Malaysian Firms' Role in Retaining Engineers

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Abstract

An impediment to Malaysia's drive for knowledge economy status is thought to be a very high rate of labour mobility — overseas, to Singapore, and inter-firm — by knowledge workers, particularly engineers. While a strong external labour market may be a sign of economic dynamism, very high turnover rates may indicate a failure of the sort of organisational attachment among professionals that is needed to foster organisational learning. Moreover a 'brain drain' from the country of Malaysian-educated engineers remains an ongoing concern. Although this phenomenon is popularly attributed to the 'job-hopping' propensities of young Malaysians, it is argued here that firms, through their human resource management (HRM) practices, have an important role to play in encouraging stronger rates of knowledge worker retention. The article reports on research findings indicating varying levels of organisational commitment by a sample of Malaysian engineers. It examines possible links between high turnover and HRM approaches that afford employees few other forms of voice than exiting the firm. Evidence is provided that employee participation in decision-making, particularly relating to training and development, and the perceived fairness of performance appraisal practices, contribute to feelings of perceived organisational support (POS), and that this sense of support influences engineers' commitment and thus turnover intentions.

JEL Codes: J62, J63, M12

Keywords

Commitment; employee participation; engineer; knowledge worker; Malaysia; Perceived Organisational Support (POS); retention; turnover.

1. Introduction

The recruitment and retention of engineers have been integral to the Malaysian national policy approach to developing human capital. In a succession of national development policies and plans since the first Wawasan 2020 (Vision 2020) statement of 1991, Malaysian governments have given prominence to the pursuit of a knowledge economy. The goal of achieving developed nation status by 2020 has increasingly been linked to the fostering of knowledgeable human resources, with engineers seen as particularly important (Mahathir 1991; Najib 2010). An indication of the importance afforded to knowledge workers in Malaysia is the

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creation in 2011 of new statutory body, Talent Corporation Malaysia, chaired by Prime Minister Dato' Sri Haji Mohammad Najib bin Tun Haji Abdul Razak. In 2012 it outlined a 'Roadmap' for establishing Malaysia as a 'talent hub', with a significant emphasis on the engineering profession as the future driver for high-technology and science-based industries (TalentCorp 2012).

However, within Malaysia, an under-supply of skilled labour, especially in engineering, is seen as hampering the nation's drive for knowledge economy status. Since 2003, policy makers have been building from a low base — a long-term labour productivity growth rate of 1 per cent, less than a quarter of the level for Singapore and Korea, and a ratio of 295 research and development workers per million, one-fifth the Hong Kong ratio and one-fifteenth that of Singapore (Ducanes and Abella 2008: 35–36). Malaysian commentators have tended to explain labour shortages as being a result of high employee turnover. Malaysian employees appear to pursue their careers by moving from one company to another. This is seen as contributing to high turnover by making it easy to change jobs, restricting engineers' development and limiting their contribution to innovation within firms.

Moreover high labour mobility within Malaysia is not the only problem for the country. Whilst everywhere it is true that tertiary-educated knowledge workers or professionals such as engineers inhabit an increasingly global labour market, the rate of emigration by Malaysian highly skilled labour is considered excessive in comparison to that from other countries, exacerbating the destabilising effects of internal skilled labour shortages. In 2010, net labour migration of tertiary-educated workers was 11.1 per cent from Malaysia, compared with 2.7 per cent from Australia, 2.1 per cent from Indonesia, and only 1.2 per cent from Japan (Ratha et al. 2011).

There is a second, specifically Malaysian issue of cross-border mobility: that between the Malaysian state of Johore and Singapore. Many highly skilled Malaysian workers either move or undertake a daily commute to Singapore, which is geographically adjacent to Johore state. Recent World Bank estimates suggest that the number of Malaysians aged 25 and over residing in Singapore increased from 66,000 in 2000 to 122,000 in 2010. This age group is taken as an indicator of 'brain drain': including children, the Malaysian diaspora in Singapore was over 300,000 in both years. Adding non-resident commuters increases the estimated 'brain drain' from Malaysia and Singapore by a further 50 per cent. Overall, in 2010 Singapore is estimated to have hosted 54 per cent of the total Malaysian 'brain drain' (Schellekens 2011: 97–104). Whilst these estimates have been contested, there is no doubt that employers, particularly in Johore, face a challenge in attracting and retaining skilled employees in the local labour market.

The general issue of potential skill wastage or under-utilisation, whether inside Malaysia or from it, is popularly called 'job hopping'. For over a decade there has been a widely held view that employees 'job hop for no reason, or even for fun' (Khatri, Chong and Budhwar 2001: 54). This explanation locates the source of the retention problem within the turnover behaviour of individual Malaysian workers, acting en masse. It suggests something volatile, unpredictable, even frivolous, and hence inexplicable and beyond the power of employers to

address. This is the received wisdom in a recent report on HR trends in Malaysia, published by the large Asia-Pacific internet recruitment company JobStreet (2011). It describes a generational transformation in career attitudes whereby younger Malaysian workers are becoming more adventurous in their choice of job location — they 'want to see the world', and the new global economies such as China and Vietnam are seen as attracting regional labour to pursue careers. The Jobstreet report (2011) claims that amongst the top five market job trends for 2010 and beyond are that 'jobseekers will be active and mobile and choosy', and because 'job hopping will be pertinent, retention is key' for employers. Malaysians who seek jobs in Singapore are generally aware of the possibility of earning higher incomes due to exchange rates, and such monetary factors are likely to be important for Malaysian jobseekers who are willing to explore overseas opportunities (JobStreet 2011). Two reports published by the Malaysian Department of Statistic (DOS) — the 'Migration survey' (DOS 2009) and 'Why do people migrate?' (DOS 2010a), attribute international labour mobility to the 25-plus age group. In Malaysia, fresh graduates normally first enter the labour market at the age of 24 years, and thus job-hopping tendencies are attributed particularly to recent graduates.

The purpose of this article is to argue that these supply-side explanations are only part of the story. It is all too easy to attribute the mobility of Malaysian engineers simply to individual characteristics, whether based on youthful volatility or on career aspirations. It is argued here that Malaysian firms employing engineers have it in their capacity to mitigate excessive job hopping through improved human resource management (HRM) practices. The article makes selective use of an empirical study conducted in 2009–2010, based on a survey of engineers and interviews with HR practitioners and a further sample of engineers.

The article begins by assessing the relevance to the problem of Malaysian engineer retention of theories drawn from three bodies of western literature. From the literature on knowledge worker attributes, it concludes that Malaysian firms will need to work harder at providing their engineers with intellectual challenge and opportunities for ongoing professional development (if not necessarily a firm-internal career path). It also recognises that tertiary-educated professionals such as engineers, by virtue of their qualifications, are located in an occupational labour market and are not dependent on their employing firm for career mobility. Nevertheless, from the literature on the psychology of social exchange, it is argued that Malaysian engineering firms' HR and line management practices may be able to mitigate turnover rates. Direct retention factors include the provision of benefits that are of pragmatic value to engineers, both pay and learning and development opportunities. These same benefits appear to contribute indirectly to retention by increasing engineers' sense of reciprocal commitment, based on perceived organisational support (POS). Thirdly, combining social exchange theory with a theory of employee voice, it is argued that perceptions of a lack of organisational justice, for example in the management of performance appraisals, may reduce engineers' commitment and intention to stay, and that in the absence of avenues for participation in decision-making,

turnover is a way of giving voice to discontent. These three hypotheses are then shown to be consistent with data drawn from a survey of one group of engineers and with statements based on interviews with another group,

The article's purpose is to identify a potential link between firm-level HR practices and improved engineer retention, and to illustrate this argument by drawing primarily on interview data. The article begins by outlining the concepts of knowledge worker retention, reciprocal obligation based on POS and turnover as an expression of employee voice and by discussing their Malaysian relevance. There follows an outline of where the interview data sit in the overall research methodology, accompanied by a very broad summary of confirmatory statistical findings. In the remainder of the article, qualitative statements by engineers are used to suggest or illustrate perceptions of HR practices and their links to turnover intentions. The conclusion is drawn that there is evidence of potential benefit from a careful consideration of ways in which firms' HR practices could mitigate engineer job-hopping through greater reciprocity, enhanced participation and fuller utilisation of engineers' skills.

2. Firms and Engineers: Are Western Theories of Organisational Attachment Relevant?

This section of the article brings together conceptual tools from western HRM theories, and explores their relevance to the question of the role of firm-level management practices in improving engineer retention.

Engineers, Knowledge Workers and Occupational Labour Markets

The first step is to define engineering work, and its location in firm-internal and firm-external labour markets. Engineers in Malaysia are classified under the professional occupation category which also includes other occupations such as architect, accountant, dentist, doctor, and lawyer (DOS 2010). Official statistics suggest that engineers are a key workforce in the Malaysian labour market. For example, in 2009, approximately 47 per cent of the registered professionals in Malaysia were engineers (DOS 2010). According to a report by the Malaysian Ministry of Human Resources (MOHR 2011), in 2011 there were approximately 11,422 vacancies in professional related occupations for Malaysian graduates, which accounted for 73 per cent of the total number of vacancies in the Malaysian labour market. These data suggest that there is a critical shortage of workers in professional related occupations, including engineers. The report also indicated that the state of Johore had the highest vacancy rate for professional jobs, almost 57 per cent (approximately 6503 professional vacancies).

Historically, architects, accountants, dentists, doctors, and lawyers belong to the western tradition of professionals in private practice. Engineers by contrast, particularly in later-industrialising economies, have been classed as technical elites, employed in industrial organisations and often playing a quasi-managerial role. Nevertheless they belong to an occupational group whose skills are transferable, and who are particularly likely to have multiple careers, compared with groups of employees with more firm-specific skills (De Cieri and Kramar 2005).

Their turnover behaviour can be explained in terms of a quest for professional knowledge within the engineering occupation, rather than for administrative advancement within an organisational hierarchy. There is a long-standing western literature on the uneasy incorporation of professionals into bureaucratic organisations (for example Abbott 1988). The concept 'knowledge worker' developed alongside this literature.

Drucker (1969), in early usage of the concept 'knowledge worker', argued that whilst such workers may have an employment contract with an employer, they are not subject to the subordination normally entailed in the employment relationship. They are paid, not for compliance, but instead for applying knowledge and judgement in work. Whilst classed as employees, individually they are professionals in a more equal exchange relationship than other workers. Although they depend on the organisation for their salary and for the job, they believe that the organisation is equally dependent on their knowledge. Such workers are easily bored with their jobs because their attitudes towards jobs and careers are different from those of manual workers (Drucker 1969). This view sits well with Malaysian engineers' sense of their distance from the latter.

More recently, Alvesson (2004) has differentiated workers using knowledge on the job from knowledge workers, whose main role is the creation, distribution and application of knowledge. This would imply that only some engineers work in jobs providing them with the scope to pursue knowledge work. Davenport (2005) has also narrowed the concept of knowledge worker to the type of professional who craves autonomy, may be reluctant to share knowledge but is highly sensitive to procedural fairness as a condition of commitment to any organisation. This mutual exchange relationship between knowledge workers and their employing organisation has the capacity to influence organisational commitment. Solimano (2008) sees knowledge workers as actively pursuing the acquisition and enhancement of knowledge and skills, because their definition of job security is the ability to learn fast. Knowledge workers' turnover and mobility are also seen as being spurred by factors such as an organisation's lack of respect for intellectual property rights, resulting from devaluation of their knowledge contribution (Solimano 2008). The growing pace of technological development and intense competition are seen as creating a substantial demand for technical experts to work with equipment of rapidly growing sophistication. This demand creates alternative employment opportunities, with incentives for knowledge workers to quit and move to another company. Highly educated workers with portable knowledge and skills can make these transitions readily (Solimano 2008).

In Malaysia, engineers tend to be defined as knowledge workers, vital to the development of the knowledge economy. Particularly in the hierarchical power distance relations that characterise Malaysian workplaces (Abdul-Rahman and Rowley 2008: 71–72), engineers expect to have a different relationship with their employer from that of manual workers. In the next section, it will be argued that this expectation is of a mutual exchange relationship with their employing organisation which apparently in the day to day reality of engineers' working

lives, is often not being met. The knowledge work literature suggests that they expect a degree of autonomy. They are aware of the value of their knowledge and skills to an organisation and expect their organisations to recognise their importance to the company's overall performance.

To the extent that engineers possess specialised as well as general technical knowledge that is valuable to a company, their leaving may have adverse organisational impacts. The cost of recruiting substitutes can be high as companies suffer the loss of skills, knowledge, experience and training investment. Frequent career moves of engineers to a rival company could lead to unfavourable competitive consequences in the form of information spillovers (Pennings and Wezel 2007) and the leakage of knowledge across firms (Swart in Boxall et al. 2007). Loss of engineers will also result in the loss of specific organisational technical knowledge which can affect the survival of an organisation (Lee and Maurer 1997). This implies that longer retention of engineers in firms would allow them to make a greater contribution to their employing organisations.

This suggests the importance of pinpointing ways in which the management practices of Malaysian firms employing engineers could potentially contribute to the retention of knowledge workers. The next step is to identify literature that might identify the basis of a mutual exchange relationship that could aid retention.

Social Exchange Theory: Perceived Organisational Support and the Psychological Contract

The research from which this article draws is among a large number of recent Malaysian studies that draw on social exchange theory to understand the process of organisational commitment (see for example Chan et al. 2010; Hong and Kaur 2008; Islam and Ismail 2008; Krishnan et al. 2010; Lew 2009; Nasurdin et al. 2008; Samad 2006; Tan 2008; Yusof and Shamsuri 2006). This Malaysian literature indicates deep concern about job hopping, a concerted effort to explore the potential role of HRM in mitigating it, and a widespread view that western organisational psychology literature provides a starting point for examining the links between management practices and retention. Much of this literature derives from a model of social exchange processes developed by Eisenberger et al. (1986), in which perceived organisational support (POS) contributes to the establishment and maintenance of the employee-employer relationship. According to this model, employees in an organisation construct a belief concerning the extent to which the organisation values their contributions and cares about their well-being. This perception of an organisation's commitment in turn contributes to the employee's commitment to the organisation and behaviour that supports organisational goals. Such commitment is seen as influencing an employee's intention to stay (ITS) with an organisation.

POS may include both material benefits and affective relationships. For example, HR policies and practices that influence employees' POS have been defined as including: material rewards such as pay, job rank and job enrichment (Eisenberger et al. 1986); less tangible rewards such as organisational rewards and work conditions (Rhoades and Eisenberger 2002); high-discretion job conditions

(Eisenberger et al. 1997) and career advancement (Jawahar and Hemmasi 2006). The basis of the exchange is not only an exchange of benefits, but a psychological contract based on a sense of fairness (Rhoades and Eisenberger 2002). HR policies and practices, by influencing employees' perceptions of supervisor support, are seen as contributing to POS and ultimately employee retention, with supervisor support taken to represent organisational support (Eisenberger et al. 2002). The perception of organisational support has been shown, not only to enhance employees' intention to stay with a firm (continuance commitment), but also their commitment to high performance levels, based on a felt obligation of reciprocity (Eisenberger et al. 2001). Employees with strong affective commitment are likely to remain with the organisation and to engage as organisational citizens (Gellatly et al. 2006). Conversely, absence of valued benefits such as training and professional development is thought likely to result in weak continuance commitment for instrumental reasons. More strongly, on the affective plane, a sense that organisational justice has been violated, for example through what is seen as the unfair application of appraisal practices, is thought to result in a breach of psychological contract, and the undermining of an employee's intention to stay (Rousseau 1995; Cullinane and Dundon 2006).

Within recent Malaysian-context retention studies, such as those listed above, support has been found for the relevance of social exchange theory to employee retention. Because of the difficulty of measuring turnover by means of employee surveys, intention to stay is the most common proxy used. The results do seem to confirm that HR strategies and practices are relevant to retention. In the case of Malaysian employees, it has been suggested that retention strategies based on intrinsic rewards may have limited success, because of Malaysians' money oriented inclination to job hop with little hesitation, in pursuit of higher wages (Chew 2005). These Malaysian studies do suggest the importance of material rewards in employee retention. Nevertheless, a wider range of HR practices such as training, career mentoring, career development and promotion opportunities, also influence employees' commitment or turnover intention (Samad 2006; Samad and Hassan 2007; Chew and Wong 2008). To take just two examples from recent studies, Chew and Wong (2008) found a positive relationship among career mentoring, POS and intention to stay; and Lew (2011) found that amongst academic knowledge workers, career development opportunities resulted in affective commitment and increase intention to stay.

Intrinsic rewards have also been shown to influence turnover: Krishnan et al. (2010) for example have found that, as in western studies, job satisfaction resulting from job characteristics such as significance and autonomy is positively linked to retention. Studies by Poon (2004) and Ponnu and Chuah (2010) have provided Malaysian evidence that the perceived presence or absence of organisational justice in the administration of HR programs (for example, adverse experience of 'appraisal politics') is also an influence on intention to stay.

The only previous relevant Malaysian study focusing entirely on engineers is by Muthuveloo and Che Rose (2005), whilst Tan (2008) also included some engineers in a study of a wider range of occupations. According to Muthuveloo and Che Rose (2005), engineers' organisational commitment based on perceived

job satisfaction and perceived organisational characteristics has a significant influence on organisational outcomes via higher loyalty, reduced work stress, and a lower intention to leave. Tan (2008) found that POS is the mediator between a range of practical benefits (career development opportunity, organisational rewards, supervisory supports, and internal promotion) and turnover intention. A further study of engineering retention factors is timely, allowing comparison with past research within and beyond the Malaysian context. Three things differentiate the present study from other Malaysian studies linking retention to types of firm support, including these two engineering studies. Firstly, it differentiates direct impacts of HR practices from impacts mediated through POS and the psychological contract. Secondly, it introduces a further concept – that of employee voice, and the use of turnover or exit when employees lack participatory forms of voice. Thirdly, it draws on interviews with HR practitioners and engineers as well as survey results, in order to probe experiences of the employment relationship for engineers, and its links to retention.

HRM Practices: Employee Participation, Firm-Level Training and Career Development, and Appraisal Politics

The management of 'human resources' is conceptualised in Malaysia as national matter, with labour laws in the hands of the Ministry of Human Resources (MOHR). The Ministry is seen in the 2010–2015 Tenth Malaysia Plan as playing an important role, through labour law reform, in steering the nation through a virtuous circle to achieving knowledge economy status. In this context, Human Resource Development (HRD) has become a key component of the new economic development. Half a decade ago, Todd et al. (2004b) prepared a report for the International Labour Organisation, arguing that as Malaysia moves from export-oriented manufacture to a knowledge economy, higher levels of employee involvement in workplace decision making will be required in order to create high performance work systems (HPWS). Such systems are thought to work in three ways: by fostering the development of human capital through increased employee skill development; by enhancing employee commitment, creating a climate that supports engagement in problem solving; and by building an organisation's social capital through knowledge sharing and coordination (Appelbaum et al. 2011: 1–2; Boxall and Purcell 2008). The high-performance model is based on the thesis that a bundle of high commitment HR practices facilitates the retention of those most likely to be poached (Kwon et al. 2010). The HR practices in question foster self-efficacy, leading experienced high performers to welcome autonomy and participation, in a virtuous circle of learning and improved organisational performance (Kwon et al. 2010: 63, 75). Thus employee involvement seems a key element of HPWS.

Whilst Todd et al. (2004a, 2004b) advocated a collectivist model of employee participation, this is unlikely to be immediately achievable in the present Malaysian climate. The Malaysian employment relations system remains state- and employer-dominated and fragmented, with in-house unions favoured (Aminuddin 2007). National industrial relations/HRM policy is still thought to be tied

to a system of regulation designed to reassure foreign investors of workplace 'harmony' (Todd and Peetz 2001; Ramasamy and Rowley 2008). Nor should it be forgotten that the government is the largest employer in Malaysia. At workplace level, union models of collectivism are not strong, although there is no legislation in Malaysia that actually prohibits employees from forming a union. Malaysian trade union density is less than 10 per cent and declining, resulting in unions' diminished political and economic influence (Che Rose et al. 2010).

While there is evidence of increasing use of firm-level HR approaches that are of benefit to engineers, such as a substantial growth in training, this seems uneven. Firms' response to job hopping and high turnover rates has been a reluctance to adopt career development strategies for their employees. Instead, Malaysian firms have tended to abandon internal training programs (Chew 2005); recruit from the external labour market; delimit reward offers to basic salary, allowances and bonuses; provide minimal support for career planning; and expect employees to take responsibility for personal career development (Abdul-Rahman and Rowley 2008). Employee development programs are said to be taken seriously only in big-sized corporations and multinational corporations — these large companies have set up their own development centres to provide in-house training programs for their employees (Abdul-Rahman and Rowley 2008). Employees working in smaller firms have to seek internal and external development opportunities independently.

The Malaysian labour market for knowledge workers is thus based on profit maximisation rather than an orientation to people. In this context it is relevant to examine alternatives to unions as an expression of employee 'voice'. Si, Wei and Li (2008) have recently revived the EVLN framework - Exit, Voice, Loyalty, Neglect — first articulated by Hirschman (1970) and subsequently refined, for example by Rusbult et al. (1988). Si and Li (2012) link the ELVN model to employees' potential responses to Human Resource Management Practices (HRMP) in an organisation. 'Voice' is a constructive attempt to improve conditions through discussions with a supervisor or co-workers, or by taking action to solve problems. However, it is not customary for Malaysian employees to voice their dissatisfaction or to voluntarily participate in workplace decision-making, primarily because of traditional respect for authority and hierarchy (Lim 2001) and desire to maintain workplace harmony. In this case, they may respond to adverse HR practices with active loyalty, cooperating to making the best of a bad situation, or with passive loyalty, waiting for conditions to improve. Alternatively they may resort to neglect — passive negative behaviour ranging from reduced interest or effort, to absenteeism, using company time for personal business, or increased error rates. It is argued here that engineers, as knowledge workers, are unlikely to be comfortable with the autocratic and top-down style of the 'old industrial relations' or with such negative responses to it. They are more likely to demand a reciprocal employment relationship, and to seek involvement in decision-making processes, including those within HRM practices. If they do not receive these, they will exit.

Thus the rest of this article explores evidence suggesting that, in order for Malaysian firms to enhance the retention of knowledge workers such as engineers, they must involve them in HRM decision-making. Increased employee participation is likely to increase perceptions of organisational support, thence contributing to increased commitment and retention behaviour.

3. Brief Summary of Survey Findings: Engineers, HRM and Retention Factors

A survey of engineers was conducted between July and December 2009 and yielded 226 responses — a sample size close to the median of that of the other Malaysian studies reported earlier. As previous researchers have also found (PwC 2007; Oxfam 2008), the recruitment of survey and interview participants was a major challenge. Many companies refused participation on the grounds that their HR policies were confidential, and many had restrictions against employees' participation in any form of survey. Of the engineers responding, 32 per cent were working in Johore — the state with the highest rate of vacancies for professional occupations including engineers — approximately 57 per cent of 11,422 vacancies in April 2011 (MOHR 2011). The majority of participants were male, unmarried, between the ages 21 and 30 years old, and identified their ethnicity as Malay.

Participants' perception of the level of support provided by their employing organisation was measured using a shortened version of the Survey of Perceived Organisational Support (Eisenberger et al. 1986). Participants were asked to indicate how much they agreed or disagreed, on a seven-point scale, with statements about their company, such as: 'The organisation values my contribution to its well-being' and 'The organisation fails to appreciate any extra effort from me'. A high total score indicated a high level of POS.

Participants' intention to stay working in their employing company (ITS) was measured using seven items adapted from a revised Psychological Contract Inventory (PCI) (Rousseau 2008). This scale measured individuals' belief in a mutual obligation between themselves and the employer (Rousseau 1989), 'predicated on the perception that an exchange of promises has been made to which the parties are bound' (Rousseau 2000: 1). Similar to POS, the psychological contract (PC) is derived from the norm of reciprocity i.e. the exchange relationship (Aselage and Eisenberger 2003). Participants were asked to indicate on a five-point scale how much they agreed or disagreed with seven statements, such as 'I will remain with this organisation indefinitely' and 'I plan to stay here a long time'.³

The responses were analysed to identify the strength of any relationships amongst the quantity and quality of a firm's HR policies/programs and engineers' intention to stay with the firm, as well as the impact of perceived organisational support and the psychological contract on these relationships. The impact of demographic factors, years with the firm and the closeness of the firm to Singapore were also tested.

In brief, the findings were of a statistically significant and positive relationship among the quantity and the quality of HR policies/programs, the social exchange variables (POS and PC) and engineers' intention to stay. The correlation was moderately strong between POS and ITS, and between HR quality and ITS, but weaker between the quantity of HR programs and ITS. These findings suggest that POS, which is based on a belief that the organisation values employees' contribution and cares about their well-being, can influence engineers' intention to continue working in a company. POS and PC were highly correlated, but PC was found to have a lesser impact than POS — a finding that suggests that the pragmatic and instrumental aspects of perceived support had a stronger effect than the more affective sense of mutual obligation. This suggestion was reinforced by the fact that HR policies and programs had both a direct impact on intention to stay, and an indirect impact, mediated by the sense that these policies and programs reflected the firm's support for its engineers.

Of the HR policies/programs, those that were linked to career development were most likely to influence employees' intention to stay. Perhaps because most respondents were Malay, while the brain drain to Singapore is mainly Chinese, geographical location close to Singapore did not have a statistically significant relationship to ITS.

The interviews with HR practitioners and engineers shed light on these findings, and as one of the novel aspects of the research design, at least in Malaysian retention studies, these the subject of the rest of this article.

4. Interview Findings: Engineers' Views of Firm HR Approaches

In addition to the survey respondents, a further 18 engineers provided interviews. Again, the majority were of Malay ethnicity, married and between the ages 21 and 30. All worked in Johor Bahru, which is adjacent to Singapore: the intention was to identify whether they were potentially part of the cross-border labour movement between Johor Bahru and Singapore (Kanapathy 2008; Ratha et al. 2011).

As well, 8 HR practitioners were also interviewed, providing data not reported in detail here, that can be summarised as suggesting that among the few firms that agreed to take part in the study, most saw HR as a set of administrative or operational functions, rather than as the sort of partnership in their firms' business strategy that is advocated in western texts (Boxall and Purcell 2008; De Cieri and Kramar 2005).

The interviews with engineers were designed to identify participants' perceptions of their current employment and working relationships, as well as employment history and career goals. Their sense of opportunities for career development was explored, along with feelings about organisational support, loyalty and obligation to and from the company and intention to stay or leave the firm. Discussion was invited of the role of the HR department, the organisation's HR policies/programs/practices, and the extent to which these were seen as demonstrating organisational support, based on employee participation in HRM decision-making relating to participants' career objectives.

The interviews enhance our understanding of why and how POS can have a significant impact on intention to stay. Overall, the interviews suggest that engineers value the opportunity to participate in decision-making processes, particularly in HRM practices such as training and development, and in performance appraisal that has direct implications for their career.

The engineers who were interviewed saw themselves as knowledge workers. Their turnover intentions were related to their opportunities to learn new techniques, and career advancement was seen in these terms, rather than in terms of gaining managerial power.

The following statement indicates the creative aspects of a job that is likely to engage an engineer's intention to stay: these include novelty, innovation and autonomous decision-making:

... for the company to release a new product, we will be given a rough design for the product with its requirements, specifications, information about target customer, and company's expectation... From there we will conduct DFM [Design for Manufacturing]. We will decide and design the process, improve current process... In terms of upgrading the technology, we will do R&D (Research and Development); for example, maybe use robotic arm or ultrasonic or any new technology. Each project requires similar procedure, but to decide the process we have to be creative, use our experience, sometimes by luck. (Senior project engineer, manufacturing firm)

A number of engineers indicated their intention to move on because after two or three years, as the job no longer held any challenges or offered any new learning opportunities. As some interview participants were already seeking to move on from an unchallenging job after six months, the longer a firm offered challenging work, the longer an engineer was likely to stay:

We are going to work on a new project soon for about one year and I like that because it's something new for me. If there are no new things, I will feel bored. I also dislike my job because it's not challenging enough ... I want to learn new things, explore new things. (Assistant manager/IT engineer, small-sized manufacturing firm, female, aged 37)

For this reason, a valued form of organisational support was not only the opportunity to learn on the job, but the funding of further formal training. The external labour market orientation of some participants is clear; nevertheless they felt that training opportunities were important not only for progressing in their career but also for enabling them to perform their jobs. In fact, providing training opportunities was considered an initiative that could benefit both employees and the employer:

I want my company to provide trainings for new skills. I already know about electrical engineering but I need trainings such as on "design" which I did not learn before (at university) to help me do my work. At the moment I'm learning it by myself. I can get certificate for attending training programs which is important to get another job, but training

is actually also important for a company because it enhances employees' knowledge. (Engineer, medium-sized manufacturing firm, male, aged 25)

Leadership training was also seen as important. Of the survey respondents, 60 per cent rated leadership training as 'moderately' or 'to a great extent' affecting their intention to stay working in a company, and the view was also expressed in interviews that this form of professional development was of mutual benefit to the individual and to the company because 'it teaches the ways to lead other people in order to get them to do the work'.

Similarly, another interviewee said that the main reason she had stayed working in the company for eleven years was because of the career development opportunity available in the company. She had first joined as an engineer and was later promoted to senior engineer, then assistant manager and currently manager. She regarded the promotions as a sign that the company valued her work contribution and this explained her intention to stay:

This company is a stable company and I have a lot of opportunities for career development. If I didn't have the opportunity for promotion, I probably [would] have looked for other jobs. I feel like the company appreciates me. (Engineering manager, small to medium company, female, aged in mid-30s)

Other HR practices providing the sorts of material benefits that prolonged retention included remuneration management and flexible arrangements facilitating work/life integration. Several participants described the instrumental approach to pay that leads to job hopping: young graduate engineers would gain experience in a company for several years and then move in order to gain a much higher salary. In this case, external labour market 'pull' factors were operating. On the other hand, the following statement illustrates a HRM practice that was an internal labour market 'push' factor, because it combined both loss of material benefits and a demonstration that employees were no longer valued:

We are angry because we are yet to receive our annual increment which was due last month. They [the company] expect us [the employees] to run the model production on time but they don't look after our welfare. In fact we used to receive birthday gifts from the company but now no longer. The new deputy director of the company has cut a lot of costs. (Electrical engineer, manufacturing company, female, aged 32)

Whilst some participants felt that managers and the HR department were concerned and caring, there was also a degree of suspicion of HR, expressed in a reluctance to use a suggestion box or fill in surveys for fear of being identified. One participant had left his first company after two years because of 'extreme' racial discrimination on the part of his manager. The manager seemed to favour employees from his own ethnic group over others in making decisions about promotion:

Within two years of working in this company, I managed to develop five models, whereas [the successful applicant] has only developed one model

and even that was not totally his own product, he was only supporting the model development. Somehow among the three candidates for the promotion my name was removed. So I confronted my boss and he said the reason was because has worked longer than me, but actually only by two months difference. (Engineer, medium-sized manufacturing firm, male, aged 25)

The participant felt that he had been unfairly treated by his company. Not only was his opportunity for career advancement frustrated, but what he saw as a lack of professionalism on the part of his manager had resulted in a breach of psychological contract. It is thus not surprising that he left the company, probably because he no longer trusted that his work contribution would be fairly assessed by his manager in future. This example also suggests a lack of organisational support in terms of employee participation and capacity to voice out grievances.

An experience of felt-unfairness mentioned by another interviewee related to the 'irrelevant questions' that informed the performance indicators used by the HR department of her company:

Recently, the HR department has started using KPI (Key Performance Indicator) for appraising the employees. I prefer the past system because I didn't have to fill in many irrelevant forms as I'm required now. Now everyone is angry with the HR department because they like to introduce many strange forms that need to be filled up. We need to answer many irrelevant questions in order to be promoted and these questions aren't technical question instead are very general and totally unacceptable such as asking us about the company's profit. As a result I feel like our opportunity to be promoted is hindered by this illogic question. (Electrical engineer, large-sized manufacturing firm, female, aged 32)

What is of interest here is the strong undercurrent of frustration at managerial practices imposed without consultation or discussion with employees. This makes sense of the otherwise surprising finding that irrelevant questions on an appraisal form could trigger such a strong and irrevocable response as resignation. According to Gouldner (1960), social exchange is more likely than economic exchange to generate feelings of personal obligation, gratitude and trust, creating a social bond between the parties. Failure to reciprocate engenders loss of trust, and it ultimately affects the stability of the human relations.

These findings illustrate the EVLN behaviours, whereby employees lacking any voice in an organisation vote with their feet by exiting (Hirschman 1970; Si, Wei and Li 2008; Si and Li 2012). If professionals are taking such steps, it is a sign that 'push' factors, as well as 'pull factors' are at play in 'job hopping'.

One interviewee had already left two of his previous companies because of his feeling of job insecurity. In fact, this was also the main reason he was considering leaving his current company. The interviewee indicated that he felt that a company should brief its employees at least once a month about the state of the company, particularly about the number of orders the company was receiving, and whether orders were reducing or increasing:

I feel like I need to know, I need some hints from the company, about whether I should look for other jobs, or I should continue working. I think it's better to know about the falling of a company than not to know. If the company seems to be falling, we must try to help, but if we could not, we may need to find other employment. (Senior quality assurance engineer, medium-sized manufacturing firm, male, aged 48)

Yet interestingly, this participant indicated that the company could have called forth a strong sense of mutual obligation, if only its HRM practices had been based on information-sharing. When asked about his priority between a company's situation and his own job security, this interviewee said:

Must think of the company first. It would be good if we could continue working in the company as it means that we don't have to start afresh elsewhere. But if we do not know about the problems the company is facing, we would straightaway find another job. But maybe had we known we would stay and help the company first. (Senior quality assurance engineer, medium-sized manufacturing firm, male, aged 48)

This statement sheds interesting light on the concept of commitment. The interviewee would have been more, not less, inclined to stay with the company, had he known of the difficulties it was in: feelings of obligation and commitment would have over-ridden his own feelings of insecurity. According to Eisenberger et al. (2001), employees' feelings of organisational support strengthen affective commitment, and thus they are more likely to remain with an organisation (Gellatly et al. 2006). This indicates the importance of employee participation and involvement (Kuean, Kaur and Wong 2010).

5. Conclusion

This article has used survey and interview evidence to show how a sample of Malaysian engineers saw their commitment to their current employer, particularly the implications of engineers' participation or lack of it in the decision-making process within HRM practices. The survey evidence showed a significant positive relationship between perceived organisational support and engineers' intention to stay working with their employing organisation. The interviews revealed that as knowledge workers, engineers value the opportunity to participate in decision-making processes, particularly in HR processes such as training and development, and performance appraisals that have direct implications for their career. Conversely, a lack of engineering employees' participation in decision-making related to certain HRM practices reduced their feelings of organisational support, thereafter influencing their retention behaviour. These findings illustrate exit behaviour, whereby employees lacking any voice in an organisation choose to leave the company (Hirschman 1970; Si, Wei and Li 2008; Si and Li 2012).

The article offers two practical insights. First, the results provided empirical support for the hypothesis of a relationship between perceived organisational support and engineers' intention to stay working in a company: if they stay with the company, they will of course stay within Malaysia. Second, the study

provided initial support for the thesis that employee participation contributes to the development of perceptions of organisational support and for the assumption of a relationship between employee participation and a decision to stay with an organisation. If employees' commitment to their employing organisation may be enhanced through the promotion of employee participation in decision-making, then the development of a medium for involvement without fear of discrimation is required in Malaysian firms.

In sum, the findings reveal evidence of employees' exclusion from the decision-making process within the practice of HRM in Malaysian firms employing engineers. As a result, employees perceived a lack of organisational support in regard to their individual and career development, which thereafter influenced their organisational commitment and intention to continue working in the company. The job hopping attitude of Malaysian engineers, as a result of an inadequate supply of skilled labour in Malaysia, is one of the key issues in the development of technology-based enterprises in the country. Increasing the pool of indigenous skilled technical workers, such as engineers would require time, even with the Government's effort in encouraging Malaysian scientists and engineers residing abroad to return home (TalentCorp 2012). But job hopping has been shown not to be frivolous. It is purposive and driven by 'pull factors' in cases where firms cannot offer either remuneration commensurate with the market or, alternatively, stimulating and challenging jobs, It is also reactive and driven by 'push' factors, when employees feel that they are not valued, or that their trust has been breached, or when they have little opportunity for participative decision-making, and no avenue for voicing their concerns. This article has thus suggested HR practices that might improve the retention and progression of engineers within firm-internal labour markets and shown that this would be a step towards solving the problem of employee retention in Malaysia.

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Notes

- This study used high loading items from the original Survey of Perceived Organisational Support. The original scale has high internal reliability and thus the use of shorter versions is not seen as problematic (Rhoades and Eisenberger 2002).
- 2. The Cronbach's alpha value for this scale was 0.78, suggesting an acceptable level of reliability.
- 3. This scale had an acceptable internal consistency value of 0.72 Cronbach's alpha.
- 4. The correlation between POS and engineers' ITS was of moderate strength (r = .41, n = 207, p < .01).

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