Work Exhaustion on Information Technology Professional

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Abstract

As organizational utilization of (and dependence on) information systems and technology continues to grow, the ability of an organization to retain valuable technology staff is likely to become a critical factor in attainment of strategic goals. Working as an IT staff is often a demanding and stressful. Therefore, the concept of work exhaustion from the management and psychology research literature is examined in the context of technology professionals. Data were collected from 150 IT professionals in various industries from Jakarta and Bandung . This study shown that role conflict and job autonomy are significantly affecting work exhaustion on IT professionals thus lead to turnover intention. In addition, the results also shown that IT staff experiencing higher level of work exhaustion reported higher intentions to leave. Moreover, exhausted IT professionals identified insufficient staff and resources as a primary cause of work exhaustion. Additionally, implications for practice and future research are discussed.

Keywords*: work exhaustion, IT Professionals, Role conflict, Job autonomy*

INTRODUCTION

As organizational utilization of (and dependence on) information system and technology continues to grow, the ability of an organization to retain valuable technology staff is likely to become a critical factor in the attainment of strategic goals. When IT professionals leave an organization, not only are the number of them available for assignment to project depleted, the professionals themselves often take specialized skills, tacit knowledge, and understanding of specific business operations and information systems with them (Agarawal and Ferratt, 2002). These circumstances have spurred researchers to study the reason that IT staffs leave their organizations.

Previous studies have shown many factors that lead IT's staff turnover. The study by GFI Software (2012) revealed that 57 percent of IT specialists are considering leaving their jobs due to workplace stress, a drop of 10 percentage points from 2012. Overall, 67 percent of IT administrators consider their jobs stressful, down slightly from 69 percent in 2012 (Brooks, 2013). The research shows that San Francisco, Denver and Philadelphia are the three cities with the highest proportions, more than 80 percent each, of IT specialists who find their jobs stressful. According to McGee

(1996), Moore (2000), Ahuja et al., (2007), IT profession have high work exhaustion's level. Workers in the IT sector are experiencing longer work hours, more work-life conflict, and higher indices of burnout that their coworkers in other functional areas (McGee, 2003). For instance, a survey of technology workers indicated that 50 percent of respondents felt that they achieved less work-life balance than their counterparts in other functions, and 58.3% of IT workers report that they do not feel they have an appropriate balance between their work lives and their personal lives (Messersmith, 2007). IT professionals also strive for work load due to lack of time to do all task and high task demand (Moore, 2002). Bartol and Martin (1982) acknowledged that IT worker have to move from one to other project and assigned for a number of project that lead to role stress. Consequently, role ambiguity and role conflict oftentimes emerge on IT worker and lead to higher work exhaustion.

In Indonesia, IT sectors have been identified by the Indonesia government as a mainstay industry for the future. Its development is widely linked to the transition to a higher-value added economy (www.ieu.com, 2012). Nevertheless, the study by Human Capital (2007) in Indonesia, low income leads to high turnover for IT staff. It is estimated that, on average, IT employees work 50 hours per week; almost half work an average of six hours on Saturdays and Sundays; and about 70% have worked while sick to meet business pressures and deliver IT projects faster (Sethi et al., 2004) but they didn't obtain the appropriate salary for that. Pay satisfaction implies IT workers believe they have been treated fairly. Moreover, dissatisfied employees leads to work exhaustion due to unbalance job demand and compensations.

The work exhaustion construct comes from Moore's (2002) study on work exhaustion and turnover intention of IT workers. Her theory posits that technology professionals experiencing higher levels of work exhaustion reported lower levels of job satisfaction and higher intentions to leave organization. Of the variables in the model, perceived workload was the strongest contributor to exhaustion in IT employees. Furthermore, exhausted IT professionals identified work schedule, inadequate staffing, and resources as primary causes of work overload and exhaustion. Moore's (2000) study also suggests that work exhaustion impacts job satisfaction, which in turn influences employee turnover intention.

Being concern with work exhaustion, this research address two research objectives: (1) to confirm that turnover intention is significantly higher in IT workers who experiencing work exhaustion than in non-work exhausted counterparts and (2) to gain insight into the primary cause of exhaustion for IT workers.

LITERATURE REVIEW

Role Conflict and Work Exhaustion

When the responsibilities are not properly defined or appropriately defined, role conflict will occur. Role conflict has been defined by Rizzo et al., (1970) as "The contradicting roles carried out by an individual in an organization. Role conflict has also been defined as "the level to which a person experiences pressures within one role that is incompatible with pressures that take place within another role". (Glissmeyer et al., 1985).

Role conflict is a problem for IT workers because when they have to interact with different groups of people, customers, and face unrealistic demand for non technical user or end users. They also need to perform a multiple of roles in different project. Consequently, they will experience stress, depress, become dissatisfied, and work exhaustion. This psychology strongly affect to intention to leave organization. Previous studies have examined the effect of role conflict to job satisfaction, turnover intention, and work exhaustion (Baroudi, 1985; Glissmeyer et al., 1985; Moore, 2000; Saragih, 2009). Accordingly, the following hypothesis is extended to address the research objective.

H1: Role conflict is positively related to work exhaustion for IT workers.

Job Autonomy and Work Exhaustion

According to Hackman and Oldham (1975), job autonomy is defined to the critical psychological state of experienced responsibility for outcomes of the work. Job autonomy also defined as the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling work and in determining the procedures to be used in carrying it out.

Many other research results also pointed out that autonomy is an essential component for professional development (Gellatly and Irving, 2001). Job autonomy also has been consistently linked to employee satisfaction (Claessens et al., 2004); enhancing job performance (Gellatly and Irving, 2001; Langfred and Moye, 2004). Hackman and Oldham (1975) also found that the flexibility leads to outcomes such as high work effectiveness and high internal work motivation.

High job autonomy is important for IT workers since most of their job is done at client sites, with few opportunities for corporate-based supervisors to observe work directly. Job autonomy provides them freedom and flexibility to manage their own workloads such that they do not unduly increase stress or work exhaustion (Ahuja, et al., 2006). Thatcher et al. (2006) also found that IT workers who experiencing higher level of job autonomy report lower level of work exhaustion. Accordingly, the following hypothesis is extended to address the research objective.

H2: Job Autonomy is negatively related to work exhaustion for IT workers.

Work Exhaustion and Turnover Intention

Emotional exhaustion refers to as the sense of being tired and exhausted emotionally due to one's employment (Maslach and Jackson, 1981). Work exhaustion is one of burnout's indicators which causes by job related factors. Some job related factors are work load, role ambiguity, role conflict, job autonomy and reward (Moore, 2000). Researchers also argued that work exhaustion as a dimension of burn out will reduced job satisfaction (Maslach and Jackson, 1981), reduced self esteem, reduced organizational commitment (Sethi et al., 2004), increased turnover (Ahuja et al., 2007; Saragih, 2009), and reduced personal accomplishment (Moore, 2002). Almost all previous study identified that technology professionals experiencing higher levels of work exhaustion reported lower levels of job satisfaction and higher intentions to leave organization.

Although individual differences may also influence the occurrence of work exhaustion, research has shown that job factors to be the key predictors (Maslach and Schaufeli, 1993). Therefore, this research focus on some job related factor that lead to work exhaustion. Accordingly, the following hypothesis is extended to address the research objective.

H3: Work exhaustion is positively related to turnover intentions.

RESEARCH METHODS

Population and Sample

To empirically test the previous hypotheses, this study used 149 IT Professionals in Jakarta, Bandung, and Tangerang. Purposive sampling is used as sampling methods so several criteria was applied to this research. Criteria used in this research were the respondent should have been work for 3 months. The questionnaires were distributed directly to respondent and also via e-mail.

Variables' Measure

The measurement of each variable is explained in table 1.

Table 1: Measurement of Variables

NO	Variables	Operationalization	Measurement	Amount of Items	Sample Item
1	Work Exhaustion	Physic and emotional chronics condition as a consequence of job related factor.	Moore (2002)	4 items	I am emotionally drained from my work
2	Role Conflict	Job related stress characterized by working without adequate resources; have to bend a rule or policy; and receive conflicting requests	Moore (2002)	8 items	I work with two or more groups who operate quite different
3	Job Autonomy	The extent, to which a job allows the freedom, independence, and discretion to schedule work, make decision and select the methods used to perform tasks.	Moore (2002)	4 items	When some important matter comes up that concern me, my manager seeks out my idea before a decision is made
4	Turnover Intention	Lost of employee's willingness to stay at current organization.	Thatcher (2002)	6 items	I am thinking about quitting

Data Analysis

Table 2 presents respondents characteristics. The average of respondents was 87.2% male, and which is dominated by ≤ 25 years old. Furthermore, 85.9% respondent was undergraduate degree. The respondents have been affiliated with the companies for less than 5 years.

Table 2: Respondents Characteristics

Criterion	Frequency	Percentage
Gender		
• **Male**	130	87.2
• **Female**	19	12.8
Age		
• **≤ 25 years**	65	43.6

• **25 -30 years**	56	37.6
• **31 – 35 years**	12	8.1
• **36 – 40 years**	8	5.4
• **≥ 40 years**	8	5.4
Educational Background		
• **Undergraduate**	128	85.9
• **Master Degree**	15	10.1
Marriage Status		
• **Married**	72	48.3
• **Single/Unmarried**	77	51.7
Work Tenure		
• **≤ 5 years**	102	68.5
• **5 -10 years**	38	25.5
• **≥ 10years**	9	6

Source: data analysis

Validity and Reliability Testing

Confirmatory Factor Analysis was used to assess the validity of each construct. Items with factor loading 0.4 or greater are considered practically significant (Hair et al., 2006). Results of Confirmatory factor Analysis asserted that final items used in this study are 16 items. Furthermore, Cronbach's Alpha coefficients were used to estimate the reliability of each item on questionnaire. According to Hair et al. (2006) items with Cronbach's Alpha 0.6 or greater is threshold to accept. Table 3 provides the validity and reliability of the measures.

Table 3: Validity and Reliability Testing Result

ITEM	COMPONENT				Cronbach's Alpha
	1	2	3	4	
ti1	,741				0,916
ti2	,870				
ti3	,865				
ti4	,818				
ti5	,849				
ti6	,777				
we1		,799			0,832
we2		,779			
we3		,813			
we4		,719			
rc4			,748		0,698
rc5			,818		
rc6			,587		
ja3				,842	0,674

ja4	,864	

ti=turnover intention; we=work exhaustion; rc=role conflict; ja=job autonomy
Source: data analysis

Descriptive Statistic and Inter correlation

Table 4 presents the means, standard deviations, and inters correlations among all predictor and criterion variables. Two results in this table are particularly noteworthy. **First**, work exhaustion were positively correlated to turnover intention *(r= 0,320)*. **Second**, role conflict is positively correlated to turnover intention *(r=0,417)* and work exhaustion *(r= 0,607)*. This correlation is strong enough as shown on previous studies.

Table 4: Descriptive Statistic and Inter correlation Result

Variable	Mean	SD	1	2	3	4	5	6	7
G	1,1275	0,33468	-						
Age	1,9128	1,10241	-0,098	-					
Edu	1,1049	0,30750	-0,130	**0,391****	-				
MS	1,5116	0,50140	0,128	**-0,370****	**-0,232****	-			
TI	14,5772	6,97213	-0,136	**0,788****	**0,285****	0,057	-		
WE	12,7987	3,75604	-0,146	0,106	0,102	-0,149	**0,320****	-	
RC	23,6389	6,02736	-0,054	0,118	**0,212***	-0,100	**0,417****	**0,607****	**-**
JA	11,8389	2,49342	-0,024	0,116	0,048	-0,046	0,147	**-0,224****	**-0,142**

G=Gender; Edu=Education; MS=Marriage Status; TI=Turnover Intention; WE=Work Exhaustion; RC=Role Conflict; JA=Job Autonomy
** Correlation is significant at the 0,01 level
* Correlation is significant at the 0,05 level
Source: data analysis

Hypothesis Testing

This result of the hypothesis testing on this study is presented as follows:

Table 5: Hypothesis Testing Result

HYPOTHESIS	β	Constanta	Sign*	R^2	Result
H_1 : WE ← RC	0.563	5.850	0.00	0.25	Accepted
H_2 : WE ← JA	-0.277	14.211	0.080	0.021	Not Accepted
H_1 :TI ← WE	6.980	0.102	0.00	0.102	Accepted

RC= Role Conflict; WE= Work Exhaustion; TI=Turnover Intention; JA= Job Autonomy
* Significant level = 0,05
Source: data analysis

DISCUSSION

Using simple regression analysis, the results showed that role conflict significantly affect work exhaustion (β=0.563) and *R Square* equal to 25%. This finding support the previous study by Baroudi (1985); Moore (2000) and Saragih (2009) were found that role conflict is significantly related to work exhaustion. Role conflict is a problem for IT worker because they have to interact with different groups of people, customers, and face unrealistic demand for non technical user or end users. The IT workers who experiencing high role conflict will experience high work exhaustion level due to contrast roles carried out by them.

Hypothesis 2 linked job autonomy and work exhaustion. Hackman and Oldham (1975) found that the flexibility leads to outcomes such as high work effectiveness and high internal work motivation. Job autonomy also defined as the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling work and in determining the procedures to be used in carrying it out. For IT workers job autonomy provides them freedom and flexibility to manage their own workloads such that they do not unduly increase stress or work exhaustion (Ahuja, et al., 2006). Contrary to the previous research, job autonomy didn't affect work exhaustion significantly (β=-0.277 and *p-value* =0.080 > 0.05). This inconsistency result may be occurred because of several factors. **First**, High job autonomy on workplace didn't perceive can reduce work load. In case of IT workers have a high job autonomy level but also have high work load level, job autonomy might not reduce work exhaustion due to high work demand. So as they experiencing high job autonomy should equitably with a well-balance work load. **Second**, even though job autonomy is one of the important characteristics for IT workers but sometimes they can't use the autonomy due to organization's standards, rules, and customer's specifics demand.

The testing of third hypothesis is showed that work exhaustion is significantly affect turnover intention (β=6.980 and R Square = 10.2%). Work exhaustion as a dimension of burn out will reduced job satisfaction (Maslach and Jackson, 1981), reduced self esteem, reduced organizational commitment (Sethi et al., 2004), increased turnover (Ahuja et al., 2007; Saragih, 2009). This result support previous study by McGee (1996); Moore (2000) and Ahuja et al. (2007) were found that technology professionals experiencing higher levels of work exhaustion reported lower levels of job satisfaction and higher intentions to leave organization. When they experiencing high work exhaustion level, the first things considered is leaving job (Ahuja et al. 2007). The study by GFI Software (2012) also revealed that 57 percent of IT specialists are considering leaving their jobs due to workplace stress, a drop of 10

percentage points from 2012. Overall, 67 percent of IT administrators consider their jobs stressful, down slightly from 69 percent in 2012 (Brooks, 2013).

MANAGERIAL IMPLICATION

As work exhaustion becomes a concern of this study, researcher suggests some important managerial implication based on research findings.

- In the current study**, role conflict** have the highest mean score (23,6389) from all other variables. This is indicates that IT workers on this research perceived role high role conflict on doing their task. Poorly defined or conflicted roles in organizations can be a stressor for workers. Poor role definition arises from a lack of clarity in workers' objectives, key accountabilities, their co-workers' expectations of them and the overall scope or responsibilities of their job. Role conflict occurs when a worker is required to perform a role that goes against their personal values or when their job demands are incompatible. Therefore, the possible solution for organizational level is controls target the work itself and focus on job design, work environment and working conditions. Organization's leaders also should address workers' understanding of their role within the workgroup and the organization, and the potential for expectations. Organization also should avoid assigning roles to workers that conflict with their personal needs and values. Implement a performance feedback system, where workers receive regular feedback on jobs well done and any areas for improvement also a possible solution to reduce role conflict.
- **Work exhaustion** is a major problem for IT workers. Although individual differences may also influence the occurrence of work exhaustion, research has shown that job factors to be the key predictors (Maslach and Schaufeli, 1993). Therefore, some important implication might be considered. By allowing employees greater control of their schedules, their work environments, the amount of virtual work in which they engage, and the types of work-life balance initiatives in which they are involved, managers can provide IT workers with greater control of the interface between their work and non-work lives to manage their work exhaustion.

IMPLICATION FOR FURTHER RESEARCH

Based on the research finding, there are some implications for further research. **First**, data collection should use several methods like web survey, e-mail survey and mail survey to get the greater numbers of respondents across geographic. **Second**, further researcher should consider examining other job related variable, such as role ambiguity, skill variety and other job attitudes, such as job satisfaction, organizational commitment and organizational citizenship behavior.

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