’ should be less than 0.01 after estimation.

Table 2. Validity/reliability criteria adopted in this study

Consideration	Guideline (WarpPLS 3.0)	
	Reflective constructs	Formative constructs
1 Cronbach alpha coefficient	>0.7	NA
2 Composite reliability	>0.7	NA

3	Average variance extracted	>0.5	>0.5
4	Convergent validity	p values associated with the loadings be lower than 0.05; and that the loadings be equal to or greater than 0.5; cross loading less than 0.5	VIF<5:all indicator weights should be with $p < 0.05$
5	Discriminant validity	The square root of the average variance extracted should be higher than any of the correlations involving that latent variable	The square root of the average variance extracted should be higher than any of the correlations involving that latent variable
6	Effect sizes of path coefficient	Effect sizes (f-squared) of 0.02, 0.15, and 0.35, respectively for small, medium, or large effect.	
7	Predictive validity	Positive higher value of Stone-Geisser Q-squared coefficients	

The pre-processing of data as part of Warp PLS 3.0 analysis confirmed the quality of data for further analysis with regard to missing values, zero variance and so on. The estimated model with path coefficients and corresponding ‘p’ values are illustrated in Fig. 2 .The validity of the model was evaluated with various fit indices. It was recommended that the ‘p’ values for both the average path coefficient (APC) and the average R-squared (ARS) be lower than 0.05. In addition, it was recommended that the average variance inflation factor (AVIF) be lower than 5 [79].It was found that all three fit criteria were met and the model had an acceptable predictive and explanatory quality as the data was well represented by the model.

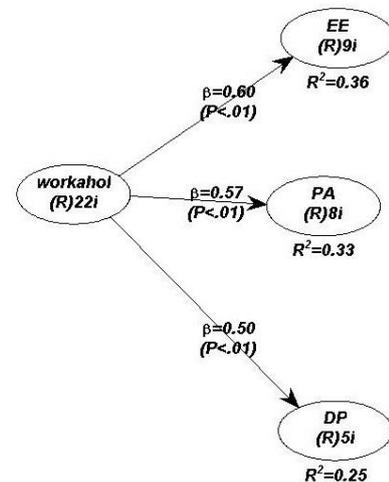


Figure 2. Estimated model.

All the factor loadings of the reflective indicators were found to be more than 0.5 with ' p ' < 0.01. The formative indicators were with VIF < 5 and ' p ' < 0.01. The composite reliability, Cronbach alpha and average variance extracted (AVE) were above the threshold limits. The model emerged as one with satisfactory value for R-squared and Q-squared being indicators for predictive validity. The square root of AVE for all constructs was found to be more than any of the correlations involving that latent variable. All these observations confirmed the reliability and validity of the constructs making it suitable to draw conclusions on causality (Table 3).

Table 3: Details of critical considerations regarding validity

S. no	Construct	EE	PA	DP	Workaholism
	Criterion				
1	Cronbach alpha coefficient	0.912	0.918	0.841	0.956
2	Composite reliability	0.928	0.934	0.897	0.96
3	Average variance extracted	0.59	0.639	0.627	0.527
4	Full Collinearity VIF	4.407	4.5	1.608	1.565
5	Effect sizes of Path Coefficient (for paths ending at 'workaholism' Construct)	0.6	0.573	0.496	na
6	Convergent validity	Established as 1. all ' p ' values < 0.05; loadings > 0.5; cross loadings < 0.5 for reflective measures 2. VIF < 5; ' p ' values < 0.05 for indicator weights of formative measures			
7	Discriminant validity	Established as square root of average variance extracted was found higher than any of the correlations involving that variable			
8	Predictive validity	Established a Q-squared coefficient of "EE" construct was obtained as 0.360			

5. Discussion and Conclusions

In confronting burn out construct, there is two approach. In one approach, It has been suggested that the items assessing the three components of burnout can be summed to form an overall measure of burnout [80]. Golembiewski and Munzenrider found that a total burnout score covaried significantly and in expected directions with a variety of variables hypothesized to be important aspects of the worksite. But in other approach Maslach, has argued against viewing burnout as a unitary concept. Empirical evidence supports the idea that emotional exhaustion, depersonalization, and personal accomplishment are conceptually distinct components [59],[81]. some variables

are differentially correlated, or even uncorrelated, with each of the three components, although findings have not been highly consistent. Further, if other variables are differentially associated with burnout components, then it is plausible that intervention strategies would also be differentially effective, depending on the particular burnout component that is being addressed. Thus, an overall measure of burnout results in a loss of information. In this research second approach is considered and relationship between workaholic and components of burn out is studied.

In this study out of three hypotheses tested using structural equation modelling, all were found significant. The significant observations from the analysis are:

- Workaholism is significantly linked to Emotional exhaustion, Personal accomplishment and Depersonalization. Therefore it can be considered as antecedent of components of burn out
- Among components of burn out, workaholism appear to be a strongest predictor for Emotional exhaustion ($\beta = 0.6$)
- All the indicators used to measure the various constructs used in the study were found relevant as corresponding ' p ' values after estimation were found to be less than 0.05.

As a whole, results in this study confirm previous research [7],[11],[24],[28],[45],[72] and Burn out can be considered as a potential consequence of workaholism. The study is restricted to a specific geographic area (faculty members of Qom city), and therefore extrapolating the results to all of faculty members may prove to be insignificant.

Finally, in organizational world particularly in modern age in which organizations have become more complicated and their running has become more difficult due to improvements in sciences and industries [82] it seems rational to create an opportunity for a competitive advantage [83] by managing the human resources. Considering topics alike burn out and workaholism can guarantee safety human resources in organization.

References

- 1- Gholipour, R., Jandaghi, G., Hamidzadeh, A., Ahmadi, M. (2010). Studying the Trends of Policy Research in Policymaking Environment (A Case Study in Research Center, Iranian Parliament). *European Journal of Social Sciences*, 12 (4), 526-537
- 2- Leiter, M. and Maslach, C. (2000), "Burnout and health", in Baum, A., Revenson, T. and Singer, J. (Eds), *Handbook of Health Psychology*, Lawrence Erlbaum, Hillsdale, NJ.
- 3- Leiter, M. and Maslach, C. (1998), "Burnout", in Friedman, H. (Ed.), *Encyclopedia of Mental Health*, Academic Press, San Diego, CA.
- 4- Ybema, J. F., Smulders, P. G. W., & Bongers, P. M. (2010). Antecedents and consequences of employee absenteeism: a longitudinal perspective on the role of job satisfaction and burnout. *European Journal of Work and Organizational Psychology*, 19, 102e124.
- 5- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, 43, 495e513.
- 6- Babakus, E., Yavas, U., & Ashill, N. J. (2009). The role of customer orientation as a moderator of the job

demand burnout performance relationship: a surface level trait perspective. *Journal of Retailing*, 85, 480-492.

7- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organizational Behavior*, 25, 293-315.

8- Corder, C. and Dougherts, T. (1993), "A review and an integration of research on job burnout", *Academy of Management Review*, Vol. 18, pp. 621-56.

9- Maslach, C. (1993), "Burnout: a multidimensional perspective", in Schaufeli, W. and Maslach, C. (Eds), *Professional Burnout: Recent Developments in Theory and Research*, Series in Applied Psychology: Social Issues and Questions, Taylor and Francis, Philadelphia, PA, pp. 19-32.

10- Maslach, C., Leiter, M. and Schaufeli, W. (2001), "Job burnout", *Annual Review of Psychology*, Vol. 52, pp. 397-422.

11- Anderssen, C.S., Ursin, H. & Eriksen, H.R., (2007), "The relationship between strong motivation to work, "workaholism", and health", *Psychology and Health*, Vol. 22, No. 5, pp. 615-629.

12- Oates, W. E. (1968). On being a workaholic. *Pastoral Psychology*, 19(8), 16-20. <http://dx.doi.org/10.1007/BF01785472>

13- McMillan, L. H. W., O'Driscoll, M. P., Marsh, N. V., & Brady, E. C. (2001). Understanding workaholism: Data synthesis, theoretical critique, and future design strategies. *International Journal of Stress Management*, 8(2), 69-91. <http://link.springer.com/article/10.1023/A%3A1009573129142#page-1> (accessed 15.12.12)

14- McMillan, L. H. W., & O'Driscoll, M. P. (2004). Workaholism and health: Implications for organizations. *Journal of Organizational Change Management*, 17, 509-519. <http://dx.doi.org/10.1108/09534810410554515>

15- Shimazu, A. W. B., & Schaufeli, W. B. (2009). Is workaholism good or bad for employee well-being? The distinctiveness of workaholism and work engagement among Japanese employees. *Industrial Health*, 47(5), 495-502. <http://www.ncbi.nlm.nih.gov/pubmed/19834258> (accessed 15.01.13)

16- Mudrack, P. E. (2006). Understanding workaholism: the case of behavioral tendencies. In R. Burke (Ed.), *Research companion to working time and work addiction* (pp. 108-128). Cheltenham, UK: Edward Elgar. [http://scholar.google.fi/scholar?hl=en&q=Mudrack+2006&btnG=&as_sdt=1%2C5&as_sdtp=\(](http://scholar.google.fi/scholar?hl=en&q=Mudrack+2006&btnG=&as_sdt=1%2C5&as_sdtp=() (accessed 15.12.12)

17- Mudrack, P. E., & Naughton, T. J. (2001). The assessment of workaholism as behavioral tendencies: Scale development and preliminary empirical testing. *International Journal of Stress Management*, 8(2), 93-111. <http://link.springer.com/article/10.1023/A%3A1009525213213#page-1>

18- Taris, T. W., Schaufeli, W. B., & Shimazu, A. (2010). The push and pull of work: the differences between workaholism and work engagement. In A. B. Bakker, & M. P. Leiter (Eds.), *Work engagement: a handbook of essential theory and research* (pp. 39-53). New York: Psychology Press.

19- Sonnentag, S., & Zijlstra, F. R. H. (2006). Job characteristics and off-job activities as predictors of need for recovery, well-being, and fatigue. *The Journal of Applied Psychology*, 91(2), 330-350. <http://dx.doi.org/10.1037/0021-9010.91.2.330>

20- Porter, G. (2001). Workaholic tendencies and the high potential for stress among co-workers. *International Journal of Stress Management*, 8(2), 147-164. <http://sfx.nelliportaali.fi/nelli09b?sid=google&auunit=G&aust=Porter&atitle=Workaholic+tendencies+and+the+high+potential+for+stress+among+co-workers.&id=doi:10.1023/A:1009581330960> (accessed 15.01.13)

21- Schaufeli, W. B., Taris, T. W., & Bakker, A. B. (2008). It takes two to tango. Workaholism is working excessively and working compulsively. In R.J. Burke, & C. L. Cooper (Eds.), *The long working hours culture: causes, consequences and choices* (pp. 203-226). UK: Emerald Group Publishing. http://www.google.fi/books?hl=en&lr=&id=AJXnY9lqYvoC&oi=fnd&pg=PA203&dq=Schaufeli+Taris+Bakker+2008&ots=ovHxoU4u9N&sig=QDkYio9mHTNz-ibJSLb3PNTd5v4&redir_esc=y#v=onepage&q=Schaufeli%20Taris%20Bakker%202008&f=false (accessed 21.01.13)

22- Berglass, S. (2013). Treating workaholism. In R. H. Coombs (Ed.), *Handbook of addictive disorders: a practical guide to diagnosis and treatment* (pp. 383-407). Hoboken, NJ: John Wiley & Sons.

23- Bakker, A. B., Demerouti, E., & Burke, R. (2009). Workaholism and relationship quality: A spillover-crossover perspective. *Journal of Occupational Health Psychology*, 14, 23-33

24- Taris, T. W., Schaufeli, W. B., & Verhoeven, L. C. (2005). Workaholism in the Netherlands: Measurement and Implications for Job Strain and Work-Nonwork Conflict. *Applied Psychology*, 54(1), 37-60.

25- Innanen, Hely, Tolvanen, Asko, Salmela-Aro, Katariina. (2014) Burnout, work engagement and workaholism among highly educated employees: Profiles, antecedents and outcomes. *Burnout Research*, Volume 1, Issue 1, Pages 38-49

26- Oates, W. A. (1971), "Confessions of a Workaholic", New York: World.

27- Evan J.D., Morris R. J. (2006), "Workaholic, or just hard worker?", *Career Development International*, Vol. 11, No. 5, pp: 394-417.

28- Scott, K.S, Moore, K.S, Miceli, M.P (1997), "An exploration of the meaning and consequences of workaholism", *Human Relations*, Vol. 50 pp.287-314.

29- Robinson, B.E. (2000), "A typology of workaholics with implications for counselors", *Journal of Addiction & Offender Counseling*, Vol. 21 No.1, pp.34-48.

30- Spence, J. T. & Robbins, A. S. (1992). Workaholism: Definition, measurement, and preliminary results. *Journal of Personality Assessment*, 58, 160-178.

31- Machlowitz, M. (1980). *Workaholics: Living with them, working with them*. Reading, MA: Addison-Wesley.

32- McMillan, L.H.W., O'Driscoll, M.P., Marsh, N.V. and Brady, E.C. (2001), "Understanding workaholism: data synthesis, theoretical critique and future design strategies", *International Journal of Stress Management*, Vol. 8 No. 2, pp. 69-91.

33- Fassel, D. (1990). *Working ourselves to death: The high costs of workaholism, the rewards of recovery*. San Francisco, CA: Harper Collins.

34- Thombs, D. L. (1994). *Introduction to addictive behaviors*. New York: The Guilford Press.

- 35- Kanai, A., Wakabayashi, M. and Fling, S. (1996), "Workaholism among employees in Japanese corporations: an examination based on the Japanese version of the workaholism scales", *Japanese Psychological Research*, Vol. 38, pp. 192-203.
- 36- Burke, R.J. (2000), "Workaholism in organizations: concepts, results and future research directions", *International Journal of Management Reviews*, Vol. 2, pp. 1-16.
- 37- Naughton, T.J. (1987), "A conceptual view of workaholism and implications for career counseling and research", *Career Development Quarterly*, Vol. 35 pp.180-7.
- 38- Killinger, B. (1991), *Workaholics: The Respectable Addicts*, Simon and Schuster, New York, NY.
- 39- Schwarzer, R. (1992), *Self-Efficacy: Thought Control of Action*, Hemisphere, Washington, DC.
- 40- Robinson, B.E. (1998), *Chained to the Desk: A Guidebook for Workaholics, Their Partners and Children and the Clinicians Who Treat Them*, NYU Press, New York, NY.
- 41- Bonebright, C.A., Clay, D.L. and Ankemann, R.D. (2000), "The relationship of workaholism with work-life conflict, life satisfaction and purpose in life", *Journal of Counseling Psychology*, Vol. 47, pp. 469-77.
- 42- Burke, R. J. (2001). Workaholism components, job satisfaction, and career progress. *Journal of Applied Social Psychology*, 31, 2339-2356.
- 43- Snir, R. and Harpaz, I. (2004), "Attitudinal and demographic antecedents of workaholism", *Journal of Organizational Change Management*, Vol. 17, pp. 520-36.
- 44- Cherrington, D. (1980). *The work ethic: working values and values that work*. New York: AMACOM.
- 45- Porter, G. (1996). Organizational impact of workaholism: Suggestions for researching the negative outcomes of excessive work. *Journal of Occupational Health Psychology*, 1(1), 70-84
- 46- Burke, R. J., (2007). "Research Companion to Working Time and Work Addiction", Edward Elgar Publishing, p. 257.
- 47- Maslach, C. and Leiter, M.P. (2005), "Stress and burnout: the critical research", in Cooper, C.L. (Ed.), *Handbook of Stress Medicine and Health*, CRC Press, Lancaster, pp. 155-72.
- 48- Buick, I. and Thomas, M. (2001), "Why do middle managers in hotels burn out?" *International Journal of Contemporary Hospitality Management*, Vol. 13 No. 6, pp. 304-309.
- 49- Kuruu"zu"m, A. Anafarta, N and Irmak, S. (2008), "Predictors of burnout among middle managers in the Turkish hospitality industry", *International Journal of Contemporary Hospitality Management*, Vol. 20 No. 2, pp. 186-198.
- 50- Cannizzo, T.A. Jr and Liu, P. (1995), "The relationship between levels of perceived burnout and career stage among sworn police officers", *Police Studies*, Vol. 18 No. 3, pp. 53-68.
- 51- Happell, B., Martin, T. and Pinikahana, J. (2003), "Burnout and job satisfaction: a comparative study of psychiatric nurses from forensic and a mainstream mental health service", *International Journal of Mental Health Nursing*, Vol. 12, pp. 39-47.
- 52- Acker, G.M. (1999), "The impact of clients' mental illness on social workers' job satisfaction and burnout", *Health and Social Work*, Vol. 24 No. 2, pp. 112-19.
- 53- Chang, C.E., Rand, K.L. and Strunk, D.R. (2000), "Optimism and risk for job burnout among working college students: stress as a mediator", *Personality and Individual Differences*, Vol. 29, pp. 255-63.
- 54- Burke, R.J. and Deszca, E. (1986), "Correlates of psychological burnout phases among police officers", *Human Relations*, Vol. 39 No. 6, pp. 487-92.
- 55- Burke, R.J. and Greenglass, E.R. (2001), "Hospital restructuring and psychological burnout in nursing staff", *Equal Opportunities International*, Vol. 20 Nos 1/2, pp. 61-71.
- 56- Demir, A., Ulusoy, M. and Ulusoy, M.F. (2003), "Investigation of factors influencing burnout levels in the professional and private lives of nurses", *International Journal of Nursing Studies*, Vol. 40, pp. 807-27.
- 57- Lee, R.T. and Ashforth, B.E. (1993), "A further examination of managerial burnout: toward an integrated model", *Journal of Organizational Behavior*, Vol. 14 No. 1, pp. 3-20.
- 58- Komala, K. and Ganesh, L.S. (2007), "Individual Spirituality at work and its relationship with job satisfaction and Burn out: An Exploratory study among healthcare professionals", *The Business Review*, Cambridge, Vol. 7, No. 1, pp. 124-130.
- 59- Maslach, C. and Jackson, S.E. (1981), "The measurement of experienced burnout", *Journal of Occupational Behavior*, Vol. 2, pp. 99-113.
- 60- Ashforth, B.E. and Lee, R.T. (1997), "Burnout as a process: commentary on Cordes, Dougherty and Blum", *Journal of Organizational Behavior*, Vol. 18 No. 6, pp. 703-8.
- 61- Cordes, C.L., Dougherty, T.W. and Blum, M. (1997), "Patterns of burnout among Behaviour", Vol. 18 No. 6, pp. 685-701.
- 62- Leiter, M.P. and Maslach, C. (1988), "The impact of interpersonal environment on burnout and organizational commitment", *Journal of Organizational Behavior*, Vol. 9, pp. 297-308.
- 63- Seltzer, J. and Numerof, R.E. (1988), "Supervisory leadership and subordinate burnout", *The Academy of Management Journal*, Vol. 31 No. 2, pp. 439-46.
- 64- Gorter, R.C., Albrecht, G., Hoogstraten, J. and Eijkman, M.A.J. (1999), "Factorial validity of the Maslach Burnout Inventory – Dutch version (MBI-NL) among dentists", *Journal of Organizational Behavior*, Vol. 20, pp. 209-17.
- 65- Schaufeli, W.B. and van Dierendonck, D. (1993), "The construct validity of two turnout measures", *Journal of Organizational Behavior*, Vol. 14, pp. 631-47.
- 66- Shirom, A. and Ezrachi, Y. (2003), "On the discriminant validity of burnout, depression and anxiety: a re-examination of the burnout measure", *Anxiety, Stress and Coping*, Vol. 16 No. 1, pp. 83-97.
- 67- Burke, R.J. and Greenglass, E.R. (2001), "Hospital restructuring and psychological burnout in nursing staff", *Equal Opportunities International*, Vol. 20 Nos 1/2, pp. 61-71.
- 68- Low, G.S., Cravens, D.W., Grant, K. and Moncrief, W.C. (2001), "Antecedents and consequences of salesperson burnout", *European Journal of Marketing*, Vol. 35 Nos 5/6, pp. 587-611.
- 69- Ploeg, E. and Kleber, R.J. (2003), "Acute and chronic job stressors among ambulance personnel: predictors of

health symptoms”, *Occupational and Environmental Medicine*, Vol. 60, pp. 140-6.

70- Spear, J., Wood, L., Chawla, S., Devis, A. and Nelson, J. (2004), “Job satisfaction and burnout in mental health services for older people”, *Australasian Psychiatry*, Vol. 12 No. 1, pp. 58-61.

71- Burk, R.J., Burgess, Z., Fallen, B., (2006), "Workaholism among Australian female managers and professionals: Job behaviors, satisfactions and psychological health", *Equal Opportunities International*, Vol. 25 No. 3, pp. 200-213.

72- Lowman, R. L. (1993). *Counseling and psychotherapy of work dysfunctions*. Washington, DC: American Psychological Association.

73- Maslach, C. and Leiter, M.P. (1997), *The Truth about Burnout: How Organizations Cause Personal Stress and What to Do about It*, John Wiley & Sons, San Francisco, CA.

74- Schaufeli, W. B., Salanova, M., Gonzalez-Roma, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two-sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71–92.

75- Lee, R.T. and Ashforth, B.E. (1996), “A meta-analytic examination of the correlates of the three dimensions of job burnout”, *Journal of Applied Psychology*, Vol. 81, pp. 123-33.

76- Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *The Maslach Burnout Inventory (3rd ed.)*. Palo Alto, CA: Consulting Psychologists Press. All versions of the MBI, and the Manual, are now available at Mind Garden, mindgarden.com

77- Chin, W.W., Marcolin, B.L., Newsted, P.N,(2003) A partial least squares latent variable modeling approach for measuring interaction effects: results from a Monte Carlo simulation study and an electronic-mail emotion/adoption, study *Information Systems Research*, 14 (2), pp. 189–217

78- Rejikumar,G., (2013). A pre-launch exploration of customer acceptance of usage based vehicle insurance policy, *IIMB Management Review*, Volume 25, Issue 1, Pages 19-27

79- Kock, N., (2010) Using WarpPLS in e-collaboration studies: an overview of five main analysis steps,*International Journal of e-Collaboration*, 16 (4),pp. 1–11

80- Golembiewski, R. T., & Munzenrider, R. 1981. Efficacy of three versions of one burn-out measure: MBI as total score, sub-scale scores, or phases? *Journal of Health and Human Resources Administration*, 228-246.

81- Iwanicki, E. F., & Schwab, R. L. 1981. A cross-validation study of the Maslach Burnout Inventory. *Educational and Psychological Measurement*, 41: 1167-1174.

82- Zarei Matin, H., Jandaghi, G., Hamidizadeh, A., Hajkarimi ,F. (2010). Studying Status of Organizational Intelligence in Selected Public Offices of Qom. *European Journal of Social Sciences* 14 (4), 613-620

83- Jandaghi, G., Irani H. R., Mousavi, Z. S., Davoodabadi, M., (2014). Ranking the Knowledge Management Enablers based on University Faculty Members, Staff and Students using AHP Method. *European Journal of Academic Essays* 1(3): 58-62