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Human Resource Management in Chinese manufacturing companies[☆]

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Summary The objective of this article is to analyse and present current Human Resource Management (HRM) practices in Chinese manufacturing companies. This work is an initial study of research focused on comparison of Human Resource Management in Chinese and Czech manufacturing companies. A questionnaire consisting of 58 questions devoted to specific aspects of HRM such as recruitment, performance evaluation and remuneration, training and development, was designed to acquire necessary data. Data acquired from 67 Chinese companies were analysed; descriptive statistics and analysis of variation were applied in order to yield the most beneficial outcomes. Results show significant differences in various aspects of HRM depending on the size and the ownership of monitored companies. Results followed with discussion and implications emphasize the importance of proper practices implementing all aspects of HRM in one functional complex.

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Introduction

Human resources represent, and for sure will represent also in the future, the greatest potential competitive

advantage of companies. The condition of the materialization of this prerequisite is an effective management of human resources, i.e. careful planning, organizing, leading and controlling (Samolejova et al., 2015). Manufacture industry is the pillar of China national economy, ranking the third in the world in terms of size. Nevertheless, most products are located at the lower end of value chain with weak competitiveness and anti-risk capabilities. In contrast, foreign owned companies have owned absolute advantage with core-technology and thereafter hold on the higher end of manufacture value chain. In China, 80% Hi-Tech exports come from foreign invested companies. Behind this phenomenon, a very big gap of human capitals and HRM

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| Ownership type | State-owned | Private | Stock | Joint ventures | Sole foreign invested |
|----------------|-------------|---------|-------|----------------|-----------------------|
| percentage (%) | 12 | 53 | 25 | 3 | 7 |

Figure 1 Distribution of companies by ownership type.

performance implicates the truth: foreign invested companies have attracted the majority of high-level technical talents and professionals. How to acquire human resource and keep employees motivated and committed is the key to enhance the competitiveness of Chinese manufacturers. A big effort has been made recently in research on Human Resources Management both in western countries and China trying to compare practices and find a common way to take advantage of different practices among manufacturing companies (Cooke, 2013). Since the initial studies (Björkman and Lu, 1997) on HR in Chinese–western joint ventures many researchers focused on comparison and transfer of best practices both from Chinese to western companies and from western to Chinese companies. Journal of Chinese Human Resources Management founded in 2010 could be the proof of HRM topic importance. A review (Wang et al., 2014) of the journal is available discussing all the main aspects mentioned above. Aim of this study is to contribute to HR research in terms of specific HRM aspects of Chinese manufacturing companies. Data acquired during this study will be used in further research to compare Chinese and Czech practices and provide both sides a set of recommendations on HRM and possible transfer of experiences and practices.

Sources and methods

Data for this study was collected using the questionnaire designed by Czech and Chinese co-researchers. The questionnaire of total number of 58 questions divided into several sections referring to various aspects of HR management was designed to reflect both the Chinese and Czech industrial environment what would provide a relevant material to compare both environments in further research. 82 local manufacturing companies of Hubei province were invited to participate in the research. The questionnaire was sent via email together with an introduction letter. We received 67 completed questionnaires, one per company, what makes good return rate of 81.7%. As this was the initial study of a long time cooperation project not all the data acquired was analysed for the purpose of this paper which is focused on basic analysis of questions dealing with a HR department characteristics and settings as well as with HR planning, training, recruitment, etc. Data were analysed using free-ware R (version 3.2.2) software environment for statistical computing and graphics, descriptive statistics and ANOVA tests were performed.

Results

This survey was focused on the manufacturing companies in Central China. Several indexes such as ownership type (see Fig. 1) and size (see Fig. 2) were used to reflect the basic features of the surveyed companies.

Following text of the results section is divided into 5 subsections according to specific HR aspects.

| Size (number of employees) | 100-500 (small) | 500-3000 (medium) | More than 3000 (large) |
|----------------------------|-----------------|-------------------|------------------------|
| Number | 34 | 26 | 7 |
| percentage (%) | 50.75 | 38.81 | 10.44 |

Figure 2 Distribution of companies by size.

The setting of HR department

The HR department is generally a formal unit within a firm that develops and implements policies, programmes and procedures for the acquisition and development of the firm's human capital, consistent with the needs of the firm's primary stakeholders. Whether to set up a dedicated HR department is mainly subjected to the numbers of employees, and also influenced by ownership and performance of company. It was found out that 88.24% of the responding firms have set up specialized HR department or personnel department. Statistical tests show that significant difference ($P=0.001 < 0.01$) exists between large, medium and small firms in terms of this part. 100% of large and medium-sized companies have independent HR departments while 76.47% small firms do not. This study has also found that in small firms which have not independent HR department, the HR functions are usually combined into administration, or business management department. The result is similar with that of a large-scale survey on the HRM situation of Chinese enterprises which was conducted by Development Research Center of the State Council (DRC) and China Human Resource Development net (2003). The survey found out that 90% of firms with more than 1000 employees have dedicated HR department, in the meantime, only 44% of firms with no more than 100 employees have it as well.

The number of HR employees

Among the companies, Huawei Science & Technology has equipped the biggest number of HRs to 5000 persons, average number of HR employees is 98; 11.94% of firms have not full-time HR employee and all of them are small firms. Test illustrates that in terms of the number of HR employees, there is significant difference ($P=0.000 < 0.01$) between large, medium and small-sized firms, significant difference between state-owned, private and foreign owned companies, and between listed companies and non-listed ones as well. According to the variable of size, small firms have 3.56 HRs, medium-sized firms have 8.67 and large-sized firms have 1030.67 in average. According to ownership type, state-owned enterprises have 12.75 HRs, private firms have 172.39, stock companies have 12.75, joint ventures have 7.5 and foreign owned companies have 5.5 HRs in average. Further analysis has identified that the size of firm is significantly and positively relevant to the number of HR employees. There is no standard ratio between the number of HR employees and the total employees. In this study, the ratio varies dramatically from 1:2.5 to 1:458.84, average ratio is 1:62.99. This ratio describes for how many employees a single HR manager serves, or how many HRs should be equipped against the size of company. More precisely, the rate is influenced by many factors, such as industry, technology, business, ownership and the attitude of stakeholders

towards HRM. Concerning this survey, the rate between the number of HRs and total employees significantly differ between the different sized firms ($P=0.000 < 0.01$), and the same as between state-owned, private and foreign owned companies. It might be supposed that the rate of HRs is influenced by the factor of employee number and ownership of firm.

Human resource planning

Among the 67 firms under survey, 47 firms have defined Human Resources Strategy and Planning, 24 firms (35.82%) have their own policies in all the HR functional areas as recruitment, evaluation, remuneration, training and development, and corporate culture, while 17.91% have policies in four areas and 23.88% had in three areas only. In general, the interviewed HR managers have given quite common evaluation on the HRM status in their companies; they agree that it is critical to enable all the staff to realize the value of human capital and the importance of HRM work to the success of business, especially in the technology-intensive manufacture industry.

Recruitment and employment

Recruitment is the process of generating a pool of candidates from which to select the appropriate person to fill a job vacancy, which is composed of recruitment, selection and employment. In this survey, 80.6% of firms have prepared descriptions of job positions, these firms and even those firms without job analysis definitely agree that the requirements of job provides the basis for developing a person specification. When asked about the source of recruitment, 65.67% of firms give priority to internal sources and turn to external sources only when necessary. 47.76% of firms fill leader positions exclusively from internal sources. Regarding the sources of recruitment, 61.19% of firms choose to cooperate with universities and vocational schools; 74.63% of firms cooperate with labour markets and government employment organizations; 32.84% of firms hire temporary employees through employment agents; 43.28% of firms pay the professional recruitment agencies to look for appropriate employees; 20.9% of firms use other sources such as internal employee recommendation, recruitment websites. Most firms have structured job analysis and descriptions but still need to improve the system. More than half of firms prefer internal sources to fill ordinary job vacancies, but for leader position, more than half of firms choose both internal and external sources to find the most competent candidates.

Concerning the question on selection, the surveyed manager was required to rank a certain characteristics of candidate based on importance to employer, such as educational and professional knowledge and skills, work experience, social abilities and personality, social status, references of previous employers, recommendation of known persons or existing staff and others. The answers demonstrate much more varieties than similarities. This suggests that each firm has its own values on account of the corporate culture, the nature of business, size and other factors. There are many methods to select employee, resume analysis is the most used and adopted by 85.07% firms,

Assessment Center is used by only 11.94% of companies. The final decision is made by the head of department where staffing requirement originated in 71.12% of firms. Full-time employees make up the majority in the surveyed firms, 68.66% of firms have more than 80% full-time employees, 13.43% of companies hired 5–10% temporary labours.

Training and development of employees

Training and development is the process of changing the skills, attitudes and knowledge of employees with the purpose of improving their level of competence. It was found that despite of the ownership type or size most companies have training and development plan for employees. 25 firms have one-year plan, 15 firms have three-year plans and 2 firms have five-year plan. In respective of on-site training methods, three kinds of methods are mostly used as training based on standard of operation and processing procedure, continuous exercise leading to desired work performance, and mentoring. For off-site training and development, most companies prefer to use lectures combined with discussion, practical demonstration of knowledge and skills and case studies to analyse problems and to propose solutions to simulated situations. Most firms have chosen on-site training as the main approach supplemented by off-site training and development.

Discussion

The discussion is organized into two major HRM functional areas, in which the key results are presented at first, and then the managerial implications of the results are explored.

HRM system

In recent years, manufacturing firms in China have been actively learning the management knowledge from western countries and have introduced HRM models. This present study found that most firms and particular all large firms have set up independent HR departments and equipped HR managers to develop personnel policies and they are responsible for implementation. Even though the HRM level has improved, there is the distance compared with the HRM practice in developed countries. Most firms have developed the key area of HRM gradually, possibly urged by the necessity of practice or pressure from competitors. As a result, the key areas of employee resourcing, development, reward and performance appraisal are not integrated somehow. HRM is a systematic approach to managing people that seeks to integrate the various activities so that they are compatible with each other. The suggestion is to consider the inter-relationship between resourcing, training, compensation and performance evaluation areas and integrate all the functions to form a synergy effect.

Resourcing of competent employees

All the surveyed companies highlight the importance of competent employees for the technology updating and growth of business in the highly competitive market. The question

is how to acquire the talents they need. External labour market and universities graduates are the main outsourcing channels which enable firms to have more choices and save training expense. However, the high-level employee is hard to find and fresh graduates have no work experience. Thus, it is necessary to emphasize the training and development of current employees, these people are more committed and furthermore, they have knowledge and experience more related to the industry and firm to whom they belong which is definitely advantage as for innovations. For employers, they are reluctant to do so because of two reasons: training and development programmes need a large investments; it is inevitable that some well-trained employee may leave for other company. Therefore, how to balance the outsourcing and internal development of employees is very critical for the long-term growth of any business. Research from [Shijie Consultancy Company \(2009\)](#) has found that 64% firms choose to take advantage of company resources to complete most training programmes. For instance, companies select some experienced and communicative persons among existing managers and workers; they are motivated and cultivated to become trainers or coaches for other employees. This approach applied by any learning organization has been proved by many advanced manufacturing companies either in western countries or China. Human Resource Management applying latest innovative approaches is not only critical for economic development of any company, but also for political, technological, socio-cultural and environmental developments.

Conclusions

As far as Human Resource Management is recognized as one of the most important managerial aspects in the life of every company, this study contributed to the knowledge of HRM practices in Chinese manufacturing firms. Further research in this field will be focused on completing the same survey in the Czech Republic to compare both environments and to highlight positives on both sides. As this paper explored many characteristics of HRM in Chinese manufacturing

companies and provided managerial implications it will be much more valuable in comparison with results from the Czech Republic. During work on this paper very strong partnership between the Hubei University of Technology and the VSB – Technical University of Ostrava has proved to be very promising for further research, especially in terms of students and lecturers cooperation providing the other side valuable practical experiences to share and improve HRM practices.

Conflict of interest

The authors declare that there is no conflict of interest.

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References

- Björkman, I., Lu, Y., 1997. [Managing the human resources in Chinese–western joint ventures](#). *Euro-Asia Centre Res. Ser.* 46, 1–18.
- Cooke, F.L., 2013. [Human resource development and innovation in China: state HRD policies, organizational practices, and research opportunities](#). *J. Chin. Hum. Resour. Manag.* 4 (2), 144–150.
- Development Research Center of the State Council, 2005. [Chinese Enterprises Human Resource Management Survey Report 2003](#).
- Samolejova, A., Wicher, P., Lampa, M., Lenort, R., Kutac, J., Sikorova, A., 2015. [Factors of human resource planning in metallurgical company](#). *Metallurgija* 54, 243–246.
- Shijie Consultancy Company, 2009. [Survey Report on Chinese High-tech Enterprises under the 2008 Financial Crisis](#).
- Wang, G.G., Zhang, Y., Lamond, D., Ke, J., 2014. [Moving forward: exploring unique Chinese phenomena and advancing HRM research](#). *J. Chin. Hum. Resour. Manag.* 5 (1), 2–13.