

Towards Knowledge Economy: Deficiencies in the HRD System and Major Challenges in HRD Practice in Manufacturing Firms

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ABSTRACT

In its transformation to achieving knowledge economy status, the government of Malaysia has provided various supports and initiatives towards human resource training and development. This is to ensure that employees in manufacturing firms are provided with the necessary skills, knowledge, capability and expertise to be called knowledge-workers. However, in attempting to achieve these objectives, manufacturing firms were faced with deficiencies in the Human Resource Development (HRD) system and challenges in HRD practices. In examining these deficiencies and challenges, a mixed-method combining questionnaire survey and personal interviews with Human Resource (HR)/HRD managers was employed. The findings revealed that HRD in the manufacturing sector in Malaysia is faced with the challenge of coping with the demand for a knowledgeable and competent workforce, that includes hiring and retaining technical expertise, the education level of employees and the increase in the ageing workforce. These challenges and the various deficiencies in the HRD system are observed to have resulted from lack of professional and intellectual HRD expertise. This has implications for the continuous development of human resources, as well as for the development of knowledge-workers.

Keywords: HRD, Knowledge-workers, Training and Development, Deficiencies and Challenges, Manufacturing Firms.

INTRODUCTION

Malaysia, being a developing country that is in the midst of transforming itself into a knowledge-based economy (k-economy), believes that the development of k-economy is crucial for the country to sustain its economic growth and competitive advantage in order to achieve the status of a developed nation by the year 2020 - the "Vision 2020" plan. Hence, Malaysia started to lay the foundations for a k-economy in the 1990s under the Third Outline Perspective Plan (OPP3), where the key element and main objective was to build a knowledge-based workforce (Malaysian Government, 2001). Since then, the task of developing human resources has been the key focus of the Government in developing the country's HRD plans. Much of the Government's emphasis in HRD is targeted at the manufacturing sector. This is because manufacturing accounts for one third of the gross domestic product (GDP) and more than 70 percent of the country's exports are significant contributors towards the country's economic growth (Ministry of Finance, 2004). As a result, the development of human resources in the manufacturing sector is recognised as a crucial and important task, which is vital in preparing a capable and skilled workforce, with the necessary expertise to meet current and future challenges, by providing them with technological skills and critical thinking abilities (Lim, 1999; Osman-Gani, 1999; Zidan, 2001). Therefore, recognizing the need for training, education and development of employees to become knowledge workers, the legislation on HRD is empowered to build a trust fund to provide financial assistance for all retraining and skills upgrading programmes undertaken by employers (Ministry of Human Resources, 1997). Since the implementation of the legislation and other initiatives by the government to support organizations in developing their human resources, emphasis on HRD plans and practices has been strengthened. This is because the Government believes that investment in human capital is the key to the success of the country's economic growth (Ministry of Human Resources, 2004).

Indeed, studies have indicated that HRD has forced organization to recognize the value of its human resource as an important asset in enhancing its business strategy (O'Donnell and Garavan, 1997; Gardiner et al., 2001). Moreover, it has been posited by Harrison and Kessels (2004) that *"ina rapidly*

emerging knowledge economy, organizations rely on human resources' capability to adapt to the changing environment and be knowledge-productive; and that the HRD process is key to ensuring that capability". However, the field of HRD and practice has been noted to have various deficiencies and challenges which impede the effectiveness of the HRD systems (Quibria, 1999; Archichvili and Gasparishvili, 2001). Therefore, specific to the case of manufacturing firms in Malaysia, it can be argued that despite the intensive support and initiatives at the national level, manufacturing firms in Malaysia are not exempt from deficiencies in the HRD systems and challenges in its practices. As such, there is a need to examine the deficiencies and challenges faced by the manufacturing firms in ensuring the capabilities of their human resources, in their quest for knowledge workers in Malaysia, as a developing country moving towards a knowledge economy.

LITERATURE REVIEW

Human Capital in HRD

The central axiom in HRD is the human resources or the human capital in an organization. They are viewed as the driving force for the success of organizations because of their skills, competencies, knowledge and experiences (Schmidt and Lines, 2002; Harrison and Kessels, 2004). Moreover, it was suggested that for organizations to compete successfully in a global economy, it is important to hire sufficiently educated and skilled employees and provide them with lifelong learning (Sadler-Smith et al., 2000). However, these are some of the problems faced by employers and organizations and seen as a hindrance to the effective management and development of human resources in a global economy (Shim, 2001; Lloyd, 2002; Budhwar et al., 2002). In the specific context of HRD professionals, literature has indicated that there is a shortage of HRD professionals who are skilled and experienced systems thinkers (Bing et al., 2003), who have the ability to manage the vast and specialised function of HRD across the organization (Buyens et al., 2001; Garavan et al., 2002). For instance, it was reported by Budhwar et al. (2002) that the lack of HRD professionals in Oman is a major obstacle to the nation's HRD efforts. Kerr and McDougall (1999) argued that problems also arise due

to a lack of experience and understanding of HRD and training on the part of managers. Indeed, writers such as Wright et al. (1999) and Chermack et al. (2003) claimed that HRD professionals do indeed have an important role, as they possess the expertise in learning and in developing others to become experts.

Hiring and Retaining

Indeed, it was suggested that those with expertise are known to have very high value in organizations and are highly sought after (O'Donnell, 1999; Streumer et al., 1999). Therefore, with this in mind, it is the role of HRD to develop and provide for these high-value experts by focusing on the recruitment, selection, training and development of human resources (Ardichvili and Gasparishvili, 2001; Gardiner et al., 2001). Therefore, new strategies are required to recruit and retain highly qualified workers and also to strengthen organisations' knowledge management capacity (Bova and Kroth, 2001; Chermack et al., 2003). Indeed, it has been shown in literature that this area of HR is increasingly competitive and challenging for HRD professionals (Shim, 2001). There have been criticisms that organizations are either not focusing on any of these roles or are not striking a balance among roles. For example, a study by Ardichvili and Gasparishvili (2001) indicated that there is evidence of a stronger emphasis on selection and recruitment than on employees' Training and Development (T&D). On the other hand, it has been stated that identifying and selecting the right people for recruitment and retaining those that have been trained are areas of concern for HRD (Yadapadithaya and Stewart, 2003). Hence, with these issues in HRD, employers may have to examine their hiring and promotional criteria to ensure that the right human resources are selected for the appropriate job (Hansen, 2003).

In addition, the high rate of labour mobility is said to be a major disincentive to the broad provision of training (Lloyd, 2002; Hill and Stewart, 2000; and Hill, 2004), and thus a barrier to employees' career development and enhancement (Budhwar et al., 2002). These problems have been blamed for employees leaving the company in search of new career prospects, and also for the notion of 'poaching' of employees (Debrah et al., 2002; Lloyd, 2002;

Moen and Rosen, 2004). Specifically in the context of South East Asian countries, particularly Indonesia, Malaysia and Singapore, Debrah et al. (2002) claimed that some firms are not providing the training that their employees need, but instead poach employees from other firms, who have already been trained and developed by their prior employers. However, though it may seem that poaching is benefiting employers in terms of financial investment in training, the extent of employees' adaptability to the new working environment and their ability to transfer previous experience and learning to their new jobs is unclear. On this lead, Lloyd (20.02) argued that it might be more cost effective to provide more rather than less training for highly skilled employees.

Moreover, with the exponential entrance of 'elite expertise workers' who are also known as 'generation X' and the 'gold collar' workforce, these technically expert, skilled and competent workers possess the bargaining power to take control of their own career development and advancement (O'Connell, 1999; Holland et al., 2002; Chermack et al., 2003). Indeed, these 'elite expertise workers' may not only include HRD professionals, but also highly skilled technical IT employees and also engineers who have shifted their values, work ethics and lifestyle from traditional life-long employment and job security to constant retraining and job-hopping. Therefore, these workers are criticised as continuously being in search of new and challenging jobs and a competitive working environment (O'Connell, 1999; Bova and Kroth, 2001; Holland et al., 2002; Chermack et al., 2003).

Education and Language

The fundamental issues of human resources' lack of capabilities and intellectual abilities are said to be grounded in their level of education and technical training (Low, 1998). Indeed, it has been reported that organizations are faced with the challenge of acquiring high calibre human resources with adequate levels of education (O'Connell, 1999; Streumer et al., 1999). For instance, Silver (1991) reported that studies have shown that employees in British firms are seen to have low levels of educational and training qualifications compared to their competitors. Following this lead, if Britain, a developed country, is seen to have this problem, it is likely to be even more evident in developing countries. On this note, the International Labour Organization (ILO) has reported that

more than half of the workforce in manufacturing firms, particularly in the South East Asia Region, only possess educational qualifications at primary level or lower (ILO, 1997). The argument is that in addition to possessing the required skills for the job and being knowledgeable and trainable, human resources should also be required to possess at least a college or university qualification (Low, 1998; Chermack et al., 2003). However, the generalisation of this standard of education for all levels of employees is unclear. Nevertheless, it was agreed that an undergraduate degree provides the essential 'intellectual human capital' on which to build future learning and also a knowledge- workforce (ILO, 1997; Harrison and Kessels, 2004).

At the other extreme, some theorists posited that human resources' level of education is interrelated with communication and language (see for example, Alzalabani, 2002; Chermack et al., 2003). Indeed, it is important for trainers to provide and communicate learning to trainees, who, on the other hand, must accept and acquire learning. Any problems in communication and language abilities may have a negative impact on learning, training and development (Wright et al., 1999; Eichinger and Ulrich, 1998). On this basis, the deterioration of English language skills in Malaysia has been criticised by several writers such as McGurn (1996), Hiebert (1996a, b) and Yunggar (2005). Building on this criticism is the adverse effect of non-English speaking workers or those who lack proficiency in English, on education, learning and on HRD efforts, particularly in Malaysia and Indonesia (Debrah et al., 2000). Moreover, problems of communication and language have also been associated with problems of cultural integration. In HRD, the recognition and integration of culture is an important strategy in the learning, training and development of human resources (McCracken and Wallace, 1999). However, several studies have reported that a lack of understanding and adaptation to different cultures and values have been impeding learning and training in HRD (Branine, 1996; Burba et al., 2001; Chermack et al., 2003; Hansen, 2003).

Ageing Workforce

Another major concern related to human capital in HRD is said to be the increase of the ageing workforce the so-called 'baby boomers' (Bova and Kroth, 2001; Chermack et al., 2003). Even developed countries such as the USA are

facing problems of very high rate of 'baby boomers' in their workforce, (Bova and Kroth, 2001), and developing countries, including the Asia Pacific Region are no exception to this trend. It was argued that the ageing population in these countries is something that has great implications for the future of human resources in organizations (Low, 1998; Debrah, 1998).

HR Strategies

The effectiveness and success of HRD interventions is viewed as being conceptualised from a formal, structured and strategically focused HRD orientation (McCracken and Wallace, 1999). Moreover, a strategically focused HRD structure is argued to consist of the ability of organizations to formulate plans and policies for HRD and integrate them with plans and policies in HR, and also with overall business plans (Garavan, 1991). Unfortunately, these strategies are often reported as being imperceptible, because they are mostly short-term plans and are scarcely available in some organizations (Osman-Gani and Tan, 2000; Elbadri, 2001; Budhwar et al., 2002) and may be completely absent in small firms (Kerr and McDougall, 1999; Hill and Stewart, 2000; Hill, 2004). Inevitably, this leads to lack of planning for human resources and can affect the recruitment, selection, training and development of employees (Gardiner et al., 2001; Sadler-Smith, 2004). As a consequence of these problems, employers and organizations may be required to review their HR strategies, particularly the integration of their (Human Resource Management) (HRM) and HRD efforts.

Support and Motivation

The extent to which employees are able to apply the knowledge, skills and attitudes acquired during any HRD intervention onto the job context is viewed as a key consideration in HRD (Yadapadithaya and Stewart, 2003). Previous research on the transfer of learning has indeed shown that in addition to physical and social factors, employees' psychological conditions and abilities can either encourage or discourage the acquisition and transfer of new skills and knowledge (see for example, Cheng and Ho, 2001; Kupritz, 2002). Psychological factors, in this context, may include employees' education,

communication and language abilities, changes and its resistance, and any other abilities or tendencies relating to the individual state of mind. On the other hand, some theorists have argued that the extent to which training skills and learning are transferred to the job and the workplace is strongly motivated by the immediate superior's support in the transfer of the learning process (see for example, Santos and Stuart, 2003). Indeed, it was suggested in the strategic framework of HRD that top management support and line managers' involvement is an important feature in the implementation of effective HRD efforts (Garavan, 1991). Moreover, the lack of support, commitment, involvement and cooperation in the development of human resources has been criticised as affecting the efficiency of the HRD system and also affecting the effective development of employees' learning and motivation (Garavan et al., 1998).

In general, the deficiencies and challenges in HRD may lead to the ineffective implementation of HRD practice. However, despite these deficiencies and challenges in HRD the onus of moving forward and planning strategically in response to these challenges remains the initiative of each individual organization.

RESEARCH METHODS

This is an exploratory study, which is part of a doctoral research, employing a mixed-method data collection procedure. As described by Creswell (2003), the mixed method approach had a pragmatic knowledge base and employs both qualitative and quantitative data collection strategies simultaneously to maximise the understanding of research problems. Employing the concurrent triangulation model, which uses two different methods of quantitative and qualitative to "confirm, cross-validate or corroborate findings within a single study", has the ability to produce well-validated and substantiated findings (Green et al., 1989 and Steckler et al., 1992 in Creswell, 2003).

The target population in this study are HR managers from 2,350 manufacturing firms listed under the Federation of Malaysian Manufacturers (FMM). This population represents 15 industries in the manufacturing sector with the biggest belonging to the electrical and electronics sector. HR managers

in charge of HRD are targeted for the study because of their role and expert opinions and their ability to provide comprehensive opinions on the HRD function.

In the quantitative method, questionnaires were developed and constructed using a Likert scale measurement and piloted in sixty firms. The questionnaire was also constructed to include open ended questions in order to gather as much information as possible on the deficiencies and challenges in HRD. They were subsequently posted to 2,350 HR managers in the manufacturing firms and 365 responses were received (15.5 percent). A questionnaire survey is considered as a highly structured data collection technique and it provides an efficient way of collecting responses from a large sample prior to qualitative analysis (Saunders et al., 2000)

In the qualitative method, fifty interviews were conducted with top HR/HRD or personnel specialists. It was decided to focus on the views of these key specialists due to their HRD role. The interviews were guided by a semi-structured questionnaire constructed from the questionnaire survey. They were tape-recorded and transcribed and analysed by identifying key themes and categories. The informant interviews with HR/HRD managers were conducted aimed at depth and contextual relevance while the questionnaire surveys were conducted for breadth and to supplement and collaborate key informant interview information.

DATA ANALYSIS

In order to simplify the interpretation of the data, those items that comprise of the deficiencies in HRD were subjected to a principal component (factor) analysis. The suitability of these data for factor analysis was confirmed by the results of Bartlett's test of sphericity ($X=5908.846$, $df=210$, $p<0.001$). There were three principal components (factors) with eigenvalues greater than one, and these represented 67.3 percent of the total variance. Factor 1 comprised of issues relating to the lack of relevant expertise in the HRD function; hence, it was labelled 'lack of intellectual HRD professionals'. Factor 2 was labelled 'lack of strategies in HRD' because it comprised of concerns on strategies required to manage an effective HRD. Finally, Factor 3 relates to lack of support

and commitment from line and senior managers in employees' T&D; thus, it was labelled 'lack of managerial support' (see Table 1).

Table 1 Matrix of Factor Loadings for Deficiencies in the HRD System

	Component		
	1	2	3
Lack of Intellectual HRD Professionals			
Lack of manpower to perform the appropriate HRD function	.810		
The absence of follow-up processes after HRD programmes	.807		
Lack of manpower to conduct the evaluation	.800		
Difficulty in evaluating training programme outputs	.792		
Lack of knowledge and skill in determining needs and evaluation	.768		
Difficulties in measuring employees' performance improvement	.522		
Lack of Strategies in HRD			
External HRD programmes are not tailored to the organizational culture and values		.711	
Employees' recruitment and selection were not integrated with job function		.489	
Lack of long term planning for HRD		.458	
Lack of teamwork, cooperation and coordination between the various department and HRD department		.447	
Lack of Managerial Support			
Line managers are not willing to release employees for training due to heavy workload			.812
Senior managers disbelieve in employees' T&D			.677
No HRD role for all levels of management			.562
Participants could not apply what they learned in HRD programmes to the workplace			.536
Eigenvalue	11.152	1.930	1.121
% cumulative variance	34.174	51.609	67.631

Data for major challenges in HRD were obtained from open-ended questions as well as interviews. Therefore, the mode of analysis was by means of categorising themes from the open-ended questions and interview data to form typologies. From the analysis, the major challenges include hiring and retaining technical expertise and a competent workforce.

FINDINGS AND DISCUSSION

Deficiencies in the HRD System

Lack of Intellectual HRD Professionals - The importance of hiring educated, skilled and knowledgeable employees in organizations has been reiterated in literature, as they are the main human capital or assets of the company (Schmidt and Lines, 2002; Harrison and Kessels, 2004). Similarly, HRD practitioners are also viewed as important human capital in organizations because of their knowledge, skills, experience and competence to manage the complex and broad functions of HRD. Unfortunately, the lack of intellectual HRD professionals, who are the main human capital in the HRD function, is viewed as impeding the effectiveness of the HRD function in manufacturing firms in Malaysia. As found in this study, a majority of the manufacturing firms sampled had HRD practitioners who lacked knowledge and skills to carry out the appropriate function in HRD. For instance, about 70 percent of the respondents reported the lack of knowledgeable and competent HRD practitioners, to perform needs analysis, evaluation and follow-up assessment, as impeding the effective implementation of HRD initiatives. Evidently, manufacturing firms in Malaysia are lacking in manpower and the expertise to perform the various responsibilities in HRD. Indeed, this view was confirmed by Debrah et al. (2000) in their study of the manufacturing sector in South East Asia. It was shown that the manufacturing sector needs knowledgeable and competent HRD personnel such as professional internal trainers with the expertise to train and develop employees within the organization. This implies that employers may have to focus on the recruitment of expert HRD professionals to take on the role of developing human expertise in organizations and managing the various specialised HRD functions. However, the existing scenario in manufacturing firms in this study is a shortage of intellectual HRD professionals while existing HR managers responsible for HRD are multifunctional. These practitioners view employees' training and development as a secondary role to managing human resources. Therefore, these implications could lead to the ineffective implementation of HRD and increases the ambiguity and failure of the HRD function as a whole (Budhwar et al., 2002).

Lack of Strategies in HRD - Strategies in HRD are characterised by having HRD plans and policies and integrating them with the plans and policies in HR and organizations, integration and involvement of employees at every level in HRD, strategic partnerships with HRM, and recognition of corporate culture (Garavan, 1991; McCracken and Wallace, 1999). However, in this study, it was revealed that more than 60 percent of the firms surveyed were lacking in strategies in HRD. Indeed, it has been mentioned that one of the key aspects of HRD strategies is the strategic partnership of HRD with HRM efforts (McCracken and Wallace, 1999), but the manufacturing firms surveyed indicated that their HRD initiatives were not integrated with HRM. For instance, about 60 percent reported that employees' recruitment and selection were not integrated with the job function. Evidence for this was the recruitment and selection of the HRD practitioners, where it was seen that a majority of them had academic backgrounds that were not related to HRD. Similarly, this was also said of the recruitment and selection of other employees within the organizations. As elaborated by an interviewee:

“it is sometimes sad to see that the employees we recruited were not suitable for the job but sometimes we have no choice.....because of many influences (internal or external)the idea of employing the right employees for the right job is difficult “ (HR manager, Concrete and Cement)

Indeed, literature has confirmed that integration of employees' recruitment and selection with the job function was also unavailable in other organizations (see for example, Budhwar et al., 2002; Elbadri, 2001; and Chermack et al., 2003), thus, this indicate a similar phenomenon in manufacturing firms in Malaysia.

Additionally, there are concerns on T&D programmes introduced by external training providers not being tailored to individual organisational culture and values. Despite the importance of recognising and understanding an organisation's culture (McCracken and Wallace, 1999), about 59.5 percent of the firms surveyed indicated that training programmes introduced by external trainers and consultants were mainly mass-produced or 'off-the-shelf programmes made for all types of companies irrespective of their individual

needs, culture and values. This is often seen with programmes that are introduced by external consultants. For example, as confirmed by one manager interviewed:

"we always like programmes introduced by external trainers such as the ones from overseasfor example, 7 Habitsthe trainer and materials come from US but they do not adapt the course contents and the examples given to our local culture and values ...of course, ... there are lots of other programmes ... " (HR and Administration manager, Chemicals and Petroleum)

Nevertheless, despite the fact that most of these programmes were not customised to individual organisational culture, values and beliefs, the demand for such external programmes was still high, because of the lack of internal trainers as well as knowledgeable and skilled in-house HRD professionals and trainers. Following this lead, the extent to which these programmes were being successfully implemented, adopted and transferred to the job are unclear. Indeed, it was argued in studies by Branine (1996), Burba et al. (2001) and Hansen (2003) that implementing Western management in another country without considering and adapting to the local culture may result in failure. Similarly, this could be implied in relation to introducing foreign programmes into local manufacturing firms in Malaysia. Therefore, professionals in the field of HRD are required to understand and integrate intercultural ideologies into organizations, rather than assuming or imposing on the people and cultures of other countries (Chermack et al., 2003).

Lack of Managerial Support - Despite the fact that the support and commitment of superiors and top management are pertinent in implementing effective HRD (Garavan et al., 1998), the results in this study revealed that a majority of the manufacturing firms claimed that they lacked managerial support in HRD initiatives. For instance, more than 80 percent of the firms commented on the difficulty in getting the cooperation of line managers to release employees to attend training. Heavy workload on the production line is typically the reason given by line managers for their lack of cooperation and support towards HRD. Further analysis showed that managers viewed production output as more

important than providing employees with the required training. For example, as reiterated by one manager:

"...._the managers or supervisors always have production as the most important thing on their minds. They always make it difficult for us to run training programmes smoothly. For example, when we have certain training programme for the production workers, the first thing they moan about is that they don't have enough manpower on the production floor for anyone to go for training ... "
(HR manager, Electrical and Electronics)

This is because senior managers in their organizations lack understanding in the importance of training and developing employees, and thus, do not believe in providing employees with the necessary training requirements. Possible reasons for this may include managers' lack of awareness and knowledge in HRD or it may be due to past experiences in ineffective HRD efforts.

Another major concern is employees' inability to transfer learning from training programmes attended and applying this learning to the workplace due to supervisors' lack of support towards the transfer of training. Indeed, earlier research on transfer of learning has provided convincing evidence that the work environment - the physical, social, and psychological conditions that individual employees experience at work - can either encourage or discourage the acquisition and transfer of new skills and knowledge (see for example, Cheng and Ho, 2001; and Kupritz, 2002). However, the results of this study revealed that more than half of the firms claimed that their employees could not always apply their learning to the workplace because of supervisors' lack of support towards applying the newly acquired skills and learning to the job. From this lead, it was observed that support from superiors and supervisors is a barrier in transferring training and learning onto the job, other than individual personal factors. In order to support the above proposition, an interviewee is cited as:

"....I remembered I went to this ROI training in Singapore/ came back I was excited to implement in this companybut my boss says it is a waste of time...../felt very demoralised ... " (Training Manager, Electrical and Electronics)

This belief regarding the reason for failure to transfer training skills and learning to the job and workplace was agreed to by several theorists and researchers (see for example, Santos and Stuart, 2003). The findings in this study is almost similar to studies by Yadapadithaya and Stewart (2003), who claimed that transfer of learning was absent in 65 percent of the Indian firms and about 50 percent of the British organizations that they surveyed.

Major Challenges in HRD

While the Government's HRD policy has been campaigning for employers and organizations to train and develop employees with skills and knowledge to become knowledge workers, HRD practitioners in these manufacturing firms are faced with the challenge of coping with the demand for knowledgeable and competent workers which include three critical factors: 1) hiring and retaining technical expertise and a competent workforce; 2) the education level of the workforce; and 3) the increase in the ageing workforce described as major concerns in coping with the demand for knowledge workers. Firstly, employers and HRD practitioners are faced with challenges in hiring technical expertise and competent knowledgeable employees, despite the fact that various technical and vocational institutions have been established by the Government to support technical and vocational training. As a matter of fact, hiring skilled, trained and knowledgeable workers is increasingly difficult in the competitive manufacturing industry, but at the same time, developing and retaining these workers increases the intensity of challenges faced by employers and HRD practitioners (Chermack et al., 2003). For instance, several managers interviewed deliberated on the issues in hiring, retraining and retaining technical expertise and it was found that employees usually leave their firms after being provided with training.

".....it is difficult to get employees to stay after getting expensive training... ..these workers are good and skilled, but we cannot stop them from going because they are looking/or better prospects"
(HR and Administration Manager, Machinery and Transport Equipment)

".....all our technical workers have been in the company for many yearsthey have been promoted from the bottombut the problem is that other competitor firms always pinch them... .." (HR and Administration Manager, Concrete and Cement)

"... ..job-hopping is a common scene ...a trend! ...! am not surprised the longest, one can stay in an organization is 3 to 5 yearsthat is considered very long " (HR and Administration Manager, Chemicals and Petroleum)

Therefore, workers in the manufacturing industries in this study were seen as either being 'poached' by competitor firms for their expertise or these expertise elite' workers are 'generation Xers' in search for their own career advancement that is lacking in the manufacturing firms surveyed. This phenomenon exists because these trained employees or 'expertise elite' are highly sought after or 'poached' by competitor firms offering higher salaries and benefits (Debrah et al., 2002; Lloyd, 2002; Moen and Rosen, 2004). As such, aspects such as training, retaining and career progression may require some serious attention to enable skilled and competent workers to be trained, retrained and retained within the organization. Indeed, the notion of attracting and retaining capable human resources has become the key challenge for most organizations as the workforce has become more challenging in terms of valuable expertise (O'Connell, 1999; Chermack et al., 2003).

Secondly, the demand for knowledge workers is not only associated with individual skills and capabilities but also with the education level of an employee (O'Connell, 1999; Streumer et al., 1999). It was found that existing members of the workforce in manufacturing firms mostly have a minimum qualification of form five, and some have no qualifications beyond primary six or are illiterate, particularly in the case of senior shop floor employees (production operators). These shop floor employees or production operators are later promoted to supervisory positions. However, the low education level of these promoted supervisory staff is a concern, as elaborated in the following quotes:

"Well...it is not only the language problem, but in actual fact the major concern with many manufacturing firms, which I can see around me, is the low education of the workforce, especially in production. Most of our workers have Primary Six or at the highest, Form Three, without basic technical or vocational training. However, we are starting to employ more diploma holders or at least a Form Five school leavers with computer skills" (HR and Administration Manager, Concrete and Cement)

"The educational problem is a big problem...because many of our workers were recruited some time back...they did not require high educational levels.... So any uneducated fellow workers can come to work in our company....." (HR Executive, Metal)

The supervisory staff who have been promoted from the shop floor are reported as pioneers and senior workers in the production line and their experiences made them eligible for promotion to the supervisory level. However, as a result of these employees' low education level, problems arise in the use of English language, communication and attitudes towards learning. For instance, a statement from a manager in the chemical industry is quoted as:

"...we share a lot of information with them. The majority of the workers are Malay and one thing extra that HR has to do is to make sure that they understand what was going on.....a lot of translation has to be done, because almost everything is in English and somebody has to do the translation....this has become a routine to HR ..." (HR and Administration Manager, Chemicals and Petroleum)

Indeed, problems with language and communication usually occur during training, particularly in communicating with trainers and consultants as well as correspondences and communication with management employees. This is corroborated by Debrah et al. (2000), who state that with the strong emphasis on the Malay language, English language skills are deteriorating very rapidly (McGurn, 1996; Hiebert, 1996a, b; and Yunggar, 2005). As such, adequate workplace literacy skills are important prerequisites for employee participation

in HRD and training activities (O'Connell, 1999; Streumer et al., 1999).

Organizations with relatively large numbers of employees with low basic skills and education may find it difficult to acquire employees' full participation and involvement in training. Furthermore, it has been suggested that employees with higher levels of education be sought for the workforce (ILO, 1997; Low, 1998; Chermack et al., 2003), particularly in manufacturing firms. Currently employers are hiring employees with at least a diploma and University education with compulsory computer knowledge

Thirdly, a majority of senior members of the workforce are reported to represent the older group of the workforce, commonly called 'baby boomers' in literature (see for example, Chermack et al., 2003). For example, as elaborated by a manager from the cement industry:

"We find that many workers cannot cope and operate the machinery So advance technology had caught up with them and they fall behind....we have to train them, but some people are too old to be trained. We can't demote or sack them, so we have to give them a different type of work" (HR and Administration Manager,; Concrete and Cement)

This suggests that the senior workforce is unable to cope with the increased reliance on computers and rapid technological advancement, and thus developing them to become knowledge workers may pose a challenge or rather a waste of resources (Low, 1998; Chermack et al., 2003). Indeed, literature has confirmed that issues of changing demographics in the workforce, such as education levels, interrelated with communication, language and the ageing workforce is a challenge to employers and HRD practitioners in many organizations (see, for example, Chermack et al., 2003; and Low, 1998). However, the next question is "how are HRD practitioners coping with these demographics in the workforce, to develop knowledgeable and skilled workers to achieve the knowledge-worker status?"

CONCLUSION

This study has produced evidence that hiring competent and skilled employees is a challenge for employers and HRD practitioners alike, and subsequently, failing to retain them is not only a challenge but also a waste of resources. Hence, employers, HR and HRD practitioners need to focus on creating and developing a work environment in which competent and skilled workers can be trained, retrained, retained and developed. Therefore, a focus on developing the appropriate human resource strategies, linked to appropriate organisational structures, and providing a flexible work environment with a broader range of career opportunities is likely to be effective in training and retaining these workers.

Moreover, with the demand for knowledge-workers, a paradigmatic shift in views on knowledge and learning seems to be an urgent concern. Rather than focusing only on technical skills, employers and HRD practitioners may need to promote employees' cognitive and socio-affective skills, taking a more holistic approach to the development of employees' key competencies. As a result, there is a requirement to apply a more long-term approach to training and learning, to enable employees with relatively little formal training to have a chance to adapt and meet with the demands of new competencies. The focus on short-term T&D and the neglect of employees' continuous and long-term knowledge acquisition and learning is most likely to impede the fulfilment of the main objectives that are sought through HRD.

Finally, the evidence in this study indicates that the HRD system is lacking in specialised HRD professionals. This certainly has implications for the effectiveness of HRD in developing a skilled, knowledgeable and competent workforce. Indeed, it is observed that HRD practitioners in manufacturing firms in Malaysia are faced with deficiencies in the HRD system and are challenged to cope with the demand for knowledge workers. These challenges are critical for the development of human resources in the manufacturing sector in Malaysia. This finding has been endorsed by other studies, indicating that the complicated and evolving field of HRD is continuously being challenged by the lack of human expertise in a rapidly changing environment (McGoldrick and Stewart, 1996; Schmidt and Lines, 2002; Lee, 2003). This suggests that employers and HRD practitioners have to improve their organisational

expectations and strategies in relation to **HR** management, development and change in order to cope with the challenging competitive environment and the emerging knowledge economy.

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