

An Empirical Study on the Burnout of IT Professionals Employed for Middle East Countries

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Abstract

Burnout, the condition that arises when prolonged stress causes energy to turn to exhaustion, involvement to turn to cynicism, and efficacy to become a lack of accomplishment, is a pervasive phenomenon in organizations. Although burnout was originally studied in human service profession, the phenomenon has been more recently explored in other fields, including the field of information technology. Research has shown that information technology (IT) workers are succumbing to make problems, which may not be surprising given recent trends in the IT industry. In the period from 2001 through 2004, workers in the IT industry experienced substantial turmoil, as over 500,000 IT workers lost their jobs due in part to the “dot – com bubble” burst, organizational cost-cutting, shrinking budgets, a struggling economy, and increased pressure to satisfy shareholders each quarter. The seriousness of the burnout phenomenon is well documented and has been shown to have several serious negative consequences, including job dissatisfaction and turnover, deterioration of relationships, physical and mental illness, and decreased work performance among others. The current IT environment and the suggested prevalence of burnout of IT workers indicate the necessity of a study to determine the factors that predict the phenomenon in these workers, thus enabling practitioners and researchers to focus on detection and prevention.

Key words: *burnout, information technology, stress*

Jel Classification: *D83, L86*

Introduction

Burnout is defined as a state of feeling ineffective, exhausted and distant from work and people. It refers to the syndrome of physical and emotional exhaustion involving the development of negative job attitudes and loss of concern and feeling for others. It is no longer considered as clinical disturbance, but rather as an extreme point on a three dimensional continuum with energy, involvement, and effectiveness. Burnout will result in negative and unproductive relationship with work for the individual and the organisation. In extreme burnout, individuals no longer believe the ability of their actions to make a difference, and consequently quit trying. Herbert Freudenberger (1974) coined the term ‘burnout’ to refer to stress responses exhibited by staff members in free clinics and halfway houses. Pioneering articles on burnout were by

Freudenberger (1975), a psychiatrist working in health care agency, and by Maslach (1976), a social psychologist who has interest in emotions at workplace.

Burnout research has its roots in care giving and service occupations, wherein a large number of human service workers are employed. Emotional stress in these occupations can often lead to excessively harmful consequences. Study of the state of emotional stress among such occupations has been categorized under the general term burn out. Over a period of time burnout studies covered a wide range of professionals including social workers, nurses, teachers, lawyers, physicians, police officers and line managers.

Consequences of Burnout Discussed for the Study

1. Stress Related Health Consequence

Stress is a direct outcome of burnout; it impacts on both physical and psychological behaviours. This attributes to this may be exhaustion, long working hours, insignificant job, strain, pressure, cynicism, diminishing enthusiasm, feeling of being left out, peers, subordinates, team pressure etc. The stress levels exerted through various factors within and around the organization needs to be concentrated widely.

The need for their desire to grow and the forces which block them to its attainment shows a need to call for a sense of urgency for bridging this gap on a positive note. The emotional draining from work or called as the stress related health consequence needs to be dealt with a priority. Most organizations work on the wider needs of the professionals, whereas the basic and social needs are left unanswered.

2. The Organizational Commitment

The organizational commitment largely depends upon the way the climate of the organization, organization's career progression modules, compensation packages and perks, knowledge sharing, challenging assignments and most important of all the work itself.

3. Job Dissatisfaction

Job dissatisfaction is a major consequence of burn out, the organization and its members are solely held responsible for this aspect. Job dissatisfaction may arise due to lack of information sharing, continuous modifications in the procedures and work methods, inefficient system for gathering and analysing professional and business information, progression towards achieving the goals for self development, etc.

4. The role of Interpersonal Relationships

This factor plays the most crucial role in the burnout. The interpersonal relationships might be of two types:

- within the family;
- within the work group.

The peer group at work, the most prominent of all, if in case there is non-existence of cordial relationship, trouble is at the door each second. Especially when there is a crisis situation, and when help is required the SOS is the team/ peer group. If this is absent there is absolute frustration leading to burnout.

The second is the family, the primary group and most treasured group of people. Lack of support from the members also surely leads to stress and in turn to burnout. The understanding of the family members regarding the work pressure and motivation given by this small group has a great impact on reducing the levels of burnout.

Review of Literature

Sonnetang and Brodbeck (1994), collected data from 180 software professionals from 29 software development projects in Germany and Switzerland. Burnout dimensions have failed to exhibit three factor structure and further analysis was done with a two factor construct. Moderated regression analysis revealed the role of high cognitive requirement, high learning requirement and low competition within the team in enhancing the positive relationship between stressors and burnout.

Catherine E. Ledgerwood, John C. Crofts (1999) explored the degree of association between employee perceptions of the work environment and burnout. Aspects of the job and organisational structures that can be influenced were tested for association with the Maslach and Jackson components of employee burnout in an attempt to understand the stress processes that lead to employees experiencing emotional exhaustion, depersonalising customers and feeling a lack of personal accomplishment. Data from a questionnaire completed by employees of large hotels in New Zealand indicate that although physical aspects of a job are associated with certain aspects of burnout, the stronger relationships clearly with respondents' perceptions of the workplace climate explored the degree of association between employee perceptions of the work environment and burnout.

Jai Y.Advani, Ajay (2005) study is conducted in the context of Indian software services industry, which has provided high impetus to the Indian economy in a very short period of time through provision of manpower services. It is therefore important to study the factors, which influence the performance of individuals working in this industry. The proposed model is tested using structural equation modeling. Results suggest that software professional's perception of higher level of organizational politics has adverse influence on their burnout level, but a higher level of coordination expertise in teams, reduces burnout level. Although most of the hypotheses are supported, some of the hypotheses are found to be quite contradictory, which further raises some interesting future research issues. Finally, a number of implications based on these findings are discussed.

Problem Focus

The need for addressing the burnout of IT professionals in today's context is vital. In the emerging job market, employment relationship has undergone a dramatic shift wherein employees prefer to move across various organizations during the course of their working life. Turn over of IT professionals has shown relationship with the failed system projects and inadequate deployment of organization's information system resources. People employed in IT industry spend most of their time working in organizations of one form or another and hence the quality of work life has considerable bearing on the quality of life in general. They have to put in physical and mental efforts as a part of their work and over a period of time the impact of these efforts may start affecting the individuals, both within the organization and outside the work domain. As a result the individuals have to put in substantial personal cost of their employment. The cost is stated as burnout and stress. Despite the high percentage of managers concerned with the problem of burnout within the IT workers in their organizations, research has not sufficiently demonstrated the correlates of burnout in this population. It is reasonable to assume that if IT managers were able to predict burnout, they would be able to take action to prevent it. In addition, the present research effort addresses limitations of existing burnout literature. Specifically, Sara L. Schwarz Cook although investigated correlates of burnout of IT workers, very few factors were considered. Other research of burnout of IT workers is relatively scarce. In addition, though several studies in areas outside IT explore possible antecedents of

burnout a model to predict burnout has not been created. The present study aims to fill these gaps.

Objectives

- To analyse the burnout of IT Professionals employed in Offshore projects;
- To study the relationship of marital status and stress related health consequences;
- To identify the role of age and salary in the outcome of burnout;
- To study the relationship of gender and organisational commitment.

Research Methodology

Research Design

In this study descriptive research design is adopted for analysing the physical health problems and mental health problems. It required collection and analysis of both primary and secondary data. Secondary data are related to published information related to IT employees' problems. Primary data are related to problems of Burnout and job related factors

Pre-Test

A pilot study was conducted with an idea of testing the reliability of the questionnaire designed. 25% of the population was considered for pre testing and based on the views of the respondents the needed modifications are carried out and the questionnaire was standardized.

Variables Discussed for the Study

Interpersonal relationship, organisational commitment, job dissatisfaction, stress-related health consequences are considered as variables for the study.

Sampling Design

Convenience sampling was adopted for the study. The sample of the study consisted of 160 employees IT employee working for offshore projects in Singapore, Malaysia, Thailand. Hundred and two belonged to male and fifty eight belonged to female.

Target Respondents

The data has been collected through mailed online questionnaire - the respondents are IT Professionals working for Polaris software. Online questionnaires were mailed to the employees working in Singapore, Thailand and Malaysia. Secondary Data has also been considered which has been collected from News, Journals, Internet and informal discussions with IT Professionals. The secondary data has been collected from a multiple of sources such as academic books and journals, the internet and published theses. Much consideration has been done in order to make sound choices amongst the vast literature. All of the data used has been published and the majority of the data was collected from academic journals and scholars in order to provide balanced theoretical aspects on specific issues. Well recognized authors have been chosen to the largest possible extent. The data has been collected through convenient simple random sampling wherein the surveys were designed and hosted and link distributed to employees of Polaris. The sample size was restricted to 160.

Results and Discussion

Stress related health consequences are an important outcome of burnout. In order to analyse the relationship of marital status with stress related health consequences, correlation test was applied. The results in Table 1 below for unmarried employees show that there was no correlation between stress-related health consequence and the other factors of burnout (job

dissatisfaction, organisational commitment and interpersonal relationship) as the calculated Pearson coefficient is found to be less than 0.5. The results show that the unmarried employee's stress-related health consequences are not related with other factors of burnout.

Table 1. Correlations analysis to identify the relationship of unmarried employee and stress related health consequences among the factors of burnout

		Organizational commitment	Job Dissatisfaction	Stress related health consequences	Role of interpersonal relationship
Organizational commitment	Pearson Correlation	1	.303	.310	.590(**)
	Sig. (2-tailed)	.	.092	.000	.000
	N	32	32	32	32
Job Dissatisfaction	Pearson Correlation	.303	1	-.051	.757(**)
	Sig. (2-tailed)	.092	.	.782	.000
	N	32	32	32	32
Stress related health consequences	Pearson Correlation	.310	-.051	1	.210
	Sig. (2-tailed)	.000	.782	.	.248
	N	32	32	32	32
Role of interpersonal relationship	Pearson Correlation	.590(**)	.757(**)	.210	1
	Sig. (2-tailed)	.000	.000	.248	.
	N	32	32	32	32

** Correlation is significant at the 0.01 level (2-tailed).

From Table 2, it was inferred that there exists a strong correlation between stress related health consequences and other burnout factors (organisational commitment (.764) and interpersonal relationship (.581), which infers that married employee's stress-related health consequences are influenced by organisational commitment and interpersonal relationship.

Table 2. Correlations analysis to identify the relationship of married employee and stress related health consequences among the factors of burnout

		Organizational commitment	Job Dissatisfaction	Stress related health consequences	Role of interpersonal relationship
Organizational commitment	Pearson Correlation	1	.585(**)	.764(**)	.690(**)
	Sig. (2-tailed)	.	.009	.000	.001
	N	19	19	19	19
Job Dissatisfaction	Pearson Correlation	.585(**)	1	.392	.512(*)
	Sig. (2-tailed)	.009	.	.097	.025
	N	19	19	19	19
Stress related health consequence	Pearson Correlation	.764(**)	.392	1	.581(**)
	Sig. (2-tailed)	.000	.097	.	.009
	N	19	19	19	19
Role of interpersonal relationship	Pearson Correlation	.690(**)	.512(*)	.581(**)	1
	Sig. (2-tailed)	.001	.025	.009	.

Finance is considered to be the important medium for living. In order to analyse the role of financial position and the burnout factors of IT professional, Kruskal Wallis test was applied (Table 3).

Table 3. Kruskal-Wallis Test to analyse the significant relationship of factors of burnout and the salary of the employee

	Choose the range that represents your current annual salary	N	Mean Rank
Organizational commitment	less than 4 lakhs	15	18.47
	4-6	23	31.22
	6-9	10	27.05
	9-13	4	28.13
	Total	52	
Job Dissatisfaction	less than 4 lakhs	15	25.33
	4-6	23	30.24
	6-9	10	22.75
	9-13	4	18.75
	Total	52	
Stress related health consequences	less than 4 lakhs	15	23.70
	4-6	23	27.91
	6-9	10	27.80
	9-13	4	25.63
	Total	52	
Role of interpersonal relationship	less than 4 lakhs	15	21.67
	4-6	23	29.07
	6-9	10	23.35
	9-13	4	37.75
	Total	52	

The test is applied as we have one independent variable with two or more levels and an ordinal dependent variable. As the P value is greater than .05, the results indicate that there is no statistically significant difference among the four salary group towards organizational commitment, job dissatisfaction, stress related health consequences and the role of interpersonal relationship.

The analysis infers that irrespective of the salary the employees face burnout and there is a significant difference among the organisation variables.

Table 4. Test Statistics (a,b)

	Organizational commitment	Job Dissatisfaction	Stress related health consequences	Role of interpersonal relationship
Chi-Square	6.573	3.200	.812	4.870
Df	3	3	3	3
Asymp. Sig.	.087	.362	.847	.182

The personal variable of age is analyzed with other independent variables of burnout (organizational commitment, job dissatisfaction, interpersonal relationship). Mann Whitney test was applied which is a non-parametric analog to the independent samples t-test and can be used when you do not assume that the dependent variable is a normally distributed interval variable (Table 5).

The results indicate that there is no significant difference between the underlying distributions of the organizational commitment scores of age group between 20-30 and the organizational commitment scores of 30-40 age groups ($z = -1.094$, $p = 0.274$) as the calculated value ($z = -1.094$, $p = 0.274$) is less than the significant value (.05).

Table 5. Mann-Whitney Test to analyse the relationship of age and factors of burnout

	Age	N	Mean Rank	Sum of Ranks
Organizational commitment	20-30	46	27.33	1257.00
	30-40	6	20.17	121.00
	Total	52		
Job Disatisfaction	20-30	46	27.17	1250.00
	30-40	6	21.33	128.00
	Total	52		
Stress related health consequences	20-30	46	27.46	1263.00
	30-40	6	19.17	115.00
	Total	52		
Role of interpersonal relationship	20-30	46	27.26	1254.00
	30-40	6	20.67	124.00
	Total	52		

In respect of the analysis of respondents' job dissatisfaction, there is no significant difference between the underlying distributions of the job dissatisfaction scores of age group between 20-30 and the job dissatisfaction scores of 30-40 age groups ($z = -.895$, $p = 0.374$), there is no statistically significant difference between the underlying distributions of the stress related health consequence scores of 20-30 and the stress related health consequence scores of 30-40 age groups ($z = -1.271$, $p = 0.219$), there is no statistically significant difference between the underlying distributions of the interpersonal relationship of 20-30 and the interpersonal relationship of 30-40 age groups ($z = -1.008$, $p = 0.332$), which infers that age has no significant relationship among the factors of burnout (table 6 and 7).

Table 6. Test Statistics (b)

	Organizational commitment	Job Disatisfaction	Stress related health consequences	Role of interpersonal relationship
Mann-Whitney U	100.000	107.000	94.000	103.000
Wilcoxon W	121.000	128.000	115.000	124.000
Z	-1.094	-.895	-1.271	-1.008
Asymp. Sig. (2-tailed)	.274	.371	.204	.314
Exact Sig. [2*(1-tailed Sig.)]	.291(a)	.392(a)	.219(a)	.332(a)

Note: a - Not corrected for ties; b - Grouping Variable: Age.

Table 7. Test Statistics^a

	Writing score
Mann-Whitney U	3606.000
Wilcoxon W	7792.000
Z	-3.329
Asymp. Sig. (2-tailed)	.001

Note: a - Grouping Variable: FEMALE

To analyse the role of gender and organisational commitment, the correlation test was applied. The results of Tables 8 and 9 indicate that there exists a strong relationship of organisational commitment with job dissatisfaction and interpersonal relationship. There is a relationship between the personal variable gender - male and other factors of burnout at Carl Pearson coefficient level of (.772,873) respectively. From the table it is inferred that female employee's organisational commitment is highly correlated by stress related health consequences (.912). The table infers that female employee stress related health consequences have a relationship with organisational commitment while for the male employee, interpersonal relationship and job dissatisfaction play an important role in organisational commitment.

Table 8. Correlations test to analyse the relationship between gender (Male) and organisational commitment

		Organizational commitment	Job Dissatisfaction	Stress related health consequences	Role of interpersonal relationship
Organizational commitment	Pearson Correlation Sig. (2-tailed) N	1 .29	.772(**) .000 29	.488 .001 29	.873(**) .000 29
Job Dissatisfaction	Pearson Correlation Sig. (2-tailed) N	.772(**) .000 29	1 .023 29	.421(*) .023 29	.696(**) .000 29
Stress related health consequences	Pearson Correlation Sig. (2-tailed) N	.488(**) .001 29	.421(*) .023 29	1 .003 29	.530(**) .003 29
Role of interpersonal relationship	Pearson Correlation Sig. (2-tailed) N	.873(**) .000 29	.696(**) .000 29	.530(**) .003 29	1 .003 29

Note: ** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

Table 9. Correlations test to analyse the relationship between gender (Female) and job factors

		Organizational commitment	Job Dissatisfaction	Stress related health consequences	Role of interpersonal relationship
Organizational commitment	Pearson Correlation Sig. (2-tailed) N	1 .23	.117 .594 23	.912(**) .000 23	.193 .377 23
Job Dissatisfaction	Pearson Correlation Sig. (2-tailed) N	.117 .594 23	1 .065 23	.065 .769 23	.573(**) .004 23
Stress related health consequences	Pearson Correlation Sig. (2-tailed) N	.912(**) .000 23	.065 .769 23	1 .003 23	.224 .304 23
Role of interpersonal relationship	Pearson Correlation	.193	.573(**)	.224	1

Conclusion

To conclude, the Information Technology industry needs to concentrate on the four factors discussed: organisational commitment, job dissatisfaction, interpersonal relationship and stress related health consequence for reducing the burnout. Organisational commitment can be induced through introduction of clear policies and procedures, enriching employee morale and introducing more retention policies through effective recognition methods and also through climate. Job satisfaction may be attained by having a knowledge-sharing work atmosphere, data availability, attractive compensation packages, recognition and goal achievement through the introduction of appealing career progression models. Stress can be addressed by having reasonable breaks between the working hours, recreational activities, energizing through team parties / outings, enhancing positive work culture, motivation etc. Interpersonal relationships need to be energized by organising team meetings, and family get together, providing week end breaks / “Off From Works” policies.

Scope for Further Research

With regard to the IT Professionals, the focus in the coming years should be on the following:

- Stress management workshops;
- Greater focus on man-machine interface;
- Empowerment of employees;
- Focus on productivity through team building;
- Dynamic/flatter/matrix organizational structures;
- People-sensitive management styles and practices;
- Management of the changing workforce skill/sex/turnover;
- Managing the changing work diversification – change of priorities;
- Strengthening organizational communication;
- Institutionalizing employee involvement;
- Sustaining individual effectiveness through performance;
- Feedback and counselling.

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Studiu empiric asupra sindromului burnout la specialiștii IT angajați în țările din Orientul Mijlociu

Rezumat

Sindromul burnout, starea care apare atunci când stresul prelungit face ca energia să se transforme în epuizare, implicarea în cinism iar eficacitatea în nereușită, constituie un fenomen predominant în cadrul organizațiilor. Deși sindromul burnout a fost inițial studiat în profesiile legate de serviciile acordate oamenilor, fenomenul a fost recent explorat și în alte domenii, precum tehnologia informației. Cercetarea indică faptul că angajații IT cedează în fața problemelor, ceea ce nu este surprinzător având în vedere tendințele recente din industria IT. În perioada 2001-2004, lucrătorii din industria IT au fost supuși unei

stări generale de confuzie și anxietate întrucât peste 500 000 de angajați IT și-au pierdut slujbele datorită scăderii dramatice a acțiunilor, situație reflectată de fenomenul “dot-com bubble burst”, reducerea costurilor, micșorarea bugetelor, economia supusă dificultăților și presiunea crescândă de a satisface acționarii în fiecare trimestru. Seriozitatea sindromului burnout reiese dintr-o documentare temeinică care a dovedit și prezența câtorva consecințe negative serioase, precum insatisfacția față de locul de muncă, deteriorarea relațiilor, boli mentale și fizice, precum și descreșterea performanței la locul de muncă, printre altele. Mediul IT actual și sindromul predominant de burnout la angajații IT indică necesitatea unui studiu de determinare a factorilor care determină acest fenomen în cazul acestor angajați, permițând astfel practicienilor și cercetătorilor să se concentreze asupra detectării și prevenirii.