

The Extent of Skill Shortages and Training Needs of MNCs in APEC

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ABSTRACT

This paper explores the extent of skill shortages and training needs of 625 multinational companies (MNCs) operating in eight Asia Pacific Economic Cooperation (APEC) member economies, namely Chile, Indonesia, Malaysia, Mexico, Philippines, Singapore, Chinese Taipei and Thailand. Three indicators of skill shortages and training needs are examined. These indicators are 1) past and future recruitment difficulties experienced by MNCs; 2) perceptual training needs indicated by MNCs; and 3) level of employee turnover rate. The results show that most MNCs surveyed experienced difficulties especially in recruiting professional staff. There exists a relatively high level of employee turnover rate across six occupation categories. Areas of training needs are identified mostly in management training and job-related technical and interpersonal skills training.

Keywords: *training, skill, management, HRD, MNC, APEC*

1 INTRODUCTION

In the process of economic growth, development and globalisation, nations and those companies operating within nations often experience skill shortages because of a gap between the labour market needs of industry and the output of educational and training institutions (Iredale & Mitchell, 1995; Zheng & Stahl, 2001; Skinner, Saunders and Beresford 2004). Skill shortages may constrain the expansion of output in the short-term and limit possibility of diversifying productive structure in the long-term for companies operating within the nations.

In APEC, there is an increasing concern that continuing growth and development opportunities in most member economies may be circumscribed by a gap between demand and supply of certain types of skills in the labour market. There is a need to examine what kinds of skills or labour are in short supply so that educational and training institutions can design and deliver programs to meet the need.

MNCs are chosen for the study because with their international experience, they are often in a better position to assess the skill deficiencies and training needs of their workforce as they can benchmark the skills of their workers against international standards (Tregaskis, 1998; Tregaskis, Heraty & Morley, 2001). Also, the experience of MNCs is more relevant to firms currently involved in the APEC economies and those contemplating direct or joint venture investment in these economies. Moreover, the skill shortages experienced by MNCs may mirror the problems encountered by domestically owned firms.

Therefore, this paper intends to assess the extent of skill shortages experienced by 625 MNCs operating in the eight APEC member economies. As the analysis in this paper was drawn from a larger scale study of skill shortages and training needs in APEC, the focus of the paper is to examine *only* three indicators that best reflect skill shortages and training needs of MNCs. These three indicators are 1) recruitment difficulties experienced by MNCs; 2) areas of training needs indicated by MNCs; and 3) level of employee turnover rate.

The rest of the paper is organised as follows: Section 2 provides research background from which this study was initiated. Section 3 introduces research methodology. Section 4 presents the statistical results. Section 5 discusses the results and concludes with recommendations for MNCs, educational and training institutions and APEC policymakers.

2 RESEARCH BACKGROUND

A fundamental objective of APEC is the liberalization and facilitation of trade and investment with the aim of accelerating economic growth and development among member economies. Human resource development (HRD) is one of the key elements to this process (Castle 1999). Without adequate human resources, the opportunities presented by trade and investment liberalization will be diminished. Skill deficiency indicates a shortfall of human resource development, which has become a principal concern of the APEC member economies (Iredale & Mtichell 1995). To enable the continuous growth and trade liberalization process, APEC member economies must ensure that the capabilities of their workforce advance in parallel with the on-going structural changes as a result of rapid economic growth. The programs of education and training must encourage rather than impede structural changes. This is an important challenge to the region's educational and training institutions.

Over the last three decades, the economies of East and South East Asia experienced rapid economic growth and structural change. This occurred in the case of the four 'Little Dragons' of Hong Kong, Singapore, South Korea and Chinese Taipei, and in the case of the 'younger Tigers' of Malaysia, Indonesia and Thailand. Competition from the young 'Tigers' has forced the older 'Dragons' to attempt to change their productive structure away from low-valued added and labour-intensive industries toward skilled-labour and capital-intensive industries. More recently, competition from the less developed economies of the region, viz. Vietnam, the Philippines and China, has been forcing the younger Tigers - Malaysia and Thailand - to move away from labour-intensive industries to more high-tech capital-intensive industries. In Latin America, structural changes have also been underway since the first oil shock in the 1970s. Intense competition and technology progress have pushed firms in Chile and Mexico to continuously restructure and internationalize their operations, and adopt radically new models of management and organization (Frischtak, 1996; Zheng & Stahl 2001).

Such transitions in productive and organizational structure require corresponding shifts in the skills profile of the workforce at both professional and vocational levels. Without appropriate quantity and quality of skills, these structural changes can be frustrated. There is much anecdotal evidence from the Asian economies and elsewhere that many companies' plans for expansion and restructuring are being impeded by an inadequate supply of appropriate skills (eg. Thong, 1996; Lasserre & Schutte, 1999; Khatri, Chong & Budhwar, 2001; Green & Owen 2003; Miles et al. 2004; Rolfe 2005). Some even regarded the widespread skill shortages, worker and managerial inefficiency as the fundamental causes of the 1997 Asian economic crisis (see comments by Krugman, 1997). With recovery from the Asian crisis and continuing growth and structural changes in various economies, the region may well again experience a problem of industry and occupation specific labour shortages, even in the midst of continued generalised unemployment.

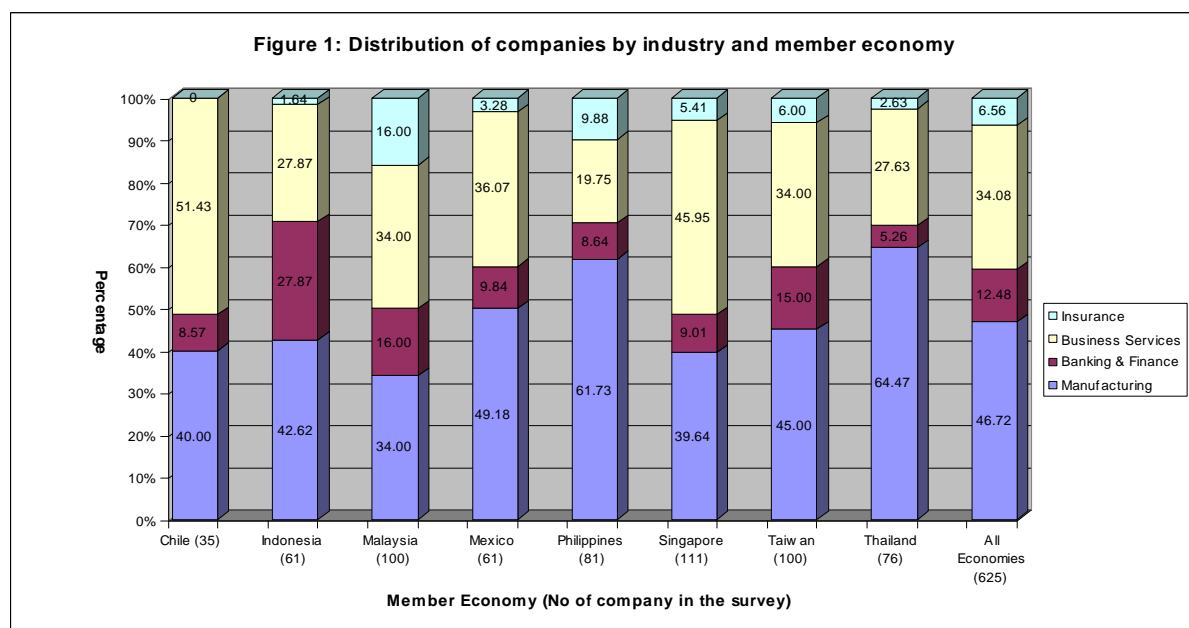
According to Iredale and Mitchell's (1995) study of assessing skill shortages in six APEC economies (ie. Australia, Brunei Darussalam, Hong Kong, Malaysia, the Philippines and Thailand), there is a mismatch between skills required by industry and those available within the labour forces. Some industries have surplus labour and under-utilised training facilities, while others experienced severe skill shortage. Previously, a 'vacancy index' was commonly used to measure the shortage. However, the index cannot specify which areas of skills are in short (Shah & Burke 2005). There is a need to further identify areas of skill shortages in APEC with a more standardised code of occupations and to adopt an index of both numbers and time dimension to measure the shortages (Iredale & Mitchell, 1995; Shah & Burke 2005).

This study was in response to the recommendations of Iredale and Mitchell (1995), but included more member economies for evaluation of skill shortages and training needs in APEC. The study is different from the previous analysis as it focuses on assessment of skill shortages at firm and industry levels, not at national or macro-level as in the case of Iredale and Mitchell (1995). The results of the study have direct implications for MNCs operating in APEC and for educational and training institutions that intend to provide training programs and educational services directly to industries and firms. The member economies included in this study are Chile, Indonesia, Malaysia, Mexico, Philippines, Singapore, Chinese Taipei and Thailand.

3 RESEARCH METHODOLOGY

The company survey was carried out in eight member economies during March-May 2001. A principal investigator of each economy was in charge of selection of MNCs and industries, collection of data, and in some cases (eg. in Chile, Mexico, Chinese Taipei), translation of the survey questionnaire from English to local languages and back to English. This is to ensure the consistency of the survey. Initial attempt was to get response from 100 MNCs in each economy. However, MNCs responded better in certain countries than in the others. For instance, only 35 MNCs responded to the

survey in Chile, while 111 MNCs responded in Singapore. The survey required to be filled out by company chief executives, including chief executive officers, financial controllers and human resource managers. 625 surveys were collected; the total response rate was 78.1%.



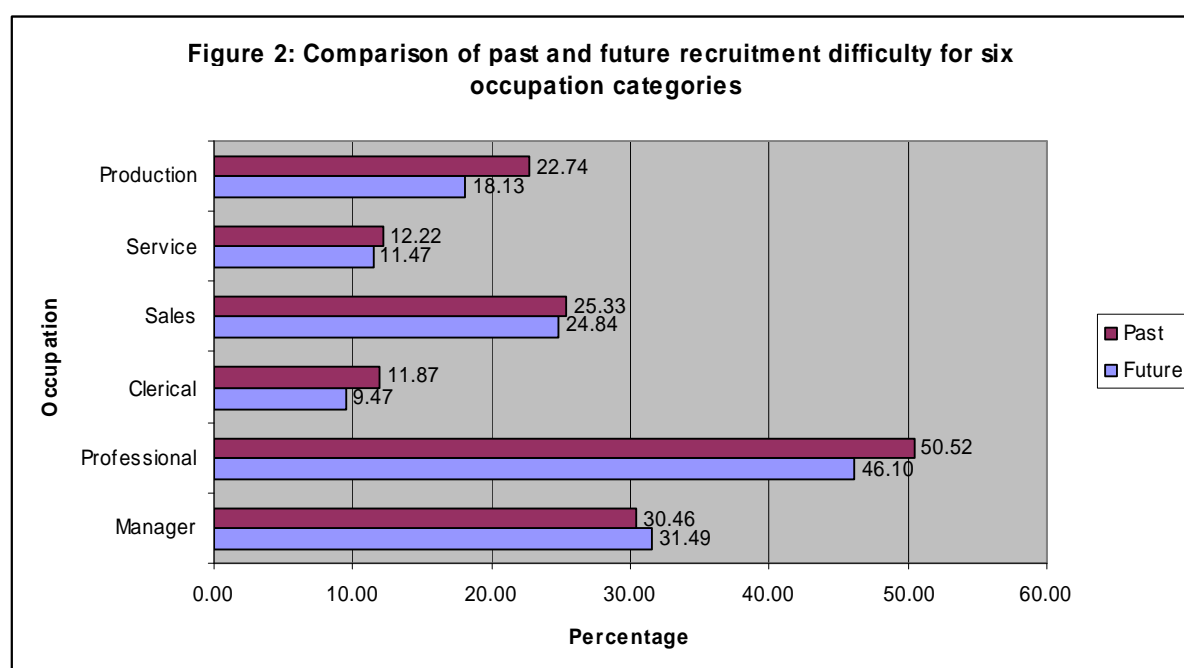
The selection of industries to be included in the study was based on a particular concern of the impact of the 1997 Asian economic crisis and subsequent reforms on the distribution of employment. For instance, there was concern that the finance and banking sector would be in short supply of the types of skills needed to carry out the reforms that the crisis identified as essential. Hence this was the rationale for the choice of this industry as one of the four on which the survey concentrates. In contrast, manufacturing experienced a significant shedding of labour, thus possibly giving that sector breathing space with regard to its perennial labour shortage. Hence there was an interest to know whether manufacturing has emerged from the crisis in better shape with regard to its demand for skills relative to their supply. The other two industries - business services and insurance - were chosen for the survey because services are becoming an increasingly important component of trade amongst APEC economies. If trade in services is to continue its growth in both absolute and relative terms, a sufficient supply of relevant skills is essential. Figure 1 gives a matrix of distribution of MNCs by industry and member economy.

Across all of the eight economies, the industry distribution of MNCs is: 46.7 percent in manufacturing, 12.5 percent in banking and finance, 34.1 percent in business service, and 6.6 percent in insurance. There was a relatively low level of response of MNCs in the banking and finance industry. This might be due, at least in part, to the extreme pressures that banks have been under to get their houses in order and the siege mentality that this pressure has inculcated at the time of collecting data in March 2001. The survey responses have predominantly been from manufacturing, as it has more presence of MNCs in this sector especially in Asia countries.

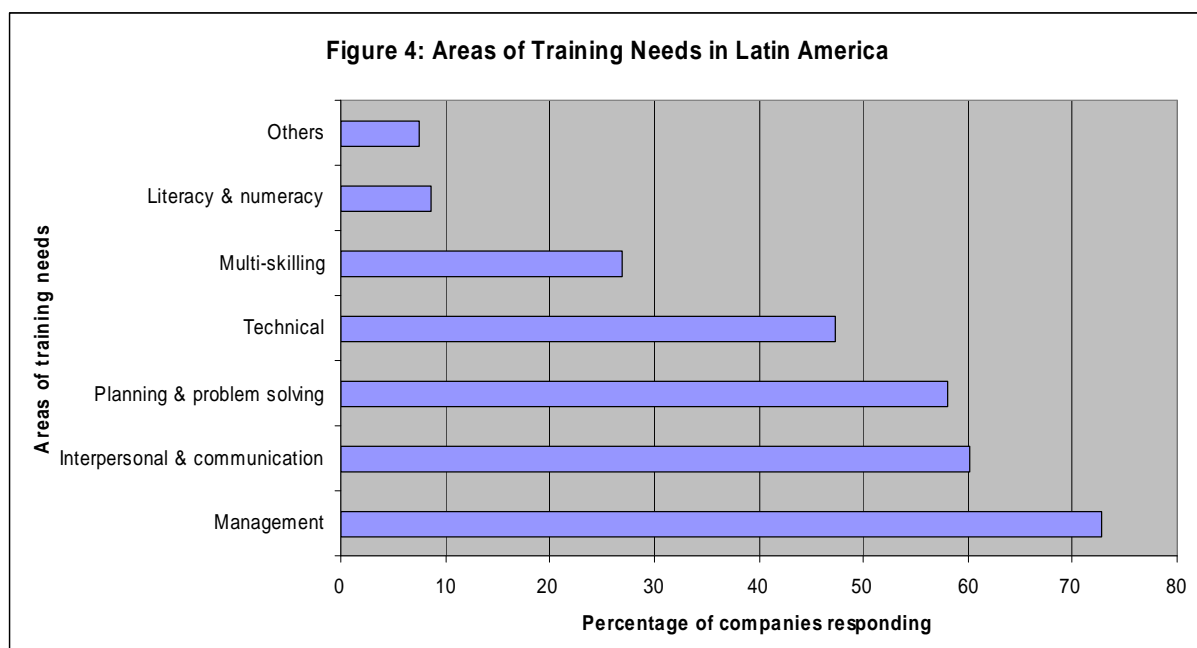
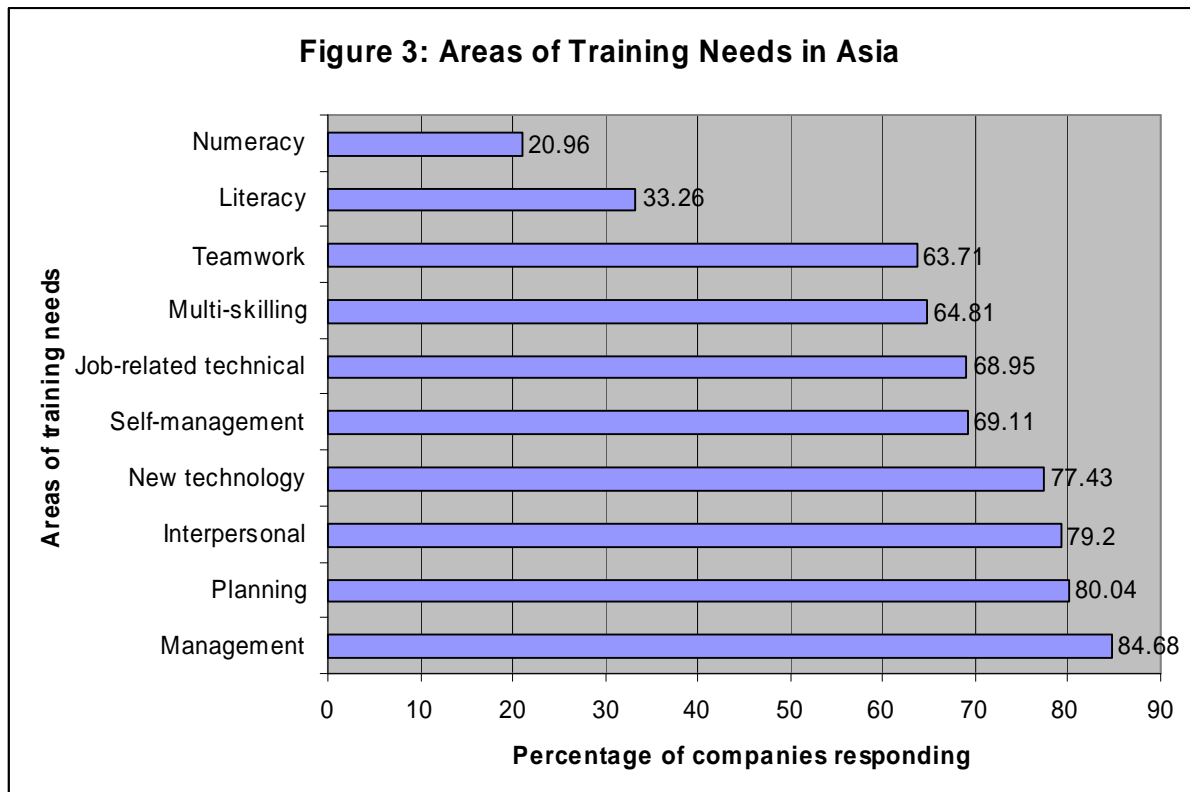
Six occupations in the survey were categorized according to two international standard classification of occupation (ISCO-1968 and 1988, ILO, 1998; 2000). They are managerial, professional, clerical, sales, service and production workers. As this is a part of preliminary analysis of a larger scale of data, simple cross-tabulation is currently used. More sophisticated statistical analysis to evaluate the cause and effect of skill shortages on firms will be presented in separate papers.

4 RESULTS

As mentioned earlier, the main concern of this paper is to evaluate skill shortages and training needs of MNCs in APEC, using three indicators. Figures below display the results of the study. Figure 2 indicates the past and future difficulty experienced by MNCs in recruiting six categories of employees. It seems that there was a shortage of professional skills, as over half of the firms investigated indicated having difficulty in recruiting this category of employees. Managerial staff has also been in short supply - over 30 percent of the MNCs found it difficult to recruit managers. Recruitment of sales and production staff is comparatively easy, even though still over a quarter of MNCs surveyed indicated difficulty in recruiting these two categories of staff. It is found with a close examination of individual countries' data that the countries where most MNCs experienced difficulty in recruiting production and sales forces are Singapore and Malaysia. This is understandable as manufacturing is a labour-intensive industry and both countries have intended to move away from labour-intensive sector to develop high value-added skills-based industries, even the government policies were set to achieve this goal (see Kanapathy, 2001; Low 2001). Overall, recruiting service and clerical employees was less problematic.

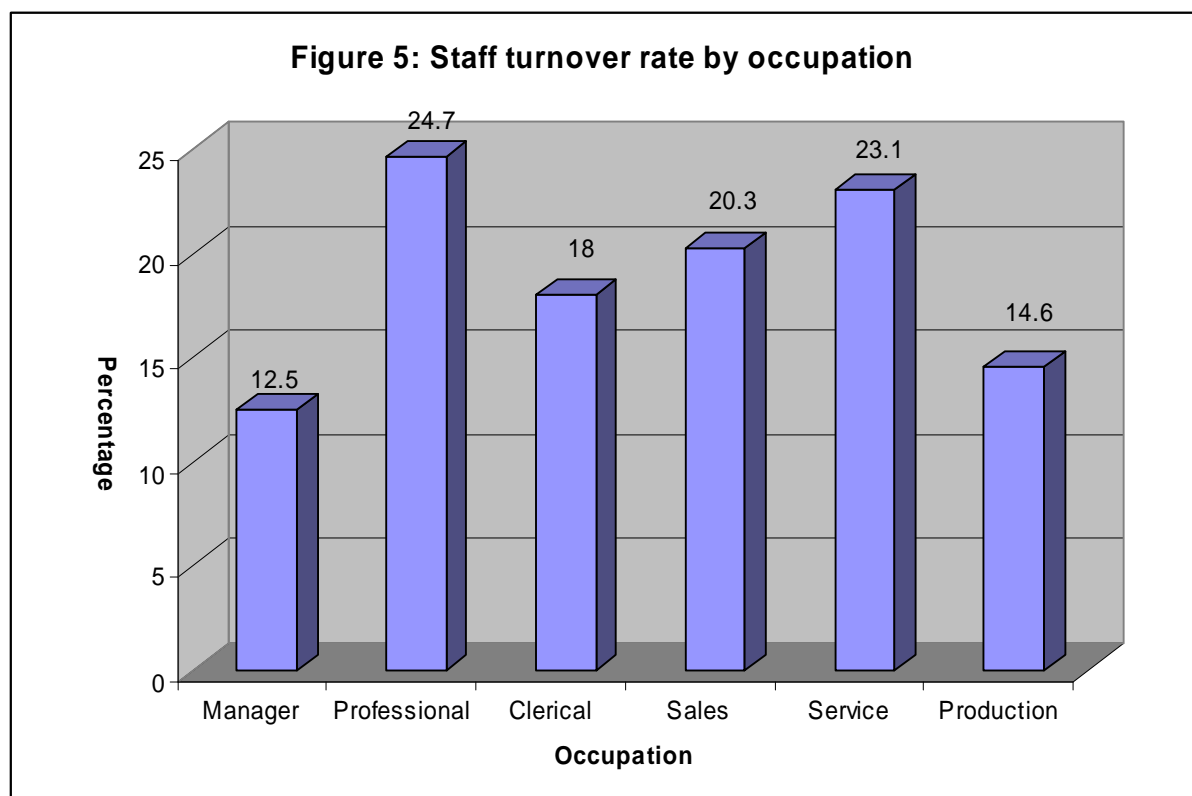


Figures 3 and 4 indicate the areas of training needs perceived by MNCs in Asia and Latin America. This is the only part where the survey questionnaire, when translated into Spanish and back to English, revealed some inconsistencies. That is why two figures shown below indicate different sets of training needs in Asia and Latin America. In Asia, MNCs indicated quite a number of areas that need skill improvement. Between 64 to 85 percent of the companies surveyed responded to the needs of improvement in management, planning, interpersonal skills, new technology, self-management, job-related technical, multi-skilling and teamworking skills. There is a lower level need for skill improvement in the areas of literacy and numeracy.



In Latin America, 73 percent of total 92 companies indicate needs for skill improvement in management. There is also a high proportion of companies indicating needs to improve interpersonal and communication skills (60 percent), planning and problem solving skills (58 percent) and technical competency (47 percent).

Figure 5 provides information pertaining to the employee turnover rate by occupation across all MNCs surveyed. The highest employee turnover rate (24.7 percent) appears among the professionals, followed by service workers (23.1 percent), salespersons (20.3 percent), and production workers (14.6 percent). The turnover rate for managerial staff stands at 12.5 percent. Prior studies (eg. Price & Mueller, 1986; Wai & Robinson, 1998; Khatri *et al.*, 2001) found that, in general, non-managerial employees were more likely to quit than managerial employees, but managers showed greater inclination to leave than non-managers in business services (e.g. retail). Again a close observation from each individual country case found that managerial turnover rate in less developed countries, eg. Indonesia and the Philippines were higher than that in more developed countries such as in Singapore.



From the above-analysis, it can be tentatively concluded that a shortage of managerial and professional skills is more prominent as many MNCs surveyed experienced similar frustration in recruiting these two categories of employees. Request for training to enhance job-related managerial, technical and interpersonal skills is very strong across Asian and Latin American countries. A high level of

employee turnover rate among professional and sales and service staff may also reflect a shortfall of labour in these areas.

5 DISCUSSIONS AND CONCLUSIONS

The unprecedented growth of the Asia-Pacific economies over the last quarter century has been associated with significant structural changes in production and distribution of employment. These changes have placed a greater demand on educational and training institutions to provide quantity and quality of human resources needed to underwrite continued change. The fundamental concern is how to keep both manager and worker's capabilities advancing in parallel with the structural changes, developing high value-added industries and continuing economic growth (Feridhanusetyawan, Stahl & Toner 2001). A failure to manage this problem may manifest in skill bottlenecks that has been a major concern for most of the MNCs in this survey. The majority of MNCs (65.7 percent) projected that skill deficiencies would have a negative impact on their business expansion and long term development.

A preliminary analysis, using three indicators to measure skill shortages shown above, justifies the MNCs' concern. There exists a considerable gap between the supply of certain skills and requirements of the companies. In particular, management and professional skills are in short supply. Often, the foreign corporate sector is able to cope with shortages of professional and highly skilled workers by importing expatriates. However, this adds substantially to the cost of doing business and risks of upsetting host governments that encourage MNCs to localise their workforce (Abarca et al., 1998; Sargent & Matthews 1998; Dowling *et al.*, 1999; Evan *et al.*, 2002). A greater need for improvements in various job-related skills presented in this study requires that MNCs must emphasise more on employee training and development both at headquarters and local operations to ensure sustaining their competitive advantage. A high turnover rate for various categories of occupation shows 'a culture of rampant job-hopping' among APEC economies (Khatri *et al.*, 2001:54). The phenomenon of 'job-hopping' cannot or will not be absent with the continuing presence of skill shortages. To respond to these shortages, MNCs need to create leading capabilities through continuous investment in resources, assets and competence (Lasserre & Schutte, 1999:41). Training and development of local employees will be the major challenge for MNCs to overcome the problem of staff turnover and address the issue of skill shortages.

Educational and training institutions are also largely responsible for the skill shortages in the region. Skill shortages are the result of both insufficient quantitative outputs of skills as well as low quality education and training programs that produce obsolete skills. Many MNCs (68 percent) in this study indicated that current training programs provided at enterprise and national levels lack relevance and are often of poor quality. Rigidity of training mode was also challenged. MNCs call for more flexible training programs provided to be made easily accessible. More emphasis should be placed on added-

values of training and educational programs that create transferable and multi-dimensional skills required for developing the knowledge-based economy, than on numbers of degrees, diploma and certificates issued.

The vision of APEC, according to John Wolf, former US Ambassador to APEC, is ‘not just to define best practices but get them in place, to build the infrastructure, install clean production technologies and train people for the challenges of the 21st century’ (Petri, 2000: 46). Over the years, there has been much talk in APEC about human resource development. It is now the time to deliver. APEC as a regional body can promote coordination among member economies and facilitate the linkage between MNCs and member economies’ government to provide quality vocational and training programs in order to address skill shortages and training needs among its estimated two billion plus workforce.

REFERENCE

- Abarca, N, Majluf, N and Rodriguez, D (1998) ‘Identifying Management in Chile: A Behavioral Approach’ *International Studies of Management & Organization* Vol 28 No 2 pp 18-37.
- Castles, S (1999) ‘Development, Social Transformation and Globalization’ *CAPSTRANS Working Paper* No 1 University of Wollongong/University of Newcastle pp 1-18.
- Dowling, PJ, Welch, DE and Schuler, RS (1999) *International Human Resource Management: Managing People in a Multinational Context* 3rd edition South-Western College Publisher.
- Evans, P, Pucik, V and Barsoux, J (2002) *The Global Challenge: Frameworks for International Human Resource Management* Boston: McGraw-Hill Irwin.
- Frischtak, CR (1997) Chapter 15: Latin America in JH Dunning (ed) *Government, Globalization, and International Business* Oxford University Press pp 431-454.
- Feridhaunusetyawan, T, Stahl, C, and Toner, P (2001) ‘Structural Change, The Asian Crisis and APEC Labour Market’ *Journal of Contemporary Asia* Vol 31 No 4 pp 47-62
- International Labour Office (1998; 2000) *Yearbook of Labour Statistics* Geneva.
- Iredale, R and Mitchell, C (1995) (ed) *Assessing Skills Shortage in APEC Economies* APEC.
- Kanapathy, V (2001) ‘Skill Shortages, Training Needs and HRD Strategies of MNCs in Malaysia’ in C Zheng and C Stahl (ed) *Skill Shortages, Training Needs and Human Resource Development Strategies of Multinational Companies in APEC Member Economies* Singapore: APEC Secretariat pp 89-105.
- Low, L (2001) ‘Skill Shortages, Training Needs and HRD Strategies of MNCs in Singapore’ in C Zheng and C Stahl (ed) *Skill Shortages, Training Needs and Human Resource Development Strategies of Multinational Companies in APEC Member Economies* Singapore: APEC Secretariat pp 132-146.
- Khatiri, N, Chong, TF and Budhwar, P (2001) ‘Explaining Employee Turnover in an Asian Context’ *Human Resource Management Journal* Vol 11 No 1 pp 54-74.
- Krugman, P (1997) ‘Latin Lessons for Asia’ *Far Eastern Economic Review* Vol 160 No 39 p 34.
- Lasserre, P and Schutte, H (1999) *Strategies for Asia Pacific: Beyond the Crisis* South Yarra: Macmillan Business.
- Miles, B., Marshall, C., Rolfe, J. and Noonan, S. (2004) *Attraction and Retention of Professional Services in Regional, Rural and Remote Queensland*, Report prepared for Queensland Department of State Development and Innovation.
- Petri, P (2000) (ed) *Regional Co-operation & Asia Recovery* Singapore: Institute of Southeast Asian Studies.
- Price, JL and Mueller, CW (1986) *Absenteeism and Turnover of Hospital Employees* JAI Press Inc.
- Rolfe, J. (2005) *Regional Economic Impact Analysis: Factors influencing workforce mobility to regional mining towns*, Socio-Economic Impact Assessment and Community Engagement to Reduce Conflict over Mine Operations Research Report Number 5, Centre for Social Science Research, Central Queensland University, Rockhampton.
- Sargent, J and Matthews, L (1998) ‘Expatriate Reduction and Mariachi Circle: Trends in MNC Human Resource Practices in Mexico’ *International Studies of Management & Organization* Vol 28 No 2 pp 74-96.
- Shah, C and Burke G (2005) ‘Skill Shortages: Concepts, Measurement and Policy Responses’ *Australian Bulletin of Labour* Vol 31 No 1 pp 44-71.
- Sinner, D, Saunders, MNK and Beresford, R (2004) ‘Towards a Shared Understanding of Skill Shortages: Differing Perceptions of Training and Development Needs’ *Education & Training* Vol 46 No 4/5 pp 182-193.
- Thong, G (1996) (ed) *Human Resource Issues in Singapore* Addison-Wesley Publishers Ltd.
- Tregaskis, O (1998) ‘HRD in Foreign MNEs: Assessing the Impact of Parent Origin versus Host Country Context’ *International Studies of Management & Organization* Vol 28 No 1 pp 136-163.
- Tregaskis, O, Heraty, N and Morley, M (2001) ‘HRD in Multinationals: The Global/Local Mix’ *Human Resource Management Journal* Vol 11 No 2 pp 34-56.
- Wai, CT and Robinson, CD (1998) ‘Reducing Staff Turnover: A Case Study of Dialysis Facilities’ *Health Care Management Review* Vol 23 No 4 pp 21-42.
- Zheng, C and Stahl, C (2001) (ed) *Skill Shortages, Training Needs and Human Resource Development Strategies of Multinational Companies in APEC Member Economies* 228p, Singapore: APEC Secretariat. Also at www.capstrans.edu.au/apec_report/.

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