



Digital Transformation in Human Resources Management:
Adoption factors of E-HRM in Hong Kong banking industry

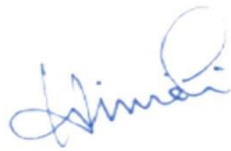
By: SIN Yik Ngan

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENT FOR THE DEGREE OF
MASTER IN BUSINESS ADMINISTRATION
IN
UNIVERSITY OF WALES TRINITY SAINT DAVID

October 2020

DECLARATION

This dissertation is my original work and has not been submitted for any other purpose in another university.



Signature:

Date: 4th October 2020

Name: SIN Yik Ngan, Winnie

Student number: 1812212

Module Code: HKBM 7014 Dissertation

ACKNOWLEDGEMENT

First, I would love to express my appreciation to God who has enabled me to conclude this research project.

My supervisor, Dr. Leo Ho has played a major role in ensuring the success of this dissertation. The regular comments and corrections he gave helped in shaping this research paper. I appreciate his effort.

I am indebted to the several banks that played a major role in my data collection process. This dissertation would not have been accomplished without their participation.

Lastly, I would love to thank my family and friends, who have been supportive in terms of finances, physical and mental support as I carried out this research.

ABSTRACT

Digitalization in the world has triggered the adoption of technological procedures in various organizations including the banking sector (Lance & Segerberg, 2011; Vicari, 2014). This study aims at evaluating the factors that affect the adoption of e-HRM in the banking sector in Hong Kong. The sampling technique was done randomly considering the suggested factors that affect the adoption of e-HRM. A random number of 500 respondents, both current and former persons in the banking sector were picked. They will include HR officers, HR managers, HR directors, administrative officers, IT officers as well as general staffs since they are informed about e-HRM and its adoption. Data collection was done using questionnaires with twenty close-ended questions using a five-point Likert scale. The dependent variable being the e-HRM adoption and the independent variables are the factors associated with the e-HRM adoption (individual, technological, environmental, and organizational). The research will focus on these factors and how they affect e-HRM adoption in the banking sector in Hong Kong. The statistics were analyzed using SPSS. The results are practically analyzed and concluded at the end of the study. Finally, the study concludes on the change of attitude, development of a favorable corporate culture and top management support improvement among the banking industry in Hong Kong.

Keywords: electronic human resource management (e-HRM), influencing factors, adaptation, banks, Hong Kong

LIST OF TABLES

CHAPTER	TOPIC	PAGE NO.
1.0	RESEARCH GENERAL FRAMEWORK	
1.1	Introduction	1
1.2	Purpose of the study	1
1.3	Background of the study	2
1.4	Human Resource Management (HRM)	5
1.5	Electronic Human Resource Management (e-HRM)	5
1.6	The transition from HRM to e-HRM	5
1.7	The current situation in the banking industry	6
1.8	The research problem statement	7
1.9	Research objectives	7
1.10	Research questions	8
1.11	Structure of the research	8
2.0	LITERATURE REVIEW	
2.1	Introduction	9
2.2	E-HRM functions	9
2.3	E-HRM goals	10
2.4	The advantages and disadvantages of e-HRM	11
2.5	E-HRM application requirements and success factors	12
2.6	Results of application e-HRM	14
2.7	E-HRM application challenges in different countries	14
2.8	E-HRM application challenges in Hong Kong banking industry	16
2.9	Theoretical frame of reference	18
2.10	Hypothesis	19
3.0	RESEARCH METHODOLOGY AND METHODS	
3.1	Introduction	26
3.2	Research approaches	26
3.3	Sampling and sample size	28

3.4	Research Design	30
3.5	Questionnaire design	31
3.6	Validity and reliability of the questionnaire	32
3.7	Data Analysis	33
4.0	RESULTS AND FINDINGS	
4.1	Introduction	34
4.2	Demographic statistics	36
4.3	Descriptive statistics for variables	42
4.4	Correlation matrix	46
4.5	Reliability test	48
4.6	Hypotheses testing	48
4.7	One way analysis of variance	50
5.0	DISCUSSION, RECOMMENDATIONS AND CONCLUSION	
5.1	Introduction	59
5.2	Findings	59
5.3	Discussion	61
5.4	Recommendations	65
5.5	Limitations of the study	67
5.6	Suggestions for further research	68
6.0	REFERENCES	69
7.0	APPENDIX	84

LIST OF FIGURES

2.1 Research model.....	19
2.2 Technology acceptance model.....	20
3.1 Comparison of research approaches.....	27
3.2 Cronbach's alpha co-efficient.....	33
4.1 Variable coding.....	35
4.2 Percentage of class and frequency on the questions of personal data.....	36
4.3. Gender distribution.....	37
4.4 Education level distribution.....	38
4.5 Years of service distribution.....	39
4.6 Working department distribution.....	40
4.7 Working position distribution.....	41
4.8 Attitude factor descriptive statistics.....	42
4.9 Complexity factor descriptive statistics.....	42
4.10 Compatibility factor descriptive statistics.....	43
4.11 IT infrastructure factor descriptive statistics.....	43
4.12 Top management factor descriptive statistics.....	44
4.13 Industrial pressure factor descriptive statistics.....	44
4.14 Corporate culture factor descriptive statistics.....	45
4.15 Dependent variable descriptive statistics.....	45
4.16 Rule of thumb for interpreting the size of a correlation coefficient.....	46
4.17 Correlation matrix.....	47
4.18 Cronbach's alpha.....	48
4.19 ANOVA descriptive.....	51
4.20 Analysis of variance.....	52

CHAPTER ONE: RESEARCH GENERAL FRAMEWORK

1.1 Introduction

Digital transformation has affected the Human Resource Management department, thus a need to evaluate the factors that affect the adoption of e-HRM in different economies to ensure its success. The factors suggested in one country may not be applicable in other countries based on different environments and technological advancement. Human Resource Management highly contributes to the success of an organization (Masum et al., 2015). E-HRM provides a competitive advantage compared to the traditional procedures of HRM. These include reduced cost, improvement in service delivery and more strategic professionalism among the Human Resource Department (Foster, 2009). Organizations are adapting e-HRM which involves a more strategic way of performing the Human Resource Management duties and procedures which has been proven to create more value addition opportunities through its operation system. E-HRM comes with a lot of underlying factors and if proper studies are not done, it results in negative impacts on the organizations (Martin & Reddington, 2010).

1.2 Purpose of the study

Human resources are being integrated into human labor with digitalization such as artificial intelligence and machine learning. KMPG's annual survey (2015) HR transformation across showed that Hong Kong has a gap to fill around the analytics of HR. The report showed that Hong Kong is lagging behind and with time organizations without the proper practices in HR would lose the competitive edge both internally and externally (Lo, 2018).

To maintain the competitive advantage, Hong Kong banking industry has to adopt effective e-HRM. It raises the need to assess whether the factors evaluated in other economies and also

constitute the reasons for adopting e-HRM in an emerging market environment. Will these adoption factors for e-HRM that have been found in the context of developed countries also hold in the context of Hong Kong? Additionally, Hong Kong being a major financial center in the world calls for attention on success factors of e-HRM if it will have to maintain the position. This will help banks in Hong Kong choose the e-HRM procedures which best fit their organizations.

Finally, this research is to help the existing literature on e-HRM adoption, in terms of the evolving nature of technologies and helps broaden academic knowledge in efficient e-HRM practices.

1.3 Background of the study

Nowadays, everything is getting automated day by day, and technology is an integral and important part of human life now but how it is related to Human Resources Management (HRM) (Figueiredo et al., 2016). Recently, the use of technology in facilitating the HRM function has increased significantly. The rapid development of the internet has promoted the implementation and application of the digital transformation of human resources (Ma & Ye, 2015). Various business objectives can be achieved by using a sufficient e-HRM system, it is undoubtedly beneficial from an organizational perspective (Marler, 2009; Ruël et al., 2004). This increased adoption is based on expectations of the positive impact of e-HRM such as improving quality, reducing costs, accelerating processes, and even more strategically playing human resources within the organization (Lengnick-Hall & Moritz, 2003). Through the significant contribution in achieving organizational goals, traditional Human Resource Management possibly will be replaced by the e-HRM system gradually in some aspects to meet the requirements of high technology. Past researches have proven that e-HRM improves the value of HR functions to achieve competitive advantages (Parry, 2011). However, despite the obvious benefits, there is still

a slow adoption rate of e-HRM (Strohmeier, 2018). The use of e-HRM seems to generate revenue (cost savings, efficiency, flexibility) in some cases, whereas in other cases the results seem to be negative (work stress, disappointments with technological properties). Different factors can influence the adoption and adaptation of e-HRM system by organizations such as participate in design and implementation of e-HRM (Ruël et al., 2004), usefulness of e-HRM (Voermans & van Veldhoven, 2007), whether expectation can be met (Alleyn et al., 2007) and finally, the privacy or data security perception associated with accepting e-HRM with inconsistent results (Strohmeier & Kabst, 2009). There are many previous pieces of research on e-HRM adoption, most of it focusing on the factors that influence the adoption and consequences of e-HRM in developed countries or developing countries outside South East Asia (Bondarouk, 2011; Masum& Kadar, 2015; Sylvester et al., 2015; AL Dmour et al., 2017). However, are the main factors of e-HRM found in developed countries applicable to Hong Kong?

According to the latest statistics from the Hong Kong Census and Statistics Department (HKTDC, 2019), the GDP of the financial and insurance industry rose from 16.3% in 2010 to 18.9% in 2017. Hong Kong is known as a region with high banking concentration globally. 240 banks are operating in Hong Kong now including licensed banks, restricted license banks, deposit-taking companies, and foreign banks that have local representative offices in Hong Kong as of March 2019 (HKTDC, 2019). Following the coming development and expansion in the Greater Bay Area, a recruitment boom in virtual banking can be foreseen (SCMP, 2019). Technology upgrade, as well as talent acquisition, is a must-do for an organizational competitiveness enhancement.

Organizations can explore more value creation opportunities offered by e-HRM practices to improve their effectiveness and efficiency but also leading to a competitive advantage for the company. However, at the same time, several key factors influence the adoption of the e-HRM

system and affect the organization's acceptance of such refurbishment including individual, technological, environmental, and organizational factors. These factors have been studied in several types of research that are persuaded to adopt e-HRM in organizations (Teo et al., 2007; Lian et al., 2014; Masum & Kadar, 2015; Chowdhury et al., 2013). Because the use of new technology and information system is increasing in organizational operation, it has been usually used for many HR activities since the 1980s (Voermans & van Veldhoven, 2007). E-HRM is an integrated system that covers all personnel activities in the HR department. Typically, e-HRM includes some applications for workforce planning, forecast about supply and demand, information of staff, qualification of applicants, training development and information, salary benchmark forecast, salary increment, labor relations and so on (Bamel et al., 2014). Recent research has also confirmed that e-HRM can improve strategy formulation and decision making for human resource activities. Therefore, it is considered a strategic partner of the organizations (Thite et al., 2012; Wiblen et al., 2010). The concept of adopting technological innovation has been considered worldwide (Wejnert, 2002). However, when Western innovation models are to be adopted in non-Western countries, there are certain restrictions on the adoption of different innovation models (Roztocki & Weistroffer, 2011). For example, China is a developing Asian country that differs significantly from Western society in terms of technology, economy, and environment. Therefore, even though Hong Kong is one of the advanced economies in the world with good technology development, exploring the applicability of a suitable e-HRM adoption model in Hong Kong is needed.

1.4 Human Resource Management (HRM)

Human Resource Management has been defined in different forms depending on different contexts. Wilkinson & Marchington (2008) define HRM as employment management. Some texts provide for hard and soft HRM, whereby soft HRM in terms of employees as investment resources and focuses on a commitment to human resource procedures. Hard HRM identifies employees as a liability and advocates for cutting costs related to them (Beardwell & Claydon, 2007).

According to the Chartered Institute of Personnel and Development (CIPD) 2014, HRM is any activity related to employment management in an organization. This involves recruitment, orientation, induction, training, motivation, compensation, safety and selection of employees.

Collectively, HRM is a function within a firm which deals with recruiting, managing, and directing employees in the firm.

1.5 Electronic Human Resource Management. (e-HRM)

E-HRM is the application of information technology in recruiting, managing, and directing employees in a firm. It is a system used to plan, implement and apply information in the performance of HR activities. E-HRM compacts with HR functions through web-technology-based techniques (Ruël et al, 2004).

E-HRM can help pass pertinent information and allow the analyses of data to the Human Resource professionals by the managers (Lengnick-Hall & Moritz, 2003).

1.6 Transition from HRM to e-HRM

In the past few decades, questions have been raised on the effectiveness of HRM. HR professionals have had the challenge to prove the contribution of the HRM to the success of an organization (De

Souza Freitas et al, 2011). From previous research done on HRM, it is evident that strategic HRM will not cater for the evolving global environment. Following these observations, a sustainable HRM has emerged to help cater for the changes in the society today. The emergence of digital technologies has re-shaped the HR practices leading to e-HRM. This has gone a long way in proving the interdependence of organizational effectiveness and HR practices (Parry, 2011).

Also, e-HRM provides competitive advantages and hence raising a need for organizations to transit from physical HRM to informational HRM. The traditional Human Resource Management has not been focusing on the structural development of the HRM functions. On the other hand, e-HRM provides for increased effectiveness, productivity and coherence that allow for a competitive positioning of the organization in the market (Sharma, 2016). The physical HRM procedures focus more on open job recruitment only leaving out the organization's strategic initiative. E-HRM is compatible with all HR practices and covers every aspect, it offers immense help by strategizing the Human Resource Management nature. E-HRM tools offer a more effective procedure for HRM (Mahfod et al, 2017). These tools include re-employment, e-recruitment, e- selection, e-learning, e-compensation and e-management. These are all the technology-based ways of carrying out HRM practices.

1.7 Current situation in the banking industry

Currently, the digitalization of banks has been at the helm in the financial sector. Many sectors in the economy are thriving towards digitalized forms of business practices. This has mostly been driven by the expectations of the customers, the strategic levels and other internal factors (Schmide, 2017). In this context, digital banking has emerged, many professionals and customers have given much attention to it. This transition involves the digitalization of all bank services and operations

(Skinner, 2014). This is whereby all bank services can be accessed through phones and websites. Also, the internal activities of banks such as Human Resource Management are being done digitally. Digitalization has enabled banks to remove barriers in service providence which in return reduces the cost associated with the services. This issue is playing a critical role in the industrial revolution concerning the finance industry.

Another crucial condition in the modern monetary sector is the implementation of reforms in the finance sector. World Bank in collaboration with the central banks provides for the regulations to commercial banks which aim at promoting a competitive environment in the banking sector (Barth et al., 2012). HRM plays a vital role in ensuring the implementation of reforms through its training, learning & development function (Khandakar & Pangil, 2020). With the advantages associated with e-HRM (cost savings, efficiency, flexibility), banks are adapting e-HRM to align with the reforms in the finance sector (Rahman et al., 2015).

1.8 The research problem statement

The main objective of this research was to study the factors affecting the adoption of e-HRM in the Hong Kong banking industry. The success of e-HRM depends on the suitability of the factors that are associated with the adoption of e-HRM.

1.9 Research objectives

To achieve the intent of this research, the study focused on several objectives which included the evaluation of factors that influence the decision to adopt e-HRM (individual, environmental, organizational, and technological) in the Hong Kong banking context.

1.10 Research questions

This study will focus on answering the following questions:

Q1: HR manager's attitude is significantly related to the adoption of e-HRM.

Q2: Compatibility is significantly related to the adoption of e-HRM.

Q3: Complexity is significantly related to the adoption of e-HRM.

Q4: Top management support is significantly related to the adoption of e-HRM.

Q5: Corporate culture is significantly related to the adoption of e-HRM.

Q6: IT infrastructure is significantly related to the adoption of e-HRM.

Q7: Industry pressure is significantly related to the adoption of e-HRM.

1.11 Structure of the research

The research is categorized into several sections. The literature review of the research assesses the recent studies that have been done on e-HRM. Additionally, it sought to place the research questions in a historical context allowing for more exposure to the topic. The theoretical framework of the research was also considered in this section. The methodology section outlines the methods that have been used in the research. It gives an exposure of how the research was carried out to answer the research questions. The results and analysis section analyzes the results that were collected using the various sampling methods used in the research. The research is concluded by the conclusion and recommendations which are based on the data collected.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This section of the literature review is focused on various theories that are relevant to our study. It is structured to provide a critical discussion and analysis related to e-HRM concepts and models. This will help to set the research gaps within the already provided literature in this study. The chapter will cover e-HRM functions, goal, advantages and the challenges faced in e-HRM adoption among banks in Hong Kong and other countries.

2.2 E- HRM functions

From classical HRM, functions of HRM include learning and development (L&D), ensuring legal compliance, equality and diversity equality, training and development, compensation and benefits functions (Bernardin & Russel, 1993). Since e-HRM is a transition of HRM, the HRM functions are also the roles of e-HRM in a digitalized form (Ruël et al., 2004). These include e-recruitment, e-learning, e-compensation and e-selection. E-HRM provides a portal that the managers, employees and HR personnel use for any information communicated within them.

a. e-recruitment

E-recruitment is a function of e-HRM whereby an organization uses the internet to attract potential employees and hire them (Dhamija, 2012).

b. e-learning

Efimova & Swaak (2002) defined e-learning creation, transfer and management of knowledge that is supported by web-based technologies within an organization.

c. e-compensation

Baykal (2020) describes e-compensation as using web-based technologies to plan for employees' compensation. It involves the generation of fair salaries among employees with the bases of performance evaluation and measurement system (Gerhart et al., 2000).

d. e-selection

This process involves the use of web-based technology to choose the applicant who best suite a job position in terms of knowledge, skills and abilities (Stone et al., 2006).

2.3 E-HRM goals

Lepak and Snell (1998) focused on the four pressures associated with e-HRM to bring out the goals of e-HRM. They stated that the HRM department needs to focus on the strategic questions concerning the organization, be flexible enough in the making of policies and practices, consider the cost associated with e-HRM and be service-oriented in terms of the employee as well as the management.

However, the evolving nature of the employment relationship was highlighted by Ruël which is fairly covered by the above but it has an external societal drive (Ruël et al., 2004). This is due to the low supply in the labor market, an increase in education levels and individualization of the society which has influenced the shifting of power balance towards the employees. The e-HRM goals can be analyzed as follows:

- To improve the strategic orientation of HRM by converting Human Resource Management to a partner in the strategic organization of a firm.
- To reduce the cost involved in HRM procedures through streamlining of the Human Resource Management procedures.

- Improving the clients' service by improving the efficiency of HRM processes.

2.4 The advantages and disadvantages of e-HRM

Mosca (2020) wrote about the consequences of a digitalized HRM. With the proper management of e-HRM, they described that the following advantages can be realized:

- a. Improvement in the HR strategic role.
- b. Improvement of the clients-service through eased communication between the managers and employees.
- c. Improvement of HR procedures efficiency.
- d. Cost-effectiveness of HR-related processes as the processes are streamlined.
- e. Accuracy of information within the organization and retrieving the information is made easier.
- f. Improved data storage, collection and reduced time for processing the data.

Ruël et al. (2004) researched the outcome of e-HRM through the use of case studies. According to his findings, cost reduction and reduction in administrative burden was an outcome that was mentioned by most of the organizations which were involved in the study. This was mostly realized from the reduction in the number of staff in the HR department as e-HRM eases the work to be done manually.

According to Hendrickson (2003) e-HRM allows for the realization of more time which can be used for making strategic decisions. This is because, with e-HRM, there are few administrative tasks and fewer questions related to HR from the employees.

Cranfield School of Management undertook a study on outsourcing which concluded that HR functions will serve the prime target in the future (Kakabadse et al., 2003). This will be influenced by the division of HR activities such as transactional activities which are a source of outsourcing and will be more logical on the adoption of e-HRM. This proves the advantage of more strategic value for the organizations which adopt e-HRM.

On the other hand, e-HRM is associated with some disadvantages. Information technology comes with issues of data security (Rosencrance, 2019). To guarantee the security and confidentiality of data requires an extra effort when it comes to digitalization. This includes the employees' data and the organizations' data. Due to the uncertainties on the data security, employees may fail to give accurate data as they may not be sure who is responsible for their data.

Additionally, to implement e-HRM, an organization must have in place a good IT department that calls for an additional cost. This will also involve massive training of employees if they will have to adapt to the new way of deriving information and communication with the managers (Strohmeier, 2007).

2.5 E-HRM application requirements and success factors

Richter et al. (2013) developed a research on the technology acceptance model that has extensively examined the perception, attitude, motivation, intentions and adoption of new technologies of users. Some researchers believe that the degree of technical readiness is the main determinant of the company's adoption of IT. Oliveira & Martins (2010) pointed out that enough IT professionals and a strong organizational technology infrastructure demonstrate the company's technical readiness.

However, innovation compatibility and the complexity with organizational technical capabilities and traditions can be barriers. Kittipong (2009) demonstrates that industry pressure is a determining factor in the environment and is related to the organization's adoption of innovation. Organizational determinants represent some of the management characteristics that affect e-HRM adoption such as the support of top management which is critical to adopting systems in the organization (Teo et al., 2007). The top management is responsible for any policy or advancement that may be done in an organization. If they do not recognize the efficiency of e-HRM then it cannot be implemented. Also, the corporate structure is another organizational factor that influences the adoption of e-HRM. Corporate structure refers to the organization of a firm towards the accomplishment of its objectives (Rea, 2015). The corporate structure determines the control and authority of an organization. The structure determines what is to be adopted in an organization through the stakeholders, board of directors and the officers. A good corporate structure will allow for the application of e-HRM and also ensure its success. Additionally, the cost involved in the adoption is a great determinant of decision. Any transformation calls for a cost. The top management support will influence whether funds can be allocated to such projects.

Environmental factors such as competitive pressures or industry pressures force companies to adopt more strategic approaches, such as reducing costs and, effectively and efficiently managing human resources (Teo et al., 2007). This can be achieved through the adoption of e-HRM which brings more efficiency.

In conclusion, the manager's commitment to the change from the beginning of the application of e-HRM, all stakeholders' involvement and support, technological advancement, adequate training, and ease of use of the system are the core requirements for the adoption of e-HRM (Shilpa & Gopal, 2011).

2.6 Results of application e-HRM

E-HRM will have an impact on where it is adopted. This includes increased efficiency in the HRM processes, better strategic organization and high-quality service delivery. Therefore, e-HRM contributes highly to the effectiveness of a firm when it is practiced correctly.

Sanayei & Mirzaei (2008) described the most crucial outputs of e-HRM as job satisfaction, reduced work pressure, and enhancement of cooperation between the organization and the staff.

Ruël et al (2004) further outlined the results of e-HRM as:

- a. A higher commitment which brings more trust between the management and the workers as the workforce is motivated.
- b. Cost-saving from the competitive wages and the reduced labor demand as the workload is minimized.
- c. Increased competitiveness capabilities make the workers increase knowledge to fit the new tasks.

2.7 E-HRM application challenges in different countries

Madhurima (2019) revealed that e-HRM has become more prominent across the globe although the results are varying among the different countries. However, the application of e-HRM is not a smooth path. Just like any other policy, it is faced with several challenges. The challenges may vary according to different industrial and economic environments. Also, they may differ following the nature of an organization.

According to Dezalay & Garth (2011), there have been huge changes in the Chinese context in e-HRM. This includes the introduction of new labor laws which inflicted fear, as the worker's protection improvements against firing would increase the cost because it raised the requirements

for severance pay (Chen & Funke, 2009). Moreover, registration of households' laws has also affected the HR processes (Zhang & Wang, 2006). Therefore, in China, generation of reports that meet both local and central government is the most problematic functions of e-HRM (Xue et al. 2005). Lack of well-trained employees, IT infrastructure and cultural, complexity has also played a major role in lessening the adoption of e-HRM in China compared to Western countries (Sumelius, 2009).

Huo & Von Glinow (1995) observe that China has certain cultural features such as the concept of 'face' which affects HRM practices and its decisions. This culture respects hierarchy and seniority and adopts an egalitarian approach of the processes and procedures in HR (Cooke, 2013) for e-HRM to succeed in China, the national conditions and culture must be corporates.

Sylvester et al. (2015) researched the implementation of e-HRM in developing countries. They looked at the challenges experienced in these countries during the implementation. The research concluded that the shortage of equipment, financial resources and personnel are the major challenge in these countries. Also, aligning the HRM functions with technology is another challenge. Technology advancement is perceived to be complex as it requires certain skills and knowledge. The ability of a firm to align the previous processes with technology becomes complex if there is no proper training. To achieve the e-HRM advantages, the system must be compatible with the previous functions (Tumuhirwe, 2011).

Additionally, the government structures in these countries are not strong enough to perform their statutory responsibilities in ensuring the implementation of e-HRM. In these countries, there is no continuity of policies of the past administration. This affects the IT policy penetration which is a great blow for the implementation of e-HRM. Most of these countries are yet to adopt a consistent internet system in all their areas which makes it impossible to derive the IT advantages in many

organizations. Moreover, insecurity in these countries has impeded the penetration of IT. This is because investors are scared off from these countries and this includes any technological advancement investments. Embezzlement of funds is also a great challenge in the adoption of technology practices in these countries (Mirzayev, 2020). Developing countries have major cases of corruption which result in money allocated for development to be embezzled and hence technology cannot be implemented. Since e-HRM is dependent on efficient technology advancement, it becomes impossible for it to be adopted.

Shilpa & Gopal (2011) concluded the challenges related to e-HRM adoption as follows:

- a. Additional cost required to facilitate the transition from the traditional HRM to e-HRM.
- b. The certainty of data security from the IT application.
- c. Loss of human communication.
- d. Compatibility of e-HRM with the traditional HRM processes.
- e. Management of data especially when in large quantities.
- f. The training of employees to enable them to learn new ways of doing things.

2.8 E-HRM application challenges in Hong Kong banking industry

Lau et al. (2013) stated that banks experience complex challenges in the global marketplace. To curb or reduce these challenges, banks should adopt a more efficient strategy for them to meet the basic customer needs which have changed greatly with time (Malhotra & Mukherjee, 2004).

Hong Kong based in a strong economic Asia Pacific region is termed as one of the international financial centers in the world and one of the top five largest banking centers in the world. It has 70 of the largest 100 banks across the globe with 164 licensed banks, 17 restricted license banks, and 13 deposit-taking banks (HKMA, 2019).

However, various challenges affect the application of e-HRM in Hong Kong. First, the banking culture in the banks in Hong Kong does not provide a favorable environment for the adoption and adaption of e-HRM. According to research conducted by the Hong Kong Monetary Authority (HKMA) in 2020, cultural enhancements are driven by the bank's headquarters. This creates a weak link among policy implementation and follows up on those policies in the bank branches. Hong Kong may be well versed technologically to support e-HRM, however, the top management who influence the bank's culture may not be in an environment where e-HRM is supported fully. This will reduce the chances of the branches in Hong Kong to adopt the process (HKMA, 2020). The research also revealed that banks in Hong Kong make inadequate efforts in benchmarking against other banks. In return, the banks may not be able to realize essential tools such as e-HRM. Adopting a benchmarking culture among banks will allow for the identification of processes and activities that may be helpful for the banks.

Additionally, Chiu (2019) stated that the availability of many banks in Hong Kong has caused a stiff competition among the banks. With this effect, banks tend to concentrate more on how to increase sales rather than employee activities. They may focus more on financial lending departments leaving out the Human Resource Management lagging behind. Also, mortgage lending influenced by the competition has resulted in a lower profit margin in the banks. Considering the contribution of finances in technological advancement, banks are unable to carry out adoptions such as e-HRM as they require enough capital.

According to regulatory news (2020), about 80% of the banks in Hong Kong are facing a challenge in ensuring information security, protection and data privacy. The Fintech evolution which involves technological advancement in banks in Hong Kong is facing legacy IT systems challenge. 'Fintech' is an abbreviation of financial technology which is defined as technology-enabled

financial solutions. The research concluded that policymakers have a role to play in curbing these challenges.

Chan (2020) stated that the Hong Kong banking industry has been experiencing stringent and prudent regulations and supervision from HKMA which has resulted in low IT adoption from reduced profitability and growth. HKMA has strict requirements for data security and privacy protection for a firm to adopt IT strategies. This translates to an increased cost to the banks that want to venture due to the data security expertise needed.

2.9 Theoretical frame of reference

The model (Figure 1) demonstrates the determinants that influence an organization's decision to adopt e-HRM. The factors considered in the adoption are categorized into four (Individual, environmental, technological and industrial). The factors are further categorized into seven independent variables which included the HR manager's attitude, compatibility, complexity, top management support, corporate culture, IT infrastructure and industry pressure. The decision to adopt e-HRM is considered as the dependent variable. The adoption of e-HRM in an organization is dependent on the factors listed above (Winarto, 2018).

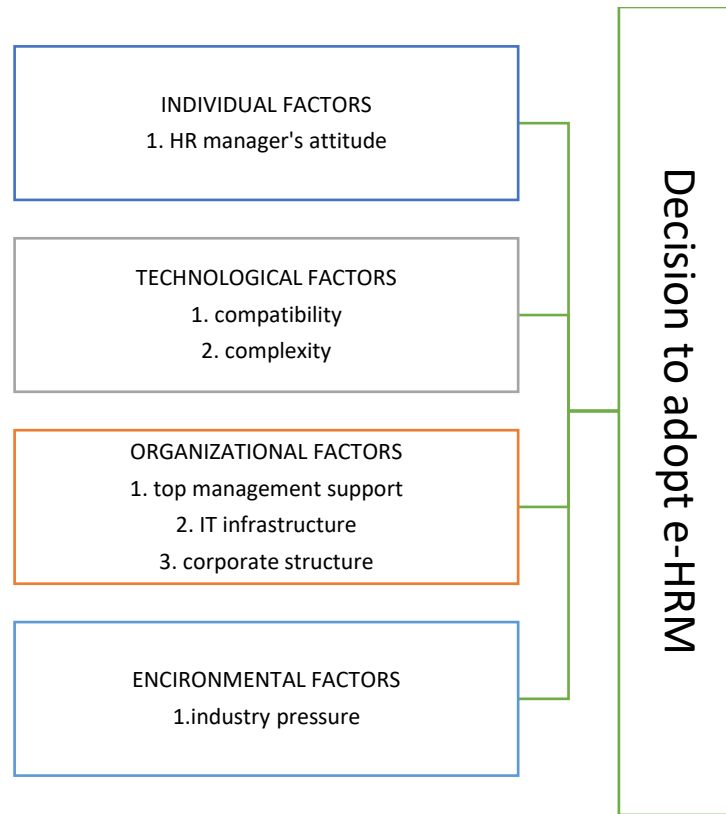


Figure 2.1: Research model

2.10 Hypotheses

2.10.1 Attitude

Richter et al. (2013) developed a model on technology acceptance which reveals that individuals contribute towards the success of e-HRM. This is concerning the user's motivation, attitude and perception (Figure 2).

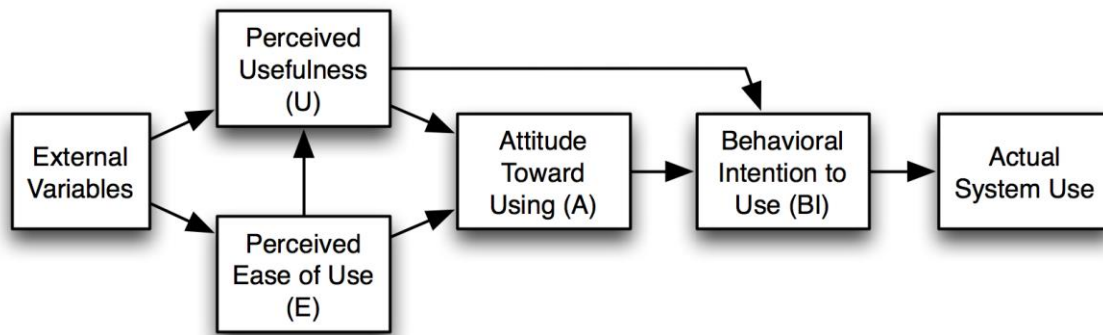


Figure 2.2: Technology acceptance model

How the users perceive the system contributes greatly to the adoption and adaption of technology implementation (Troshani et al., 2011). Mousa & Othman (2020) stated that the acceptance of e-HRM adoption relates to the value created from the adoption. Delorme & Arcand (2010) also revealed that the manager's attitude contributes to the decision to adopt e-HRM.

In behavioral intentions, Agarwal & Prasad (1997) used a model to explain the adoption of information technology. Hsu et al., (2009) stated that behavior towards the adoption of IT will influence a positive or negative decision on its adoption and effectiveness. This explains that the perception of an individual towards social pressures will influence whether or not they do a particular act.

Thompson (2002) stated there would be more investment in technology in the Hong Kong banking sector from the advantages posed from the previous investments. From the report, it was evident that the management has changed their attitude towards digitalization given the profits they are realizing. Given this argument, is management attitude still a factor influencing the decision to adopt e-HRM in Hong Kong banks? Therefore:

H1: HR manager's attitude is significantly related to the adoption of e-HRM.

2.10.2 Compatibility

Rogers (2003) included compatibility of the technology adoption with the previous processes and complexity that may be incurred in adapting the process. Muhammad (2018) considered three variables incompatibility (compatibility of e-HRM application with existing operating practices, IT infrastructure, and computerized data resources) and concluded that compatibility is a major factor in the adoption of e-HRM. Moreover, Teo et al. (2007) stated on the compatibility and its influence on the decision to adopt e-HRM and its related advantages.

Recently, digitalization has become rampant and easier to learn leading to increased e-HRM adoption (Desai, 2014). Additionally, Hong Kong being an IT developed region, e-HRM procedures have been mastered making it easier for HRM manual procedures to compact with e-HRM. Therefore, there is a need to evaluate compatibility based on the current environment in the Hong Kong banking industry. This resulted into:

H2: Compatibility is significantly related to the adoption of e-HRM.

2.10.3 Complexity

Complexity relates to the adoption of e-HRM processes compared to the traditional HRM. The technology involves a lot of studies which needs vast knowledge if it has to be adopted. Previous research has revealed that lack of skills and knowledge on technological issues perceives complexity which hinders technological adoption. Also, this perceived complexity influences whether the managers will adopt strategic policies within their organization (Chang et al. 2007). Rogers (2003) mentioned that technological complexity is a major factor in the decision to adopt e-HRM. Additionally, Rogers (2003) also defined complexity in relation to e-HRM adoption as the degree to which people perceive innovation. Hong Kong being among the most developed

regions in the world has increased the technological knowledge among people. Currently, only a few persons find technological advancement complex compared to the previous years. Due to this effect, it is important to evaluate the effect of complexity on the decision to adopt e-HRM in the banking sector in Hong Kong banks, and hence:

H3: Complexity is significantly related to the adoption of e-HRM.

2.10.4 Top management support

Top management is involved with roles such as decisions regarding the capital, HRM and IT. Additionally, the adoption of organization strategic decision is depended on the top management cognitive base (Hambrick & Mason, 1984). Hameed et al. (2012) suggests three relationships between top management support and IT-related policy adoption. They include immediate linear connection, the building of a conducive atmosphere and a relationship mediated by other variables. The literature concluded that top management influences the adoption of e-HRM through changing culture, the motivation of employees and building an IT-friendly atmosphere within the organization. Colwell & Joshi (2013) supported the claim of top management is crucial in the decision to adopt e-HRM. Purvis et al. (2001) argued that top management contributes greatly towards a successful implementation of technology. This is because they are key determinants of where funds should be allocated to. With their support, adopting e-HRM will be achieved as they will allocate funds for the same. Troshani et al. (2011) identified top management support as a crucial factor in the decision for adopting e-HRM. K. Muhammad (2018) stated top management determines the adoption of e-HRM among banks in Bangladesh.

However, the identified context by these researchers is not related to the Hong Kong banking sector. Additionally, the Hong Kong banking sector being so competitive leaves the top

management with the alternative of adopting more effective procedures such as if they must maintain a competitive position (Wong et al. 2007). This called for a need to determine whether top management affects the decision to adopt e-HRM in Hong Kong banks. Therefore:

H4: Top management support is significantly related to the adoption of e-HRM.

2.10.5 Corporate culture

Many organizations are not ignorant of the situations in the workplace which forms an organization's corporate culture. This is concerning the beliefs and behaviors of an organization's employees and management and their interaction. It is reflected in employees' benefits, how clients are treated and any other operations within the organization (Tarver, 2020). Additionally, corporate structure refers to the organization of a firm towards the accomplishment of its objectives (Rea, 2015). The corporate structure determines the control and authority of an organization. The structure determines what is to be adopted in an organization through the stakeholders, board of directors and officers. Moreover, the administration structure such as centralization and decentralization are significant in e-HRM adoption. Organizations with a centralized structure depend on a few persons to make decisions concerning a firm whereas a decentralized one will involve a lot of persons in making the decision. A centralized structured organization is more likely to adopt e-HRM and also implementation and compatibility (Zmud, 1982). Formalization is another aspect of the culture of an organization. This includes the beliefs on regulations, procedures and the board that controls the management of workflow. Dembla et al. (2007) revealed that this is a major factor in the adoption of IT-related policies. Also, Teo et al. (2007) mentioned beliefs on economic benefits such as reduced cost and saving in time will influence the adoption

of e-HRM. How a firm perceives such advantages will lead to the decision to adopt strategic policies which will result in such advantages.

According to a survey by the Hong Kong Institute of Human Resource Management (HKIHRM), 2016, there is a high level of considerations on the culture by organizations in the cases of any innovations or advancements. The report concluded that before optimizing the HR strategies, it is crucial to cultivate a favorable culture within the organization. In this relation, it is important to evaluate the effect culture is contributing towards the decision to adopt e-HRM. This drives this research to a conclusion on:

H5: Corporate culture is significantly related to the adoption of e-HRM.

2.10.6 IT infrastructure

According to Oliveira & Martins (2010), IT professionals available in an organization will determine the readiness of the organization in adapting e-HRM. Muhammad (2018) concluded that IT is the major adoption factor of e-HRM with influencing variables being: secure network systems, internet facility with speed and a strong back-up plan in case of network failure. Secure network systems will encourage employees and the management to allow the exchange of their data without fear of unwanted access. Also, with secure networks, the organization will be certain of its privacy of their information which may be illegally exposed if the connections are not secure. Therefore, this is a critical factor in deciding to adopt e-HRM. Also, the knowledge of IT among personnel in an organization will influence the adoption and acceptance of technological transformation in HRM. Oliveira & Martins (2010) noted that an organization's technology infrastructure and its professionals in IT are determinants of technology readiness which is a major influence in the adoption of IT. Moreover, they revealed that technology readiness is depended on

an organization's technology infrastructure and IT professionals. The infrastructure around especially in IT is a major factor in e-HRM adoption. This includes the availability of a speedy network and secured connections that are in the area.

Hong Kong 4G accessibility and an upcoming 5G service has been fully adopted and implemented. Hong Kong banking report (2018) reported that despite the greater focus on IT development in Hong Kong, there have been issues of cybersecurity especially with the large amount of data that banks hold. From the above arguments, this research derived a hypothesis to find out whether IT infrastructure in Hong Kong banks context affects the decision to adopt e-HRM in Hong Kong banks.

H6: IT infrastructure is significantly related to the adoption of e-HRM.

2.10.7 Industrial pressure

Masum& Kadar (2015) stated that industrial pressure and competition push a firm to adopt more efficient approaches to carrying out the firm's activities. These may include adopting a more strategic Human Resource Management and decreasing cost strategies which bring about more competitive advantage.

Oliveira & Martins (2010) mentioned environmental factors involve the area, in which an organization is situated, the government regulations in the area and the infrastructure around. The government regulations which are so strict in its requirement will discourage banks from venturing into IT strategies (Chan, 2020). Additionally, Thong (1999) stated that effective Human Resource Management is crucial if a firm will have to maintain competitiveness. Due to this pressure, firms have had the pressure to adopt e-HRM. Also, keeping in track with the competitor's use of technology is essential in deciding on e-HRM adoption. However, in the Hong Kong banking

sector context, industrial pressure is different from Hong Kong ranked among the top five leading regions in the financial sector (HKMA, 2019). With the many banks in Hong Kong industrial pressure and competition is stiff. This may call for the banks to put in place measures that are more profit deriving rather than digitalization of sectors such as HRM. This argument led to the derivation of:

H7: Industrial pressure is significantly related to the adoption of e-HRM.

CHAPTER 3: RESEARCH METHODOLOGY AND METHODS

3.1 Introduction

This is quantitative research which adopted questionnaires to collect data. The way research is carried out may be conceived in terms of the research approaches, research philosophies and the instruments used in the research. The purpose of this chapter is to discuss the research approach, research philosophies, importance of this research and the research design adopted for this research. The research methodology is highly determined by the research questions and objectives.

3.2 Research approaches

According to Saunders et al. (2009), there are two major research approaches. These are inductive and deductive approaches.

In the deductive approach, a researcher uses literature to identify ideas and theories which are later tested. A theoretical and conceptual framework is developed and subsequently tested using data

(Saunders et al., 2009). Five steps are progressed in a deductive approach (Robson, 2002). These include:

- a. Exploring hypotheses with one of the strategies of the research
- b. Clarifying hypotheses to show the variable's relationships in operational conditions
- c. Testing of hypotheses with the research strategies
- d. Checking on the outcome of the hypotheses
- e. Revising the outcomes of the hypotheses

On the other hand, in the inductive approach, a researcher explores data and develops theories and ideas related to the study topic and research questions (Robson, 2002). The differences between the two approaches can be analyzed in a table (table 3.1).

Deductive approach	Inductive approach
• The social phenomenon is observed • A theory is developed to explain the occurrence of the phenomenon • The theory is tested through research and it is either accepted, rejected or revised • Quantitative data is collected • Reasonable-sized samples are selected to generalize conclusions • The researcher is independent	• The social phenomenon is observed • Data collected on possible reasons for occurrence and the trends of the data are examined. • There is the development of data to explain the social phenomenon • There is less need to generalize conclusions

Table 3.1: Comparison of research approaches.

In this research, a deductive approach was used. The hypotheses of this study were derived from literature and tested numerically. Using this approach, the relationship between the two variables (factors affecting the adoption of e-HRM in banks and the decision to adopt e-HRM) was tested. A deductive approach was more appropriate for this research compared to the inductive approach since it is quicker to complete. The time assigned for the data collection in the study was two months which would not be sufficient with the inductive approach. Additionally, using the deductive approach, data collection would be based on 'one-take' and it was possible to predict the period required accurately. Moreover, the deductive approach has a lower-risk strategy with only a few risks in questionnaire return which were possible to be handled. Moreover, a lot of audiences of research have faith in deductive approach related researches compared to other approaches. Considering this research will give conclusions on e-HRM adoption decision there was a need to use an approach that will be trusted.

3.3 Sampling and sample size

Purposeful and convenient sampling techniques were used in attracting respondents from the population. The survey was done through conducting a questionnaire with 20 questions with HR officers, HR managers, HR directors, administrative officers, IT officers and managers as well as general staffs who are working or worked in banking industry currently or before, through email, phone or face to face interview depend on the availability of interviewees. Since the e-HRM system is not only an influence on the HR department itself but also being used internally in the bank by general staff such as e-learning and e-training via the intranet. Hence, responses from different positions of bank staff were also useful for our study. The population of the questionnaire sample size was 500 and the target was to be completed within 2 months. According to Hong Kong report (2017)

the banking industry in Hong Kong had a workforce of 258, 000. This was an assurance that we could collect the 500 samples needed for the research.

Considering that some respondents would fail to answer the questions, there was need to know the minimum number of respondents that we could use for our sample size (De Vaus, 2001).

Minimum number of respondents with this formula:

$$n' = n / (1 + (n/N))$$

Where N is the population

n = our number

n' = the minimum population

Saunders et al (1997) provided for a formula to determine the total response rate.

Total response rate = total number of responses/ (total sample size - ineligible)

Not all the respondents were selected by the researcher since some banks opted to distribute the questionnaires themselves. This led to a low response rate of 200 out of the 500 questionnaires distributed. When all the questionnaires were collected, they were screened immediately to ensure that at least 200 of them can effectively provide useful data for this study. This involved:

- Screening the data to ensure that the respondents were chosen according to the criteria of the research.
- Checking whether the data collection procedure was followed
- Checking on completeness to ensure that the respondents answered all the questions

Also, a pilot test was conducted on a sample of 100 respondents to determine the reliability of the questionnaire before conducting the actual survey.

3.4 Research design

Research design is the overall strategy used in integrating the components of a study in a logical way. It constitutes the measurements and analyses of data which is determined by the research problem (De Vaus, 2001& Trochim, 2006). A research design ensures that the evidence obtained allows for the addressing of the research question effectively and accurately.

3.4.1 Data measurement

This study used an ordinal scale in measuring data. This scale was used as this research was considering non-numeric concepts. Factors that influence the adoption of e-HRM (individual/human factor, technological factor, organizational factors and environmental factors) are non-numeric (cannot be measured) and hence this was an appropriate way to collect data concerning them.

3.4.2 Data collection methods

In this study, a quantitative approach that involved questionnaires was used. The type of questionnaire covered quantitative data because it is flexible and can collect data simultaneously. Data for the study were collected through a structured questionnaire, interview with the user employee, human resources managers, administrative & establishment department, and some mid-level managers of the selected sectors. Thus, the nature of the data is primary.

Secondary data was collected from the journal, websites, articles, textbooks, thesis, dissertations and reports. It was important to use the secondary sources as they helped to discover related studies on the same topic (Streefkerk, 2018).

The research included both theoretical and practical aspects. In theory, the research relied on scientific research related to current research. Given the practical aspects, this study relied on descriptive, philosophical and analytical methods to collect and analyze data and testing hypotheses in a practical manner.

Descriptive design was crucial as this study was aimed at collecting information on the existence of the factors affecting the adoption of e-HRM. This is in respect of the dependent and the independent variables. Also, using this design, a large amount of data would be collected which is in line with the philosophy adopted for this research. In return, this resulted in a conclusion which yielded rich recommendations.

Philosophical design is a design that provides for a broad approach to examining a research problem (Burton, 2000). In this design, past theories and concepts related to the research area were considered and critically evaluated giving the research bases to apply and the generation of general guidelines to conduct the research.

3.5 Questionnaire design

Questionnaires were adapted to test the relationship between e-HRM adoption and the factors affecting e-HRM adoption in Hong Kong banks. According to Krosnick (2018), questionnaires can be designed in three ways. These included: developing your questionnaire, adapting from other questionnaires and adopting from other questionnaires. In this study, the pieces of literature studied provided for the factors that affect the adoption of e-HRM and a list of questions was developed at the end of the literature review (Appendix 1). Also, some questions were developed from previous research papers (Maatman, 2006; Ruel et al., 2014; Muhammad et al., 2015). The questionnaire provided some instructions at the beginning and a brief description of the study topic

to shed some light for the recipient on the aim of the study. The questionnaire was divided into two sections which consisted of the dependent and the independent variables. The sections were divided into the research variables (attitude, complexity, compatibility, corporate culture, top management support, IT infrastructure, industrial pressure and the decision to adopt e-HRM) were used by a five-point Likert scale (where 1 = completely disagree, 5 = completely agree). One of the reasons that choosing a five-point scale instead of a seven-point scale is that the reliability factor can be compared to other studies using a five-point Likert scale (Saleh & Ryan, 1991). The last question on the questionnaire tested on the intensity of e-HRM adoption which was tested using a net promoter score ranging from 1-10 where 1 means not recommended and 10 means highly recommended (Appendix 1). The answering time frame of the questionnaire was estimated to be 15 minutes.

3.6 Validity and Reliability of the Questionnaire

Validity is concerned with the ability of the questionnaires to measure the intended (Saunders et al., 2009). For this research, there were steps taken to ensure validity and increase the content.

First, face validity was conducted. The questionnaires were distributed to several HR managers through emails. This method is appropriate as it allows others to have a view of the questionnaires you have formulated before carrying out the real research. This was to allow the addition of any information that could have been left out and to check on the clearness of the questions. Their suggestions were considered and were adapted in restricting the questionnaire.

Reliability involves determining whether a questionnaire can produce consistent results at different conditions and time (Saunders et al., 2009). According to Dunn (1992), there are three types of reliability methods that can be used. These include the test re-test method, internal consistency

method and the alternative method. In this research, 500 respondents were used in which 200 questionnaires were validated.

3.7 Data analysis

SPSS (Statistical Package for the Social Sciences) is a web-based application that is used for statistical data analyses, generation of tabulated charts, plots of distributions and trends, tabulated reports, descriptive statistics and complex statistical analyses. They include a reliability test and an independent t-test.

An independent t-test was used to understand the relationship between the independent variables (e-HRM adoption factors) and the dependent variable (decision to adopt e-HRM).

Moreover, Cronbach's alpha was used to measure consistency. Laerd (2013) stated that Cronbach's alpha is commonly used to measure reliability, especially in a Likert scale questionnaire. It is expressed on a scale of 0-1 with a scale of 0.7 being the acceptable alpha as shown in table 3.1. According to Tavakol & Dennick (2011), internal consistency shows the extent to which the survey items are inter-related putting into consideration the survey objectives.

Significant or p-value (probability of obtaining results relative to null hypotheses) was also considered in this research.

Cronbach's alpha	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Table 3.2: Cronbach's alpha co-efficient

CHAPTER 4: RESULTS AND FINDINGS

4.1 Introduction

Data analysis is the part of a research that helps in measuring, analyzing, testing the research questions and the hypotheses resulting in the conclusion of results through the research questions. This chapter will be run through descriptive analysis and deductive analysis. In the descriptive analysis, data is summarized to have an overview vision to the results while in deductive analysis, there is data that is tested preliminarily, reliability, hypothesis and the strength between variables. Using descriptive analysis, frequency tables and charts will be provided on personal details of the respondent (gender, age, education, work experience and bank category). Then, frequency descriptive statistics will be provided for the hypotheses and this will consist of mean, mode and median.

The reliability of each of the questions will be tested through alpha. Inter-correlation between variables and coefficient scores would be extracted. Finally, the hypotheses derived in chapter two will be tested to find out if they will be accepted or rejected.

Table 4.1 shows the coding of the items which have been used in the questionnaire. According to the literature review, there are seven independent variables(attitude, complexity, compatibility, top management support, corporate culture, IT technology and industrial pressure) and a dependent variable (decision to adopt e-HRM).

These variables will be coded as follows:

VARIABLE	VARIABLE CODE
Attitude	A1
Complexity	CA
Compatibility	CA2
Top management support	TM
Corporate culture	CC
IT technology	IT
Industrial pressure	IP
The decision to adopt e-HRM	Y

Table 4.1: Variable coding

4.2 Demographic Statistic

The table below represents the percentage of classification and frequencies on the question of personal data.

Variable	Class	Frequency	percentage
Gender	Male	90	45%
	female	110	55%
Position in the bank	Senior management/executives	45	22%
	Mid-level managers	83	41%
	Frontline managers	41	21%
	General/supporting staff	31	16%
Education level	Secondary level or below	12	6%
	Tertiary level	45	22.5%
	University level or above	143	71.5%
Years of service	1 year and below	52	26%
	2-4 years	92	46%
	5 years and above	56	28%
department	Human Resources	18	9%
	Administration	106	53%
	I.T.	30	15%
	Others	46	23%

Table 4.2: Percentage of class and frequency on the questions of personal data

Figure 4.3 shows the gender distribution of the respondents. As the pie-chart shows, about 55% of the total population are males and 45% are females.

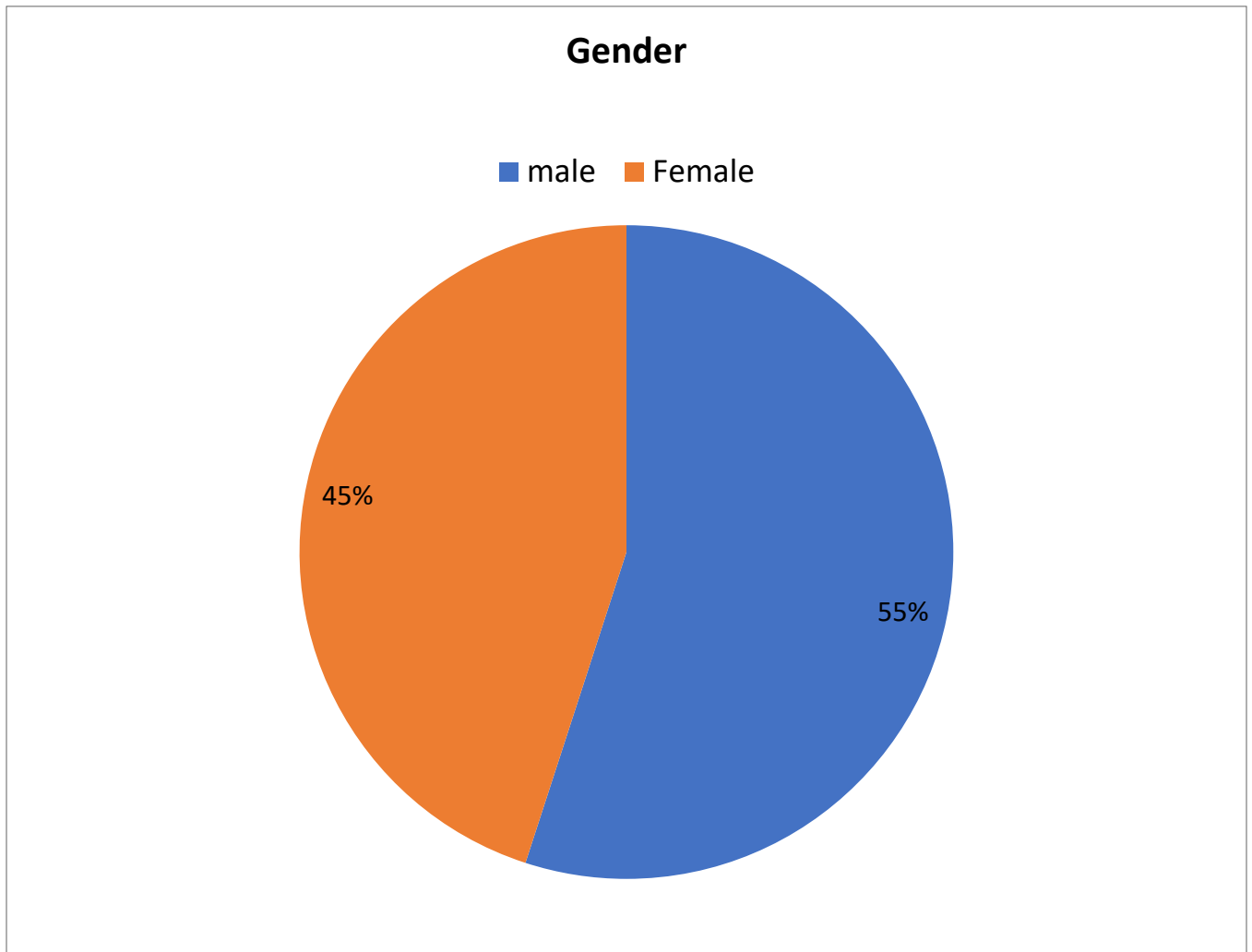


Figure 4.3: Gender distribution

The pie chart below (figure 4.4) shows the education level of respondents. The highest percentage has attained university education with a percentage of 71.5 as stated in table 4.2. about 22.5% have college qualification and lastly, 6% consists of those at the secondary level and below.

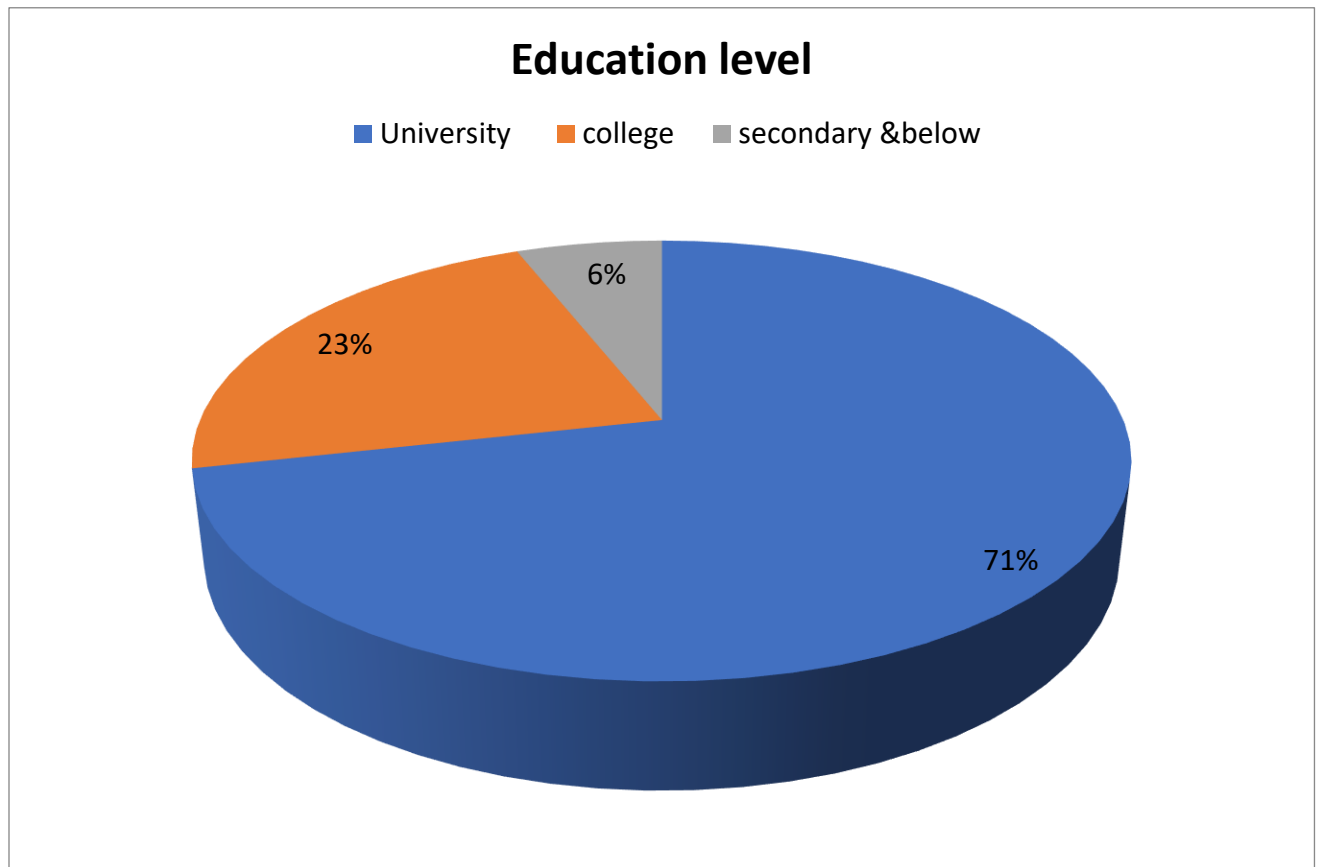


Figure 4.4: Education level distribution

The research also requested for the number of years the respondent had worked in their bank. Piechart 4.5 shows the distribution where 26% of the respondents had worked for less than a year, 46% had been into the banks for 2-4 years and 28% had been into the work for more than 5 years.

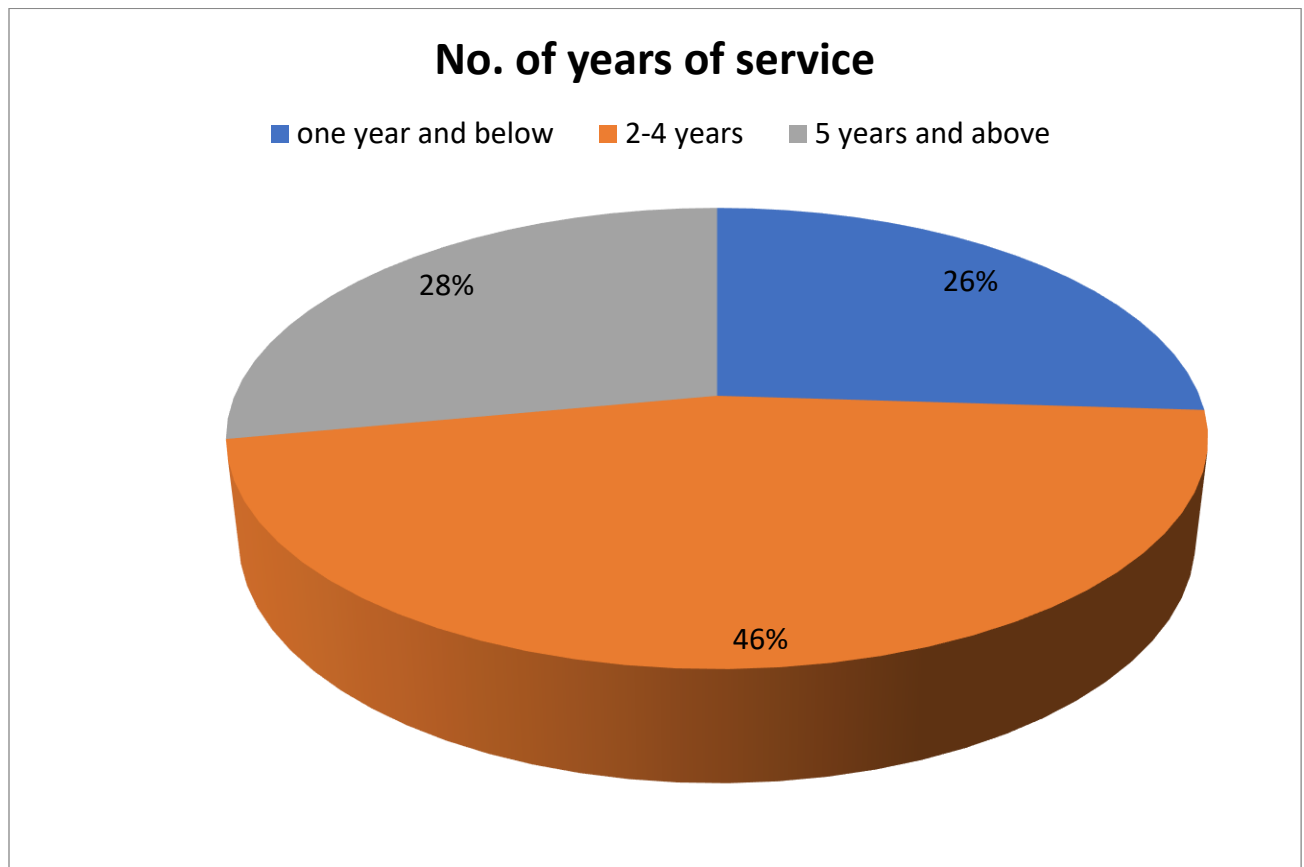


Figure 4.5: Years of service distribution

The pie chart below (figure 4.6) shows the current working department of the respondent. The highest percentage is in the administration with a percentage of 53% as stated in table 4.2. About 9% have are HR personnel, 15% in the IT department and 23% are in other departments.

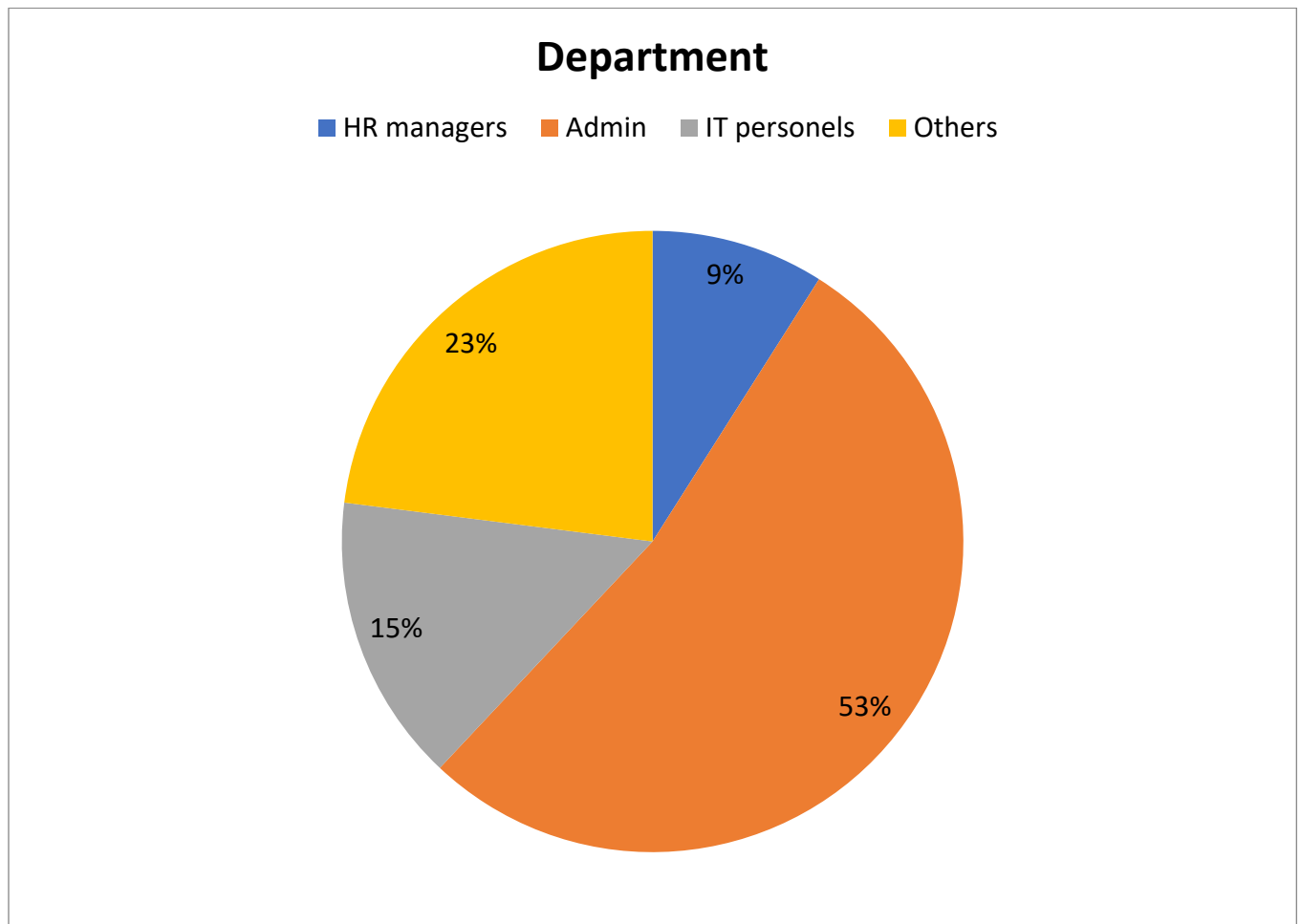


Figure 4.6: Working department distribution

Figure 4.7 shows the distribution of the working position among the respondent. About 22% of the total respondents are senior managers, 41% are mid-level workers, frontline managers represent 21% of the total respondents and 16% are general/supporting staff.

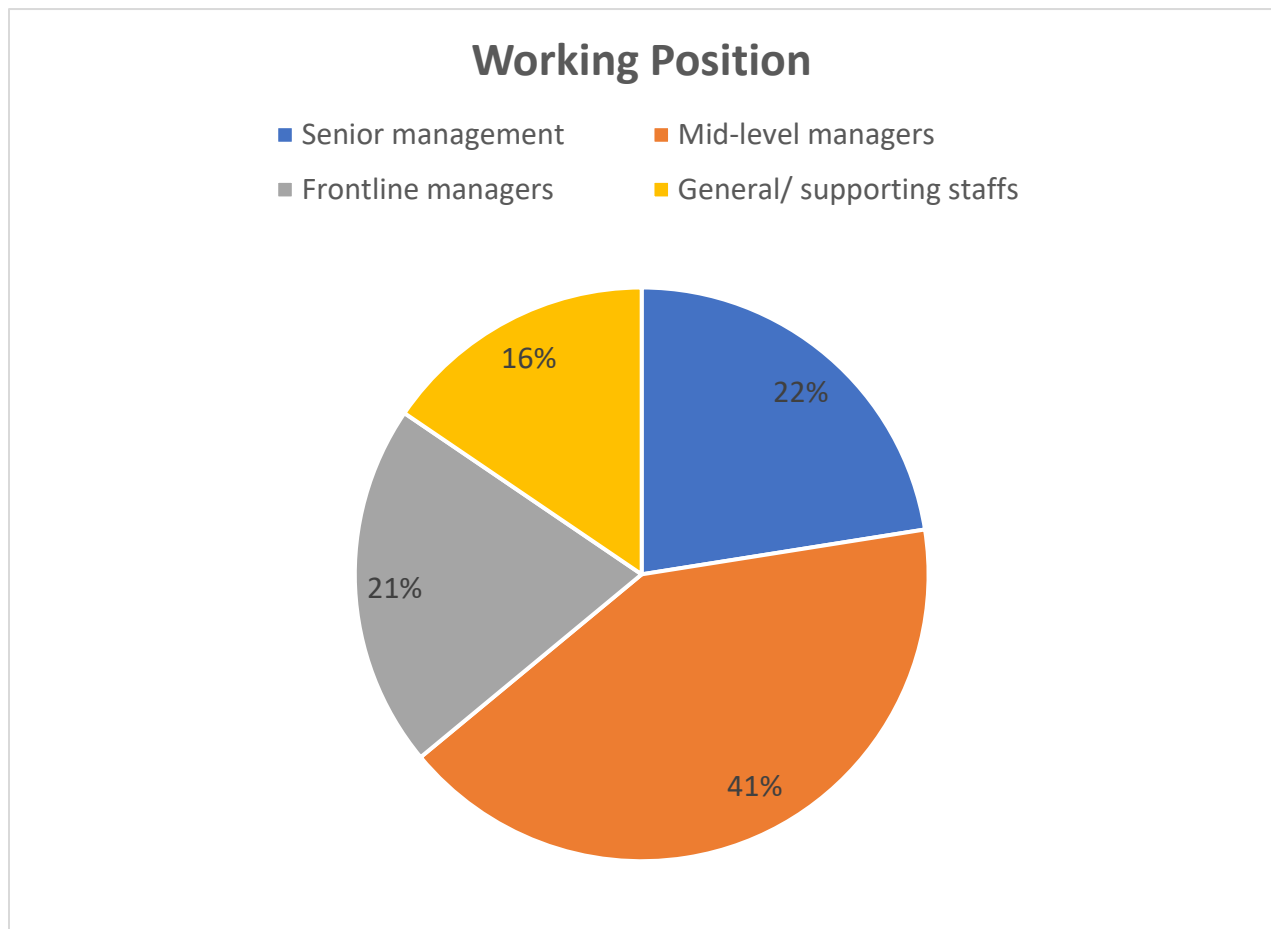


Figure 4.7: Working position distribution

4.3 Descriptive Statistics for Variables

The table below shows descriptive data for attitude items, the mean of each is greater than (>3), in other words, the frequency of the answers: (strongly agree) and (completely agree) are more than (somewhat agree) (strongly disagree) and (completely disagree).

	N	Minimum	Maximum	Mean	Std. Deviation
I believe that e-HRM adoption contributes to HRM strategic effectiveness	200	1	5	4.06	1.144
I believe that adopting e-HRM is a wise decision	200	1	5	4.1	1.184
Valid N (listwise)	200				

Figure 4.8: Attitude factor descriptive statistics

The table below shows descriptive data for the complexity items, the mean of each is greater than (>3), in other words, the frequency of the answers: (strongly agree) and (completely agree) are more than (somewhat agree) (strongly disagree) and (completely disagree).

	N	Minimum	Maximum	Mean	Std. Deviation
E-HRM is complex to learn	200	1	5	4.14	1.188
E-HRM is complex to use	200	1	5	4.14	1.188
Valid N (listwise)	200				

Figure 4.9: Complexity factor descriptive statistics

The table below shows descriptive data for the compatibility items, the mean of each is greater than (>3), in other words, the frequency of the answers: (strongly agree) and (completely agree) are more than (somewhat agree) (strongly disagree) and (completely disagree).

	N	Minimum	Maximum	Mean	Std. Deviation
E-HRM application is compatible with our organization technology	200	1	5	4.26	1.044
The existing activities will run effectively with the introduction of e-HRM	200	1	5	4.25	1.022
Valid N (listwise)	200				

Figure 4.10: Compatibility factor descriptive statistics

The table below shows descriptive data for the IT infrastructure items, the mean of each is greater than (>3), in other words, the frequency of the answers: (strongly agree) and (completely agree) are more than (somewhat agree) (strongly disagree) and (completely disagree).

	N	Minimum	Maximum	Mean	Std. Deviation
The human resource personnel know-how IT can be used	200	1	5	4.15	1.102
There are enough IT devices in our organization	200	1	5	4.17	1.036
Human resource personnel understanding of IT is good than other organizations	200	1	5	3.84	1.242
Valid N (listwise)	200				

Figure 4.11: IT infrastructure factor descriptive statistics

The table below shows descriptive data for the top management support items, the mean of each is greater than (>3), in other words, the frequency of the answers: (strongly agree) and (completely agree) are more than (somewhat agree) (strongly disagree) and (completely disagree).

	N	Minimum	Maximum	Mean	Std. Deviation
Top management encourages the use e-HRM	200	1	5	4.14	1.159
Top management supports e-HRM adoption	200	1	5	4.38	0.922
Valid N (listwise)	200				

Figure 4.12: Top management factor descriptive statistics

The table below shows descriptive data for the industrial pressure items, the mean of each is greater than (>3), in other words, the frequency of the answers: (strongly agree) and (completely agree) are more than (somewhat agree) (strongly disagree) and (completely disagree).

	N	Minimum	Maximum	Mean	Std. Dev.
Competition pressure our organization to adopt E-HRM	200	1	5	4.2	1.128
The overall operational practices pressure our organization to adopt e-HRM	200	1	5	4.29	0.938
It is necessary to use e-HRM application to compete	200	1	5	4.24	1.051
Valid N (listwise)	200				

Figure 4.13: Industrial pressure factor descriptive statistics

The table below shows descriptive data for the corporate culture items, the mean of each is greater than (>3), in other words, the frequency of the answers: (strongly agree) and (completely agree) are more than (somewhat agree) (strongly disagree) and (completely disagree).

	N	Minimum	Maximum	Mean	Std. Deviation
Our organization is adopting a new culture to accommodate e-HRM	200	1	5	4.26	0.958
Adoption of e-HRM application is consistent with our organization's value and culture beliefs	200	1	5	4.26	1.025
Valid N (listwise)	200				

Figure 4.14: Corporate culture factor descriptive statistics

The table below shows descriptive data for the scale question on a recommendation for e-HRM adoption, the mean of each is greater than (>6), in other words, the frequency of the answers are passives more than the detractors.

	N	Minimum	Maximum	Mean	Std. Deviation
Y	200	1	10	6.61	2.09
Valid N (listwise)	200				

Figure 4.15: Dependent variables descriptive statistics

4.4 Correlation Matrix

Correlation estimates the linear relationship strength between two variables with the rule of thumb as stated in the table below. Correlations closer to zero are considered weak hence a weak correlation between the two variables.

Rule of Thumb for Interpreting the Size of a Correlation Coefficient	
<i>Size of Correlation</i>	<i>Interpretation</i>
0.90 to 1.00 (-0.90 to -1.00)	Very high positive (negative) correlation
0.70 to 0.90 (-0.70 to -0.90)	High positive (negative) correlation
0.50 to 0.70 (-0.50 to -0.70)	Moderate positive (negative) correlation
0.30 to 0.50 (-0.30 to -0.50)	Low positive (negative) correlation
0.00 to 0.30 (0.00 to -0.30)	Little if any correlation

Figure 4.16: Rule of Thumb for Interpreting the Size of a Correlation Coefficient

Table 4.17 indicates the correlation matrix for variables that shows significant p values.

From the matrix, all the e-HRM adoption factors have a positive correlation with the dependent variable: decision to adopt e-HRM. Additionally, the P-values in the Y column which represent the dependent variable (decision to adopt e-HRM) are all below 0.01 which concludes the rejection of the null hypothesis bringing meaningfulness to the correlation.

H_0 : correlation does not exist.

H_1 : Not H_0

H_0 : Reject if (P-value $< \alpha$)

H_1 : Accept if

(P-value $> \alpha$)

Correlations

		A1	CA	CA2	CC	IT	TM	IP	Y
A1	Pearson Correlation	1	0.275	0.119	0.14	0.377	0.23	0.108	0.439
	Sig. (2-tailed)		0	0.002	0.008	0	0	0	0
	Sum of Squares and Cross-products	518.88	39.72	55.36	16.8	45.04	15.52	70.92	26.32
	Covariance	2.607	0.2	0.278	0.084	0.226	0.078	0.356	0.132
CA	Pearson Correlation	0.275	1	0.236	0.377	0.189	0.264	0.239	0.391
	Sig. (2-tailed)	0.001		0.003	0.008	0	0	0	0
	Sum of Squares and Cross-products	39.72	541.18	2.84	-33.45	53.01	33.13	6.02	62.33
	Covariance	0.2	2.719	0.014	0.168	0.266	0.166	-0.03	0.313
CA2	Pearson Correlation	0.119	0.326	1	0.138	0.319	0.295	0.158	0.33
	Sig. (2-tailed)	0.002	0.003		0	0.001	0	0.005	0
	Sum of Squares and Cross-products	55.36	2.84	413.92	52.4	9.88	43.44	93.24	18.04
	Covariance	0.278	0.014	2.08	0.263	0.05	0.218	0.469	0.091
TM	Pearson Correlation	0.23	0.364	0.395	0.274	0.129	1	0.331	0.44
	Sig. (2-tailed)	0	0	0	0	0		0	0
	Sum of Squares and Cross-products	15.52	33.13	43.44	30.925	74.035	499.955	-20.07	26.655
	Covariance	0.078	0.166	0.218	0.155	0.372	2.512	0.101	0.134
CC	Pearson Correlation	0.44	0.377	0.138	1	0.26	0.274	0.357	0.183
	Sig. (2-tailed)	0	0	0		0	0	0	0
	Sum of Squares and Cross-products	16.8	33.45	52.4	347.875	28.725	30.925	192.55	-100.575
	Covariance	0.084	0.168	0.263	1.748	0.144	0.155	0.968	-0.505
IT	Pearson Correlation	0.077	0.389	0.019	0.06	1	0.129	0.096	0.148
	Sig. (2-tailed)	0	0	0	0		0	0	0
	Sum of Squares and Cross-products	45.04	53.01	9.88	28.725	662.195	74.035	71.61	111.935
	Covariance	0.226	0.266	0.05	0.144	3.328	0.372	0.36	0.562
IP	Pearson Correlation	0.108	0.4329	0.158	0.357	0.396	0.331	1	0.468
	Sig. (2-tailed)	0	0	0	0	0	0		0
	Sum of Squares and Cross-products	70.92	6.02	93.24	192.55	71.61	20.07	836.78	58.13
	Covariance	0.356	-0.03	0.469	0.968	0.36	-0.101	4.205	0.292
Y	Pearson Correlation	0.439	0.491	0.33	0.183	0.148	0.24	0.468	1
	Sig. (2-tailed)	0	0	0	0	0.001	0	0	
	Sum of Squares and Cross-products	26.32	62.33	18.04	100.575	111.935	26.655	58.13	869.355
	Covariance	0.132	0.313	0.091	-0.505	0.562	0.134	0.292	4.369

Figure 4.17: correlation matrix

4.5 Reliability and validity

A reliability test was done through Cronbach's alpha which is a coefficient tool used to measure the consistency of Likert scale questions. 13 items of the questionnaire were tested.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha based on standardized items	No of items
0.753	0.751	13

Figure 4.18: Cronbach's alpha

4.6 Hypotheses testing

First hypothesis

According to the correlation coefficient between A1 and Y in table 4.17 which is 0.439, it shows a positive relationship between them. This range is considered to be a low positive according to the rule of thumb. However, considering the P-value which is significant in 0.001, we can reject the null hypothesis of concluding that:

H1: HR manager's attitude is significantly related to the adoption of e-HRM.

Second hypothesis:

According to the correlation coefficient between CA and Y in table 4.17 which is 0.491 which is considered a low positive correlation between them. Considering the P-value which is significant in 0.001, we can reject the null hypothesis of concluding that:

H2: *Compatibility is significantly related to the adoption of e-HRM.*

Third hypothesis

According to the correlation coefficient between CA2 and Y in table 4.17 which is 0.33, it shows a low positive relationship between them. Considering the P-value which is significant in 0.001, we can reject the null hypothesis of concluding that:

H3: *Complexity is significantly related to the adoption of e-HRM.*

Fourth hypothesis:

According to the correlation coefficient between TM and Y in table 4.17 which is 0.24, which is also a very low positive correlation between them. Considering the P-value which is significant in 0.001, we can reject the null hypothesis of concluding that:

H4: *Top management support is significantly related to the adoption of e-HRM.*

Fifth hypothesis

According to the correlation coefficient between CC and Y in table 4.17 which is 0.183, it shows a very low level of correlation between the variables. However, considering the P-value which is significant in 0.001, we can reject the null hypothesis of concluding that:

H5: *Corporate culture is significantly related to the adoption of e-HRM.*

Sixth hypothesis

The correlation coefficient between IT and Y is 0.148. This indicates a very low correlation between the two variables although considering the P-value which is significant in 0.001, we can reject the null hypothesis of concluding that:

H6: IT infrastructure is significantly related to the adoption of e-HRM.

Seventh hypothesis

The correlation coefficient between IP and Y according to table 4.17 is 0.468. This shows a low positive correlation between the two variables. Considering the P-value which is significant in 0.001, we can reject the null hypothesis of concluding that:

H7: Industry pressure is significantly related to the adoption of e-HRM.

4.7 One-way analysis of variance

This part aims at comparing the five types of bank staff who participated in answering the questionnaire to determine if there was a difference in their responses. Tables 4.19 shows the results of the variance among senior managers, mid-level managers, frontline managers and supporting staff.

The criteria for analyzing the results is the use of the significant error level which is $p = 0.05$.

Above 0.05 the p-value is significant and the converse is true.

		N	Mean	Std. Deviation	Std. Error
A1	Senior management/ Executives	45	7.8444	1.67814	0.25016
	Mid-level manager	83	8.3012	1.57523	0.1729
	Frontline manager	41	8.5122	1.20669	0.18845
	General/ Supporting staff	31	7.7742	1.97838	0.35533
	Total	200	8.16	1.61476	0.11418
CA	Senior management/ Executives	45	8.2444	1.81102	0.26997
	Mid-level manager	83	8.0361	1.65607	0.18178
	Frontline manager	41	8.6098	1.48118	0.23132
	General/ Supporting staff	31	8.6129	1.54224	0.27699
	Total	200	8.29	1.64909	0.11661
CA2	Senior management/ Executives	45	8.3333	1.63763	0.24412
	Mid-level manager	83	8.4096	1.46534	0.16084
	Frontline manager	41	8.7073	1.24988	0.1952
	General/ Supporting staff	31	8.8387	1.29349	0.23232
	Total	200	8.52	1.44222	0.10198
TM	Senior management/ Executives	45	8.6222	1.35326	0.20173
	Mid-level manager	83	8.4217	1.76082	0.19328
	Frontline manager	41	8.4878	1.51858	0.23716
	General/ Supporting staff	31	8.6452	1.53945	0.27649
	Total	200	8.515	1.58504	0.11208
CC	Senior management/ Executives	45	8.3111	1.23991	0.18483
	Mid-level manager	83	8.6506	1.23401	0.13545
	Frontline manager	41	8.3902	1.5633	0.24415
	General/ Supporting staff	31	8.6774	1.32633	0.23822
	Total	200	8.525	1.32216	0.09349
IT	Senior management/ Executives	45	11.9556	1.8824	0.28061
	Mid-level manager	83	12.1928	1.74927	0.19201
	Frontline manager	41	12.2683	1.93681	0.30248
	General/ Supporting staff	31	12.1935	1.85147	0.33253
	Total	200	12.155	1.82417	0.12899
IP	Senior management/ Executives	45	12.6	2.10411	0.31366
	Mid-level manager	83	12.8434	1.99072	0.21851
	Frontline manager	41	12.878	1.92607	0.3008
	General/ Supporting staff	31	12.1613	2.28177	0.40982
	Total	200	12.69	2.05059	0.145

Figure 4.19: ANOVA descriptive

		Sum of Squares	df	Mean Square	F	Sig.
A1	Between Groups	15.836	3	5.279	2.057	0.107
	Within Groups	503.044	196	2.567		
	Total	518.88	199			
CA	Between Groups	12.866	3	4.289	1.591	0.193
	Within Groups	528.314	196	2.695		
	Total	541.18	199			
CA2	Between Groups	7.166	3	2.389	1.151	0.33
	Within Groups	406.754	196	2.075		
	Total	413.92	199			
TM	Between Groups	1.796	3	0.599	0.235	0.872
	Within Groups	498.159	196	2.542		
	Total	499.955	199			
CC	Between Groups	4.833	3	1.611	0.92	0.432
	Within Groups	343.042	196	1.75		
	Total	347.875	199			
IT	Between Groups	2.481	3	0.827	0.246	0.864
	Within Groups	659.714	196	3.366		
	Total	662.195	199			
IP	Between Groups	12.432	3	4.144	0.985	0.401
	Within Groups	824.348	196	4.206		
	Total	836.78	199			

Figure 4.20: Analysis of variance

4.7.1 First hypothesis for Anova

The impact of attitude on the decision to adopt e-HRM is not equal in the four categories of the respondents.

H0: The mean attitude on the decision to adopt e-HRM is the same among the four respondents: senior managers, mid-level managers, frontline managers, and the supporting staff.

H1: The mean attitude on the decision to adopt e-HRM is not the same among the four respondents: senior managers, mid-level managers, frontline managers, and the supporting staff.

$$H0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

H1 : one item is different at least

Wherein: $\mu_1 = \mu_2 = \mu_3 = \mu_4$ represents the mean of attitude on the decision to adopt e-HRM among the four groups.

Considering the P-value, which is 0.107 and greater than the error level, which is 0.05:

$$(P\text{-value} = 0.107 > 0.05)$$

There was a statistically significant difference between groups as demonstrated by one-way ANOVA (figure 4.20) ($F = 2.507, p = 0.107$). A Tukey post hoc test (appendix 2) showed that the senior managers group was able to throw a statistically significantly further than the mid-level management ($p = 0.416$). There was also statistically significant difference between the front-line managers and the supporting staff ($p = 0.217$). Mid-level managers with the supporting staff had a significant difference with $p = 0.402$

4.7.2 Second hypothesis for Anova

The impact of complexity on the decision to adopt e-HRM is not equal in the four categories of the respondents.

H0: The mean of complexity on the decision to adopt e-HRM is the same among the four respondents: senior managers, mid-level managers, frontline managers, and the supporting staff.

H1: The mean of complexity on the decision to adopt e-HRM is not the same among the four respondents: senior managers, mid-level managers, frontline managers, and the supporting staff.

$$H0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

H1 : one item is different at least

Wherein: $\mu_1 = \mu_2 = \mu_3 = \mu_4$ represents the means of complexity among the four groups to the adoption of e-HRM

Considering the P-value, which is 0.193 and greater than the error level, which is 0.05:

(P-value = 0.193 > 0.05) according to the one way ANOVA analysis and thus the null hypothesis is not rejected. However, considering the post hoc test, each of the groups has a significant variance except for the frontline managers with the general supporting staff who has a P value of 0.048 which is below the standard error (Appendix 2).

4.7.3 Third hypothesis for Anova

The impact of compatibility on the decision to adopt e-HRM is not equal in the four categories of the respondents.

H0: The mean of compatibility on the decision to adopt e-HRM is the same among the four respondents: senior managers, mid-level managers, frontline managers and the supporting staff.

H1: The mean of compatibility on the decision to adopt e-HRM is not the same among the four respondents: senior managers, mid-level managers, frontline managers and the supporting staff.

$$H0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

H1: one item is different at least

Wherein: $\mu_1 = \mu_2 = \mu_3 = \mu_4$ are the mean of compatibility with the four groups.

(P-value = 0.33 > 0.05) as shown in the one way ANOVA results and hence we accept the null hypothesis. However, the post Hoc test shows that the general staff and the senior managers have no significant difference since the p value= 0.038 which is below 0.05.

4.7.4 Forth hypothesis for Anova

The impact of top-level management on the decision to adopt e-HRM is not equal in the four categories of the respondents.

H0: The mean of top-level management on the decision to adopt e-HRM is the same among the four respondents: senior managers, mid-level managers, frontline managers and the supporting staff.

H1: The mean of top-level management on the decision to adopt e-HRM is not the same among the four respondents: senior managers, mid-level managers, frontline managers, and the supporting staff.

H0: $\mu_1 = \mu_2 = \mu_3 = \mu_4$

H1: one item is different at least

Wherein: $\mu_1 = \mu_2 = \mu_3 = \mu_4$ are the mean of top management support to the decision to adopt e-HRM

Considering the P-value, which is 0.872 and greater than the error level, which is 0.05:

(P-value = 0.872 > 0.05) according to the one way ANOVA analysis. However, the post hoc test shows $p = 0.035$ between senior management group and the support staff group which shows no significant variance. The rest of the groups had a significant variance.

4.7.5 Fifth hypothesis for Anova

The impact of corporate culture on the decision to adopt e-HRM is not equal in the four categories of the respondents.

H0: The mean of corporate culture on the decision to adopt e-HRM is the same among the four respondents: senior managers, mid-level managers, frontline managers and the supporting staff.

H1: The mean of corporate culture on the decision to adopt e-HRM is not the same among the four respondents: senior managers, mid-level managers, frontline managers, and the supporting staff.

$$H0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$$

H1: one item is different at least

Wherein: $\mu_1 = \mu_2 = \mu_3 = \mu_4$ are the means of corporate culture on the decision to adopt e-HRM.

Considering the P-value, which is 0.432 and greater than the error level, which is 0.05:

(P-value = 0.432 > 0.05) according to the one way ANOVA test. Post hoc test was further conducted showing no significant difference between mid-level managers and the supporting staff with a p value of 0.038 which is insignificant.

4.7.6 Sixth hypothesis for Anova

The impact of IT infrastructure on the decision to adopt e-HRM is not equal in the four categories of the respondents.

H0: The mean of IT infrastructure on the decision to adopt e-HRM is the same among the four respondents: senior managers, mid-level managers, frontline managers, and the supporting staff.

H1: The mean of IT infrastructure on the decision to adopt e-HRM is not the same among the four respondents: senior managers, mid-level managers, frontline managers and the supporting staff.

$$H0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

H1: one item is different at least

Wherein: $\mu_1 = \mu_2 = \mu_3 = \mu_4$ shows the means of IT infrastructure among the groups.

Considering the P-value, which is 0.864 and greater than the error level, which is 0.05 and hence the null hypothesis is not rejected.

$$(P\text{-value} = 0.864 > 0.05)$$

However, the post Hoc test (appendix 2) showed no statistical difference between the middle level managers and front-line managers with $p = 0.046$ which is below 0.05

4.7.7 Seventh hypothesis for Anova

The impact of industrial pressure on the decision to adopt e-HRM is not equal in the four categories of the respondents.

H0: The mean of industrial pressure on the decision to adopt e-HRM is the same among the four respondents: senior managers, mid-level managers, frontline managers, and the supporting staff.

H1: The mean of industrial pressure on the decision to adopt e-HRM is not the same among the four respondents: senior managers, mid-level managers, frontline managers and the supporting staff.

$$H0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

H1: one item is different at least

Wherein: $\mu_1 = \mu_2 = \mu_3 = \mu_4$ are the means for industrial pressure in the decision to adopt E-HRM

Considering the P-value, which is 0.401 and greater than the error level which, is 0.05 and thus the null hypothesis is not rejected:

(P-value = 0.401 > 0.05).

However, mid-level managers and front-line managers showed no significant difference with a p value of 0.058 according to the post hoc test (appendix 2)

CHAPTER 5: CONCLUSION, DISCUSSION AND RECOMMENDATIONS

5.1 Introduction

This research was aimed at answering the following questions:

- The current state of e-HRM and how it can assist or replace traditional human resources processes
- How is the level of adoption of e-HRM in banking industry?
- What are the critical factors that affect the adoption of technology in HRM in Hong Kong banking industry?

To answer these questions, research items were selected for this study and a questionnaire with 20 questions was adopted (appendix 1). A sample of 200 respondents was used in the analysis. This chapter will conclude on the findings and discuss the findings which will generate the recommendations or this research.

5.2 Findings

Based on the statistics results in the previous chapters, the result for research hypotheses are as follows:

- The mean of all the factors (e-HRM adoption factors and the decision to adopt e-HRM) are significant since they have a mean of more than 3. This shows that the research respondents choose “strongly agree” and “completely agree” more than disagree and neutral letters. This proves to agree with the questionable factors influencing the decision to adopt e-HRM.

- According to the inter-correlation matrix, all the e-HRM factors variables are correlated with the decision to adopt e-HRM. However, there was a difference in the intensity of the correlation with attitude, top management support, industrial pressure, complexity and compatibility showing a positive correlation and IT infrastructure and corporate culture showing a low correlation.
- According to the correlation matrix, the P values of the factors are positively correlated with the decision to adopt e-HRM which led to the rejection of the entire null hypothesis in the study. This concluded the acceptance of all the hypotheses (H1, H2, H3, H4, H5, H6, H7)
- The data analysis on the groups of respondent (senior managers, mid-level managers, frontline managers and the supporting staffs) was another finding, collecting data from these groups allowed for comparison of their perceptions. The results done through one-way ANOVA revealed that there is no significant discrepancy between them. However, the post-hoc test revealed that there was a difference in how each of these groups responded on each of the factors.
- The research tested the intensity of e-HRM adoption. From the data analysis, the highest percentage of respondents would prefer the adoption of e-HRM to others. This shows that despite the factors are considered when deciding on e-HRM adoption; a lot of people are conversant with e-HRM.

To conclude on the results and the research questions, it can be concluded that the decision to adopt e-HRM in Hong Kong banks is dependent on the factors on e-HRM adoption. The various sub-factors as banks decide to adopt e-HRM they are considering the stated seven key factors and deciding on whether to adopt or not adopt e-HRM. This proves the research model on the decision

to adopt e-HRM in chapter three of this study which bases the decision to adopt e-HRM in four dimensions.

5.3. Discussion

For this, the first and the second research questions were; *the current state of e-HRM and how it can assist or replace traditional human resources processes and how is the level of adoption of e-HRM in banking industry* respectively. They were answered through the questions adopted on the questionnaire on the decision to adopt e-HRM and the scale question on recommending e-HRM, which proved to be significant from the results. Additionally, a significant population stated that they would recommend the adoption of e-HRM which shows that currently, the response to e-HRM is high and can be fully adopted replacing the traditional HRM. Additionally, it was evident that e-HRM has been highly adopted in the Hong Kong banking sector. This can be attributed to the competitive nature of the Hong Kong banking industrial as e-HRM is associated with additional advantages.

In this research, the last question from the literature review which was:

What are the factors that affect the decision to adopt e-HRM in Hong Kong banks?

To answer this question, a literature review with the subject on e-HRM adoption in other countries, and e-HRM adoption in Hong Kong has been discussed. On the other hand, concepts of e-HRM adoption factors and their relationship with the decision to adopt e-HRM were discussed. In chapter three, seven factors determined the decision to adopt e-HRM in four dimensions (environment, technological, individual and industrial). From the conceptual framework, hypotheses were extracted to answer the research questions.

First Hypothesis: *HR manager's attitude is significantly related to the adoption of e-HRM.*

Second Hypothesis: *Compatibility is significantly related to the adoption of e-HRM.*

Third Hypothesis: *Complexity is significantly related to the adoption of e-HRM.*

Fourth Hypothesis: *Top management support is significantly related to the adoption of e-HRM.*

Fifth Hypothesis: *Corporate culture is significantly related to the adoption of e-HRM.*

Sixth Hypothesis: *IT infrastructure is significantly related to the adoption of e-HRM.*

Seventh Hypothesis: *Industry pressure is significantly related to the adoption of e-HRM.*

As observed in the above findings, each of the hypothesis was significant and this was expected to compare with the previous researches on the same topic. From the literature review of this research, there were discussions on this topic and several conclusions were made which are in line with the findings of this research. Wirnato (2018) had introduced a theoretical frame of reference in relation to the factors that affect the decision to adopt e-HRM. These factors (individual, environmental, industrial and technological) have also been proven to be significant to the decision of e-HRM adoption by this study. Kittipong (2009) stated the effect of the industrial factors in the decision to adopt e-HRM. This was of interest since the banking industry in Hong Kong has a different industrial environment comparing with other areas especially in competition. Despite the variance, industrial factors have been proven to affect the decision to adopt e-HRM as shown in the results with the acceptance on the hypotheses related to the industrial pressure. Hong Kong Institute of Human Resource Management (HKIHRM), 2016 had stated that the corporate culture contributes highly to the adoption of e-HRM in any organization. As shown in the results, corporate culture is significant in the decision to adopt e-HRM in the Hong Kong banking sector. To conclude, the

results of this research are in line with other previous researches as expected. This research has concluded the following theoretical and managerial contributions.

However, as shown in the previous chapters in the descriptive analyses, there was a minimum of 1 and a maximum of 5 in each of the questions on independent variable. With the scale of 1- completely disagree and 5- completely agree, it was expected that some of the questions would not have a statistic of completely disagree. This includes and not limited to IT technology and top management support. These are major and crucial factors that affect the adoption of e-HRM. This variance with the expected results could be resolved by conducting more research on each of the factors. Additionally, there is a variance in the results between the groups that were interviewed across all the variables (appendix 2) which made some of the groups to have no significant difference. This could be as a result of different perceptions among the groups (senior managers, mid-level managers, frontline managers and the supporting staffs).

To conclude on the results and the research questions, it can be concluded that the decision to adopt e-HRM in Hong Kong banks is dependent on the factors on e-HRM adoption and hence they must be put into consideration. Also, the current e-HRM is well received in the Hong Kong banking sector and hence it can be adopted fully replacing the traditional HRM by ensuring its compatibility.

5.3.1 Theoretical contributions

From the literature review chapter, previous studies on e-HRM adoption emphasized on the model of the four key factors contributing to the decision to adopt e-HRM. Hong Kong is an area of interest when considering the banking industry. This research has concluded on the model of e-HRM adoption factors in the Hong Kong banking industry.

This study has also focused on measuring the intensity in which e-HRM is preferred by people. This is an addition to what has been into the other researches. We conclude that people are still correspondent to e-HRM despite the factors that are put into place before adopting it.

5.3.2 Managerial implications

E-HRM adoption factors are very important for a decision-maker on e-HRM adoption. These factors when putting into action before making the decision, they will influence the competitive advantages that come along with the adoption. Most of the decision-maker on e-HRM adoption tends to rush in the process without considering the factors they can consider ensuring its adaption. This research has proved the contribution of each of the factors among banks in Hong Kong. This will give a referral to the decision-makers before carrying out the process.

From the introductory section of this research, this study aimed at helping the Hong Kong banking industry in determining the factors which will bring about a competitive advantage through the use of e-HRM. In the chapter, we outlined that the KMPG report (2015) had predicted the loss of competitive advantage to banks which had no proper HR practices and hence the need to adopt e-HRM. From this study, we have concluded that e-HRM can bring out a competitive advantage if applied correctly. This can be ensured by considering the factors that have been concluded in this research that affect the decision to adopt e-HRM in the Hong Kong banking industry. With this survey, seven factors have been concluded: attitude, complexity, compatibility, IT infrastructure, top management support, corporate culture and industrial pressure.

5.4 Recommendations

➤ *Change of attitude on e-HRM*

With attitude, a positive attitude towards e-HRM contributes to the decision to adopt it. How an individual perceives the whole process will influence their decision. This is more so with the managers who are supposed to lobby for e-HRM adoption and play a major role in its implementation. The managers should view e-HRM adoption as a good decision and hence it will be easy for them to ensure its adoption and function.

➤ *Ensuring proper training on digitalization to reduce complexity perception and allow compatibility of e-HRM with traditional HRM*

Technological advancement comes along with extra responsibilities which may seem complex. This requires people who will be skilled in how to work with the same. Adapting to a new way of doing things especially in HRM may be complex and some processes may not run smoothly at the beginning. There is a need to ensure that every stakeholder in the process of adopting e-HRM is conversant with the process to avoid drawbacks that come along with e-HRM.

Additionally, compatibility is the third factor. How the organization's current structures and processes compact with any advancement matter. This may be in terms of the personnel and the machines available, the previous models. The HRM manual process must be compatible with the e-HRM factors for the organization to continue running effectively. To ensure a competitive advantage of e-HRM there is a need to ensure that a bank's IT infrastructure is compatible with the requirements of e-HRM. Banks should also ensure that the acting HRM will be seamless.

➤ ***Adjusting the corporate structure of the organization to allow room for e-HRM adoption and success***

Corporate structure plays a major role in the acceptance of e-HRM. The culture of an organization (management hierarchy, centralization/ decentralization of power, stakeholders) highly contributes to any decision that is made in the organization. If the corporate perceives e-HRM as a wise decision they will go ahead with adopting e-HRM. Hong Kong banks should ensure a corporate structure that will ensure adoption of policies and activities that can be advantageous to their firm.

Moreover, the top management support is crucial in the adoption of e-HRM. They make decisions on funds and other important aspects that are involved in adopting e-HRM, with the top management support, e-HRM will be easier to adopt. On the other hand, top management that does not support e-HRM will not decide to adopt it. This support is in terms of funds allocation and other crucial decisions that can only be made by the top management.

➤ ***Improvement of IT infrastructure***

IT infrastructure is a crucial factor. E-HRM involves the use of technology. IT experts, IT skills and IT devices are constituents of IT infrastructure. With HR managers who are IT literate, it will be easier to decide on adopting e-HRM. Also, IT personnel's being available in an organization, e-HRM will be easier. Banks with available IT experts, IT equipment's and skilled personnel will find it convenient to adopt e-HRM. Moreover, data security is a major issue concerning IT. If all the stakeholders feel that their data is secure, they would allow for e-HRM. This is intending to protect personal data from cyber threats and the bank's information from landing into the wrong hands. This will help in the effective running of the process after its adaption. Banks should ensure that there are enough IT personnel, IT devices,

data security and enough skills to handle e-HRM. This will ensure e-HRM is well adopted and implemented.

➤ ***Develop measures to ensure the success of e-HRM***

As stated in the previous chapters, the Hong Kong banking industry is competitive. Considering this factor, Hong Kong banks should embrace e-HRM to remain competitive. In a competitive environment, organizations will experience pressure to adopt e-HRM to maintain a competitive advantage. From the previous chapters, it is evident that e-HRM will contribute to several advantages. On the other hand, in a less competitive industry or region, organizations are comfortable and will not opt for e-HRM adoption. It is recommended that the banks in Hong Kong should adopt e-HRM to remain competitive.

5.5 Limitations of the study

In gathering the data, some firms required a long process before allowing access to their workers. Also, some respondents were very slow in answering the questions and some not answering all the questions. However, there was good cooperation between the banks in the filling of the questionnaires.

Despite the assurance in the questionnaire that it was anonymous, some banks did not allow access to their employees. I am grateful for the banks that allow access to their employees who provided me with the information.

Additionally, determining the right data collection and analysis method was also a challenge. This research is crucial as it can be used in making decisions and hence a proper way of analyzing the data was needed. After reasonable piloting on the available method, this research opted for reliable statistical analysis.

Finally, some respondents were not keen on answering the questions. There were missing data in some of the questionnaires. Fortunately, a minimum number of the respondent's questionnaires were all filled.

5.6 Suggestion for further research

With the factors affecting e-HRM adoption in one research paper, it is an underestimate of the real impact of these factors. Each of the factors can be tackled in their research paper to allow for deeper details of each factor.

The topic of e-HRM opens up more research opportunities in other economic sectors other than the banking industry. This may be in the health sector or even the hotel industry or others.

Also, other regions in the world require a deep analysis of the e-HRM adoption factors due to their difference economic positions, technological positions and also governance. Other issues like security problems of data transmitted by using new system need to be further explored.

Additionally, comparing the e-HRM decision adoption factors among different bank categories in Hong Kong is probably the most adjacent research to carry out. This will be useful to the different banks since they have different administration on human resources policy.

Moreover, for researchers within Hong Kong and other technological advanced regions, there is a need to study how e-HRM can be more beneficial to the banks and other economic sectors. This will help in more banks adopting the strategy since most of them find e-HRM complex and are not willing to adopt it.

Finally, there is a research gap on other items that may be affecting e-HRM adoption decisions. I would recommend the use of multidimensional evaluation which will open up more suggestions on these factors other than the already suggested models.

Reference

Agarwal, R. and Prasad, J. (1997) The Role of Innovation Characteristics and Perceived Voluntariness in the Acceptance of Information Technologies. *Decision Sciences*, 28, 557-582. <http://dx.doi.org/10.1111/j.1540-5915.1997.tb01322.x>

Ahammad, T. (2017) Personnel Management to Human Resource Management (HRM): How HRM Functions? *Journal of Modern Accounting and Auditing*, September 2017, Vol. 13, No. 9, 412-420 DOI: 10.17265/1548-6583/2017.09.004

Al Dmour, R., Masa'deh, R. and Obeidat, B. (2017). Factors Influencing the Adoption and Implementation of HRIS Applications: Are they Similar. *International Journal of Business Innovation and Research*, 14(1), p.1.

Alleyn, C., Kakbadse, A.&Kakbadse, N. (2007). Using the Hr Intranet: An Exploratory Analysis of Its Impact on Managerial Satisfaction with the Hr Function. *Personnel Review*, 36(2). 295-310.

Armstrong, C., Flood, P., Guthrie, J., Liu, W., Maccurtain, S. and Mkamwa, T. (2010). The impact of diversity and equality management on firm performance: Beyond high performance work systems. *Human Resource Management*. 49. 977 - 998. 10.1002/hrm.20391

Bamel, N., Kumar Bamel, U., Sahay, V., andThite, M. (2014). Usage, benefits and barriers of human resource information system in universities. *VINE*, 44(4), 519–536. <https://doi.org/10.1108/VINE-04-2013-0024>

Barth, J.R., Caprio, G. and Levine, R. (2012). The Evolution and Impact of Bank Regulations. Policy Research Working Paper; No. 6288. World Bank, Washington, DC. © World Bank. <https://openknowledge.worldbank.org/handle/10986/12183> License: CC BY 3.0 IGO.”

Basua, M. (2019) Implementing E-HRM In Cross-Country Environment: The Key To Organizational Growth. Available at: <https://poseidon01.ssrn.com/delivery.php?ID=186110029069010089068067107118021081054087021052029007119070071009004028071022065065016043025056016121004085014125115011092088027086028018020065004010085122117015109021049007069100127113109103099121121115019116099081067114070099094005125095107074119102&EXT=pdf>

Baykal, E. (2020). Digitalization of Human Resources: e-HR. In Meral, Y. (Eds.), Tools and Techniques for Implementing International E-Trading Tactics for Competitive Advantage (pp. 268-286)

Beardwell, J. and Claydon, T. (2007). Human resource management: A contemporary approach (5th ed.). Harlow: FT/Prentice Hall.

Bernardin, H.J. and Russel, J.E. (1993). Human Resource Management: An Experiential Approach. Singapore: McGraw-Hill, Inc. International Review of Management and Marketing, Vol. 2, No.1, 2012, pp.52-58

Bondarouk, T. (2011), "Chapter 1 Theoretical Approaches to e-HRM Implementations", Bondarouk, T., Ruël, H. and Kees Looise, J. (Ed.) Electronic HRM in Theory and Practice (Advanced Series in Management, Vol. 8), Emerald Group Publishing Limited, Bingley, pp. 1-20. [https://doi.org/10.1108/S1877-6361\(2011\)0000008005](https://doi.org/10.1108/S1877-6361(2011)0000008005)

Bondarouk, T., Harms, R. and Lepak, D. (2015). Does e-HRM lead to better HRM service? The International Journal of Human Resource Management, 1–31. DOI: 10.1080/09585192.2015.1118139

Bondarouk, T., Parry, E. and Furtmueller, E. (2017) Electronic HRM: four decades of research on adoption and consequences, The International Journal of Human Resource Management, 28:1, 98-131, DOI: 10.1080/09585192.2016.1245672

Burton, D. (2000) Research training for social scientists, SAGE Publications Ltd, London, doi: 10.4135/9780857028051.

Chan, P.(2020) Tech Disruption in Retail Banking: Hong Kong's Large Banks Are Pioneering. The City's Fintech Development.

Chang, I.C., Hwang, H.G., Hung, M.C., Lin, M.H. and Yen, D.C. (2007) Factors affecting the adoption of electronic signature: Executives' perspective of hospital information department. Decision Support Systems. 2007; 44 (1):350–9.

Chartered Institute of Personnel and Development? CIPD. (2014). Retrieved from <http://www.cipd.co.uk/hr-resources/factsheets/history-hr-cipd.aspx>

Chen, Y.F. and Funke, M. (2009) China's New Labour Contract Law: No Harm to Employment? China Economic Review, 20, 558-572. <http://dx.doi.org/10.1016/j.chieco.2009.03.008>

Chiu P. (2019) « Hong Kong's Banking Industry Facing Keen Competition », China Perspectives [Online], 46 | march-April 2003, Online since 29 August 2006, connection on 28 October 2019. URL : <https://journals.openedition.org/chinaperspectives/260> ; DOI : 10.4000/chinaperspectives.260

Chowdhury, MSA., Yunus, M., Bhuiyan F. and Kabir MR. (2013) Impact of Human Resources InformationSystem (HRIS) on the Performance of Firms: A Study on Some Selected Bangladeshi Banks. 9thAsian Business Research Conference BIAM Foundation, Dhaka, Bangladesh.

Colwell, S. R. and Joshi, A. W. (2013) 'Corporate Ecological Responsiveness: Antecedent Effects of Institutional Pressure and Top Management Commitment and Their Impact on Organizational Performance', Business Strategy and the Environment. Wiley-Blackwell, 22(2), pp. 73–91. DOI: 10.1002/bse.732.

Cooke, F.L. (2013) Human Resource Management in China: New Trends and Practices. Routledge, London.

De Souza Freitas, W.R., Jabbour, C.J.C. and Santos, F.C.A. (2011) Continuing the evolution: Towards sustainable HRM and sustainable organizations. Business Strategy Series, 12 (5). pp. 226-234. ISSN 1751-5637

De Vaus, D. (2001). Research Design In Social Research. 1st ed. SAGE Publications Ltd.

Delorme, M. and Arcand, M. (2010). HRIS implementation and deployment: A conceptual framework of the new roles, responsibilities, and competencies for HR professionals. Int. J. Bus. Inform. Syst., 5: 148-161. DOI: 10.1504/IJBIS.2010.030626

Dembla, P., Palvia, P. and Krishnan, B. (2007). Understanding the Adoption of Web-Enabled Transaction Processing by Small Businesses. Journal of Electronic Commerce Research. 8.

Desai, Deven R., The New Steam: On Digitization, Decentralization, and Disruption (August 1, 2014). Hastings Law Journal, Vol. 65, No. 6, 2014, Available at SSRN: <https://ssrn.com/abstract=2508712>

Dezalay, Y. and Garth, B. (2011). Lawyers and the Rule of Law in an Era of Globalization. London: Routledge, <https://doi.org/10.4324/9780203831359>

Dunn G. (1992) Design and analysis of reliability studies. Statistical Methods in Medical Research. 1992 ;1(2):123-157. DOI: 10.1177/096228029200100202.

Efimova, L. and Swaak, J. (2002). KM and (e)-learning: towards an integrated approach? In "The new scope of knowledge management in Theory and Practice", Proceedings of the 2nd EKMF Knowledge Management Summer School (pp. 63-69)., France.

Figueiredo, E., Pais, L., Monteiro, S. and Mónico, L. (2016), "Human resource management impact on knowledge management: Evidence from the Portuguese banking sector ", *Journal of Service Theory and Practice*, Vol. 26 No. 4, pp. 497-528. <https://doi.org/10.1108/JSTP-12-2014-0269>

Foster, S. (2009) *Making Sense of e-HRM: Technological Frames, Value Creation and Competitive Advantage*, December

Gerhart, B., Wright, P. M., McMahan, G. C., and Snell, S. A. (2000). Measurement error in research on human resources and firm performance: How much error is there and how does it influence effect size estimates? *Personnel Psychology*, 53(4), 803–834. <https://doi.org/10.1111/j.1744-6570.2000.tb02418.x>

Gilley, A., Gilley, J.W., Quatro, S.A., and Dixon, P. (2009). *The Praeger Handbook of Human Resource Management*. USA: Greenwood Publishing Group, Inc.

Hambrick, D. C. and Mason, P. A. (1984) 'Upper Echelons: The Organization as a Reflection of Its Top Managers.', *Academy of Management Review*, 9(2), pp. 193–206. DOI: 10.5465/AMR.1984.4277628.

Hameed, M.A., Counsell, S. and Swift, S. (2012) A meta-analysis of relationships between organizational characteristics and IT innovation adoption in organizations, *Information & Management*, Volume 49, Issue 5, Pages 218-232, ISSN 0378-7206, <https://doi.org/10.1016/j.im.2012.05.002>.

Hempel, P.S. (2001) Differences between Chinese and Western Managerial Views of Performance. *Personnel Review*, 30, 203-226. <http://dx.doi.org/10.1108/00483480110694525>

Hendrickson, A. (2003). 'Human resource information systems: backbone technology for contemporary human resources'. *Journal of Labor Research*, 24: 3, 381– 394. HKMA, (2020) Our journey towards sound bank culture – Reflections and Beyond, 14 Jan

HKTDC (2019). Financial Services Industry in Hong Kong | HKTDC. from <http://hong-kong-economy-research.hktdc.com/business-news/article/Hong-KongIndustry-Profiles/Financial-Services-Industry-in-Hong-Kong/hkip/en/1/1X000000/1X003UUO.htm>

Hsu, M.K., Wang, S.W. and Chiu, K.K. (2009) Computer attitude, statistics anxiety and self-efficacy on statistical software adoption behavior: An empirical study of online MBA learners, *Computers in Human Behavior*, Volume 25, Issue 2, Pages 412-420, ISSN 0747-5632, <https://doi.org/10.1016/j.chb.2008.10.003>.

Huo, P. Y. and Von Glinow, M.A. (1995), "On transplanting human resource practices to China: A culture-driven approach", *International Journal of Manpower*, Vol. 16 No. 9, pp. 3-15. <https://doi.org/10.1108/01437729510102657>

Jiang G., Tang, N., Law, E., and Sze, A. (2003) The Profitability of the Banking Sector in Hong Kong, September

Kakabadse, A. and Kakabadse, N. (2003) Outsourcing best practice: transformational and transactional considerations. *Knowl. Process Mgmt.*, 10: 60-71. doi:10.1002/kpm.161

Kapse, A., Patil, V. and Patil, N. (2012) E- Recruitment. Avinash S. Kapse, Vishal S. Patil, Nikhil V. Patil - PDF Free Download. [online] Docplayer.net. Available at: <https://docplayer.net/4474486-E-recruitment-avinash-s-kapse-vishal-s-patil-nikhil-v-patil.html>

Khandakar, M.S.A. and Pangil, F. (2020) "The role of affective commitment on the relationship between human resource management practices and informal workplace learning", *Higher Education, Skills and Work-Based Learning*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/HESWBL-01-2020-0004>

Kittipong, S. (2009). The adoption of techno-relationship innovations. *Marketing Intelligent and Professionals*, 27(3), 380-412.

Kohansal, A., Sadegh, T. and Haghshenas, M. (2016) E-HRM -FROM ACCEPTANCE TO VALUE CREATION: Journal of Information Technology Management Volume XXVII, Number 1, 2016 21

Krosnick J.A. (2018) Questionnaire Design. In: Vannette D., Krosnick J. (eds) The Palgrave Handbook of Survey Research. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-319-54395-6_53

Laerd statistics, (2013), “Independent t-test using SPSS Statistics”, One-way ANOVA in SPSS Statistics”

Lau, M. M., Cheung, R., Lam, A., and Chu, Y. T. (2013). Measuring Service Quality in the Banking Industry: A Hong Kong Based Study. *Contemporary Management Research*, 9(3). <https://doi.org/10.7903/cmr.11060>

Lengnick-Hall, M. L., & Moritz, S. (2003). The impact of e-HR on the human resource management function. *Journal of Labor Research*, 24(3), 365-379.

Lepak, D.P. and Snell, S.A. (1998) mVirtual HR: Strategic human resource management in the 21st century, *Human Resource Management Review*, Volume 8, Issue 3, Pages 215-234, ISSN 1053-4822, [https://doi.org/10.1016/S1053-4822\(98\)90003-1](https://doi.org/10.1016/S1053-4822(98)90003-1).

Lian J.W., Yen D.C. and Wang Y.T. (2014) An exploratory study to understand the critical factors affecting the decision to adopt cloud computing in Taiwan hospital. *International Journal of Information Management*. 34(1):28–36.

Lo, J. (2018) Human Cognition Meets Machine Precision- The HR Service Providers Directory (HRSP)

Ma, L. and Ye, M. (2015) The Role of Electronic Human Resource Management in Contemporary Human Resource Management. Open Journal of Social Sciences, 3, 71-78. doi: 10.4236/jss.2015.34009

M, Maatman (2006) Measuring the effectiveness of e-HRM; The development of an analytical framework for the measurement of e-HRM and its application within a Dutch Ministry

Macky, K. (2008). Managing Human Resources: Contemporary Perspectives in New Zealand. Sydney: McGraw Hill.

Mansour, Yahya (2014).” The Reality of MBA Program Theses Utility between Theory & Practice in Organizational Development” master thesis.

Madhurima, B. (2019) Implementing E-HRM in Cross-Country Environment: The Key to Organizational Growth, SSRN Electronic Journal, 10.2139/ssrn.3309284, (2019).

Mahfod, J., Khalifa, N.Y. and Faisal AI, M. (2017). Electronic Human Resource Management (E-HRM) System Volume 14 • Number 15 (Part 4) • 2017. International Journal of Economic Research. 14.

Malhotra, N. and Mukherjee, A. (2004), "The relative influence of organisational commitment and job satisfaction on service quality of customer-contact employees in banking call centres", Journal of Services Marketing, Vol. 18 No. 3, pp. 162-174. <https://doi.org/10.1108/08876040410536477>

Marchington, M., and Wilkinson, A. (2008). Human resource management at work: People management and development (4th ed.). London: CIPD

Marler, J.H. (2009) Making human resources strategic by going to the Net: reality or myth? The International Journal of Human Resource Management, 20:3, 515-527, DOI: 10.1080/09585190802707276

Martin, G., and Reddington, M. (2010). Theorizing the links between e-HR and strategic HRM: A model, case illustration, and reflections. *The International Journal of Human Resource Management*, 21, 1553–1574.

Masum, A.K.M., Azad, M.A.K. and Beh, L.S.(2015). The role of human resource management practices in bank performance. *Total Quality Manage. Bus. Excell.* DOI: 10.1080/14783363.2014.1002762

Masum, M. and Kadar, A. (2015). Adoption Factors of Electronic Human Resource Management (e-HRM) in the Banking Industry of Bangladesh. *Journal of Social Sciences*. 11. 1-6. 10.3844/jssp.2015.1.6.

Mirzayev, E. (2020) Investopedia: How Corruption Affects Emerging Economies, April 10 <https://www.investopedia.com/articles/investing/012215/how-corruption-affects-emerging-economies.asp>

Morgan, K.E., Cook, S., Leon, D.A. and Frost, C. (2019) Reflection on modern methods: calculating a sample size for a repeatability sub-study to correct for measurement error in a single continuous exposure. *Int J Epidemiol*, 48(5):1721-1726, 01 Oct 2019

Mosca, M. (2020) Digitalization of HRM : a study of success factors and consequences in the last decade.

Mousa, S. K, and Othman, M. (2020). The impact of green human resource management practices on sustainable performance in healthcare organisations: A conceptual framework. *Journal of cleaner production*, 243, . doi: 10.1016/j.jclepro.2019.118595

Muhammad, K. (2018), The Effects of Electronic Human Resource Management on Financial Institutes, *J. Hum. Ins.* 2018; 2(1): 01-05, DOI: 10.22034/jhi.2018.61036

Oliveira, T., and Martins, M. F. (2010). Understanding e-business adoption across industries in European countries. *Industrial Management & Data Systems*, 110(9), 1337-1354. <http://dx.doi.org/10.1108/02635571011087428>

Oswal, N. and Narayanappa, G.L. (2015). Evolution of HRM to E-HRM to Achieve Organizational Effectiveness and Sustainability. *International Journal of Business Administration and Management Research*. 1. 22. 10.24178/ijbamr.2015.1.2.22.

Parry, E. (2011), "An examination of e-HRM as a means to increase the value of the HR functions", *International journal of human Resource Management*, Vol. 22, Iss. 5, 2011, pp. 1146- 1162

Pilbeam, S and Corbridge, M (2002) *People resourcing: HRM in practice*, 2nd and Financial Times/ Prentice Hall.

Purvis, R. L., Sambamurthy, V. and Zmud, R. W. (2001) 'The Assimilation of Knowledge Platforms in Organizations: An Empirical Investigation', *Organization Science*, 12(2), pp. 117–135. DOI: 10.1287/orsc.12.2.117.10115.

Rahman, A., Ilias, A. and Zulkeflee, M. (2015). *The Quality of Non-Financial Information on Internet Business Reporting for Malaysian Public Listed Companies (PLCs) NDMRP 2015* NDMRP-2015, Vol. 2, 174-186 ISBN: 978-969-9948-29-9 (<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

Rea, A. (2015). "What Is Corporate Structure? - Definition, Types & Examples." *Study.com*, 23 September 2015, study.com/academy/lesson/what-is-corporate-structure-definition-types-examples.html

Regulatory News (2020): HKMA on Fintech Adoption and Innovation by Banks in Hong Kong

Richter, A., Stocker, A., Müller, S., and Avram, G. (2013). Knowledge management goals revisited: A cross-sectional analysis of social software adoption in corporate environments. *VINE*, 43(2), 132-148. <http://dx.doi.org/10.1108/03055721311329927>

Robson, C. (2002). *Real World Research: A Resource for Social Scientists and Practitioner-Researchers* (2nd ed.). Oxford: Blackwell Publishers Ltd.

Rogers, E. M. t. e. (2003). *Diffusion of Innovation* (4th ed.). New York: The Free Press.

Rosencrance, L. (2019). Top 10 types of information security threats for IT teams. Retrieved August 07, 2020, from <https://searchsecurity.techtarget.com/feature/Top-10-types-of-information-security-threats-for-IT-teams>

Roztock, N. and Weistroffer, H.R. (2011) Information technology success factors and models in developing and emerging economies. *Information Technology for Development*. 17(3):163–7.

Ruël, H., Bondarouk, T. and Looise, J. K. (2004). E-HRM: innovation or irritation. An explorative empirical study in five large companies on web-based HRM. *Management Revue*, 364-380.

Ruël, H.J.M. & Bondarouk, Tanya. (2014). e-HRM Research and Practice: Facing the Challenges Ahead. 10.1007/978-3-642-39747-9_26.

Saleh, F., and Ryan, C. (1991). Analysing service quality in the hospitality industry using the Servqual model. *Service Industries Journal* , 11 (3), 324-345

Sanayei, A., and Mirzaei, A. (2008). Designing a model for evaluating the effectiveness of E-HRM (Case study: Iranian organizations). *International Journal of Information Science and Management*, 6(2), 79-98.

Saunders, M. N. K., Lewis, P. and Thornhill, A. (2009). *Research Methods for Business Students* (5th Edition). London: Pearson Education.

Schmide, J., Drews, P. and Scirmer, I. (2017) *Digitalization of the Banking Industry: A Multiple Stakeholder's Analysis on Strategic Alignment*.

Sharma, A. (2016). *International Journal Of Management And Humanities: Transformation From HRM To E-HRM*. [ebook] International Journal of Management and Humanities. Available at: <http://researchscript.com/wp-content/uploads/2016/11/IJMH030301.pdf>

Shilpa, V. and Gopal R., (2011) *The Implications of Implementing Electronic Humane Resource Management (E-HRM) Systems in Companies*, *Journal of Information Systems and Communication*, Vol. 2, Issue 1, PP. 10-29.

Skinner, C. (2014). *Digital Bank: Strategies to launch or become a digital bank*. Marshall Cavendish International Asia Pte Ltd

South China Morning Post. (2019). *Hong Kong's banks back on a hiring spree after a decade of lay-offs* <https://www.scmp.com/business/companies/article/3008148/hongkongs-banks-back-hiring-sprees-after-decade-lay-offs-they>

Stone, D.L., Stone-Romero, E.F., and Lukaszewski, K.M. (2006). Factors affecting the acceptance and effectiveness of electronic human resource systems. *Human Resource Management Review*, 16, 229-244.

Streefkerk, R. (2018) scribbr: primary and secondary sources .June 20

Strohmeier, S. (2018) *Smart HRM – a Delphi study on the application and consequences of the Internet of Things in Human Resource Management*. *The International Journal of Human Resource Management* 0:0 pages 1-30.

Strohmeier, S. (2007). 'Research in e-HRM: review and implications'. Human Resource Management Review, 17: 19– 37.

Strohmeier, S., and Kabst, R. (2009). Organizational adoption of e-HRM in Europe An empirical exploration of major adoption factors. Journal of Managerial Psychology, 24(6), 482-501.

Sumelius, J. (2009) Developing and Integrating HRM Practices in MNC Subsidiaries in China. Hanken School of Economics, Helsinki.

Sylvester, E.O., Bamidele, A.D. and Oluyemi, O.S. (2015), International Journal of Applied Information Systems (IJ AIS): Implementing E-HRM System in Developing Countries: Challenges and Prospects ISSN: 2249-0868 Foundation of Computer Science FCS, New York, USA Volume 9 – No.8, October 2015 –www.ijais.org

Tarver, E. (2020) INVESTOPEDIA-Corporate Culture

Tavakol, M. and Dennick, R. (2011), "Making sense of Cronbach's alpha", International Journal of Medical Education, 2, 53-55.

Teo, T.S., Lim, G.S. and Fredric, S.A. (2007) The adoption and diffusion of human resources information systems in Singapore. Asia Pacific Journal of Human Resources. 2007; 45(1):44– 62.

Thite, M., Kavanagh, M.J. and Johnson, R.D. (2012) Evolution of Human Resource Management and Human Resource Information Systems: The Role of Information Technology. In: Human

Thompson, Edmund R., (2002). "Clustering of Foreign Direct Investment and Enhanced Technology Transfer: Evidence from Hong Kong Garment Firms in China," World Development, Elsevier, vol. 30(5), pages 873-889, May.

Thong, J. Y. (1999). An integrated model of information systems adoption in small businesses. Journal of www.ccsenet.org/ass Asian Social Science Vol. 11, No. 21; 2015 124 management information systems, 15(4), 187-214.

Trochim, W. (2006). Research Methods Knowledge Base

Troshani, I., Jerram, C. and Rao Hill, S. (2011), "Exploring the public sector adoption of HRIS", Industrial Management & Data Systems, Vol. 111 No. 3, pp. 470-488. <https://doi.org/10.1108/02635571111118314>

Tumuhirwe O. (2011) A Research Report Submitted to Makerere University Business School in Partial Fulfilment of the Requirements for the Award of Degree of Masters in Human Resource Management of Makerere University.

Venkatesh, V., Morris, M.G., Davis, G.B., and Davis, F.D. (2003). "User Acceptance of Information Technology: Toward a Unified View." MIS Quarterly, 27(3), 425–478.

Vicari, S. (2014) Networks of Contention: The Shape of Online Transnationalism in Early Twenty-First Century Social Movement Coalitions, Social Movement Studies, 13:1, 92-109, DOI: 10.1080/14742837.2013.832621

Voermans, M. and van Veldhoven, M. (2007), "Attitude towards E-HRM: an empirical study at Philips", Personnel Review, Vol. 36 No. 6, pp. 887-902. <https://doi.org/10.1108/00483480710822418>

W. Lance Bennett and Segerberg, A. (2011) DIGITAL MEDIA AND THE PERSONALIZATION OF COLLECTIVE ACTION, Information, Communication & Society, 14:6, 770-799, DOI: 10.1080/1369118X.2011.579141

Wei, L. Q., and Lau, C. M. (2005). Market Orientation, HRM Importance, and Competency: Determinants of strategic HRM in Chinese firms. *The International Journal of Human Resource Management*, 16 (10), 1901 – 1918.

Wejnert, B. (2002) Integrating models of diffusion of innovations: A conceptual framework. *Annual review of sociology*. 297–326.

Wiblen, S., Grant, D. and Dery, K. (2010) Transitioning to a new HRIS: The reshaping of human resources and information technology talent. *J. Electronic Commerce Res.*, 11: 251-267.

Winarto, W. (2018) Electronic Human Resources Management (e-HRM) Adoption Studies: Past and Future Research DOI: 10.19166/derema.v13i1.491

Wong, J., Choi, K., and Fong, T. (2007). A framework for macro stress testing the credit risk of banks in Hong Kong.

Xue, Y., Liang, H., Boulton, W.R. and Snyder, C.A. (2005) ERP Implementation Failures in China: Case Studies with Implications for ERP Vendors. *International Journal of Production Economics*, 97, 279-295. <http://dx.doi.org/10.1016/j.ijpe.2004.07.008>

Zhang, L. and Wang, H. (2006). ‘Intelligent information processing in human resource management: an implementation case in China’. *Expert Systems*, 23: 5, 356– 369.

Zmud, R.W. (1982) Diffusion of modern software practices: influence of centralization and formalization. *Management of Science*. 1982; 28(12):1421–31.

7.0 APPENDIX

Appendix 1: QUESTIONNAIRE FORM

This survey is academic research that sought to help in giving recommendations on the adoption of e-HRM in the banking sector in Hong Kong.

Your response will only be used for survey purposes. The responses will be confidential and anonymous. In case of any question about this survey kindly contact this email winniesumyee@gmail.com

INSTITUTION: UNIVERSITY OF WALES TRINITY SAINT DAVID

Dissertation of questionnaire for Master of Business Administration

Digital Transformation in Human Resources Management:

Adoption factors of e-HRM in Hong Kong banking industry

1. What is your gender?

Male () Female ()

2. What is your highest level of education attained?

Secondary Level or below () Tertiary Level () University Level or above ()

3. What is your current position in the company?

Senior management/ Executives () Mid-level manager ()

Frontline manager () General/ Supporting staff ()

4. What is the length of service in your current company?

1 years or below () 2 -4 years () 5 years or above ()

5. Which department are you currently working at?

Human Resources () Administration () I.T. () Others ()

In your experience in the banking sector rate the following items (1-16) in the decision to adopt e-HRM.

(1 = completely disagree; 2 = strongly disagree; 3 = somewhat agree; 4 = strongly agree; 5= completely agree)

		1	2	3	4	5
ATTITUDE						
1	I believe e-HRM adoption contributes to HRM strategic effectiveness					
2	I believe that adopting e-HRM to this bank is a wise decision					
COMPLEXITY						
3	E-HRM is complex to learn					
4	E-HRM is complex to use					
COMPATIBILITY						
5	The existing activities would still run effectively with the introduction of e-HRM					
6	E-HRM application is compatible with our organization's IT infrastructure					
IT INFRASTRUCTURE						
7	All the human resource personnel know-how IT can be used to support HR functions					
8	The human person in our bank are computer literate					
9	Human resource personnel's understanding of IT is good compared with other organizations					
TOP MANAGEMENT SUPPORT						
10	Top management actively encourages human resource personnel to use e-HRM in their daily tasks					
11	Top management supports the adoption of e-HRM					

CORPORATE CULTURE						
12	Adoption of e-HRM application is consistent with our organization's value and culture beliefs					
13	Our organization is adopting a new culture to accommodate E-HRM					
INDUSTRIAL PRESSURE						
14	It is a strategic necessity to use e-HRM application to compete in the banking industry					
15	Competition places pressure in our bank to adopt e-HRM					
16	The overall operational practices in the banking sector pressure our bank to adopt e-HRM					

In your experience in the banking sector, rate the following items (17-20) in order of their contribution to the decision to adopt e-HRM

		1	2	3	4	5
DECESION TO ADOPT E-HRM						
17	Increasing investment on e-HRM reflects its adoption in the Hong Kong banks					
18	Speeding up the e-HRM adoption process results into e-HRM adoption in Hong Kong banks					
19	Adding more modules into the existing manual HRM reflects e-HRM adoption in Hong Kong banks					

20. On a scale of 1-10 (1 = Not recommended; 10 = Highly recommended), how likely are you to recommend others to adopt e-HRM? **(Tick below your preferred number)**

1	2	3	4	5	6	7	8	9	10

Appendix 2: TUKEY POST HOC TEST

Multiple Comparisons							
Tukey HSD							
Dependent Variable	(I) What is your current position in the company?	(J) What is your current position in the company?	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
A1	Senior management/ Executives	Mid-level manager	-0.45676	0.29658	0.416	-1.2252	0.3117
		Frontline manager	-0.66775	0.34588	0.219	-1.564	0.2285
		General/ Supporting staff	0.07025	0.37393	0.998	-0.8987	1.0392
	Mid-level manager	Senior management/ Executives	0.45676	0.29658	0.416	-0.3117	1.2252
		Frontline manager	-0.21099	0.30581	0.901	-1.0034	0.5814
		General/ Supporting staff	0.52701	0.33722	0.402	-0.3468	1.4008
	Frontline manager	Senior management/ Executives	0.66775	0.34588	0.219	-0.2285	1.564
		Mid-level manager	0.21099	0.30581	0.901	-0.5814	1.0034
		General/ Supporting staff	0.738	0.3813	0.217	-0.25	1.726
	General/ Supporting staff	Senior management/ Executives	-0.07025	0.37393	0.998	-1.0392	0.8987
		Mid-level manager	-0.52701	0.33722	0.402	-1.4008	0.3468
		Frontline manager	-0.738	0.3813	0.217	-1.726	0.25
CA	Senior management/ Executives	Mid-level manager	0.2083	0.30393	0.903	-0.5793	0.9959
		Frontline manager	-0.36531	0.35446	0.732	-1.2838	0.5532
		General/ Supporting staff	-0.36846	0.38321	0.771	-1.3614	0.6245
	Mid-level manager	Senior management/ Executives	-0.2083	0.30393	0.903	-0.9959	0.5793
		Frontline manager	-0.57361	0.3134	0.262	-1.3857	0.2385
		General/ Supporting staff	-0.57676	0.34558	0.343	-1.4722	0.3187
	Frontline manager	Senior management/ Executives	0.36531	0.35446	0.732	-0.5532	1.2838
		Mid-level manager	0.57361	0.3134	0.262	-0.2385	1.3857
		General/ Supporting staff	-0.00315	0.39076	0.048	-1.0157	1.0094
	General/ Supporting staff	Senior management/ Executives	0.36846	0.38321	0.771	-0.6245	1.3614
		Mid-level manager	0.57676	0.34558	0.343	-0.3187	1.4722
		Frontline manager	0.00315	0.39076	0.048	-1.0094	1.0157

CA2	Senior management/ Executives	Mid-level manager	-0.07631	0.26668	0.992	-0.7673	0.6147
		Frontline manager	-0.37398	0.31102	0.626	-1.1799	0.4319
		General/ Supporting staff	-0.50538	0.33625	0.438	-1.3767	0.3659
	Mid-level manager	Senior management/ Executives	0.07631	0.26668	0.992	-0.6147	0.7673
		Frontline manager	-0.29768	0.27499	0.701	-1.0102	0.4149
		General/ Supporting staff	-0.42907	0.30323	0.491	-1.2148	0.3567
	Frontline manager	Senior management/ Executives	0.37398	0.31102	0.626	-0.4319	1.1799
		Mid-level manager	0.29768	0.27499	0.701	-0.4149	1.0102
		General/ Supporting staff	-0.13139	0.34287	0.981	-1.0198	0.7571
	General/ Supporting staff	Senior management/ Executives	0.50538	0.33625	0.438	-0.3659	1.3767
		Mid-level manager	0.42907	0.30323	0.491	-0.3567	1.2148
		Frontline manager	0.13139	0.34287	0.981	-0.7571	1.0198
TM	Senior management/ Executives	Mid-level manager	0.20054	0.29513	0.905	-0.5642	0.9653
		Frontline manager	0.13442	0.3442	0.98	-0.7575	1.0263
		General/ Supporting staff	-0.02294	0.37211	0.035	-0.9872	0.9413
	Mid-level manager	Senior management/ Executives	-0.20054	0.29513	0.905	-0.9653	0.5642
		Frontline manager	-0.06612	0.30432	0.996	-0.8547	0.7224
		General/ Supporting staff	-0.22347	0.33557	0.91	-1.093	0.6461
	Frontline manager	Senior management/ Executives	-0.13442	0.3442	0.98	-1.0263	0.7575
		Mid-level manager	0.06612	0.30432	0.996	-0.7224	0.8547
		General/ Supporting staff	-0.15736	0.37945	0.976	-1.1406	0.8259
	General/ Supporting staff	Senior management/ Executives	0.02294	0.37211	0.035	-0.9413	0.9872
		Mid-level manager	0.22347	0.33557	0.91	-0.6461	1.093
		Frontline manager	0.15736	0.37945	0.976	-0.8259	1.1406

CC	Senior management/ Executives	Mid-level manager	-0.33949	0.24491	0.51	-0.9741	0.2951
		Frontline manager	-0.07913	0.28563	0.993	-0.8192	0.661
		General/ Supporting staff	-0.36631	0.30879	0.636	-1.1665	0.4338
	Mid-level manager	Senior management/ Executives	0.33949	0.24491	0.51	-0.2951	0.9741
		Frontline manager	0.26036	0.25254	0.731	-0.394	0.9147
		General/ Supporting staff	-0.02682	0.27847	0.038	-0.7484	0.6948
	Frontline manager	Senior management/ Executives	0.07913	0.28563	0.993	-0.661	0.8192
		Mid-level manager	-0.26036	0.25254	0.731	-0.9147	0.394
		General/ Supporting staff	-0.28718	0.31488	0.798	-1.1031	0.5287
	General/ Supporting staff	Senior management/ Executives	0.36631	0.30879	0.636	-0.4338	1.1665
		Mid-level manager	0.02682	0.27847	0.038	-0.6948	0.7484
		Frontline manager	0.28718	0.31488	0.798	-0.5287	1.1031
IT	Senior management/ Executives	Mid-level manager	-0.23722	0.33963	0.898	-1.1173	0.6428
		Frontline manager	-0.31274	0.3961	0.859	-1.3391	0.7136
		General/ Supporting staff	-0.23799	0.42822	0.945	-1.3476	0.8716
	Mid-level manager	Senior management/ Executives	0.23722	0.33963	0.898	-0.6428	1.1173
		Frontline manager	-0.07552	0.35021	0.046	-0.983	0.8319
		General/ Supporting staff	-0.00078	0.38617	1	-1.0014	0.9999
	Frontline manager	Senior management/ Executives	0.31274	0.3961	0.859	-0.7136	1.3391
		Mid-level manager	0.07552	0.35021	0.046	-0.8319	0.983
		General/ Supporting staff	0.07474	0.43666	0.998	-1.0567	1.2062
	General/ Supporting staff	Senior management/ Executives	0.23799	0.42822	0.945	-0.8716	1.3476
		Mid-level manager	0.00078	0.38617	1	-0.9999	1.0014
		Frontline manager	-0.07474	0.43666	0.998	-1.2062	1.0567
IP	Senior management/ Executives	Mid-level manager	-0.24337	0.37965	0.919	-1.2271	0.7404
		Frontline manager	-0.27805	0.44277	0.923	-1.4254	0.8693
		General/ Supporting staff	0.43871	0.47868	0.796	-0.8017	1.6791
	Mid-level manager	Senior management/ Executives	0.24337	0.37965	0.919	-0.7404	1.2271
		Frontline manager	-0.03468	0.39148	0.058	-1.0491	0.9797
		General/ Supporting staff	0.68208	0.43168	0.392	-0.4365	1.8006
	Frontline manager	Senior management/ Executives	0.27805	0.44277	0.923	-0.8693	1.4254
		Mid-level manager	0.03468	0.39148	0.058	-0.9797	1.0491
		General/ Supporting staff	0.71676	0.48811	0.459	-0.548	1.9816
	General/ Supporting staff	Senior management/ Executives	-0.43871	0.47868	0.796	-1.6791	0.8017
		Mid-level manager	-0.68208	0.43168	0.392	-1.8006	0.4365
		Frontline manager	-0.71676	0.48811	0.459	-1.9816	0.548