

## **Human resource management in Taiwan: a future perspective**

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**Abstract** 'A competitive advantage through people' is well recognized. Human resource management with particular emphases on human resource planning and human resource information systems is examined. Major research findings include that a shift of human resource management focus is envisaged over the next five years, with human resource planning as a dominant future concern; analysis of annual human resource supply significantly contributes to the success of human resource planning; investment in an information system will be more oriented to planning and decision support in the future. Descriptive suggestions from respondents indicated that training and development, information sharing, career planning and management, appropriate laws and systems, and organization development are the top five areas for future improvements.

**Keywords** HRM, HRP, HRIS, Taiwan

In an era of striving for excellence, human resources become a crucial source of competitiveness (e.g., Porter, 1985; Ulrich, 1987). Lorange (1994) said that a major issue of current management is motivation of each employee to explore new opportunities. Sue (1994) concluded from business interviews that 'Manpower is the competitive advantage. No matter how effective the technology and process are, people are the final performers.' Pfeffer (1995) reported that the five best performing firms from 1972 to 1992 in the USA relied not on technology, patents or strategic position, but on management of their work-force for sustained advantage. In a global economy with fierce competition, the role of human resource management (HRM) becomes increasingly critical.

Among various functions, human resource planning (HRP) and human resource information systems (HRIS) are two areas that greatly enhance the effectiveness of HRM. Wagel (1990) reported that human resource practitioners and scholars had predicted a more aggressive use of forecasting, more human resources input into the decision-making process and an increasing utilization of computer technology to compile and analyse data in the 1990s. HRP is a formal process of linking business strategy with human resource practices (Smith *et al.*, 1993). It directs such practices as recruitment and selection, training and development, performance appraisal, compensation, etc. Chang (1993) wrote that planning is the primary task of a human resource department. In an information age, HRIS is attracting increasing attention. Richards-Carpenter (1991) stated that 'If the personnel function is to take the next big step in its development, it will have to integrate with information technology.' To probe the future development of HRM in Taiwan, HRP and HRIS are particularly emphasized in this work.

Human resources remain the most precious asset of Taiwan. Over the past forty years, diligent and well-educated people have created Taiwan's outstanding economic growth (e.g., Chao, 1986). An industrial survey published by 'Strategic Productivity' in

May 1991 showed that human resources are ranked as the most important factor affecting the competitiveness of enterprises in Taiwan. In future keener competition, companies will depend more on competent, innovative and motivated employees for quality, service and technology. With such understanding, the effectiveness of the management of human resources is being pursued in Taiwan.

Prompted by the above observations, this author attempted to seek guidance to improve management of human resources in Taiwan particularly with respect to HRP and HRIS. Our inquiry is devoted to answering the following questions.

- 1 What is the present focus of human resource management in Taiwan? Will there be a shift of focus in the near future (five years)?
- 2 How is planning of human resources conducted in Taiwan? What contributes to the success of such planning? What hampers such planning?
- 3 To what extent are HRIS being utilized? In what HRM areas do enterprises expect to advance their degree of computerization in the near future (five years)?
- 4 What should be done to improve management of human resources in Taiwan?

The expected contribution of this work is three-fold. First, it will provide guidance to advance the management of human resources in Taiwan. Second, it will help with the understanding of the management practices of an emerging business entity, foreign direct investments (FDI), based in Taiwan. Statistics show that in 1993 Taiwan was the major foreign investor in Vietnam, the second most important in mainland China and the third in Malaysia (Lee, 1994; *China Times*, 25 September, 1994). Third, it will enrich literature on economic activities in the Pacific region. Hofstede (1993) pointed out that 'The little dragons – Taiwan, Singapore, and Hong Kong – are moving from rags to riches and now counted among the world's wealthy industrial countries, yet very little attention has been paid to the way in which their enterprises have been managed.' The aggressive outbound investments of Taiwanese enterprises, particularly in the Pacific region, will have a substantial impact on economic development of the region. The results of this work are intended to provide references both for local firms and for those who are interested in this region.

## **Background**

In this section, HRP, HRIS and HRM are briefly reviewed. HRP is the process or system of applying the correct number of qualified people to the appropriate task at the appropriate time. It analyses demand and supply of human resources in order to define the needs (Sherman and Bohlander, 1992). Russ (1982) stated that it is the system of matching the internal (existing employees) and external (those to be hired or sought) supply of human resources with openings the organization expects to have during a given period. With HRP, employees can be of greater help to management and to themselves by contributing to placement, promotion and development. The importance of HRP is clearly stated by Ferris *et al.* (1990) that 'The most important contribution that a formal planning process can make is in fostering a long-term orientation and strategic vision of the firm. It prompts organizations to constantly monitor the external environment and thus improve the degree of fit between the environment and the organization.' With such characteristics, HRP enables companies to position HRM strategically. In Taiwan, HRP is still in its primitive stage (Chu *et al.* 1992). The following reasons may partially explain the lag of HRP. First, a dominant type of family business and nepotism (Redding, 1993; Silin, 1976) in the past relaxed the need for

HRP. Second, the characteristic of a short-term orientation in Chinese firms reported by Redding (1993) and Silin (1976) may be a disincentive for conducting HRP. In a relatively stable environment, traditional staffing practices were not a problem. However, recent intense competition and the pressure for globalization have prompted Taiwanese enterprises and researchers to re-examine the past practices. Recognition of the importance of HRP is reflected in management comments that organizational structure and human resources deployment are the critical issues for organizational growth and development (e.g., Peng, 1993; Yang, 1993). In academia, research in this regard is emerging. However, the studies are mainly on a conceptual level. Empirical studies were generally confined to marking a list of items predescribed by researcher(s), which limits the information, particularly for exploratory work.

HRIS is the system used to acquire, to store, to manipulate, to analyse, to retrieve and to distribute pertinent information regarding an organization's human resources (Kavanagh *et al.*, 1990). It is increasingly recognized as a crucial determinant of effective HRM and a strategic advantage. Broderick and Boudreau (1992) commented that information technology has enormous potential to make human resources more competitive. Mcelroy (1991) stated that HRIS is the change agent of organizational effectiveness; it provides a company-wide access to data in a real time, interactive manner. Improved human resource information leads managers to question how head count, turnover, skills inventories or performance ratings affect their units' business objectives and how human resource managers, with line managers, can more effectively hire and train employees to optimize these objectives (Broderick and Boudreau, 1992). The human resource executive of Federal Express believes that, now and in the future, excellence in HRM could be defined through strategic use of information (O'Connell, 1994). Research on HRIS is scarce, but cases of successful implementation are abundant. HRIS helped Mobil Corporation select among several major work-force relocation alternatives to meet Mobil's targets of decreasing costs. NCR successfully developed a computer application that shows how decisions about hiring and training in sales units can affect sales revenues and profit (Broderick and Boudreau, 1992). National Semiconductor Corporation also reported internal paperless job search programs that enable employees to bid on jobs, see job openings and apply by computer (Stevens *et al.*, 1991). Beyond interactive and paperless operations, it enables users to analyse, to synthesize and to generate information in supporting decision making (Kavanagh *et al.*, 1990). In Taiwan, the benefits of information technology are being pursued. It enables both management and employees to exploit information for effective management. Although the importance of management information systems has been recognized, HRIS is a less developed area in Taiwan. Scanty literature touches the topic of HRIS and no research report is available.

Human resource management has been greatly affected by organizational reforms such as downsizing and restructuring in some Western countries during the past decade. Numerous projects have been conducted on improvement of HRM in order to thrive and to survive in a competitive environment (e.g., Kelley, 1989; Schneider and Bowen, 1993; Walker *et al.*, 1989). HRM is attracting increasing attention in Taiwan. The past advantage of Taiwan – industrious and well-educated people – can no longer be sustained. With keener global competition, effective HRM is needed to guide human efforts. As a result, the impetus to explore theories and practices of contemporary human resource management was great. Discussion and literature regarding human resource issues are apparently increasing, but most literature is at a conceptual level. Research in Taiwan on the management of human resources is devoted mainly to

individual functional operations, such as compensation, performance appraisal, training, labour relations, etc. Probes of future development and improvements of HRM for strategic implications are not yet reported. Therefore, a future perspective is essential to guide the advancement of human resource management in Taiwan effectively.

## Methods

The data reported here were obtained from a postal survey. The questionnaire constructed consisted of five parts. The first part asked about areas of HRM focus at present and five years from now. Russ (1982) wrote that a five-year projection is practicable and recognized in many fields as a useful period for planning. The second part investigated human resource planning method and its problems. The third part examined the status of HRIS at present and in the near future (five years). The fourth part solicited suggestions to improve overall human resource management in Taiwan. The fifth part was demographic information.

For areas of HRM focus, respondents were requested to select and to rank four areas of their present and future focuses. Typical functional areas mentioned in HRM textbooks are listed, namely human resource planning, recruitment and selection, training and development, performance appraisal, compensation, labour relations, exit system, safety and health. Empty spaces for 'others' were incorporated in questions to cover unspecified areas. In order to measure the relative importance of each function perceived by respondents, a weighted average importance (WAI) was calculated, defined as follows.

$$WAI_{area} = \frac{4 * Freq1 + 3 * Freq2 + 2 * Freq3 + 1 * Freq4}{Freq1 + Freq2 + Freq3 + Freq4}$$

in which subscript *area* is a specified HRM area to be measured; and Freq1, Freq2, Freq3 and Freq4 are the frequency counts of the first, second, third and fourth ranks of the specified area

Multipliers 4, 3, 2 and 1 in the numerator of WAI are weights assigned to Freq1, Freq2, Freq3, and Freq4 respectively to reflect their relative importance.

For human resource planning, six measures were examined, namely analysis of annual demand, annual supply, matching of annual demand and supply, enduring (five years) demand, enduring supply, matching of enduring demand and supply. These questions were scaled with the frequencies 1=never, 2=sometimes, 3=often and 4=always. A question about overall success of HRP was measured on a 7-point scale. An open question was also included to solicit comments about perceived obstacles to human resource planning.

About HRIS, this author investigated the computerized level of areas more likely to be automated based on preliminary interviews: human resource planning, personnel internal flow, absenteeism and turnover, training, performance appraisal, compensation, external environment analysis (i.e. labour market, competitors' survey, etc.) and others. Respondents were requested to indicate their present and expected computerized levels as percentages. Means of these percentages were then calculated and compared.

For general HRM improvements, an open question, 'What should be done to improve human resource management in Taiwan?', was included in the questionnaire. Comments were classified and ranked in the order of frequency count.

In order to obtain insightful data from those companies that have good performance, the questionnaire was distributed in May 1993 to personnel managers of the current top 1000 manufacturers and top 300 service companies ranked by China Credit Information Service. The reason for selecting this population was that those companies are relatively better structured and likely to have superior HRM practices. However, a low response rate was anticipated, as over 97 per cent of Taiwanese companies are small or of moderate size and may lack formal HRM to answer all questions.

## **Results and discussion**

In this section, the results of data analyses are reported, including sample profile, current and future focus of HRM, human resource planning, current and future degree of HRIS and a summary of the proposed improvement of HRM.

### *Sample profile*

In total, 213 questionnaires were returned, of which 190 were completed and usable. Table 1 shows the frequency of three major attributes of the responding companies. Features of this sample include that about half the companies were established twenty years ago, about 72 per cent of the responding companies are manufacturers, which is consistent with 77 per cent (1000/1300) of the business population being manufacturers, and about half of the responding companies hire fewer than 300 employees, which reflects the fact that 51 per cent of the business population have fewer than 300 employees. Although the 15 per cent response rate is comparatively small (however, normal in Taiwan for a direct mail survey without special arrangement and an economy with dominant small- and mid-sized companies), the distribution of responding companies suggests that the results are representative with respect to the type of industry and number of employees. In addition, many descriptive data from open questions yielded valuable information – 162 out of 190 respondents commented on obstacles to human resource planning and 76 out of 190 respondents suggested measures to improve human resource management. Furthermore, those who did not answer may not have a formal system to manage human resources, as some incomplete questionnaires contained remarks indicating that the companies lacked the formal HRM necessary to answer all questions. As the purpose of this work is to probe future trends from those that have formal HRM practices, given the stated reasons, the small rate of response may not deter acquisition of insight.

### **Current and future focus on HRM**

For the perceived current and future HRM focuses (measured according to the weighted average importance), Tables 2 and 3 show that recruitment and selection, training and development, and HRP are the three major concerns, at present and in the future. However, the importance ratings of recruitment and selection and HRP are swapped and the ranking sequence for the three most important focuses becomes HRP, training and development, and recruitment and selection in the future.

The attention to recruitment and selection at present somehow reflects the shortage of labour at a basic level during the past few years in Taiwan. Statistics of the Council of Labor Affairs, Executive Yuan ROC shows that total foreign labour permitted has increased from 6000 in 1991 to around 286,000 as of March 1995. Therefore, it is understandable that recruitment and selection are the first concern at present.

**Table 1** Major attributes of the responding companies

| Attribute    | Grouping  | Frequency* | %     |
|--------------|-----------|------------|-------|
| Industry     | Mfg       | 133        | 72.28 |
|              | Service   | 51         | 27.72 |
| Age of co.   | <5        | 14         | 7.40  |
|              | 6-10      | 25         | 13.23 |
|              | 11-15     | 30         | 15.87 |
|              | 16-20     | 28         | 14.81 |
|              | 20+       | 92         | 48.68 |
| Employee no. | <100      | 44         | 23.53 |
|              | 101-300   | 55         | 29.41 |
|              | 301-500   | 33         | 17.65 |
|              | 501-1000  | 32         | 17.11 |
|              | 1001-3000 | 17         | 9.10  |
|              | 3000+     | 6          | 3.21  |

\*Frequency excludes missing value

Training and development are the second concern at present and remain at the same rank in the near future. In Taiwan, training and development have never been relaxed. Two decades ago, formal training was largely for blue-collar workers with craft and skill orientation (Negandhi, 1971). Recently, employee development and management development have also been on the agenda. In addition to private enterprise, governmental authorities play active roles in promoting training and development. In the early 1980s, the Taiwanese government implemented several policies to facilitate training and development, such as expanding the capacity of various industrial training organizations, promoting nationwide vocational training programmes, encouraging private firms to implement training, assisting small and medium enterprises to conduct joint training, co-ordinating factory co-operation, etc. (Editor, *Industry of Free China*, 1982). The fact that organizations increasingly allocate a fixed annual budget to training and development contributes further to its expansion in Taiwan. The ten companies that performed best on training and development invested on average 3.3 per cent (range 1.08 per cent-6.03 per cent) of their payrolls to training and development (Fei, 1990). The proliferation of university extension programmes, training centres, corporate universities and packaged programmes offered by consulting firms indicate recognition of the importance of training and development (Lin, 1996).

The most noticeable change of focus is the shift of HRP from being the third concern at present to being the first concern in the near future. Besides, only this area has a score over 3 points (3.34) on a scale of 4. The importance of HRP is well recognized in Taiwan (e.g., Chang, 1993; Chen, 1992), but Chu *et al.* (1992) found that HRP is a poorly developed HRM area with much room for improvement. Findings regarding HRP are elaborated in the next section.

### Human resource planning

The status of HRP is examined according to implementation of six major tasks, namely, analysis of human resource demand, analysis of human resource supply and matching of demand and supply for both transient and enduring planning. Table 4 presents means and standard deviations of the six measurements. Emphasis is placed more on the

**Table 2** Present HRM focus

| HRM function              | Ranking/multiplier |        |        |        | Means |
|---------------------------|--------------------|--------|--------|--------|-------|
|                           | 1/(4)*             | 2/(3)* | 3/(2)* | 4/(1)* |       |
| Human resource planning   | 41**               | 19     | 29     | 18     | 2.77  |
| Recruitment and selection | 42                 | 38     | 23     | 16     | 2.89  |
| Training and development  | 35                 | 53     | 40     | 13     | 2.78  |
| Performance appraisal     | 19                 | 26     | 31     | 47     | 2.14  |
| Compensation              | 27                 | 23     | 30     | 31     | 2.41  |
| Labour relations          | 3                  | 10     | 11     | 21     | 1.89  |
| Exit system               | –                  | –      | 2      | 8      | 1.20  |
| Safety and health         | 10                 | 8      | 11     | 17     | 2.24  |

\*Multiplier \*\*Frequency count

**Table 3** Future HRM focus

| HRM function              | Ranking/multiplier |        |        |        | Means |
|---------------------------|--------------------|--------|--------|--------|-------|
|                           | 1/(4)*             | 2/(3)* | 3/(2)* | 4/(1)* |       |
| Human resource planning   | 77**               | 21     | 10     | 13     | 3.34  |
| Recruitment and selection | 14                 | 31     | 20     | 23     | 2.41  |
| Training and development  | 37                 | 49     | 35     | 17     | 2.77  |
| Performance appraisal     | 15                 | 26     | 29     | 36     | 2.19  |
| Compensation              | 15                 | 26     | 38     | 38     | 2.15  |
| Labour relations          | 4                  | 7      | 21     | 24     | 1.84  |
| Exit system               | 1                  | –      | 3      | 7      | 1.55  |
| Safety and health         | 7                  | 10     | 14     | 12     | 2.28  |

\*Multiplier \*\*Frequency count

demand for human resources than on their supply. Further investigation of what contributes to the success of HRP was conducted with a stepwise multiple regression analysis. With HRP success as a criterion and six HRP tasks as predictors, the regression model is significant at the 0.0001 level with  $R^2$  0.34. Annual human resource supply (F value 49.09) is the only predictor that significantly explains 30 per cent of the variance in accounting for HRP success. The result further signals the importance of analysis of human resource supply, although it is the less tended area. Therefore, practitioners of human resources need to examine this supply internally and externally, planning for both quantity and quality of human resources. Monitoring the internal supply of human resources promotes timely job redesign, employee training and development, etc., whereas monitoring the external supply facilitates the exploration of flexible labour arrangements and revision of HRM practices or company strategies.

Regression analysis shows that the stated six tasks can explain only about one third of the variance in accounting for HRP success. Comments obtained from the open question may disclose other influential factors. Literal descriptions from 162 of 190 respondents are summarized in Table 5. Descriptions were classified into external and internal factors. Data show that respondents regarded external factors as more detrimental to their HRP success than internal factors (frequency count 91 vs. 78).

**Table 4** Means and standard deviations of HRP tasks

| Measure             | Mean      | SD   | n=  |
|---------------------|-----------|------|-----|
| Annual demand       | 2.82 (1)* | 0.89 | 178 |
| Annual supply       | 2.58      | 0.99 | 171 |
| Annual matching     | 2.70 (3)  | 0.96 | 175 |
| Future demand       | 2.73 (2)  | 0.91 | 171 |
| Future supply       | 2.34      | 0.95 | 164 |
| Future matching     | 2.37      | 0.95 | 164 |
| Overall HRP success | 4.23      | 0.95 | 183 |

\*Ranking

Externally, the two sweeping factors are varying business environment (frequency count 42) and unstable labour supply (frequency count 42). The third external factor is the lack of labour market information (frequency count 7). Internal factors were further grouped into 'organizations', 'supervisors' and 'employees'. Major internal HRP problems rest on organizations (frequency count 51), followed by supervisors (frequency count 18) and employees (frequency count 9). Table 6 rank orders HRP obstacles based on the frequency count of individual factors. In order of frequency, the top five obstacles are varying business environment, unstable labour supply, lack of HRP specialists, high employee mobility and supervisors incapable of conducting HRP. The results agree to some extent with the findings of Chu *et al.* (1992) who listed six possible obstacles to HRP, namely a varying business environment, lack of HRP specialists, incompetent supervisors, supervisors' ignorance of the importance of HRP, budget constraints and employee resistance. Their respondents were requested to mark those applicable to their companies; ranking of their research results is also included in Table 6 for easy reference. Apparently, two important factors (unstable labour supply and high employee mobility) that affect the success of HRP were omitted in the work of Chu *et al.* because of the prescribed list.

Table 6 is valuable for practitioners of human resources to rank their HRP efforts. Competitiveness erodes if companies idle their HRP because of an external unstable labour supply and varying business environment. Greenbaum (1992) stated that competing in global markets means surviving in an uncertain economic climate and taking advantage of opportunities. Nkomo (1988) also claimed that a purpose of strategic HRP is to design a plan capable of responding to the fluctuation of environment. Practitioners of human resources must recognize that, in this changing world, to expect a stable labour supply and a static business environment is myopic. The varying environment provides a chance for a practitioner to demonstrate its strategic role and help to develop competitive edges. Coping strategies may include constantly analysing the external environment, developing multiple skilled employees, allowing flexible organizational structure, redesigning jobs, exploring use of part-time workers, etc. As for a lack of HRP specialists, seeking external assistance, such as consultants, associations, scholars and outsourcing, may be one task; developing internal human resource staff is another. HRP problems caused by incompetent supervisors and high mobility of employees are internal factors that require an overall reexamination of HRM practices. Problems revealed here further explain why respondents set their first priority on HRP.



**Table 5** Itemized summary of factors that hamper human resource planning

| <i>Frequency count of perceived external factors: 91</i> | <i>Frequency count of perceived internal factors: 78</i> |
|--|--|
| Varying business environments: 42                        | <i>Organizations: 51</i>                                 |
| Unstable labour supply: 42                               | Lack of HRP specialists: 22                              |
| Lack of labour market information: 7                     | High employee mobility: 21                               |
|  | Lack of an enduring planning: 6                          |
|  | No need for human resource planning: 1                   |
|  | Too costly: 1  |
|  | <i>Supervisors: 18</i>                                   |
|  | Incompetent supervisors: 14                              |
|  | Departmental egoism: 4                                   |
|  | <i>Employees: 9</i>                                      |
|  | Employee resistance: 9                                   |

**Table 6** Ranking of factors that hamper human resource planning

| <i>Factor</i>                | <i>Ranking</i> | <i>Frequency count</i> | <i>Chu et al. (1992) ranking</i> |
|------------------------------|----------------|------------------------|----------------------------------|
| Varying business environment | 1              | 42                     | 1                                |
| Unstable labour supply       | 1              | 42                     | –                                |
| Lack of HRP specialists      | 3              | 22                     | 2                                |
| High employee mobility       | 4              | 21                     | –                                |
| Incompetent supervisors      | 5              | 14                     | 3                                |

### Human resource information systems

Table 7 shows the mean proportions for the degree of computerization of information about human resources. Only three HRM jobs – absenteeism and turnover, compensation and performance appraisal – are at present fifty per cent or more computerized. Based on data from relatively well-structured firms, the situation reveals that HRIS in Taiwan are still at a primitive stage and are mainly of an operational and record-keeping nature. Richards-Carpenter (1989) reported that most organizational investments in this information technology support only a narrow range of administrative decisions, such as those associated with payroll and record keeping. However, Table 7 also shows that the degrees of computerization are expected to increase in the future. Varying degrees of concern may reflect the priority of efforts and budget an organization is willing to allocate. Data analyses reveal that the most significant improvements are expected in the areas of HRP (from 35.8 per cent to 66.4 per cent) and external environment analysis (from 30.6 per cent to 56.2 per cent), followed by computerization of training data (from 41.6 per cent to 67.8 per cent). The attention to the computerization of HRP is consistent with a high rating of the importance of HRP mentioned previously (Tables 2 and 3). Analysis of the external environment is also greatly emphasized. In a variable environment with keener competition, effective acquisition of information and its utilization become increasingly crucial. Analyses of the labour market, salaries of competitors and the like are important references for management decisions. Although they are unable to reduce the threats of a volatile labour market, with better information

**Table 7** Degree of computerization of human resource information

| <i>Function</i>               | <i>Current</i> | <i>Future</i> | <i>Future/current</i> |
|-------------------------------|----------------|---------------|-----------------------|
| Human resource planning       | 35.8%          | 66.4%         | 1.85 times            |
| Personnel flow                | 39.0%          | 58.4%         | 1.50 times            |
| Absenteeism & turnover        | 61.8%          | 81.8%         | 1.32 times            |
| Training                      | 41.6%          | 67.8%         | 1.63 times            |
| Performance appraisal         | 50.4%          | 75.4%         | 1.50 times            |
| Compensation                  | 57.8%          | 73.6%         | 1.27 times            |
| External environment analysis | 30.6%          | 56.2%         | 1.84 times            |

systems, enterprises are more capable of monitoring the change of external environment in order to mobilize coping strategies. For example, awareness of labour market fluctuation may help management determine an appropriate recruiting strategy, a compensation modification and training and development practices. With such understanding, more external environment analysis is expected. Training-relevant databases are also attracting attention of human resource practitioners. Human resources inventory provides information for HRP, employee or management development, personnel deployment, etc.; training administration data help a human resource department to evaluate the return on investments, etc. In general, it is encouraging that the future trend in computerization of information about human resources seems to be towards planning and support for decisions.

### **Summaries of human resource management improvements**

Proposed improvements for the management of human resources from seventy-six respondents are summarized in Table 8. Suggestions were classified into external and internal factors. External factors were further grouped into 'government', 'educational institutions' and 'human resource society'. Internal factors were further grouped into 'organizations', 'supervisors' and 'employees'. Table 8 shows the frequencies of various groups. The summary indicates that two-thirds of improvements can take place inside companies (frequency count 105), whereas one third of improvements needs to be supported by external agencies (frequency count 54).

#### *External factors*

In improving HRM, the most influential external agency is the human resource society (frequency count 25), followed by government (frequency count 17) and educational institutions (frequency count 12).

A human resource society refers to associations focused on human resources, e.g., Chinese Human Resource Management Association. Such a society can help to improve the management of human resources by sharing information, offering training programmes, boycotting undesired initiatives, such as wage increases, unnecessary concessions to radical labour movements, etc. Requests to share information include creating a database of human resource specialists, publishing, organizing cross-nurturing activities of various kinds, etc.

The government can promote a more effective management of human resources by stipulating or modifying laws appropriate for companies to follow, setting up a certification system to motivate professional advancement, establishing national training

centres, creating a national manpower database, allowing access to government statistics for analysis of the labour market and helping with employee placement. With such services, government may help to create an environment conducive to better HRM and integration of resources.

Educational institutions should educate management specialists in human resources and provide extension programmes for the advancement of incumbents. Close co-operation between schools and enterprises is also expected.

### *Internal factors*

Table 8 shows that an organization (frequency count 91) should take the greatest responsibility for improving HRM practices. Suggestions were further grouped into strategic issues (frequency count 34) and operational issues (frequency count 57). The top five organizational issues are further elaborated.

Operational issues are routines described in typical HRM textbooks. Major issues that deserve increased attention are training and development, career planning and management. Although much effort is devoted to training and development, there still seems room for improvement, such as increased training for professionals and management, particularly top level management, training on ethics, etc. Measures to further improve training and development in Taiwan were reported in a previous paper (Lin, 1996). Career planning and management is an emerging issue for HRM in Taiwan. Modification of values and improved education have made young and competent employees an altered cohort. Without foreseeable future or possible opportunities for self-actualization, the commitment of employees is likely to diminish and their performance to be hampered. Companies with a career management system are in a superior position to retain qualified employees.

The remaining three strategic issues are organization development, acknowledging the contribution of human resource management and promoting strategic HRP. The need to promote strategic HRP further echoes its importance as perceived by respondents. In a traditional Taiwanese society of parental leadership, management of personnel had not been a major problem and was generally less emphasized in organizations, but competition alters the situation. Organizations need to acknowledge the importance of human resource management and its contribution for a sustained advantage. Organization development also facilitates the effectiveness of HRM.

For an overall ranking of both external and internal factors, Table 9 exhibits the top five issues for improvement of HRM. In order of frequency, they are training and development, information sharing, career planning and management, appropriate laws and systems and organization development. The table provides a reference by which management and professionals in human resources can set priorities.

### **Conclusion and implications**

This author examined current and expected focuses of HRM in Taiwan. Data analysis indicates that recruitment and selection, training and development and human resource planning are three areas that draw much attention at present and for the future. Recent imbalance between supply and demand of work-force in Taiwan as to both quantity and quality has pushed managers of human resources to give priority to recruitment and selection. However, in the long run, human resource personnel prefer to devote more attention to planning and strategic issues. This awareness is reflected in the surge of HRP as the first concern for the future.

**Table 8** Itemized summary of HRM improvements

| <i>Frequency count of perceived external factors: 54</i>                     | <i>Frequency count of perceived internal factors: 105</i> |
|--|---|
| <i>Government: 17</i>  | <i>Organizations: 91</i>                                  |
| Laws and systems: 12   | Strategic issues: 34                                      |
| Human resources database and training centres: 5                             | Acknowledge the contribution of HRM: 10                   |
|  | Strategic human resource planning: 9                      |
|  | Organization development: 11                              |
|  | HRM integration: 4  |
|  | Operational issues: 57                                    |
|  | Training and development: 28                              |
|  | Career planning and management: 12                        |
|  | Compensation management: 5                                |
|  | Recruitment: 4  |
|  | Performance appraisal: 5                                  |
|  | Exit interview: 3   |
| <i>Educational Institutions: 12</i>  | <i>Supervisors: 5</i>                                     |
| Formal higher education with a human resource major: 5                       | Lacking the concept of developing employees: 3            |
| Human resource extension education: 5  | Respect employees: 2                                      |
| Co-operation between schools and enterprises: 2                              |   |
| <i>Human resource society: 25</i>  | <i>Employees: 9</i>                                       |
| Information sharing: 14  | Multiply skilled labour: 1                                |
| Expertise training and exchange training: 4                                  | Lack of commitment: 7                                     |
| Collaboration in preventing undesired human resource management practices: 7 | Incompetent employee: 1                                   |

**Table 9** Ranking of perceived factors in HRM improvement

| <i>Factor</i>                                   | <i>Ranking</i> | <i>Frequency count</i> |
|---|----------------|------------------------|
| Training and development                        | 1              | 28                     |
| Information sharing in a human resource society | 2              | 14                     |
| Career planning and management                  | 3              | 12                     |
| Governmental laws and systems                   | 3              | 12                     |
| Organization development                        | 5              | 11                     |

Training and development have helped tap human resources in Taiwan and contributed significantly to Taiwan's economic success. Although training and development are continuously emphasized, research results indicate much scope for improvement. Suggestions include increased training for professionals and management, particularly top-level management, training on ethics, etc. In this variable world, personnel in human resources should initiate training and development that align an employee's and organizational objectives to cope with the dynamics of society.

HRP in Taiwan is in an early development stage. Analyses of human resources put more emphasis on demand with a seeming negligence of analysis of supply. Further

investigation indicates that analysis of annual human resource supply significantly accounts for the variance of HRP success. Respondents perceived that the external factors of a varying business environment and unstable labour supply are major obstacles to HRP. The results seem to disclose a prevailing sense of lack of power. The finding also urges a re-examination and improved integration of various HRM functions to solve problems such as lack of specialists, high employee mobility and incompetent supervisors.

The application of HRIS is observed mainly in connection with operational tasks. The institution of computerization is expected to take a great stride in the future, particularly in the areas of HRP and environmental analysis. This movement may indicate the shift from a reactive approach to a more proactive and future-oriented practice.

For general improvements of HRM, external agencies such as a human resource society, government or educational institution also have their roles in facilitating effective HRM in Taiwan. A pertinent finding is a strong demand for liaison opportunities through a human resource society. Contrary to past competition and a defensive mentality towards competitors, a mutually beneficial situation is promoted. Human resource practitioners regard other organizations as important sources for advanced management of human resources. They long to share relevant information, to exchange expertise for joint training, for cross-training and so on. This transition is enlightening. As human resources are regarded as a future competitive advantage (e.g., Pfeffer, 1994), liaisons may help enterprises to improve their HRM and to enhance the total competitiveness of Taiwan in the world market. Internally, although suggestions for functional improvements ranked higher, the necessity of altering attitudes regarding recognition of the contribution of a human resource management, organization development and strategic HRP is also featured. Further demands on training and development and career issues reflect a need for a more employee-centred HRM. Practitioners should apply increased thought to the alignment of employee goals and organizational goals to motivate and retain a qualified work-force in order to achieve high performance.

In general, our results explicitly reveal that HRP should be the major future HRM concern. HRP should be more effectively implemented in a varying environment with increased emphasis on analysis of human resource supply. Practitioners should utilize information technology more extensively to advance analysis of planning and decisions. To improve HRM, organizations should also take care of the needs of employees to grow as well as to accomplish the organizational goal. A human resource society, government agencies and educational institutions should also play active roles to advance the management of human resources in Taiwan.

Two main implications can be drawn from the research findings. First, HRM in Taiwan needs operational advancement. Our respondents indicated some technical bottlenecks. For instance, HRP in some companies seems to be on hold because of an unstable labour supply and a varying business environment. Therefore, ways to overcome constraints and to develop a workable HRP need to be explored. Concentration on analyses of demand for human resources with less attention to the analyses of supply is another flaw. The stated impediments to HRP seem to indicate excessive emphasis on the quantity of human resources available to fill vacancies promptly. The quantity problem may be partially solved by constant monitoring of internal human quality and human process improvement for timely employee and organization development. Other issues, such as improved integration of various

functions about human resources, improved utilization of information technology to support decisions, etc., should be extensively probed.

Second, HRM in Taiwan needs a more global perspective. Despite aggressive overseas expansion of Taiwanese enterprises, concern about international HRM was not detected in this research. This finding poses a list of questions such as whether systems to manage overseas people are established, whether HRM offshore is on management's agenda, whether a human resource department has staff to mind these matters and so on. 'Go international' is crucial to Taiwan's continuous economic growth. A sound international HRM system facilitates overseas success as exhibited in USA and Japanese overseas operations. Therefore, this issue is worthy of further contemplation.

Research findings based on the top 1,000 manufacturers and top 300 service firms may provide guidance for the advancement of human resource management in Taiwan. Expected future efforts towards increased planning, better utilization of information technology and a more strategic perspective are encouraging. Challenges remain, ranging from functional improvements, integration of various human resource management functions, organization development, more human concerns, recognition of the contribution of human resource management, a global perspective of human resource management and so on. Only with the co-operation of all parties concerned can the management of human resources create a sustained advantage for enterprises in the coming century.

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