CAREER ADAPTABILITY AND INTENTION TO LEAVE AMONG ICT PROFESSIONALS: AN EXPLORATORY STUDY

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ABSTRACT
Adaptability was found to be one of the important aspects for employees in order for them to survive in their career especially to those in the ICT industry. The ICT work nature involved with consistent work changes, intensive creative thinking, and advanced technological upgrading. Although organizations supposed to encourage career adaptability among the employees, previous studies however showed that such encouragement contributed to the employees' turnover rather than retention. In order to generalize the previous findings into the Malaysian work context, this study explored whether career adaptability would have such influence on intention to leave the organization and the career. Findings of this study found that career concern, career control, career curiosity and career confidence were negatively correlated to both intentions to leave. However, only career control and career confidence were found to be significance in explaining the study model in multiple regression analyses. Implications of this study and recommendation for future studies were discussed.
Keywords: career adaptability, intention to leave, ICT professionals

INTRODUCTION

The uses of Information and Communication Technology (ICT) have been developed tremendously in order to assist the operations for daily business and education throughout the world. Technological advancements today have passed beyond cables and wires where the means of communication now can be done from just about anywhere. Office works can be done from home, meetings can be conducted virtually and educational classes can be handled from thousands of miles away without having to have the students to sit in front of their teachers in the same classrooms. However, there is a concern recently that such technological advancements would not be possible to be continued without the sufficient supplies of human capitals. They are the ICT professionals. Currently, it was found that the level of maturity for the ICT industry is not growing at the same rate with the number of the required available skill supplies (McLaughlin et al., 2012). To add, the retirement of the baby boomers in the ICT industry is making the risk of insufficient skill supplies to increase (Hecker, 2005). In Malaysia, the concern began with the issue of high turnover rates among the ICT professionals that continues to rise ("Malaysian Employers Federation," 2012) and the problem becomes more serious when these ICT professionals may also have the tendencies to leave the ICT career itself and work in a different set of career other than ICT (JobStreet.com, 2010).

Recent Malaysian employment statistics reported that the ICT industry was placed first in the list as the highest turnover rate between year 2011 to year 2012. The difference between the turnover rates of ICT as the highest in the list (75.72%) with the second highest is 43.32%. Such big gap required immediate attention for researchers to conduct such studies that can lead to lessen the turnover rate in the near future. On a similar note, the new generations seems to be not interested to take ICT as part of their career plan (MDec & Synovate, 2011). Therefore, in order to determine the current situations of turnover issues in ICT industry, the aspects of intention to leave among the ICT professionals were examined in this research. The assessments on intention to leave rather than the actual leaving were conducted because many evidence showed that intention is the immediate predictor to the actual behaviour (Fishbein & Azjen, 1975; Skinner, 1989; Stallworth, 2003).

It is also important to look at the potential antecedents that can contribute to reduce the level of intention to leave. Tracing back the work among ICT students, Der Vyver (2009) suggested that the students in ICT programs need to be adaptable in order for them to complete their study courses, and to enter and survive the ICT career successfully. In line with the theory in determining individual's decision to participate by March and Simon (1958), career adaptability represents the ease of movement that will influence the decision to leave. However, it was found previously that career adaptability will also encourage the intention to leave among the employees at the same time (Ito & Brotheridge, 2005). Although adaptability in career is very much needed among human capitals in the ICT field, it might also be one of the factors for job-hopping between

organizations. Therefore, this research's aims were to explore the various relationships between the constructs of career adaptability and intention to leave particularly among ICT professionals in Malaysia. Specifically, this research assessed whether career adaptability positively influence both intention to leave the organization and intention to leave the career, and whether the encouragement of career adaptability is healthy for organizations especially in ICT industry.

Although this research focusing on the industrial settings, the implications of this research are also relevant to the educational settings among the academicians. The issues of intention to leave among the ICT professionals in Malaysia are paramount to the studies both in academic and industrial setting. This is because the issues of human capital supplies in various industries began with the types of learning skills that nurtured the young students especially those in the higher educational institutes such as the colleges and the universities. The process continues with the pedagogy that prepared these students not just to pass the examinations but also to survive the employment world especially during the transitions process (from a graduate to an employee). In regards to ICT industry, the preparation for an individual to be adaptable in their career cannot be developed overnight. The skills need to be developed earlier during their studies in higher learning institutions. Thus, the findings of this research can assist the educational perspectives by planting the seeds of adaptability among the students in order for them to cope with the challenges in the career futures.

Career Adaptability

Career adaptability is defined as "the attitudes, competencies and behaviours that individuals use in fitting themselves to work that suits them" (Savickas, 2005, p. 45). Career adaptability is a plan for the unforeseen events that involves an individual undertaking in handling with changes (Rottinghaus, Day, & Borgen, 2005). It also deals with how an individual constructs a career which involves with the adjustment to vocational development tasks, occupational transitions, and personal traumas by solving problems that are usually unfamiliar, often ill-defined, and always complex. Originating from the work of Super (1980) of career maturity, career adaptability was introduced by Savickas (1997) where the adjustments made by him would be more suitable to be used among the working adults. Career maturity denote the fact that adolescents could peak at a level of maturity, as displayed in their career-related competencies and attitudes whereas career adaptability implies an ability that may either improve or deteriorate during the life span (Super & Knasel, 1981). In other words, an adolescent may become progressively more mature in terms of careers, whereas an adult may, due to psycho-social circumstances, be less or more adaptable during different stages in their careers (Hirschi, 2009). Adult career is characterised not only by the entry into, training for and working in an occupation, but it is much more also relates to the setbacks faced whilst working and the adaptability required to cope with the changing world circumstances (Savickas, 2005).

Career adaptability has been suggested as a key competency in career success generally (O'Connel, McNeely, & Hall, 2008) which enable individuals to effectively implement their self-concepts in occupational roles, thus creating their work lives and building their careers. Savickas (2005) developed a career construction theory's model of self-regulation for social and developmental with a set of specific attitudes, beliefs, and competencies which is known as the ABCs of career construction. These four syndromes of attitudes, beliefs, and competencies constitute career adaptability and represent resources for self-cultivation. The adaptive individual is conceptualized as (a) becoming *concerned* about the vocational future, (b) taking *control* of trying to prepare for one's vocational future, (c) displaying *curiosity* by exploring possible selves and future scenarios, and (d) strengthening the *confidence* to pursue one's aspirations (Savickas, 2005). Hence, the dimension for career adaptability is also known as the 4C's which are career concern, career control, career curiosity and career confidence.

Career concern involved with the individual views about the current career and how the future career will be like. It emphasizes preparation and planning for the career in the future (Creed, Fallon, & Hood, 2008). Career control is associated with the responsibility of a person to construct his/ her own career (Savickas, 2005). Individual with career control can decide on which job and career that should be taken based on his/ her own. Even though they can listen to other people's advice, the final decision will be made by the person's own decision. Career curiosity reflects the ability of a person to explore and finding information that are related to the development of the career (Savickas, 2005). People with high career curiosity normally will do large amount of research such as reading journals, brochures of training and development, asking expert advice and many more activities associated with developing the undertaking career. Finally, career confidence denotes the striving for success by encountering challenges and overcoming obstacles. The level of career confidence will determine the ability to solve problems related to work tasks.

The potential connection of the relationships between career adaptability and intention to leave was taken by the

work of Ito and Brotheridge (2005) and Der Vyver (2009) using the underlying theory by March and Simon (1958). The theory stated that individual need to consider the level of desire of movement and ease of movement in order to decide whether to stay or to leave an organization. Desire to move consists of commitment and satisfaction while the ease of movement was the availability of job market elsewhere (Anderson & Milkovich, 1980). The theory was then extended in recent work among IT professionals in Singapore where the antecedents for desire to move and ease of movement was modified to suits the current work situation (Joseph, Ng, Koh, & Ang, 2007). Career adaptability was inferred to influence job mobility (Trevor, 2001) and akin to flexibility (Wessel, Ryan, & Oswald, 2008) which contributed to the ease of movement for individual to leave the organizations. However, because there was previous evidence that stressed on the importance of adaptability in order to survive the ICT world, this relationship between career adaptability and intention to leave need to be further examined.

Intention to Leave
Intention has been recognized as the immediate predictor to actual behaviour (Sommer & Haug, 2010). Sheeran (2002) provided evidence that there is significant correlation between intention and behaviour. Hence, this study measured the intention to leave in order to determine the final outcome which is the real leaving. Although having intention to leave will not necessarily lead to actual leaving, the thought of leaving itself will affect organizational performances because it contributed to work inefficiencies, disengagement and absenteeism (Kivimaki et al., 2007).

The issues of intention to leave in ICT industry do not just occurred recently. It began since the early 2000s with the burst of dot-com bubble in the US. Although the salaries and benefits associated with this career continues to increase, the number of employee's leaving did not decrease (Rouse, 2001). This is also happening in Malaysia where the numbers of ICT graduates who continue working in the same field are now decreasing (Wong, 2010). Relative to that, the intention to leave assessment in this study divided into two aspects which are intention to leave the organization and intention to leave the career. This is to examined whether the current ICT professionals were intended to leave the ICT career. There are few types of turnover which are changing from unit to unit, organization to organization and finally the most severe case is leaving the current career for other career (Krausz, Koslowsky, Shalom, & Elyakim, 1995). Thus, it is timely to examine the current state of the ICT professionals whether they are having high or low intention to leave both their organization and the ICT career itself.

Previously, the relationship between career adaptability and intention to leave was tested and the relationships were positive (Ito & Brotheridge, 2005). This means that the increasing level of career adaptability will also increase the level of intention to leave. Although the relationship seems to encourage intention to leave, the study conducted by Ito and Brotheridge (2005) measured only on the aspects of intention to leave the organization. This study however extends the intention to leave aspects to leaving the career. As the key to survive in ICT field (Van Der Vyver, 2009) career adaptability in this study's perspective are expected to encourage individual to stay in ICT career. Thus, this constructs of career adaptability is relevant to be studied in determining the antecedents to lessen the turnover issues.

THE STUDY
This study used quantitative approach to generalize research findings among the ICT professionals in Malaysia. In order to explore whether there were relationships existed between career adaptability with both intention to leave the organization and the career, several tests were conducted such as the pearson correlation test, and the regression analyses. Two models were separately analyzed in regression analyses which are between career adaptability with intention to leave the organization and career adaptability with intention to leave the career. The method for analyses and findings of the study are discussed next.

Participants
The study samples were consisted of 303 of ICT professionals from Selangor and Kuala Lumpur from 15 different organizations. The sampling frame was taken from the lists of World Class Status listed by Multimedia Super Corridor (MSC). The sample frame was chosen because it provides the latest lists of ICT organizations in Malaysia that were highly adopting, developing, supplying and upgrading ICT technologies. The samples work nature ranging from and not limited to networking, software development, system technician and etc. There were 59% males and 41% females. 63% have bachelor degree18.6% have master degree and 1.7% obtained professional courses. There were 61.9% coming from Malay ethnic, 25.2% from Chinese ethnic, 11.3 % from Indian ethnic and 1.7% from other category of ethnic.

MEASURES

Career Adaptability

To measure the four C's of career adaptability (concern, control, curiosity and confidence), this study adopt the instruments from Savickas (2008). This instrument was chosen because it has been thoroughly studied by Savickas and his colleagues where the replications for different settings were done in various countries such as US, Europe and Australia. The questions required the respondents to select from scale 1 to 7 where 1 referring to 'very not strong' and 7 referring to 'strongest'. The result for the internal consistency (cronbach's slpha) for the constructs of career concern, career control, career curiosity and career confidence are .89, .89, .82, and .88 respectively.

Intention to Leave

The instruments used for intention to leave were taken from Alam and Mohammad (2010). There were three items which covering the aspects of searching, thought and intend. For example 'Presently, I am actively searching for other job'. The same instrument was used to measure intention to leave the organization and intention to leave the career. The words that referred to leaving the organization were modified in order to give meaning to leaving the career. For example 'Presently, I am actively searching for *other career than ICT*'. The instrument use 7-points scale where 1 represent 'strongly disagree' and 7 represent 'strongly agree'. The cronbach's alpha for intention to leave the organization is .88 while intention to leave the career is .92.

Analysis

The responses obtained from the respondents in measuring their intention to leave and career adaptability were analyzed using SPSS version 20. The data first analyzed by findings the means of each constructs in order to determine the level of the respondents' career adaptability and both intention to leave the organization and intention to leave the career. The data were then further analyzed for correlation and regression to test the relationships that might exist. Prior to the main analyses, the data set has passed the normality test and reliability test thus make the chosen assessment instruments relevant to be used in Malaysian work settings.

FINDINGS

Descriptive Statistics

The mean score for all variables are at moderate level. The respondents have higher intention to leave the organization (M=4.13; SD=.88) compares to intention to leave the career (M=3.53; SD= .85). This shows that the possibility of the ICT professionals to leave the organization is much higher than they are to leave the ICT career.

Career curiosity achieved the highest mean score (M=5.13; SD= .97) within the career adaptability constructs followed by career confidence (M=5.13; SD= .95). The ICT professionals are curious and have confidence in their career. The average mean score for career adaptability construct is 5.07 which indicated that these ICT professionals are moderately adaptable into their ICT career.

Table 1: Mean score for Intention to Leave and Career Adaptability

Dimensions	Mean	SD
Career Adaptability		
Career Concern	4.95	.87
Career Control	5.05	.97
Career Curiosity	5.14	.97
Career Confidence	5.13	.95
Average for Career Adaptability	*5.07*	
Intention to Leave Organization	4.13	.88
Intention to Leave Career	3.53	.85

Note: 1.00 – 3.99 = low; 4.00 – 4.99 = low-moderate; 5.00-5.99= moderate-high; 6.00 – 7.00 = high

Correlation

Correlation results shown in Table 2 stated that the relationships between the constructs of intention to leave and career adaptability were significant negatively related. All results were significant at .01 levels. In intention to leave the organization, it was highly correlated with career control (r= -. 478) followed by career confidence (r= -.466). The highest correlation between career adaptability constructs and intention to leave the career is for career confidence (r= -.447) followed by career control (r= -.427).

Table 2: Correlation results between the constructs of Career Adaptability and Intention to Leave

Variable	1	2	3	4	5	6
1. ITLO	1					
2. ITLC	.791**	1				
3. Career Concern	-.441**	-.381**	1			
4. Career Control	-.478**	-.427**	.739**	1		
5.Career Curiosity	-.432**	-.384**	.694**	.739**	1	
6.Career Confidence	-.466**	-.447**	.693**	.781**	.766**	1

**. Correlation is significant at the 0.01 level (2-tailed).
Note: ITLO= intention to leave the organization; ITLC= intention to leave the career

Coefficient for the predictor of variables

Using stepwise analysis, Table 3 showed the coefficient results for career adaptability and intention to leave the organization. In model 1, only career control is significant with the t-value at -9.430 ($p < .001$). The standardized Beta coefficients for career control and intention to leave the organization is -.478. The R square is .228 significant at .000 levels. This means that the proportion variance of intention to leave explain by 22.8% of career control. For model 2, career control (B= -.291; $p < .001$) and career confidence (B= -.239; $p <.01$) were significant with intention to leave the organization. Career concern and career curiosity were both removed from the model tested due to the insignificant results. The r square for model 2 is .250 ($p < .01$). This means that in model 2, 25% of intention to leave the organization was explained by career control and career confidence.

Table 3: Coefficient results for career adaptability and intention to leave the organization

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.736	.390		19.850	.000
	Career Control	-.714	.076	-.478	-9.430	.000
2	(Constant)	8.200	.415		19.769	.000
	Career Control	-.435	.120	-.291	-3.638	.000
	Career Confidence	-.365	.122	-.239	-2.991	.003

The same analysis was carried for intention to leave the career. Referring to Table 4, only career confidence was significant with intention to leave the career (B= -.447; $p <.001$) with the t-value of -8.66. The r square for the first model is .20 significant at level .000. In the second model, career confidence (B= -.291; $p < .001$) and career control (B= -.200; $p < .05$) were found to be significant with intention to leave the career. The r square for the second model is .215 significant at .015. The second model showed that 21.5% of intention to leave the career was explained by career confidence and career control.

Table 4: Coefficient results for career adaptability and intention to leave the career

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.082	.417		16.990	.000
	Career Confidence	-.692	.080	-.447	-8.666	.000
2	(Constant)	7.374	.430		17.135	.000
	Career Confidence	-.450	.127	-.291	-3.556	.000
	Career Control	-.303	.124	-.200	-2.442	.015

Regression

Table 5 showed the regressions analyses for model 1 and model 2 between career adaptability and intention to leave the organization. Both models were significant at level .000. The F value for model 1 is 88.9 while for model 2 is 50.11. The first model only consists of career control while model 2 consists of career control and career confidence. Career concern and career curiosity were both removed from both models.

Table 5: Regression analysis for career adaptability and intention to leave the organization

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	145.086	1	145.086	88.931	.000[b]
	Residual	491.064	301	1.631		
	Total	636.150	302			
2	Regression	159.307	2	79.653	50.113	.000[c]
	Residual	476.844	300	1.589		
	Total	636.150	302			
a. Dependent Variable: intention to leave the organization						
b. Predictors: (Constant), career control						
c. Predictors: (Constant), career control, career confidence						

Table 6 showed the regression results for career adaptability and intention to leave the career. Both models were significant at level .000. The first model only consists of career confidence while model 2 consists of career confidence and career control. Both career concern and career curiosity were removed from the models. The F value for the first model is 75.1 and model 2 is 41.14.

Table 6: Regression analysis for career adaptability and intention to leave the career

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	130.562	1	130.562	75.091	.000[b]
	Residual	523.355	301	1.739		
	Total	653.917	302			
2	Regression	140.761	2	70.380	41.146	.000[c]
	Residual	513.156	300	1.711		
	Total	653.917	302			
a. Dependent Variable: intention to leave the career						
b. Predictors: (Constant), career confidence						
c. Predictors: (Constant), career confidence, career control						

DISCUSSIONS

The results indicated that the relationships between career adaptability and intention to leave the organization and intention to leave the career do exist. In contrast with previous studies where career adaptability and intention to leave were positively correlated (Ito & Brotheridge, 2005), this research found that the relationships were significant and but negatively related. This means that having career adaptability will prevent the ICT professionals to have intention to leave for both the organization and the career. The research findings of this study can also be used in order to support previous research which found that students of ICT programs in higher learning required to be adaptable in order to cope with the study modules and as one of the tools to survive in the ICT field (Van Der Vyver, 2009). The existence of adaptability in career is just an extension of having adaptability in studying ICT courses. Perhaps due to the constant changes and the advanced and complicated technical upgrades required such individuals who venturing into this line of work to be able to cope with the turbulent work environments. The ICT industry also required individual to have critical thinking, creative work skills and expert in some tactical knowledge. Therefore, such adaptability skills need to be taught starting from the studies level in the higher learning institutes.

Although Ito and Brotheridge (2005) found career adaptability to be quite problematic for organization as it encourages job-hopping, this has only been tested in Canada among the federal civil services. Their study does not represent the ICT industry as a whole especially within the Malaysian work context. The differences in terms of cultural and individual personality aspects (Hofstede, 1984; Noordin, Williams, & Zimmer, 2002) can be some of the elements that might contributed to the difference results found in this current research. Thus, it is important to note such differences turn the views from organizations that have doubt to developed the organizational talent as it contributes to the departure of the employees to the views of having confidence to

developed such talents for the benefits of work performances and as well as employees' retentions. Findings of this study contribute to the body of knowledge where it entails that ICT organizations in Malaysia should encourage career adaptability without having the worries of employees' turnover. On similar note, the encouragement for the development of the adaptability skills can be implemented in the teaching and learning process among the students and the academicians without having to worry about job-hopping issues because being adaptable would not increase their leaving intention.

Even though all career adaptability constructs were significantly correlated with intention to leave the organization and the career, further tests in multiple regressions analyses showed that only career control and career confidence are able to significantly explain the intention to leave for both organization and career. Whereas, career concern and career curiosity were both found to be not significant to be included in the study models. Individual who has the sense of confidence in their career would also have the potential to have the control in determining the career directions that they are choosing. Individual with these attributes are able to adapt to constant changes in work environment and pre-prepared with uncertainty within work related in the organizations (Savickas, 2005). This will reduced the possibility to develop the intention of leaving the organization or the career such as giving up, loosing self-esteem, job dissatisfaction, work-conflicts, and work disengagement.

CONCLUSIONS
Findings of this research indicated that career adaptability appears to have influence on ICT professionals' intention to leave the organization and intention to leave the career. The higher career control and career confidence that the ICT professionals are having, the lower their intention to leave will be. Career adaptability that could lead to employees' retention is an area that is still underexplored, especially in the Malaysian work settings. An extension of this study in looking at the relationships between career adaptability with intention to leave aspects within the same ICT field or other industry through a qualitative method, or a blend of both qualitative and quantitative methods can be helpful in providing in-depth understanding of this issue. Thus, more focus should be emphasized on the career adaptability-variables involved, specifically in studying the employees' career retention. It is also suggested that adaptability should be tested among the students in higher learning institutes in regards to relating it to the level of the students' study engagement/participation. This is because the skills of career adaptability cannot be developed through overnight. The adaptability skills in career need to be consistently developed and it must start as early as in higher learning institutions. Thus, this study can be taken as the alarm for the academicians especially those related to ICT programs to include adaptability skills in their pedagogy strategy in order to produce future human capitals that are highly adaptable in their career and also with lower level of intention to leave both the organization and the career.

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