

THE INFLUENCE OF PERSON-JOB FIT TOWARDS ENGINEERS' RETENTION

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ABSTRACT

The semiconductor industry is a major contributor to Malaysia's economy, especially to Penang. The upgrading of the industry to a high-value added industry has resulted in high turnovers and job hopping among the engineers as the demand for them increases. Thus, retaining engineers has become an important issue for the semiconductor companies because retention of skilled engineers help the organizations to achieve their goals. This study intends to identify factors used to increase employees' retention. Specifically, this study examines the relationship between person-job (PJ) fit and employees' retention. The data was collected through questionnaires among engineers in semiconductor companies, in Penang. A total of 268 questionnaires were analyzed using the Statistical Package for Social Science (SPSS). The results indicate that PJ fit had positive inclination towards employees' retention. Based on the findings of this study, semiconductor companies should enhance engineers' PJ fit in order to motivate them to remain in the organizations. The outcome of this study produced practical contribution to semiconductor companies as they can outline effective guidelines for training activities that could increase PJ fit level among engineers.

Keywords: *person-job fit, employee' retention, semiconductor companies, engineers*

INTRODUCTION

Employee retention has been a great topic being discussed by many researchers as retaining skilled employees could help organization to reach its goals. Retaining the best employees in the organization could help it to survive in the competitive business market and they become a main key driver for competitive advantages to the organization. As for Malaysian semiconductor industry, retaining skilled engineers has become an important issue, as the demand for skilled engineers towards performing high value-added activities are increases. The semiconductor companies need to retain their current skilled engineers for not losing them to their competitors (Micheal Page International Malaysia, 2012). This is because current skilled engineers are experts in their job and they can move from one company to another depending on their skill demand. The concentration of Malaysian economy from agricultural to industrial and high-technological businesses (Ninth Malaysia Plan, 2006-2010) also become a great reason towards the increase demands of skilled engineers in the semiconductor industry, particularly in Penang as the main hub for Malaysia's semiconductor

industry. It is important to note that low employees' retention (particularly engineers) which is related to high turnover may weaken the semiconductor business performance (Mustapha et al., 2010; Doh et al., 2011), as they are losing their highly skilled engineers towards successful job implementation (Mustapha et al., 2010; Moncarz et al., 2009; Ponnu & Chuah, 2010). Thus, it is important to semiconductor companies in Penang to keep their skilled engineers remained in the organization.

Most of the previous studies pertaining to employees' retention are focused on organizational factors, such as rewards and compensation (Zingheim & Schuster, 2008; Cho et al., 2006), training and development (Chew & Chan, 2008; Zingheim & Schuster, 2008), career management (Chew & Chan, 2008), and performance feedback (Maisela, 2001) as the determinants of employees' retention. However, there only few studies that focused on individual factor to retain employees. Scroggins (2008) in his study reported that the intrinsic factor, such as person-job (PJ) fit as an individual variable that contributed to the new model of employees' retention. Besides that, PJ fit was a new individual variable that received greatly attention from researchers (Iplik et al., 2011; Sekiguchi, 2007) and claimed to influence many positive human behaviours (e.g. employees' retention) (Lauver & Kristof-Brown, 2001; Kristof-Brown et al., 2005; Vogel & Feldman, 2009).

Specifically, the objective of the study is to examine the influence of PJ fit towards employees' retention among engineers in semiconductor companies in Penang. The finding would benefit semiconductor companies, in terms of developing activities that could enhance engineers's PJ fit level and thus motivate them to stay in the organization.

PERSON-JOB FIT (PJ FIT)

PJ fit as one of person fit dimensions was claimed by many researchers (Iplik et al., 2011; Sekiguchi, 2007) as the determinants of positive work outcomes and human behaviours, such as job performance (Kristof-Brown et al., 2005), employees' satisfaction (Iplik et al., 2011); organizational commitment (Iplik et al., 2011; Kristof-Brown et al., 2005; Greguras & Diefendorff, 2009; Mohamed, 2009), work stress (Iplik et al., 2011), and employees' retention (Kristof-Brown et al., 2005; Scroggins, 2008; Lauver & Kristof-Brown, 2001; Vogel & Feldman, 2009). Edwards (1991) had made an important contribution to the PJ fit literature as he conceptualized PJ fit as having two different conceptualizations, which are PJ demands-abilities (DA) fit and PJ needs-supplies (NS) fit. The PJ DA fit was specifically defined as the congruence of employees' knowledge, skills, and abilities (KSAs) with their job demand. On the other hand, the PJ NS fit represents the employee's needs, and preferences that are met by the job performed (Edwards, 1991). However, most of the PJ fit studies are concentrated on the benefits of PJ DA fit, and they had defined PJ fit as compatibility between an individual's abilities and their job's demands (Kristof, 1996; Cable & DeRue, 2002; Iplik et al., 2011). This definition explained that individual with PJ fit are those who have adequate KSAs that are needed to successfully perform their work task. In this study, conceptualization of DA fit was used to test the influence of PJ fit towards employees' retention.

THE RELATIONSHIP BETWEEN PJ FIT AND EMPLOYEES' RETENTION

A meta-analysis study by Kristof-Brown et al. (2005) had reported strong correlations between PJ fit and intention to quit that could be used to retain great employees within organization. In addition, Greguras and Diefendorff (2009) did a study on full-time working adults on PJ fit and employees' organizational commitment and job performance. They further concentrated on the effects of PJ fit on employees' affective commitment that could be used in explaining the relationship between PJ fit and employees' retention. The results of the study revealed that PJ fit was positively correlated to affective commitment. Affective commitment is one of the organizational commitment dimensions that explained emotional attachment to the organization (Meyer & Allen, 1991). An employee who is affectively committed to an organization is highly connected and they desire to remain in the organization. Based on the finding of Greguras and Diefendorff 's (2009) study, employees who possessed the abilities that fit their job's demands (PJ fit) were emotionally attached to their organization and they were highly connected to the organization that finally influenced them to stay.

A similar finding was also reported by Mohamed's (2009) study pertaining to the effects of PJ fit on affective organizational commitment. The study reported that PJ fit was correlated to affective organizational commitment. This explains that employees who possess adequate KSAs for a job implementation (PJ fit) will present a high attachment to their organization. Furthermore, the feeling of attachment may bond the employees with the organization and enhance their intention to stay within the organization. Possessing KSAs that are relevant to a job requirement also enhances employees' job satisfaction and performance (Lauver & Kristof-Brown, 2001) that consequently will motivate them to continue performing their job, thus increase retention level. Therefore, it is reported that PJ fit could be used to influence employees' retention within organization.

METHODOLOGY

The disproportionate sampling was utilized, where 268 engineers in seven semiconductor companies in Penang were surveyed. The engineers in the semiconductor companies were selected since this group of employees (engineers) was in high demand (investPenang, 2012) that created a highly competitive market in attracting and recruiting skilled engineers. The data was analysed using Statistical Package for Social Science (SPSS) computer software version 19.0. The Pearson Correlation was applied to answer the study's objective.

Measures

A questionnaire was administered that contained two main variables mainly, PJ fit (independent variable) and employees' retention (dependent variable). The respondents were asked to tap their preference response using 7-Point Likert Scale starting with 1-Strongly Disagree to 7-Strongly Agree.

PJ fit which was conceptualized as DA fit (employees with KSAs that fit with job demands) was measured using two sources. Firstly, the three items that captured the skills and abilities elements were taken from Lauver and Kristof-Brown's study (2001). This instrument had reliability value of 0.79. Secondly, this study utilized the instrument developed by Cable and DeRue (2002) in capturing

the employees' knowledge element. The instrument by Cable and DeRue (2002) reported reliability result of 0.89.

Employees' retention was measured using five items previously used by Bozeman and Perrew (2001) that was developed by Mowday, Koberg, & McArthur (1984). This instrument had a reliability value between 0.90 and 0.94.

FINDING AND DISCUSSION

Table 1 exhibits the demographic characteristics of the 268 respondents. It shows that 192 respondents (71.6%) of the study were males, while 76 respondents (28.4%) were females. These respondents were in the age group between 25-34 years (72%) and more than half of them were Chinese (66%). As the respondents of this study were engineers, majority of them (89.2%) graduated with a first degree in the engineering disciplines and 21 of them (7.8%) held a master and some other degree in the engineering disciplines. In terms of job tenure, 204 respondents (76.1%) had worked for their current organization between two to 10 years.

Table 1: Demographic Characteristics

Demographic Characteristic	Frequency	Percentage	
Gender	Male	192	71.6
	Female	76	28.4
Age	Below 25 years	18	6.7
	25-29 years	100	37.3
	30-34 years	93	34.7
	35-40years	37	13.8
	40-44years	16	6.0
	45-50 years	4	1.5
Race	Malay	67	25.0
	Chinese	177	66.0
	Indian	10	3.7
	Others	6	2.2
Education Level	First Degree	239	89.2
	Masters	21	7.8
	Others	8	3.0
Job Tenure	<2years	45	16.8
	2-5years	115	42.9
	6-10years	89	33.2
	>11 years	19	7.1

Table 2 shows the Reliability Analysis and Pearson Correlation results for PJ fit and employees' retention. The results showed high reliability values for PJ fit with the Cronbach Alpha of 0.829. Meanwhile, the Cronbach Alpha value for employees' retention is 0.694. Although the value of Cronbach Alpha for employees' retention variable ($\alpha = 0.694$) was not as strong as PJ fit, Hair et al. (2010) suggested that 0.60 to 0.70 to be in the lower limit of acceptability. Therefore, the Cronbach Alpha value of 0.694 for employees' retention was considered to be within the acceptable range of

alpha. In conclusion, the results showed that PJ fit and employees' retention were reliable in measuring each variable ($\alpha > 0.60$; Hair et al., 2010; Tabachnick & Fidell, 2013). Meanwhile, the result from Table 2 also shows a positive significant correlation between PJ fit and employees' retention with $r = 0.308$ ($p < 0.01$). This result explained that PJ fit was positive and significantly influenced employees' retention.

Table 2 Reliability Analysis and Pearson Correlation Result

	Reliability Analysis (Cronbach's Alpha)	Pearson Correlation	
		PJ Fit	Employees' Retention
PJ Fit	0.829	1	
Employees' Retention	0.694	.308 **	1

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

This study discovered that there was a positive significant relationship between PJ fit and employees' retention. This means that employees with high KSAs which meet their job demands would stay longer in their current organization. Having high PJ fit, in terms of possessing high KSAs that match their job demands may help the employees to conduct their job better. They could implement their job effectively and successfully that could motivate them to less likely to leave their organization, and thus would increase their retention level. This is because highly performed employees would feel happier, satisfied and experienced less job stress. They could effectively apply their KSAs and this would motivate them to continue perform their job, which in return motivates them to stay working for their current organization.

The positive correlation between PJ fit and employees' retention could be supported by Greguras and Diefendorff (2009) and Mohamed's (2009) studies which found that PJ fit was associated with employees' affective commitment. The results of both studies could be used in explaining the relationship between PJ fit and employees' retention. Affective commitment refers to employees' emotional attachment to their organization that motivates them to remain in the organization (Meyer & Allen, 1991, Cooper-Hakim & Viswesvaran, 2005). Besides, employees with high affective commitment are highly committed to the organizational aims and are less likely to leave their organization (Cooper-Hakim & Viswesvaran, 2005), which subsequently will increase employees' retention. As far as the engineers' retention is concerned, engineers who own specific KSAs that fit their job demands (PJ fit) could influence their feeling of attachment (affective commitment), which in turn would influence them to remain in their organization. Therefore, employees, particularly engineers in semiconductor companies who possess KSAs that match their job demands (PJ fit) may stay longer in their organization, and subsequently this could increase their retention level.

The findings of the study affirmed that PJ fit could be used to influence employees' retention. Hence, this result offer value hints to semiconductor companies regarding the importance of PJ fit among employees, particularly engineers. In this regards, the organization, particularly semiconductor companies can use the given finding to develop a comprehensive strategies, such as planning an effective training and development program that could enhance the engineers' KSAs towards performing their job. As the engineers' jobs are related to high technology machines, on and off the job training which directly related with the machine and electronic equipment could be applied to enhance PJ fit level among engineers.

CONCLUSION

PJ fit was a new variable that received a pervasive growth in current literature. It was claimed to influence various positive human behaviours, especially employees' retention. Employees who fit well with their job (PJ fit) are effective in conducting their work task. They could apply their KSAs to effectively perform their job. At this stage, perfectly performed employees would feel happier, satisfied, and experienced less job stress, and thus motivate them to continue perform their job. As the employees happily continue perform their job, this would create a good attachment to the current organization, which in return increase retention level among employees. Therefore, it is important to the organization to create an effective training and development program that could increase employees' PJ fit level.

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