

Job Dimension and Growth Need Strength of Information System personnel as Predictors of Quality of Working Life.

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Abstract

Rapid development of Information and Communication Technology (ICT) has made a significant change to the work and individual self. The increasing shortages of qualified information system (IS) personnel particularly in Malaysia appears to exert pressure and leads to a dehumanized work environment. Therefore, it is essential to examine the Quality of Working Life (QWL) among the pressurized IS personnel. This paper is aimed to determine the significant predictors of QWL from the perspective of job dimension and growth need strength. Besides that this paper also examines the personal and professional characteristics based on their QWL. QWL was measured with composite scores of health and well-being, competency development, job satisfaction, job security, and balance between work and non-work life. A total of 600 self-administered questionnaires were delivered to the randomly selected cluster sample among the MSC status companies. A sample of 453 IS personnel responded and the data were analyzed using SPSS. This study utilized Job Characteristics Model to examine the job dimension. The Growth Need Strength recommended in the model was also included to predict the QWL. The psychosocio-demography profiles are described based on their QWL. The findings show the IS personnel are experiencing better QWL. Almost all the respondents fall within moderate to high (3.1-5.0; 5.1-7.0) mean score of QWL. Specifically, the regression analysis shows, three components of job dimension namely, task identity, autonomy and task significance are the significant contributor of QWL. Generally, both independent variables namely, job dimension and GNS are the significant predictors of QWL among IS personnel.

Keywords: ICT, job dimension, growth need strength, quality of working life, information system

Introduction

The demand for qualified IS personnel continues to accelerate as more and more organizations continue to rely on ICT for their effectiveness and competitive advantages (World Employment Report, 2001). An employment survey of 1350 companies across multiple industries indicated that the overall employment growth is expected to reach 3.5% in 2003 and to surge to 6% in 2004 (Employment Outlook, 2004). The increase in the rate is solely driven by employment growth in the ICT sector. Employment in the ICT sector is expected to increase by 23% in 2004 compared to 17.2% in 2003 (Employment

Outlook, 2004). However, the vacancy growth rate among the ICT industry is expected to grow by 26.2% in 2004 (Employment Outlook, 2004). The insufficient supply of IS personnel has created a vacuum in the employment trend. The employment demand in the ICT industries in Malaysia is expected to be greater in the year 2005. Within the Eight Malaysia Plan, the employment demand is estimated at .182 million and the supply would be only .138 million, hence creating a shortage of .044 million. The continuous growth in ICT sector is expected to demand .306 million by 2010 (Government of Malaysia, 2000).

Since ICT has become the pillar in the digital economy and human capital has become the nucleus; it is therefore important to look into the characteristic of the job and the nature of individual in accepting it. The increasing demands against the limited supply have forced organizations to capitalise on small IS workforce for maximum organizational performance (Duxbury, Higgins & Johnson, 1999). They are expected to undertake ever-expanding work responsibilities with a higher workload that demands long hours of physical presence in front of computers. This trend appears to influence the job dimension of IS personnel and leads to a dehumanized work environment (Watson et al., 2003). Thus, it has substantial impact on their QWL (Dhondt, Kraan & Sloten, 2002; Bradley, 2001; Lau, et al., 2001).

The nature of IS personnel's work that requires them to work on various tasks simultaneously and report to numerous superiors is bound to force them to complete the jobs within a tight schedule. This means that the usage of ICT in the work activities is not designed with the human factor in mind. ICT is used to demand for higher productivity (Lau et al. 2001; Waterson et al., 1999; Clegg et al., 1997). It means that the integration of ICT in the workplace is not aimed to improve the current work practices but rather to exploit the IS personnel towards producing a higher organizational performance. Thus, in light of reports of increasing dehumanization of the workplace, improving the QWL should be the focus of national policy making. The HRM should adopt the new way of working in their existing work manual as the trend shows a drastic increase in workforce acquisition in the ICT industries. This would help them to provide a meaningful work environment which also improves the understanding of the QWL. This study is focused to fulfill two objectives. First, this study examines the QWL from the personal and professional perspectives. Secondly, it determines the significant predictors of QWL, specifically variables under job dimension and growth need strength.

Literature Review

Quality of Working Life

QWL is constantly gaining attention as a legitimate research area in industrial psychology. The core dimension of the entire QWL in the organization is to improve employee's well-being and productivity. The most common interaction that relates to improvement of employees' well-being and productivity is the characteristic of the job. Lau (2001) operationalizes QWL as the favorable working environment that supports and

promotes satisfaction. He highlights the ways of providing a favorable working conditions from the perspective of rewards, job security and growth opportunities. Indirectly the definition indicates that an individual who is not satisfied with reward may be satisfied with the job security and to some extent would enjoy the opportunity for career growth in the organization. With due consideration of the nature of work in ICT environment, this study defines QWL as “the effectiveness of the work environment that meets the organizational and personal needs as well as the values of the employees”. This definition quantifies the QWL with the aim of gaining leverage in recruiting and retaining valuable workforce as the nature of work continues to diversify. Five components of QWL namely, health and well-being, job security, competence development and the balance between work and non-work life are selected. These components are widely used by the European Foundation for the Improvement of Living and Working Condition (EWON, 2002) in most of their QWL studies. However, job satisfaction is added as an additional factor as it is commonly used to represent QWL in other studies (Lamond & Hosking, 2002; Lamond & Spector, 2000).

Job Characteristics

Job characteristics constitute a set of work and work environment variables that are important to cause employees’ behaviour. The job characteristics model (JCM) by Hackman & Oldham (1975) utilizes five core job dimensions namely skill variety, task identity, task significance, autonomy, and feedback as a way of describing and understanding job dimensions. Collectively, these elements are seen to predict important work outcomes such as motivation, performance, job satisfaction, turnover and absence among employees. The model is expected to provide a meaningful framework for exploring the relation between specific dimensions of job pertaining to QWL.

Job dimension namely skill variety (where the job requires the use of various skills and talents of the employees); task identity (where the job involves doing a task from the beginning to the end rather than an isolated piece of a task); and task significance (where the work is seen being important) leading to the psychological state of meaningfulness. The next dimension, autonomy (where the job provides substantial freedom, independence and discretion to the employee in carrying out work), leads to the psychological state of experienced responsibility for outcomes, where the worker feels total responsibility for the work. The final dimension, feedback (where the job provides information about work quality and quantity to the employee), lead to the psychological state of knowledge of the actual results of work activities. The theory suggests that jobs in a good quality work environment provide more meaningful and challenging work, more autonomy and better feedback. However, a job that is unable to provide favourable environment need to be redesigned. Taking this idea, Hackman & Oldham (1975) proposed a GNS as a moderator between the job dimension and psychological state outcomes. For individuals who are low in GNS, the JCM suggests that the job redesign will yield worse rather than better QWL.

Growth Need Strength

GNS has a role to play in the determination of an individual's experience of stress, which leads to poor social, personal, and working relationship (Hackman & Oldham, 1980). A central objective of GNS and QWL is to establish a good match between the characteristics of a person and the characteristics of the job. A mismatch is likely to result in low QWL leading in turn to mental strain. Research has consistently shown that individuals who are competitive, ambitious and excessively time-conscious will be more prone to developing coronary heart disease and other stress related conditions. The higher the person's GNS, the lower the job satisfaction that the person experiences (Hackman & Lawler, 1971; Hackman & Oldham, 1980).

The experience of poor QWL is the result of an interaction between various sources of work pressure and the individual strength (Cooper & Baglioni, 1988). It is emphasized by Rees (1995) that the experience of stress is moderated by personality. Other job factors such as skill variety and autonomy are found to interact with personality in the prediction of job performance (Holman, Clegg & Waterson, 2002). A certain degree of autonomy in carrying out jobs would be helpful to allow a growth oriented individual to shape the job according to his preferences. This means that the individual's personality type and life experiences influence their responses to the demand in work environment pertaining to QWL. Although, we accept the fact that not all individuals will perceive the same situation as stressful, it is emphasised that their personality is important to establish a good match between an individual and work characteristics. A lack of match is likely to result in poor QWL.

Methodology

A research instrument was developed based on Hackman & Oldham (1975) questionnaires specifically to investigate the job dimension. Growth need strength was adopted from Kofodimous (1993). Cronbach's alpha for job dimension and GNS was 0.89 and 0.73 respectively. Self administered questionnaire was employed to gather data for this study. QWL, job dimension and GNS were measured using 7 point Likert type scale. The lowest scale of 1 indicates never/low and the highest of 7 indicate always/high to the question's statement. However, those means scores fall within the range values between 1.0-3.0, 3.1 – 5.0 and 5.1-7.0 represent low, moderate and high respectively. The questionnaire were delivered and collected within 4-6 weeks period from the IS personnel employed in MSC status organizations. A total of 600 questionnaires were issued, however only 453 (83%) were utilized for analysis. The high response rate may be partly attributed by the drop and pick method used. The prediction of job dimension and GNS on QWL was performed multiple regression analysis, (stepwise) at 5% significance level.

Results

Personal Characteristics

Gender and Marital Status

As evident from Table 1, gender distribution reveals that more male IS personnel participated in the survey, representing 70% of respondents. This indicates that 30% of the participants were female. Ng (2001) and Statistic Sweden Board (1999) reported a similar trend in their study on computerized office workforce. More males as the IS personnel are probably due to the fact that some of job position are engineering-based such as computer, electrical, telecommunication engineer therefore there are still male dominated. However, evidence also shows a change in the trend of shifting in employment proportion within the ICT industry as female workforce is gradually occupying more male dominated jobs (Bruck, Allen & Spector, 2002). The requirement of minimal physical strength coupled with the flexibility of employment contract transform the male dominated area to a gender free employment market. The results of mean score of QWL between male ($\bar{x} = 4.78$) and female ($\bar{x} = 4.62$) indicates that male IS personnel experience higher QWL. The table also reflects that almost two third of the respondents are single (61%). This also suggests that the respondents would be able to spend more time at the workplace as they are enthusiastic in securing knowledge and skills for career development, with less commitment to family. The mean score between single and married respondents do not vary much. This would reflect that IS personnel regardless of their marital status were experiencing the same level of QWL. The high percentage of the respondents who are still single indicates their age, which is further elaborated in the following section.

Age

A total of 72% of respondents fall within the age range of 21-30 years. The respondents from the age range of 31 to 40 accounted for 24%. This means that almost 96% of respondents were within the range 21-40 years with the mean age of 29 years. This indicates that MSC status organizations are occupied by a young workforce. Age is one of the socio-demographic variables of respondents is that able to indicate a variation in mean of QWL among the different age groups.

Table 1
Personal Profile of Respondents and Mean Score of QWL (n= 453)

Personal Profile	f	%	Mean Score of QWL	
			\bar{x}	SD
Gender				
Male	315	69.5	4.78	.72
Female	138	30.5	4.62	.63
Marital Status				
Single	275	60.7	4.70	.66
Married	178	39.3	4.78	.75
Age (year)				
≤ 20	5	1.1	4.67	.79
21- 30	325	71.7	4.68	.66
31- 40	111	24.5	4.83	.78
41- 50	8	1.8	5.36	.61
≥ 51	4	0.9	5.03	.36
$\bar{x} = 29$	SD = 5.45			
Educational Level				
Short term courses	6	1.3	4.97	.66
Certificates	24	5.3	4.79	.71
Diploma	97	21.4	4.78	.64
Degree	255	56.4	4.64	.69
Post Graduate	71	15.6	4.92	.83
Monthly Income (RM)				
≤ 2000	136	30.0	4.68	.65
2001- 5000	259	57.2	4.79	.68
5001 - 10000	50	11.0	4.92	.80
≥ 10001	8	1.8	5.56	.62
$\bar{x} = 3605.00$	SD =1782.25			

The IS personnel within the age range of 41-50 years ($\bar{x} = 5.36$) experiencing high level of QWL compared to the age groups of 21-30 years ($\bar{x} = 4.68$). The higher mean scores among the senior group (41-50 years) provide an insight that they experience higher level of QWL compared to the younger group. This is more likely to be explained as being due to their promotion and career advancement in the organization. The elder group of IS personnel is believed to hold the highest level of occupational category, thus, they could be on a plateaued career. In addition, they have gained sufficient experience and skills which would have made them more confident in dealing with job requirement compared to the younger generation.

Educational Level and Monthly Income

Almost 93% of the respondents have a university degree. Practically, slightly more than half of them had a bachelor degree. This means that the nature of work in the ICT industry requires knowledge and skills that are obtained at tertiary education level. The government's effort to provide the opportunity for obtaining knowledge and skills

complements the increased number of educated workforce in the current employment market among IS personnel. The results in the Table 1 also indicate that, those respondents who came from the rank-and-file category had attended short-term courses show highest mean score ($\bar{x} = 4.97$) in QWL. This could be as a result of the opportunity given to them to gain knowledge and skill which enhance their competency level in ICT. IS personnel who obtained degree ($\bar{x} = 4.64$) and higher qualifications ($\bar{x} = 4.92$) show some difference in means of QWL. These groups are made up of respondents in the younger age brackets.

Income is widely known as one of the extrinsic motivation factors for employees. As it was highlighted through Maslow's hierarchy of needs and Effort-Reward Imbalance model by Siegerist (1996) that the higher the reward, the higher is the job satisfactions. This study also shows that there is a difference in level of QWL among different groups of income. The findings reveal that graduates in ICT generally receive a higher pay compared to those graduates in other fields of study. This is parallel to the pay range offered by the Public Service Department of Malaysia. The basic salary for university graduates in the field of ICT is within the range of RM1811 to RM4595, which is above the average salary in other fields of study (Public Service Department, 2004). The data also show a similar trend as 57% of the IS personnel were being paid between the range of RM2000 to RM5000/month. Although the pay range of IS personnel ($\bar{x} = \text{RM}3605.00/\text{month}$) is above the average earning of graduates in other fields. IS personnel who are earning less than RM5000/month have lower mean scores ($\bar{x} = 4.70$) in QWL compared to the IS personnel earning more than RM10000/month ($\bar{x} = 5.56$). Clearly, the results indicate that the higher income group experience better QWL among IS personnel. However, in a recent study, Julia (2003) found that the IS personnel have expressed the dissatisfaction with their ratio between their pay scale to workloads.

Professional Characteristics

Duration of Computer Use at Home

The mobility of the ICT has changed the nature of work. ICT allows the IS personnel to work anywhere at anytime. It was found that 40% of the respondents have been carrying out work related activities for more than 2 hours/day at home. Comparative study between Korean and American IS personnel reveals similar results that Korean or Asian IS personnel would make use more of their free time for job-related activities compared to American IS personnel. Hofstede (1980) interpreted that integrity and loyalty to one's organization is higher among the latter than the former. Table 2 shows an average of 3 hours is spent by the respondents on the computer work at home. This indicates that IS personnel take additional hours at the expense of their family time. In real fact, such mobilized work nature increases the work-family conflict (Bradley, 1999). However, the finding shows there is not much difference in mean score. Therefore, respondents express similar level of QWL although they spent considerable amount of time at home on work related activities.

Work Experience

Among the respondents, about 59% have less than 5 years of total working experience, with an average of 5.16 years. However, 79% of the respondents have shown to have less than 5 years of working experience in their current work position. This indicates that 21% of the respondents in MSC status organizations were part of the senior workforce. This means that the current workforce in ICT organizations is a mixture of new and senior employees (not all of them were rank-and-file personnel). They would have been working as technical personnel in other fields and then promoted to IS personnel in their current organizations. This argument is supported as it represents only 16% of IS personnel who have 5 - 10 years of work experience in their current job, whereby 28% of respondents have total working experience for 5 -10 years. The average of 3.94 years of working experience in their current position confirms the fact that most of them are rather new in the workforce or absorbed from other departments to become IS personnel. The interpretation is sound because only 21% of the respondents have more than 5 years of working experience in their current position.

The mean scores of QWL between employees who were working more than 10 years ($\bar{x} = 5.02$) higher from those who were working less than 5 years ($\bar{x} = 4.69$). This implies that the longer working experience shows greater QWL. This finding support the argument posed by Lim et al. (1999) that IS personnel working more than five years would enjoy better QWL. The finding also provides an insight that educational qualification, knowledge and skills with substantial working experience would help the personnel to secure a higher level of job position. Therefore, continuing learning culture is essential for IS personnel to be competitive in the contemporary employment market.

Occupational Category

The raw data of 14 occupational groupings were categorized into four major occupational categories; namely, management, software developer, application engineer and technical support staff. Among the respondents, about 32% of them were employed as application engineers followed by software developers (29%). The data indicate that the nature of jobs among IS personnel in Malaysia is focused on the application and the maintenance of the information system rather than content development. The mean scores which range from 4.59 - 4.89 represent moderate to high level of QWL. Among the occupational groups, management has a high mean score ($\bar{x} = 4.89$) and the lowest is technical support group ($\bar{x} = 4.59$). Therefore, management groups experience high QWL compared to the technical support group.

Table 2
Professional Profile of Respondents and Mean Score of QWL (n= 453)

Professional Profile	n	%	Mean Score of QWL	
			\bar{x}	SD
Duration of Computer Use at Home (hours/day)	272	60.0	4.78	.69
≤ 2.0	105	23.2	4.62	.67
2.1 - 5.0	57	12.6	4.67	.77
5.1-10.0	19	4.2	4.89	.77
≥ 10.1			4.74	.12
$\bar{x} = 3.05$ SD : 3.21				
Work Experience (years)	95	21.0	4.59	.61
≤ 2	171	37.7	4.69	.69
2.1 - 5.0	128	28.3	4.76	.71
5.1 - 10.0	59	13.0	5.02	.76
≥10.1			4.77	.18
$\bar{x} = 5.16$ SD= 2.60				
Work Experience in Current Position (years)	174	38.5	4.76	.72
≤ 2	181	40.0	4.67	.68
2.1 - 5.0	70	15.5	4.78	.66
5.1- 10.0	28	6.0	4.84	.79
≥10.1			4.76	.07
$\bar{x} = 3.94$ SD= 2.18	98	21.6	4.89	.73
Occupational Category	130	28.7	4.76	.64
Management	145	32.0	4.68	.75
Software Developer	80	17.7	4.59	.63
Application Engineer			4.73	.13
Support Personnel	393	86.7	4.71	.70
Employment Practice	38	8.4	4.87	.84
Full time/Permanent	8	1.8	4.84	.85
Contract	14	3.1	4.97	.84
Part time			4.85	.11
Others	211	46.6	4.59	.65
Work Practices	91	20.1	4.71	.69
Conventional (8am to 5pm/day)	81	17.9	4.80	.69
Shift work (8/9 hours/day)	36	7.9	4.85	.62
Comprehensive work (5 days/week)	24	5.3	5.27	.81
Flexible hours (No time limitation/day)	10	2.2	5.00	.66
Extended hours (12 hours/day)			4.87	.24
Others				

Employment Practice

Table 2 shows almost 87% of the respondents were employed on a permanent basis in the organization. In contrast to the other types of employment practices in ICT industries, the contract staff (8.4%) exceeded the others (3.1%) and part timers (1.8%). This indicates that MSC status organizations are practising long term and secured employment. Those IS personnel employed on a full-time/permanent basis were Malaysians whereas, those who are on contract basis were the expatriates. Respondents who fall in the category of others and part timers were mostly freelancers, employed on project basis or they were engaged in outsourcing.

The nature of work that allows the IS personnel to work anywhere at anytime allows the MSC organizations to have diverse employment practices. Martinsons & Cheung (2001) added that outsourcing is likely to create new job requirements and a major role change for IS personnel. However, IS personnel particularly those who are employed in MSC status organizations are engaged in permanent employment. This means, the MSC organizations prefers to have in-house IS personnel. This depicts one of commitments of the organizations in leveraging the nation towards a knowledge-based society. It also encourages the transfer of technology from the expatriates to the local ICT entrepreneurs. The small number of expatriates in the organizations shows the capability of Malaysian IS personnel in handling the innovation of ICT (Employment Outlook, 2004). The mean scores of the different employment practices on QWL in MSC organization are within a small range of $\bar{x} = 4.71$ to $\bar{x} = 4.97$. Therefore, IS personnel were experiencing equal level of QWL across the different types of employment contract.

Work Practices

The working hours were categorized into 6 types namely; conventional working hours (8am to 5pm/daily), shift hours (must work for 8/9 hours/day), comprehensive work week (5days/week), extended hours (12hours/day either shift or conventional), flexible hours (without limitation of working hours and others (freelancing, outsourcing). Even though, the ICT allows ones to work from anywhere at anytime there are still a majority (92%) of IS personnel who are engaged in normal working hours (Table 2). Similarly, though ICT has been used to increase flexibility in working hours among contemporary organizations, the conventional practice of the minimum man hours/day is still emphasized. This is factual because only 8% of the respondents are involved in flexible working hours. This finding also corresponds with the occupational categories that indicates the nature of job among the respondents focused on the application and maintenance of the information system. Therefore, it is logical to emphasize that the MSC status organizations prefer permanent and full-time IS personnel in their premises. Thus, the majority of the IS personnel were based in the workplace and required to work in the normal working hours.

The mean score of QWL among IS personnel practising flexible working hours ($\bar{x} = 5.27$) is higher than the other (conventional ($\bar{x} = 4.59$), shift work ($\bar{x} = 4.71$) and comprehensive work week ($\bar{x} = 4.80$)) modes of working hours. This means that the

personnel involve in flexible working hours are enjoying better QWL than the other types of working hour categories. This situation gives privilege to IS personnel to make decision on their job assignment as well as personal matters. Thus gives them freedom to prioritise the organizational and personal needs. The lower mean score on QWL among the normal work practices reflects the rigidity of the working hours as it limits the employees' freedom. The IS personnel in this situation are strictly required to follows the stringent work guides.

Contribution of the Components of Job Dimensions to QWL

Five components of job dimension recommended by Hackman & Oldham (1975) were utilized to predict the QWL. Among them were skill variety, task identity, autonomy, task significance and feedback. Table 3 shows that the strongest predictors are task identity (beta=.304), followed by task significance (beta=.228) and autonomy (beta=.217). Out of five components only three become significant predictors of QWL.

Table 3
Multiple Regression Results of Components of Job Dimension on QWL (n = 453)

Job Dimension	b	Beta	R²	Adj. R²	R²Change	t
Task Identity	5.614	.304	.363	.361	.363	5.428
Autonomy	3.959	.217	.404	.401	.041	4.745
Task Significance	4.113	.228	.427	.423	.024	4.301
Constant	183.623	.				25.34

R= 0.654 F = 111.676 Sig F= 0.00

This data show that task identity (36.3%), autonomy (4.1%) and task significance (2.4%) were the components in job dimension that have significant contribution towards QWL among IS personnel. This means task identity (beta=.304)is the most important components compared to autonomy (beta= .217) and task significance (beta= .228). This is supported by the nature of their work which requires them to be responsible for the entire task. The level of personal initiatives with substantial level of control over their job allow for better QWL among the IS personnel. Therefore, the respective components of job dimension have a significant contribution to QWL. The components also indicate significant high linear relationship (R=.65) towards QWL. The three components of job dimension explained 42.3% in variance toward QWL. The significant F value represent the data fit the model.

Contribution of Job Dimension and GNS to QWL

The statistical procedures used were similar to the ones performed in the previous section. Knowledge on the significant contribution of job dimension and GNS to QWL would help to derive specific recommendations to improve the QWL among IS personnel in Malaysia. Table 4 depicts the results of the regression analysis of the independent variables (stepwise method) with QWL. The result indicates that the two variables are the

predictive variables for the model. The two selected independent variables were able to explain 44.4% of the variation in the QWL among IS personnel.

Table 4
Multiple Regression Results of Job Dimension and GNS on QWL (n = 453)

Variables	b	Beta	R ²	Adj. R ²	R ² Change	t
Job Dimension	2.114	.487	.414	.412	.414	9.827
Growth Need Strength	-.428	-.088	.448	.444	.007	-2.443
Constant	188.495					18.799

R= 0.669 F = 121.388 Sig F= 0.00

With a significant F value, it also indicates that the model fit the data. Between the variables, job dimension shows the strongest contribution to QWL with a beta of .487 and followed by GNS (beta=-.088). The multiple R =.67 shows significant high correlations between the independent variables and QWL. The result concluded that the independent variables are important because they have substantially contributed toward the QWL of IS personnel.

Conclusion

In real life, QWL is an inevitable phenomenon and it exists in all kinds of occupations however, the degree and their extent vary. There is no doubt that the ICT work environment and the IS personnel who deal with it directly is stressful as it known from the research in the developed countries and it is partially revealed in this study. Job dimension and GNS able to explain 44.4% of the variation in the QWL among IS personnel. This findings help the practitioners to understand the importance of these two variables in providing a better QWL particularly for IS personnel. Although the study generally, describe that IS personnel are experiencing better QWL, but bear in mind that this type of work environment is in the early stage of evolution and practically new for Malaysia. Therefore, the predictive components should be taken as a precautionary measure in the strategic human resource management planning. If it is not, it will have substantial negative impacts on the overall development of ICT sectors. Further research recommends that there is a need to look into the career aspirations of junior IS personnel as career deals with the relationship between work and life experience. It is also suggested that a similar study to be conducted on men and women IS personnel realizing the fact that women are making an advance into modern employments including in the ICT sector.

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