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# CHAPTER 5

## DISCUSSION AND CONCLUSION

### 5.1 Introduction

This chapter provides the discussion about the determinant factors that affecting the organizational adoption of E-HRM among firms in northeast of China, and then the practical implications and suggestions will be presented. This present chapter also provides the limitation of the research, and makes several recommendations for further research.

### 5.2 Discussion of the results

The findings indicate that currently the percentage of E-HRM adopters was relatively high in Northeast of Mainland China, the companies which have already adopted E-HRM applications accounted for approximately 82.6 percent of the total sampled companies. This implies the degree of popularity of information technology among the companies located in northeast of China is very good.

As analyzed in chapter 4, it has been found that compatibility, top management support, IT expertise and industry pressure are statistically significant to discriminate between the non-adopters and adopters of electronic human

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resource management (E-HRM). However, the present study also revealed that relative advantage, complexity and HR manager's subjective norm towards E-HRM were not influential to the corporate decision of E-HRM adoption within China context.

**Hypothesis two:** HR manager's subjective norm is positively related to the adoption of E-HRM.

The results of data analysis demonstrated that HR manager's subjective norm does not discriminate between the E-HRM adopters from non-adopters. In other words, HR manager's subjective norms will not influence the organizational adoption of E-HRM, which means companies would not tend to evaluate E-HRM application in terms of the suggestions from those who are important to HR manager of the organization. This finding was considered to be contrary to the previous findings in the literature about techno-innovation adoption (Kittipong, 2009). This is because the organizational decision for adopting an innovation requires involving the opinions of managers in each department and the cooperation of all the departments in an organization. Although HR manager has a strong relationship with E-HRM, his/her individual characteristics are not sufficient to influence the decision of the whole organization. Thus, HR manager's subjective norm is not considered as a good indicator for E-HRM adoption. Hypothesis two is not supported.

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**Hypothesis three:** Relative advantages are positively related to the adoption of E-HRM.

The results of discriminant analysis from the present study displayed that relative advantage of E-HRM is also not influential to the adoption decision. To surprise, this finding is also not consistent with the previous studies on the adoption of HR-related innovation (Teo, 2007; Kendall et al., 2001; Lee & Shim, 2007). One possible explanation could be the relative advantage of E-HRM has been perceived by most of the companies in China, whether they adopt E-HRM or not. The data analysis in chapter 4 showed the mean value of E-HRM adopter groups on relative advantages is quite near to that of non-adopter groups, both of which are relatively high (almost up to 4). It means both E-HRM adopters and non-adopters in China have very positive attitudes towards the benefits of E-HRM. Therefore, the relative advantage of E-HRM cannot be considered as a significant factor for decision to adopt E-HRM. Hence, Hypothesis three is also rejected.

**Hypothesis four:** Compatibility is positively related to the adoption of E-HRM.

The findings from this study keep consistent with the prior literature that has revealed that compatibility is an influential technological factor for innovation adoption (Jeon, Han & Lee, 2006; Teo et al, 2007; Kittipong, 2007; Khong, 2008; Ramamurthy, 2008; Kendall et al, 2001). Furthermore, according to the discriminant analysis, it can be seen that compatibility has the highest

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discriminate power (.728), which means compatibility was the most significant factor in this study to differentiate the companies that adopt E-HRM from those do not adopt E-HRM. As mentioned earlier, compatibility is the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters (Rogers, 1995). It can be seen that one of the important reasons for those companies which yet adopt E-HRM is due to E-HRM currently is not compatible with their existing operating practices, values and beliefs and IT infrastructure.

**Hypothesis five:** Complexity is negatively related to the adoption of E-HRM.

Complexity of E-HRM in discriminant analysis was not displayed to be a statistical significant contributor to the decision of E-HRM adoption in Northeast China's companies, which is a bit surprising and not consistent with prior studies (Thong, 1999). Hence, Hypothesis five is not supported. A possible explanation maybe nowadays, in China most people under the age of 40 have more or less acquired the knowledge and skills on computers and internet, and they are familiar with computer operation. On the other hand, currently various information systems utilized companies and other software are quite user-friendly, and are easy and convenient to work with. Therefore, it appears that most people do not think electronic human resource management (E-HRM) is hard to learn or is complicated to use. Therefore, complexity of E-HRM is not regarded as an influential factor to E-HRM

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adoption among China's companies.

**Hypothesis six:** Top management support is positively related to the adoption of E-HRM.

The findings in the present study showed that top management support is positively related to the adoption of E-HRM among companies in northeast of China. Hence, Hypothesis six is accepted. This result is consistent with previous studies that have revealed that top management support was quite important for the organizational adoption of technological innovation (Premkumar, 2003; Sen & Sinha 2008; Bradford & Florin, 2003; Grover, 1993; Tan & Teo, 2000; Fink, 1998). In addition, discriminant analysis also displayed that top management support has a strong discriminate power (.588). As Teo et al. (1997) pointed out, top management support is very essential for setting up a positive organizational culture and environment, and then provides adequate resources so as to effectively adopt and implement E-HRM. It is true in the case of E-HRM on which returns cannot be seen immediately. Considering adopting E-HRM perhaps have a great influence on work practices, top management support can help to overcome employee resistance for innovation.

**Hypothesis seven:** IT expertise is positively related to the adoption of E-HRM.

IT expertise is another significant factor to affect the organizational decision to

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adopt E-HRM. This finding is supported by previous researches (Thompson, 2007). As Attewell's (1992) theory, the lower the knowledge and skill barriers is, the more likely one organization will adopt information system. From the above, we can see that the organizational factors, both top management support and IT expertise are good determinant factors, which can be considered that organization readiness has a great impact on adopting technological innovation.

**Hypothesis eight:** Industry pressure is positively related to the adoption of E-HRM.

Discriminant analysis in this study indicated that the decision to adopt E-HRM is also influenced by the pressure of industry in which one company belongs to. Thus Hypothesis eight is supported. This finding is consistent with earlier studies (Kittipong, 2009; Thong, 1999). The discriminant power of industry pressure was lower than other three significant factors found in this study, meaning that industry pressure had an impact on the decision to adopt E-HRM, but the predictive capability is a bit lower. Within the context of global economy, the stress that comes from fierce competition, the overall operational practice of each industry provides a direct "driver" for companies to adopt E-HRM in order to keep competitive among their rivals.

The objectives of this study are to examine the factors that influencing the

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adoption of E-HRM from individual, technological, organizational and environmental contexts. From the data analysis in earlier chapter and the above discussion, it is seen that the proposed determinant factors has been examined in each mentioned contexts. Therefore, the objectives of this study have been achieved.

In order to better understand E-HRM adoption, besides the factors tested in the hypotheses, the present study also conducted an additional analysis about the relationship between the sample characteristics and the decision to adopt E-HRM. A Pearson chi-square test was used to assess whether the differences in organization size, forms of ownership, and industry types are influential to the organizational adoption of E-HRM. The specific statistic results are shown in Appendix-A. The Pearson chi-square value is significant for size of organization ( $X^2(5, N=121) = 16.233, p=0.006 < .05$ ) and industry types ( $X^2(9, N=121) = 18.657, p=0.028 < .05$ ), but not significant for forms of ownership ( $X^2(4, N=121) = 4.542, p=0.338 > .05$ ), implying that there is a relationship between the number of employees in the organization and the decision to adopt E-HRM, as well as the industry that one company belongs to and the decision to adopt E-HRM.

Many researchers have found that size of organization is an important factor in innovation adoption (Banerjee & Golhar, 1994; Thong, 1995; Kumar et al, 2002;

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Teo, 2007). The Pearson chi-square test indicated that size of organization has an impact on the decision to adopt E-HRM among firms in northeast of China, which is consistent with the previous studies. Larger organizations have more potential to adopt E-HRM due to their operation scale (Thong, 1999). Also, larger organizations can more easily mobilize adequate financial resources and absorb the risks related with adopting and implementing E-HRM compared with smaller organizations. Therefore, size of organization is also an influential factor to the decision to adopt E-HRM.

Concerning the influences of different industries, the Pearson chi-square test showed that the industry of a company affects E-HRM adoption among firms in Northeast China. This result is also consistent earlier literature (Panayotopoulou, 2007). Strohmeier (2009) revealed that the differences in industry task structures can further or restrain E-HRM adoption. Companies in industries with a high proportion of stationary and clerical work, like banking, are more likely to adopt E-HRM since there is a high share of workplace computers and IT literate employees. On the contrary, companies in industries with mostly non-clerical and non-stationary tasks, like construction, are not prone to adopt E-HRM since they do not take workplace computers and computer literacy as a characteristic of their task structure. In addition, Galanaki (2002) pointed out companies in technology-intensive or IT-related sectors adopt E-HRM earlier than companies in other sectors. Based on the



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above, industry type can also be regarded as a factor to the E-HRM adoption.

### **5.3 Practical implications**

The rapid development of information and communication technology (ICT) in the past several years has promoted the development of electronic human resource management (E-HRM) (Strohmeier, 2009). As mentioned in earlier chapters, it is generally agreed that E-HRM is a way of implementing HR policies, HR strategies and relevant practice through the channels of information technology and internet, which leads to considerable organizational changes and thus should be taken as an important development in the field of human resource. This study is based on the situation of E-HRM adoption within China's context to identify and highlight the determinant factors that affect the adoption of E-HRM among China's firms.

The findings of this present study have several practical implications. Firstly, this study elaborated IT- based E-HRM applications, which can be applied in every aspect of HR functions (such as recruitment and selection, training, compensation, HR planning, knowledge management), which provides a better understanding about the importance of E-HRM adoption and implementation to the entrepreneurs and top management in China's companies.

Secondly, the determinant adoption factors found in the present study can

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provide important insights supporting the initiatives of E-HRM adoption and decision-making in business organizations. That is, better understanding the determinant factors enables those non-adopting companies to effectively improve the future chances of performing E-HRM adoption through developing sensible and feasible adoption tactics or policies. The results of the study found out four determinant factors: compatibility, top management support, IT expertise and industry pressure, which have the ability to differentiate between E-HRM adopting organizations and non-adopting organizations. Moreover, compatibility and top management support had more discriminant power and should be given priority. Therefore, those non-adopting China's companies should formulate and implement strategies to improve their IT structure, try to create more innovative corporate culture and beliefs in order to make themselves compatible with E-HRM application. Meanwhile, top management should raise awareness of technology innovation and provide sufficiently various resources, involving adequate IT expertise to support E-HRM adoption. The findings of this study can also offer China companies' decision-makers guidance to shape their strategic positioning and accomplish beneficial relationships with all stakeholders that manage these factors influencing the adoption of E-HRM. Additionally, the enhanced understanding of E-HRM adoption is useful to government/private agencies and E-HRM developers/suppliers, especially those who intend to promote E-HRM adoption among China's companies. E-HRM suppliers can customize E-HRM

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applications to the companies in different industries so as to match their operational practice, and formulate relevant training programs to achieve these determinant factors.

Thirdly, it can be seen that the effective adoption of E-HRM actually need the cooperation of several departments in an organization, thus all the relevant departments should well understand and support the application of E-HRM, or E-HRM will not function as it is expected. Nowadays, the global business environment is complex and fiercely competitive, for any company, investing on technological innovation is quite important and risky. Any technology innovation cannot direct lead to business success. Specifically, without thorough understanding of how E-HRM functions, adopting E-HRM might result in negative influence. Therefore, the above implies potential adopters of E-HRM are supposed to be offered adequate and clear information from those companies who are promoting E-HRM in order for later effective adoption and implementation.

#### **5.4 Limitations and recommendations for future study**

Although the findings of this study display an insight into the factors that influence the adoption of E-HRM among China's companies, as is known in any research, limitations exists during the process of this research.

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First of all, the majority of the companies selected in the sample are from the northeast of Mainland China, since China is a very big country and thus it is impossible to correctly state that the findings of this study are able to truly reflect all the companies in China as a whole. Furthermore, this research only choose 200 respondents, it is agreed that the bigger the sample is, the more representative the results are, so the findings of this study might be limited by the sample size. Secondly, due to time constraints, it was not possible for researchers to personally conduct all questionnaires, which result in several respondents did not completely answer the questionnaires as expected, and some questionnaires were not sent back in time. Thirdly, this study only applied eight factors to examine the adoption decision, and there are also many other potential determinant factors that may affect E-HRM adoption, such as HR manager's innovativeness (Thong, 1995; Kittipong, 2009), E-HRM's observability, trialability (Rogers, 2003; Kendall et al, 2001), organization's absorptive capacity (Ramamurthy et al, 2008; Chaveesuk, 2010), and government encouragement (Scupola, 2003; Kittpong, 2009). These potential determinant factors can be examined by future research so as to better explain the organizational decision to adopt E-HRM.

This paper only concentrated on the organizational decision to adopt E-HRM, but not the extent of E-HRM implementation. As is seen from data analysis, the adoption rate of E-HRM in China is relatively high, and therefore, researchers

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can further focus on the implementation issue of E-HRM, looking into the influence of determinants on each stage of implementing E-HRM. In addition, researchers can also apply other methodology, such as interview, to collect more abundant data than the survey questionnaires used in this research.

## **5.5 Summary**

This research has contributed to the body of knowledge in the area of E-HRM research through providing a greater understanding and important insights into the determinant factors that affecting the organizational adoption of E-HRM within China's context. The findings of this study suggested that compatibility, top management support, IT expertise and industry pressure are the determinant factors to the adoption of E-HRM. Specifically, compatibility and top management support are more important on influencing the adoption decision compared with IT expertise and industry pressure. Furthermore, additional analysis suggested that size of organization and industry types also influence the organizational decision to adopt E-HRM. However, the findings of this study also suggested that HR manager's subjective norms, perceived relative advantages and complexity of E-HRM does not have an impact on the organizational adoption of E-HRM.