

**T.C.  
ANTALYA BILIM UNIVERSITY  
INSTITUTE OF POSTGRADUATE EDUCATION**

**MASTER OF BUSINESS ADMINISTRATION (THESIS PROGRAM)**

**KNOWLEDGE – BASED HUMAN RESOURCE MANAGEMENT,  
PERCEIVED INFORMATION TRANSPARENCY AND BANK  
INNOVATIVE PERFORMANCE**

**DISSERTATION**

**PREPARED BY**

**ABRAHAM NII ODARTEY LAMPTEY**

**ANTALYA - 2021**

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Abraham Nii Odartey Lamptey, a master student of Antalya Bilim University, Institute of Post Graduate Education, Masters in Business Administration with student ID 2011105, successfully defended the thesis titled “Knowledge-Based Human Resource Management, Perceived Information Transparency and Bank Innovative Performance” which he prepared after fulfilling the requirements specified in the associated legislation, before the jury whose signatures are below.

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Date of Submission .....

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.... / .... / 2021

Abraham Nii Odartey Lamptey

Signature:

## **ACADEMIC DECLARATION**

I hereby declare that I have written this master's thesis titled "Knowledge- Based Human Resource Management, Perceived Information Transparency and Bank Innovative Performance" according to the academic rules and ethical conduct of Antalya Bilim University.

I also declare that, all the materials used in this thesis consist of the mentioned resources in the reference list. I verify all these with my honor.

20/01/2021

Abraham Nii Odartey Lamptey

## ÖZET

Yıllar içinde insan kaynakları yönetimi ve şirket performans literatürünün ortaya çıkışı araştırma makalelerinin en derin konuları arasında yer aldı. Bu çalışma, bilgi temelli insan kaynakları yönetimini (KBHRM) ikinci dereceden bir yapı olarak ele almakta ve KBHRM'nin algılanan bilgi şeffaflığı (PIT) ve banka yenilikçi performansı (BIP) üzerindeki etkilerini incelemektedir. Bu amaçla, çevrimiçi bir anket oluşturulmuş ve Gana'daki 18 bankanın 191 küçük çalışanından veri toplanmıştır. Toplanan veriler SmartPLS programı ile analiz edildi. Çalışmanın sonuçları, KBHRM'nin bilgi şeffaflığı ile pozitif ilişkili olduğunu ve hizmet firmalarının yenilikçi performansı üzerinde güçlü bir etkiye sahip olduğunu göstermektedir. Ayrıca bu çalışma, PIT'nin KBHRM ile BIP arasındaki ilişkiye aracılık ettiğini ve hizmet şirketlerinin yenilikçi performansı üzerinde önemli bir etkiye sahip olduğunu bildirmektedir. Çalışma, KBHRM ve PIT'nin bankaların yenilikçi performansını artırmadaki rolüne dair ampirik kanıtlar sunmaktadır.

**Anahtar Kelimeler:** Algılanan bilgi şeffaflığı, banka yenilikçi performansı, bilgiye dayalı insan kaynakları yönetimi, bilgiye dayalı teori, Gana

## ABSTRACT

The emergence of human resource management and firm performance literatures over the years have been among the most profound subject of research papers. This study considers Knowledge-based human resource management (KBHRM) as second order construct and examines its effects on perceived information transparency (PIT) and bank innovative performance (BIP). For this purpose, an online questionnaire was created and data was collected from 191 junior bank employees from 18 banks across Ghana. The data collected was analyzed with SmartPLS software program. The study results suggests that, KBHRM is positively related to information transparency and has a strong impact on the innovative performance of service firms. Furthermore, the study reports that, PIT mediates the relationship between KBHRM and BIP and has a significant impact on the innovative performance of the service firm. This study provides empirical evidence of the role of KBHRM and PIT in enhancing bank innovative performance.

**Keywords:** knowledge- based theory, knowledge-based human resource management, perceived information transparency, bank innovative performance, Ghana.

# INDEX

<b>ÖZET</b> .....	<b>i</b>
<b>ABSTRACT</b> .....	<b>ii</b>
<b>INDEX</b> .....	<b>iii</b>
<b>LIST OF TABLES</b> .....	<b>v</b>
<b>LIST OF FIGURES</b> .....	<b>vi</b>
<b>LIST OF ABBREVIATIONS</b> .....	<b>vii1.0</b>
<b>INTRODUCTION</b> .....	
11.1Context (Ghana Banking Sector).....	41.2
Problem statement.....	5
1.3 Aims and Objectives of study.....	7
1.4 Structure of the study.....	8
<b>2.0LITERATURE REVIEW</b> .....	
92.1Knowledge- based view (KBV).....	9
2.2Knowledge –based HRM (KBHRM).....	11
2.2.1 <i>Knowledge- based recruitment and selection</i> .....	12
2.2.2 Knowledge- based training and development.....	13
2.2.3 <i>Knowledge- based performance assessment</i> .....	14
2.2.4 <i>Knowledge – based compensation</i> .....	14
2.3 Perceived Information Transparency(PIT).....	15
2.4 Bank Innovative Performance(BIP).....	16
2.5 Research Hypothesis.....	18
2.5.1 <i>KBHRM AND PIT</i> .....	18
2.5.2 <i>KBHRM AND BIP</i> .....	19
2.5.3 <i>PIT AND BIP</i> .....	20
2.5.4 <i>PIT mediates the link between KBHRM and BIP</i> .....	21
<b>3.0 METHODOLOGY</b> .....	<b>24</b>
3.1 Sampling and Data Collection .....	24
3.2 Questionnaire structure and measurement.....	25
3.3 Analytical approach .....	25
3.4 Demographic data.....	27

**4.0 DATA ANALYSIS AND RESULTS ..... 29**  
4.1 Measurement model (reliability and validity).....29  
4.2 Structural model.....33  
**5.0 CHAPTER 5 ..... 37**  
5.1 Discussion.....37  
5.2 Theoretical and Practical Implications .....39  
5.3 Limitation and future research direction .....40  
References .....42  
Appendix.....49  
Appendix A.....49

**LIST OF TABLES**

Table 1: Demographic data 1 ..... 28

Table 2: Demographic data 2 ..... 28

Table 3: Demographic data 3 ..... 28

Table 4: Measurement model assessment .....31

Table 5: Discriminant validity.....32

Table 6:Collinearity and amount of variance explained (VIF and R<sup>2</sup>) .....35

Table 7: Structural estimates (hypothesis testing).....36

**LIST OF FIGURES**

Figure 1: Conceptual research model .....23

Figure 2: Structural research model.....34

## **LIST OF ABBREVIATIONS**

<b>BIP</b>	: Bank Innovative Performance
<b>HRM</b>	: Human Resource Management (hrm)
<b>KBHRM</b>	: Knowledge – Based Human Resource Management
<b>KBV</b>	: Knowledge – Based View
<b>PIT</b>	: Perceived Information Transparency
<b>RBV</b>	: Resource Based View

# CHAPTER 1

## 1.0 INTRODUCTION

This chapter provides an insight of the research philosophy, aims and objectives of the study, the context of the study as well as the overall contribution to the banking industry and other service delivery organizations. In addition, the chapter also presents a brief information of the chapters.

In recent years, the banking industry has become a major sector of the economy of many countries, thus in order to survive, improve growth and have competitive advantage, there is a need for a high innovative performance of these institutions. Rose (1999) defines a bank as “any financial institution, which offer different services, including the provision of credits, deposits and payment systems and employs an extensive range of financial intermediation functions in any business economy”. Solans (2003) noted that, innovation in the banking service is the act of creating and operationalizing, new financial instruments, technologies and institutions, which improves information access, trading and means of payment. Innovations in the banking industry is the introduction of new or improved products or processes, which reduces the operational cost of rendering existing financial services (Nofie, 2011).

Innovation in many institutions is a result of human intelligent ideas and development. This means, innovation hinges on effective human resource management (HRM) practices and knowledge, hence, innovation is born out of new knowledge creation and development. In their study, Kianto, Sáenz and Aramburu(2017) argued that, HRM and knowledge are important contributors to the innovative performance of many organizations. In relation to that, innovative performance of a firm is positively linked to the firm’s innovative capabilities, as many studies has shown. Innovative capability of a firm enhances its innovative processes, which in extension increases the organizational innovative performance (Aryanto et al., 2015; Ahkisar et al., 2015; Skarzynski and Gibson 2008).

Fontana (2011), Wang and Lin (2012) described innovative performance as the success, firms achieve in reaching their set innovation targets. In the banking industry, innovative performance

is measured, by assessing the significant impact of innovation on the bank's overall performance. These includes; the effectiveness of research and development investments, the success of new products development in the organization and the readiness of the organization to meet changing innovation trends and demands from the external banking environments (Birchall et al., 2011). Therefore, high-level innovative performance in service firms is a key indicator for organizational financial profitability. Innovations in the banking industry cuts across breakthroughs in branch networking, telephone banking, automated teller machine (ATM), internet banking, mobile banking, cash smart cards etc.

The trend towards enhanced information transparency is only one of the key changes in modern institutions. Information transparency in organizations is realized when information about operations, decisions, outcome and performance of the organization are disclosed in forms that the employees can easily find and use. Higher levels of information transparency in a firm is essential in improving decision-making and employee job satisfaction. High levels of transparency based on the sharing of data and information resulting from the establishment of information systems, positively influences the usefulness and ease of use of information systems, which has a high tendency to improve innovative processes in an organization (Al-Jabri & Roztocki, 2015).

In today's world, the adoption of Information Technology (IT) in several financial institutions has enhanced customer service delivery and provided flexible banking services such that, individuals now conduct banking activities even at the comfort of their homes. The introduction of IT in the banking industry require a high level of information transparency to ensure effective and efficient banking services delivery. The importance of innovative performance initiatives to most organizations is without question. In light of this, the type of knowledge, skills and abilities employees possess are important resources for developing existing products and services or creating new ones (innovations), which is essential in achieving competitive advantage in firms (Donnellon, 1996; Jackson, 1992; Nonaka & Takeuchi, 1995).

Although, extant literature has identified a significant link between HRM and firm innovation (e.g., Gil Marqués & Moreno-Luzón, 2013), the knowledge-aspect of HRM as an important determinant for innovative performance remains under developed (Kianto, Sáenz, & Aramburu,

2017). The resource – based view (RBV) of a firm attempts to explain why some firms perform better than others do. It stipulates that, firms with unique organizational resources have a high tendency for the creation and development of new ideas (innovation) which in extension enables them to achieve sustainable competitive advantage (Alegre, Sengupta, & Lapiedra, 2013; García-Álvarez, 2015; Ode & Ayavoo, 2019). These resources includes the knowledge management systems, information systems and human capital and they play a significant role in increasing organizational innovative performance.

The recent interest in knowledge management studies has influenced researchers to seek, examine and understand how knowledge management practices can enhance innovative processes of firms (Johannessen, 2008; Lai & Lin, 2012). Studies conducted by Donate and Pablo (2015) , Costa and Monteiro (2016) give evidence that, the application of knowledge in new products and marketing strategies in an organization can enhance the competitive advantage of such service firms. In recent studies, the knowledge- based view (KBV) of a firm which is an extension of the RBV, also adds to the argument that, knowledge is the most important strategic resource a firm can possess (De Carolis, 2002). Knowledge resources are vital in innovation creation and performance of firms (Ode & Ayavoo, 2019).

Existing research have empirically tested (knowledge management and innovation) and (human resource management and innovation). However, few studies have attempted to provide empirical evidence linking knowledge – based human resource management practices with information transparency and its effect on the innovative performance of firms particularly from a developing country perspective. Concentrating on the link between knowledge- based HRM, perceived information transparency and innovative performance, this paper aims to fill the research gap. To gain understanding to the study, a conceptual framework that suggests essential knowledge-based HRM practices (Kianto, Sáenz, & Aramburu, 2017) and examines the other related variables is used.

There is an argument that, innovation in firms is highly enhanced by knowledge-based HRM practices (Kianto and Vanhala, 2015; López-Cabrales et al. 2009). This includes the focus on knowledge in the recruitment processes, training and development processes, employee

compensation processes and performance assessment processes in an organization (Kianto, Sáenz, & Aramburu, 2017). Against this backdrop, the present study seeks to analyze the various variables in the West African country of Ghana. This study adds up to HRM literature by testing the relationship between knowledge-based HRM practices, perceived information transparency and innovative performance with a focus on the banking industry in the developing country of Ghana.

### **1.1 Context ( Ghana Banking Sector)**

The Republic of Ghana has one of the fastest growing economies in Africa. The Bank of Ghana, which is the country's central monetary authority, regulates financial institutions and banks in Ghana and oversees the monetary policies of the country (Garr, 2013). According to PwC (2019), Ghana had twenty-eight (28) universal banks consisting of commercial, development, merchant and investment banks prior to 2019. Out of these banks, the State owned three (3) banks namely; the Ghana Commercial Bank, Agricultural Development Bank and National Investment Bank with individuals and international investors owning the remaining banks. Currently, Ghana's banking industry consists of 33 banks with over 1352 branches across the country and a large number of non-bank financial institutions usually comprising of micro-finance and co-operative unions (PwC, 2019).

The banks in Ghana have undergone a tremendous change over the last decade. In 2018, several reforms were made in the banking sector. This included; the full implementation of the minimum capital requirement for banks to operate, new capital requirement directive and the revocation of banking licenses of several banks (PwC, 2019). The role of financial services is key in the economic development of every country. Claessens and Feijen (2007) explained that, through banking systems, the financial sector attracts bigger investments and productive allocation of funds, leading to higher income growth. Therefore, we can argue that there is a link between the banking industry and economic growth in every country, although the impact of the banking industry on economic growth may vary from country to country based on their economic environments and banking policies (Al-Khulaifi and Al-Sulaiti, 2005).

In the Global Competitiveness Index (GCI) report of 2019, Ghana ranked 111<sup>th</sup> overall of the 141 countries, scoring 51.2 out of a maximum of 100. The report stipulated a (-5) decrease in the total rank of Ghana as it was ranked 106<sup>th</sup> among the 141 countries in 2018. However, this ranking still places Ghana among the bottom 50 in terms of competitiveness in the world. Yildirim and Philippatos (2007) argued that, countries with a good level of competitiveness attracts high degree of foreign investment. Ghana enjoys a stable democracy, high political stability and coupled with its economic performance and competitiveness, Ghana is strategically positioned as an investment destination for most foreign investors within the sub Saharan African region. This shows that Ghana as a nation has a growing economic potential hence the growth in the banking sector will enhance the country's economic situation.

## **1.2 Problem Statement**

The Ghanaian banking industry in recent years has survived many drawbacks and serious economic reforms. According to PwC (2019), the banking reforms dates back to 2017, when Bank of Ghana (BoG) operationalized a constructive reform program, which aimed at cleaning up the banking sector and consolidating the regulatory and supervisory framework for a more flexible banking industry. After the cleanup exercise, several banks folded up and several financial institutions had their license revoked. There was a total overhaul in the financial sector leading to the close down of many financial institutions. This affected the economy as more people lost their jobs and the affected financial institutions had less funds to pay back customers who had financial contracts with them. Though this affected the economy, it also brought some amount of positive improvement in the financial service delivery.

The significant changes made in 2018 in the banking sector had several implications in the industry. First, the full implementation of the minimum capital requirement for banks to operate led to the influx of several foreign banks into the industry. This led to high level of competition among the banks and a positive impact on the level of efficiency and an improvement in the service delivery across the various bank branches in the country. The competition in the banking industry led to a significant improvement in the technological innovations with the introduction of automated teller machines (ATMs), electronic banking, telephone banking, SMS banking etc.

Banking services in Ghana improved by the introduction of these technological innovations (Bawumia, 2010).

According to Joshua (2010), technology has transformed the way financial institutions provide services in Ghana. Banks in Ghana today serve their customers more conveniently and there has been an increase in profits and competitiveness with the notable innovative introduction of ATM. In support of existing literature, financial services have greatly improved due to technological advancements. Studies have shown that in partnership with hardware, software and telecommunication companies, banks are adopting new ways for customers to access banking services easily and smoothly without necessarily having to visit financial institutions in person (Weeny & Morrison, 2004; Tweneboah-Koduah & Farley, 2016).

Consequently, there is a need for the banks in Ghana to have a comprehensive approach to strong human resource management practices, a good organizational strategy that includes the development and training of bank employees, information transparency, implementation and evaluation of the effect of innovative products, aimed at maintaining existing customers and attracting new ones. These innovative ideas should strengthen organizational overall capabilities, financial performance and sustainable development of the banking industry. Innovation comes with its various challenges to regulators and the banks themselves. Therefore, there is a need for a comprehensive strategy to handle such expected problems (Nigel, Penalver & Nicholas, 2008).

Although De Young, Lang and Nolle (2007) analyzed aspects of the innovative performance relationship, their study did not take into account the antecedents of innovation, inside (firm practices and systems) and outside the banking organization (customers, government and external stakeholders) which may have a high impact on the innovative performance of banks. The introduction of these technological advancement together with the increased competition among banks in Ghana require a strong knowledge based human resource management practices to enhance employee knowledge, capability, efficiency and effectiveness as extant literature has shown (eg. Kianto, Sáenz, & Aramburu, 2017; Kianto & Vanhala 2015, López-Cabrales et al. 2009; Minbaeva, 2013).

To manage effectively and efficiently these technological advancements, customer demands and to increase competitive advantage, the present study argues that banks should pay a critical attention to the knowledge management processes in executing their human resource management functions in order to increase organizational innovative performance. Several banks in Ghana have good human resource management practices, however knowledge-based HRM remains a new term for many financial institutions in the country. Therefore, there is a need for a reinforced and reinvigorated human resources practices focused on knowledge creation, knowledge management and knowledge development in the banking industry.

Furthermore, in order to ensure survival, continuity, improved service provision and a comprehensive framework towards the increase in the overall financial profitability, it is essential for the banks to promote and maintain a sustained innovative performance. In Ghana, there has been a significant development in the banking industry in terms of the introduction of information systems, and innovative processes. However, it is evident that there is little or no emphasis on the knowledge based aspect of human resource management practices in the various service firms. Thus the present study seeks to investigate the impact knowledge- based HRM, and information transparency as an antecedent to the innovative performance in the banking industry thereby providing a blue print for banks in re-strategizing their human resource management practices to enhance their innovative performance.

### **1.3 Aims and Objectives of the Study**

The general objective of the study is to access the effect of knowledge-based human resource management, perceived information transparency on bank innovative performance.

The specific objectives of this study is to;

1. To determine the effect of knowledge-based human resource management on perceived information transparency.
2. To establish the impact of knowledge- based HRM on bank innovative performance.
3. To determine the effect of perceived information transparency on bank innovative performance.

4. To assess the mediating role of perceived information transparency between knowledge-based HRM and banking innovative performance.

#### **1.4 Structure of the study**

This study consists of five (5) chapters. The first chapter is the introduction, which attempts to explain the general idea of the study and the conception of the research topic. The second chapter is the literature review, explains the research topic “Knowledge-Based Human Resource Management, Perceived Information Transparency and Bank Innovative Performance” as well as existing research findings touching on aspects of the antecedents. The second chapter also demonstrates the research model and provides the theoretical basis for the development of the research hypothesis used in this study. The third chapter seeks to clarify the methodology used in this study, the procedure, sampling method, the sample size, data collection procedure, questionnaire structures, measures, data analysis and the demographic profiles of bank employees used in the study. The fourth chapter show results of the demographic data and breakdown of the sample, the measurement model used in the study, the reliability and validity of the various variables as well as the direct and indirect effects of the various variables used in the study. Chapter five, which is the last chapter, presents the discussion of the findings, summary of the findings and the theoretical and practical implications supported by these findings. In addition, the chapter also provides the limitation of the study and future research directions.

## CHAPTER 2

### LITERATURE REVIEW

This chapter reviews literature on knowledge based human resource management, perceived information transparency and banking innovation performance. It highlights the key theories underlying knowledge-based HRM, create a conceptual framework and explain the research gaps on knowledge-based HRM, perceived information transparency and banking innovative performance.

#### **2.1 Knowledge- based view (KBV)**

In recent years, researchers have tried to establish the link between the resource-based view (RVB) of a firm and the knowledge-based view (KBV). Most researchers argue that KBV is an extension of RBV (Grant, 1996; Roos, 1998). The resource- based view posits that, the possession of peculiar resources by a firm enables the firm to perform better than others and in extension enables them to have competitive advantage. Barney (2001) grouped firm resources into three (3) categories. Namely; physical capital resources, human capital resources and organizational capital resources. These resources includes the workforce, flow of information and transparency as well as organizational technologies and innovative capabilities. It is important to note that, these resources can only be beneficial to the firm if they are harnessed properly. It also depends on how the firms apply knowledge to these resources (Curado, 2016).

Based on that, the knowledge that people in the organization retain and use, and the services obtained from the resources in creating innovation and competitive advantage have a close relationship. In light of this, the KBV of a firm conceives knowledge as the most important resource of a firm. According this theory, knowledge is the most important strategic resource a firm can have since it has a high tendency to increase organizational competitive advantage (De Carolis, 2002). The interpretation of knowledge as a resource establishes the argument that, it is an extension of the RBV. Wilkund and Shepherd (2003) noted that, knowledge resources are very crucial in sustaining competitive advantage as imitating them is challenging and can be a key determinant for performance variations among firms therefore it is evident that knowledge resources are essential to the innovative process of firms.

Prior researchers argued that a firm's ability to obtain new products and performance related benefits are contingent on the knowledge of its human resources (Foss, 2007; Laursen, 2002). This implies that an organization's human resources is made up of its employees and their personal attributes, which comprises of their knowledge, commitment, experience and motivation. Existing studies have shown that, organizations with high employee commitment and employee motivations have a high employee job satisfaction and engagement, which in extension affects organizational innovative performance (Bontis, 1998; Edvinsson & Malone, 1997; Al-Jabri & Roztock, 2015). When a firm possess high knowledge driven human resources management practices, the tendency of the firm to increase its innovation capacities increases thereby resulting in a high innovative performance of the firm.

According to Subramaniam and Youndt (2005), for new knowledge creation and development, there must be some level of existing knowledge. They argued that, the most important portion of skills and knowledge required for innovation in a firm lies within the individual employees. De Winnie and Sels (2010) asserted that knowledge, skills and expertise are crucial factors in predicting the innovative performance of firms. They added that, employees with expert knowledge and creative tendencies easily develop innovative ideas, which can be propelled into innovative breakthroughs in service organizations. The KBV of a firm argues the importance of knowledge in the creation and production of innovative ideas in a firm. Hence, knowledge-based capabilities are strategically crucial capabilities for firm's innovation and competitive advantage (De Nisi et al., 2003).

In addition to knowledge capabilities and processes playing a crucial role in firm's innovative performance, Boateng and Agyemang (2015) highlighted that, knowledge application processes within the organization provides an avenue for the use of knowledge in ways that improve operational efficiency and development of new products and knowledge resources. The application of knowledge in all levels of an organization enhances the effective and efficient use of information systems, technological resources and capital resources that are crucial to organizational innovative performance. The issues concerning KBV goes beyond the traditional concerns of strategic choice, management and competitive advantage. It addresses other

important aspects of the firm including the nature of coordination within the firm, the structure of the organization, management role and the distribution of rights to make decisions as well as the innovation perspectives of the firm (Grant, 1996).

The present study relies on the KBV to access the knowledge aspects of human resource practices within the organization as key contributors to innovative performance in service delivery organizations. In short, the KBV conceive knowledge as a crucial determinant for firm innovative performance, competitive advantage and sustainability hence it is adopted as the theoretical framework for the present study.

## **2.2 Knowledge –based HRM (KBHRM)**

The study of human resource management (HRM) practices and innovation in the last decade has seen significant improvement. Many researchers have gone from the traditional notion of HRM to specific aspects of HRM. These aspects includes strategic human resource management (Zehir et al., 2016; Chadwick et al., 2015), high commitment human resource management (Rubel, 2018) and green human resource management (Mandip, 2012) and their impact on the innovative performance of firms. Collins and Clark (2003) defined human resource practices as the fundamental means through which firms achieve organizational goals and objectives, specifically by influencing and shaping the skills, attitudes and objectives of employees.

Human resources practices explains the managerial processes and activities that provides firms, the avenue to access and acquire useful knowledge and how such knowledge enhances firm's innovative capabilities and overall performance. Strategic Human resource Management (SHRM) is the act of linking a firm's human resources and its strategies, goals and objectives in order to advance flexibility, innovation and sustainable competitive advantage in the organization. Scholars of SHRM has relied on the RBV to give empirical evidence to the importance of SHRM in improving firm performance (Delery & Roumpi, 2017). Although SHRM has become the new normal in human resource management studies, the importance of KBV has given rise to a new aspect of HRM known as the knowledge-based human resource management (KBHRM). In recent years, there has been an outburst of interests in knowledge management studies since several studies have linked knowledge resources to firm productivity and competitive advantage

(Gaviria-Marinet al., 2018; Lopes, Scarbrough, 2003). Knowledge management practices are organizational practices centered on knowledge creation and application.

The KBHRM focuses on the knowledge aspect of human resources practices of a firm in creation and development of innovative ideas that enhances firm performance and competitive advantage. Although KBHRM is similar to SHRM, KBHRM relies on the KBV to examine the knowledge aspect of management practices. Previous studies have shown that, employee perceptions, attitudes and behavior that have a strong impact on employee service outcomes is highly influenced by human resource management practices of the firm (Kim & Wright, 2011). These practices includes, how a firm recruit and select employees, train and develop employee expertise and knowledge, evaluate employee performance and compensate employees for work performance. Minbaeva (2013) explained that, the improvement of innovation as a knowledge-based process is dependent on the customization of HRM practices in a way that supports knowledge creation and knowledge sharing within the firm.

Moreover, Kianto, Sáenz and Aramburu(2017) pointed that, KBHRM includes the various HRM practices specifically made, to support organizational knowledge processes and systems. This study considers KBHRM practices as a second order construct and examines the knowledge aspect of some management practices (recruitment and selection, training and development, performance assessment, and compensation)

### ***2.2.1 Knowledge- based recruitment and selection (KBRC)***

Every organization consists of people assigned specific tasks to achieve common goals. Recruitment and selection is a major activity in human resource management. It is the gradual process of sourcing, screening, shortlisting and selecting right candidates to fill vacant positions in an organization. The process of recruitment and selection is crucial in maximizing employee strength and capabilities to meet organizational goals and objectives. According to Argote and Ingram (2000) and Foss (2007), people – embodied knowledge is a strategic resource that firms can capitalize on to manage and enhance other organizational resources effectively and efficiently. Employee selection processes are geared towards attracting the best candidates with

needed organizational potential and capabilities. (Doorewaard & Meihuizen, 2000; Huselid, 1995)

The value of employee knowledge is essential for product innovation thus, the recruitment of talented people is pivotal in increasing the innovative performance of firms (Subramaniam & Youndt, 2005). Since knowledge is crucial in creation of new innovative ideas and development of existing products, knowledge based recruitment and selection process features relevant knowledge, skills and learning abilities of candidates as important factors for recruitment and selection. Employees selected must possess considerable knowledge in their fields of expertise and must be adaptable to learning new things and initiating new ideas for organizational development and innovation. This means, organizations must pay a critical attention to the knowledge and expertise of candidates in the selection and recruitment processes of the organization.

### ***2.2.2 Knowledge- based training and development (KBTR)***

In recent years, the rate of technological advancement and trends in service delivery is on the rise. New methods of service delivery has changed with time, thus for a firm to stay competitive or survive it must be abreast with the changing trends of the organizational environment. Therefore, training and development is key in providing employees with up to date information regarding technological resources, service delivery as well as innovative directions, which enhances organizational productivity and survival. For Jiang et al.(2012) and Lau and Ngo(2004), the creative thoughts of employees can be enhanced through training and development. Training and development of employees increases employee technical know- how, expertise and creative tendencies.

KBTR is the process of creating and implementing training and development programs that targets the building and polishing of employee knowledge and skills required to meet current trends and organizational demands. These training and development programs should maximize the fit between employee present and required knowledge and skills (De Winne & Sels, 2010). Knowledge- based training and development essentially is the regular development of the level of

employee knowledge and expertise through carefully designed specific training programs aimed at the continuous development of employees (Kianto, Sáenz, & Aramburu, 2017).

### ***2.2.3 Knowledge – based performance assessment (KBPA)***

Every organization expects their employees to give their maximum efforts in accomplishing given organizational tasks to achieve organizational set goals and objectives. To enhance high-level performance, high standards for performance must be set in every organization. Consequently, Armstrong (2012) affirmed that, performance assessment is the formal assessment and rating of employee performance by superiors. It is the evaluation of individual employee performance in relation to organizational roles and schedules. It is effective in motivating and improving employee creative tendencies. Performance assessment provides opportunities for measuring employee effectiveness and efficiency (Islami et al., 2018).

After assessing the performance of employees, it is essential for managers to provide feedback to employees. Shipton et al. (2006) explained that, feedback provided after performance assessment enables employees to locate gaps between their role targets and performance. Knowledge-based performance assessment criteria features the assessment of employees based on their contribution to the various knowledge processes of the firm specifically, how they create, share and apply knowledge in the execution of their organizational roles or demands (Alavi & Leidner, 2001). In short, knowledge-based performance assessment considers knowledge creation, sharing and application within the work setting as a vital performance assessment criteria, which employees must meet to have higher performance ratings.

### ***2.2.4 Knowledge-based compensation (KBRW)***

According to Dineen and Williamson (2012) and Saks et al. (1996), compensation is critical in influencing the quality and effectiveness of employees. They added that, compensation has a major influence on job acceptance, motivation and performance of employees in a firm. Compensation comes in many forms in the organization including incentives (Huselid, 1995). In knowledge-based compensation, managers motivate and reward employees for knowledge creation, sharing and application using status recognition and bonuses (Andreeva & Kianto, 2012; Scarbrough, 2003). Creativity takes maximum effort and time and as such, employees that

create, share and apply knowledge must be rewarded accordingly as previous studies has shown (e.g. Chen & Huang, 2009; Kamhawi, 2012).

Scarbrough (2003) argued that, compensation strategies geared towards knowledge- sharing is essential in improving firm innovative processes. Knowledge- based compensation systems provides the avenue for creativity and genius ideas that enhances organizational innovation growth and development. It increases employee motivation for innovative breakthroughs, which may have a significant effect on the innovative performance of the firm.

### **2.3 Perceived Information Transparency (PIT)**

In today's business world, the call for more transparency in firm operations has been a subject of interest. Lazarus and McManus (2016) defined transparency "as the access to information, the flow of information and the right to own some information in a business environment". Managers today have a great responsibility in ensuring that there is free flow of information as well as openness to sources of information within the organizational setting. Information transparency in an organization is the effective communication between employers and employees about the organizational goals (both short term and long term).

This gives the employees a right of ownership to certain levels of information thus increases their level of trust in management and work engagement. According to studies conducted by Rubel et al. (2018), when employees trust in their management, it affects their service behavior (both in-role- when they work according to assigned task and out-roles – when they use their own discretion and creativity at work), which in extension boosts their morale and increases work performance. Street and Meiser (2004) argued that, information transparency could be internal and external. The present study assesses the internal aspects of information transparency as an important factor for innovative performance. Meiser (2004) defined internal transparency "as the communication within the organization that provides employee level of information access needed to accomplish organizational tasks". PIT is the amount of information provided on all operations, decisions, targets, objectives, knowledge and information systems of the organization to the employees (Al-Jabri & Roztock, 2015).

PIT also deals with the knowledge management aspects of firms in the implementation and use of technological and integrated systems such as the Knowledge Management System (KMS), Enterprise Resource Planning (ERP), Management Information System (MIS) Customer Relationship Management (CRM) and others. It provides employees with the knowledge and information concerning key organizational activities and resources. In the banking industry, PIT is enhanced, when knowledge management systems operate effectively and efficiently. Knowledge management system in banks allow employees to monitor and track their activities and organizational financial expenditure, provide bank employees with established organizational rules and regulations, make information regarding management decisions and actions accessible, ensure feedback after employee performance assessment and to provide employees with key information regarding organizational management practices such as hiring and promotion.

The improvement of PIT in an organization increases the employee trust in management, which in extension leads to better decision making and a higher employee job satisfaction (Al-Jabri & Roztocki, 2015). This means, the more employees trust in their management and are satisfied with job conditions, the more creative they become. PIT creates an avenue for creativity in service firms and improves organizational innovative capacities since employees have a sense of ownership to organizational performance and profitability.

#### **2.4 Bank Innovative Performance (BIP)**

The competition in many service delivery firms in the past decade has been on the ascendency. Many firms are investing in several innovative research and development programs to enhance their innovative capabilities and innovative performance, which in extension increases their financial performance. Firms today invest heavily in product and process innovation to improve organizational innovative performance (Kumar & Nti 1998; Stock, Greis & Fischer 2001). The financial performance of a firm in recent years is highly affected by their innovative performance as shown by existing literature (Akhisar et al., 2015; Zehir, 2016; Ngumi, 2014). Firm performance is an indicator of a firm's capacity to realize its targets and objectives.

According to Fontana (2011) and Wang and Lin (2012), innovative performance is the success attained when firm innovative capabilities meets organizational targets. Previous research

conducted has provided several measures for measuring innovative performance (Gamal, 2011; and Birchall et al., 2015). The OECD (2005) report showed that, output of innovation (eg. number of new products produced, increase in the quality of the service) and impact of innovation (eg, market expansion, increased productivity, profit and environmental impact) are factors that could facilitate the measurement of innovative performance. Studies conducted by Gamal (2011), indicated that, we could measure innovative performance by several variables, which ranges from technical, non-technical and financial aspects of a firm.

Many studies have tried to give an accepted approach to measuring innovative performance of firms (eg. De Meyer and Garg 2005, Fontana 2011). Some studies have described five aspects of innovative performance, which includes; internal performance, technical performance, commercial performance, economic performance and social performance (Aryanto, 2015). BIP is assessed by analyzing the percentage increase in new products or service in existing product or service portfolios of the banks. These includes credit cards, payment service system, branch networking and cash smart cards. According to Anbalagan (2011), certain types of innovative performance are powered by the improvements in computer and telecommunication technology (innovative creations) and added that, the introduction of ATM's by banks, had a greater influence on the financial innovation of banks than asset backed ones.

BIP is measured by assessing the impact of the introduction of innovative methods and processes on improving existing processes and service delivery as well as its effect on increasing the banks competitive advantage and financial performance (Aryanto et al., 2015). A bank with a higher level of innovative capabilities has a high percentage in increasing the innovative technologies used in the bank. The innovative performance of the banking industry stipulates how the various innovative products and services such as those mentioned above, has increased financial performance and reduced the cost of operation of the banks. BIP is the ability of a bank, to have high innovative capabilities that allows them to be product and service innovators in comparison with their competitors.

Consequently, it allows them to have a competitive edge over their competitors thus increase their profitability and financial performance and reduce operational cost of rendering existing

services as noted by (Nofie, 2011). BIP is also the increase in the quality of products, work processes and methods for rendering banking services. In short, BIP is the measurement of a bank's performance in terms of its innovative capabilities. It also includes the measurement of how the introduction of technology-based products of the bank has given it a high cost advantage and increased its profitability as well as facilitated its service delivery (Akhisar et al., 2015).

## **2.5 Research Hypotheses**

### ***2.5.1 Knowledge-based HRM Practices and Perceived Information Transparency***

The KBV of a firm sees knowledge as a critical resource in firms (Grant, 1996; Spender, 1996). KBHRM practices affect and shape the skills, attitudes and objectives of employees. Extant literature has provided evidence that human resource practices are very important to determine how organizations operate (Collins and Clarke, 2003). Human resource practices of a firm provides the avenue for the flow of information, access to information, perceive use of information and ease of use of information systems. KBHRM (recruitment and selection, training and development, performance assessment and compensation) provides the avenue for effective communication between employers and employees therefore information transparency is enhanced when managers communicate organizational goals and objectives to employees.

According to Al-Jabri & Roztocki (2015), information and technological systems, when implemented in a firm leads to a positive employee perception and high levels of information transparency. KBHRM supports an organizational environment where these information and technological systems are created and developed. Knowledge management systems, which is a feature of KBHRM, is essential in improving the information transparency of a firm. This system enables employees to monitor and track their activities at the work place, it provides them the exact knowledge, training and development for the ease and use of technological tools in the firm, enables the employees to access organizational financial expenditure and provide employees the defined rules and regulations of the organization. Thus, the present study hypothesize that; KBHRM will impact on employee perceived information transparency.

H1: Knowledge-based HRM practices have an impact on employee perceived information transparency

### ***2.5.2 Knowledge-based HRM Practices and Innovative Performance***

Extant literature has given more evidence linking human resource management practices to innovative capabilities of firms, which in extension affects the firm's innovative performance (Kianto et al., 2017; Haneda et al., 2018; Aryanto et al., 2015). According to Youndt et al. (1996), employee commitment, knowledge and expertise are important variables in the value creation process, and has a positive influence on the innovative creations of firms. In their study, they explained that, human capital, which comprises of the professional skills, knowledge and experience that employees possess in an organization is supportive in improving the organizational innovative performance. The knowledge embedded in human capital in creating distinctive competencies and promoting innovation opportunities is very essential in increasing the organizational innovative processes (Grant, 1996; Wright et al., 2001).

In support of the above, Collins and Clark (2003) and Martinson (1995) argued that, HRM practices are essential in nurturing and influencing the attitudes, capabilities and behaviors of employees to accelerate performance to achieve organizational objectives. Consequently, these practices in influencing the attitudes of employees provides a conducive environment for employee development towards the creation of innovative ideas (Scarbrough, 2003; Laursen & Foss, 2003) that are pivotal in improving the innovative processes that increases the innovative performance of firms. KBHRM features the knowledge aspect of human resource management in recruiting, selecting, training and employee development. KBHRM emphasize that, firms employ and train individuals with specific knowledge, skills and expertise to fill vacant positions.

Supported by the Knowledge- based view of a firm, KBHRM practices are designed to motivate and reward employee for creating, sharing and applying knowledge. This creates an environment for high creativity, which is key in developing innovative capabilities in a firm (Minbaeva, 2013; Minbaeva et al., 2009). Several literature has provided evidence to show the importance of knowledge in enhancing innovative capabilities, which in extension increases a

firm's innovative performance (eg. De Winnie & Sels 2010; Wilkund & Shepherd 2003; Boating & Agyemang 2015). Hence, organizations that recruits employees with high – quality creative tendencies, essential formal education and sophisticated abilities can improve their employee cognitive abilities that results in increasing employee job performance and innovative capabilities (Martin-de-Castro et al., 2011).

Previous research have depicted the positive impact of high innovative capabilities of a firm on the firm's innovative performance (eg. Aryanto et al., 2015; Ahkisar et al., 2015; Skarzynski and Gibson 2008). It is crucial for firms to pay critical attention to the knowledge processes in their HRM practices. The knowledge-based view of a firm emphasize that knowledge is a crucial determinant in organizational performance. Therefore, to harness the full potential of knowledge resources and knowledge capabilities in an organization, it is essential to ensure that organizational processes which is, the availability of knowledge resources available at the work place supports knowledge creation, sharing and use (Hsu & Wang, 2012).

The ability of a firm to obtain and utilize knowledge and knowledge processes is very crucial for the firm's innovative processes and performance (Cohen & Levinthal, 1990). Knowledge forms the basis for employee creative tendencies, which is the first stage of innovation. Knowledge management and acquisition processes supports creative ideas that can be implemented (innovation) in the firm (West et al., 2003; Mumford & Gustafson, 1988). It is essential to note that KBHRM supports the attraction, selection and effective use of knowledge and can have a positive impact in increasing organizational innovative performance. Therefore, in support of existing literature, this study argues that, KBHRM will affect the innovative performance of service firms.

H2: Knowledge- based HRM practices have an impact on bank innovative performance.

### ***2.5.3 Perceived Information Transparency and Innovative Performance***

Owing to the increasing importance of information transparency in most organizations in the world today, most firms have put in place mechanisms and have adopted information systems to increase transparency and provide employee the opportunity to access certain levels of

information in an organization. Al-Jabri and Roztocki (2015) asserted that, higher levels of information transparency as a result information and technological systems implemented in organizations leads to a smooth administration and use of information systems. Previous research show that, information technology enhances transparency through the information shared between employees and management (Alavi & Leidner, 2001; Day & Wensley, 1988). In the banking industry, these technology and information systems includes; the knowledge management systems, enterprise resource planning, and customer relationship management systems.

To enhance effectiveness and usefulness of use of these systems, there is a need for knowledge and information sharing (Al-Jabri and Roztocki, 2015). According to Pagano and Roell (1996), information transparency is a crucial factor of knowledge sharing in the sense that it increases awareness, understanding and coherence of information exchanged between two entities (managers and employees). Knowledge sharing in an organization is essential in promoting organizational innovative capabilities. With the support of Knowledge management systems, information transparency, creativity, knowledge creation, knowledge application and sharing is significantly developed and operationalized.

In support of existing literature, PIT in organizations also increases employee trust in management and motivates employee creative capabilities in service delivery (Rubel et al., 2018; Akkermans, Bogerd, & van Doremalen, 2004), which in extension can improve the firm's innovation performance. Against this backdrop, this study argues that, perceived information transparency will have an impact on bank innovative performance.

H3: Perceived information transparency have an impact on banking innovation performance.

#### ***2.5.4 Perceived Information transparency mediates the link between knowledge- based HRM and bank innovative performance***

Information transparency enables stakeholders, employees and managers to access relevant and exact information needed for high performance in an organization (Parriss et al., 2016). For creativity and innovation to flourish in an organization, high quality employees must have full access to relevant information and knowledge needed for the introduction of creative ideas.

KBHRM ensures the creation and use of knowledge management systems, which increases information transparency and accelerates innovative processes in an organization. According to Bennis et al. (2008), advancement in information communication technology (ICT) in organizations ensures that, everyone (both internal and external stakeholders) stay connected. This empowers both employees and stakeholders and increases trust within the organization.

Existing studies has provided empirical evidence that, knowledge management practices of a firm improves the firm's PIT and innovative performance (eg. Collins & Clarke, 2003; De Winnie & Sels 2010; Wilkund & Shepherd 2003; Boating & Agyemang, 2015; De Nisi et al., 2003). Other studies provides evidence that, PIT improves employee trust in management, promotes employee positive perception to the usefulness and use of information systems and increases employee creative abilities and their satisfaction on the job, which in extension can affect the firm's innovation performance (Al- Jabri & Roztock, 2015; Rubel et al., 2018; Akkermans, Bogerd, & van Doremalen, 2004). Information transparency in a firm relates to who knows what in an organization and encourages conspicuousness, which allows employees to modify their behavior (Che et al., 2019).

KBHRM ensures that employees recruited have full access to available knowledge and information within and outside the organization. In KBHRM, employees are rewarded for creating, sharing and using knowledge. Information transparency is very important since it creates a level of trust and accountability on the employees and stakeholders in an organization (Parriss et al., 2016). This creates a sense of ownership to the organizational success and has a tendency to increase the creative capabilities of the employees, which in extension increases the innovative performance of the firm. Innovation and creativity is embedded in the flow of information and knowledge sharing (information transparency) between and within employees. This implies that, information transparency in organization may play a crucial role in the innovative processes of the firm.

Therefore, with the above information, the present study argues that, PIT will mediate the link between KBHRM and BIP.

H4: Perceived information transparency mediates the link between knowledge based- hrm and banking innovation performance.

Figure 1: Conceptual Research Model

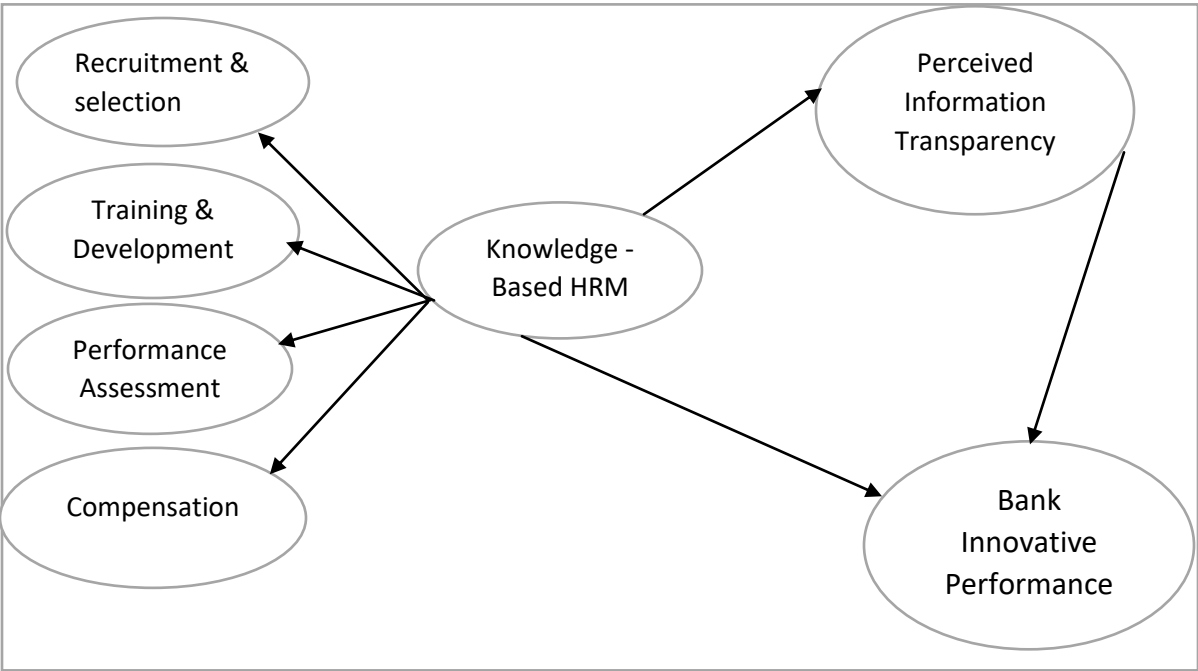


Figure 1: Conceptual Research Model

## CHAPTER 3

### METHODOLOGY

This chapter consists of information about the research procedure and sampling method, analytical approach to test hypothesis, questionnaire structure and measurement as well as the demographic data of the study.

#### **3.1 Sampling method and Data Collection**

The present study used judgmental sampling method. This is a non-probability and purposive sampling method, where researchers select sample units based on their knowledge and professional judgement as noted by (Sekaran & Bougie, 2010). After the first sample unit was selected, the study employed the snowball sampling method. This is also a non-probability sampling method where selected participants are requested to identify other participants who have the same criteria needed for the research until the desired sample size is attained. Data was collected from bank employees online using google form based (<https://www.google.com/forms/about/>) approach. This method enabled participants to fill out questionnaires online directly and conveniently. Filter questions was not used because the survey link was sent to the bank employees only, who then were asked to invite other participants for the study.

Data was collected from 191 junior bank employees who worked in 18 out of the 23 banks in Ghana. Survey link was sent out until the desired sample size was reached. According to an article published by corporate finance on Ghana, the banking industry employs about 2865 people in Ghana across the 33 banks and 1352 branches across the country. Aside the economical and logistical limitation resulting in attained sample in the present study, it is also important to establish the adequacy of the study sample. According to Hackshaw (2008), small sample studies are quick to conduct, ideal for testing new hypothesis and good for a well-designed small studies. The data analysis software used in the present study is also ideal for small sample sizes. Based on this, the present study argues that, the attained sample is adequate to test the relationships in the study.

### **3.2 Questionnaire Structure and Measurement**

Twenty - five (25) items were adopted from existing recognized scales used in measuring KBHRM, PIT and BIP. KBHRM practices was measured with scale items borrowed from (Kianto, Sáenz, & Aramburu, 2017). In total,thirteen (13) items were operationalized for this study. Kianto, Sáenz, & Aramburu (2017), argued that thethirteen(13) items belong to four latent variables related to KBHRM (recruiting and selection, training and development, performance assessment and compensation). They added that, KBHRM is a second order construct, which can be measured by the 4 latent first order constructs although a change in one of the components of the latent variables, do not necessarily involve a change in other three (3) variables.

This means they treated the four latent variables as composite indicators and not causal indicators (i.e. contributes to the construct rather than causing it) as previous studies have shown (Coltman et al., 2008), therefore the present study adopted the same approach. To measure PIT, scale items were borrowed from (Bertot et al., 2010; Al-Jabri & Roztockki, 2015). In total, seven (7) items were operationalized for the study, however four (4) out of the seven (7) items were deleted due to cross loadings in the present study. Furthermore, to assess BIP, scale items were borrowed from (Alpkan et al., 2010). In total,five (5) items were adopted to measure BIP. The questionnaire consists of twenty – five (25) questions to measure the various variables. It also contains demographic variables such as age, gender and marital status. Two assistant professors in Human resource management and Research methods reviewed survey questionnaire.

For questionnaire structure and clarity, slight changes were made to fit research purpose. A five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree was used to assess all scale items.

### **3.3Analytical approach**

This study adopts Partial least squares- based structural equation modelling (PLS-SEM) to analyze theoretical framework and to test the research hypothesis. The statistical software used in this study was SmartPLS 3.0. There are two SEM methods (CB- SEM and PLS – SEM). Prior to 2010, majority of previous studies published in social science journals adopted the CB-SEM method. In recent years, the use of PLS – SEM method for data analysis has become profound among several research papers. It has been adopted and applied in several social science studies

including international management (Richter et al., 2015), human resource and management information system and many others (Ringle et al., 2012; Hair et al., 2019; Kianto, Sáenz, & Aramburu, 2017; Rubel et al., 2018).

PLS- SEM method is a causal – predictive application that enables researchers to test and examine complex models under the non – normality condition, models with many variables and structural paths without obtruding distributional assumptions on the data (Hair et al., 2019).

According to Joreskog (1973), CB-SEM estimates the parameter of the model by considering only common variance and it is mostly supported by other software packages such as AMOS. However, PLS- SEM estimates the partial model structures by combining the main component analysis with ordinary squares regression (Hair et al., 2019). In their study, Hair et al. (2019) explained the basis for selecting PLS-SEM for statistical analysis.

They advised that researchers should choose PLS-SEM when: “

- a. the analysis is associated with testing a theoretical framework from a predictive viewpoint;
- b. the structural model is complex and involves many constructs and model relationships;
- c. the research objective is suited to understand the complexity by investigating theoretical extensions of existing theories;
- d. the path model includes one or more formatively measured construct;
- e. the studies consists of financial ratios;
- f. the studies is based on secondary data which may lack a comprehensive substantiation on the grounds of measurement of the theory;
- g. small population limits sample size” and many more criteria;
- h. distribution issues are a concern such as lack of normality;
- i. research requires latent variable scores for follow-up analysis.”

The present study seeks to examine and test the theoretical framework from a predictive perspective, has a small sample size and involves many constructs. This makes PLS-SEM the ideal tool for statistical analysis for the present paper. In the study, PLS algorithm and

bootstrapping sampling (5000 – re sample) was applied to determine factor loadings, path coefficient and their significance level. This study did not run a preliminary model to test the relationship that existed between each of the KBHRM practices because previous studies from which scale items were adopted achieved desired reliability, validity and latent variable scores needed to treat KBHRM as a second order construct. The present study assesses the measurement model and examines the structural model.

**3.4 Demographic data** Out of the 191 junior bank employees who participated in the survey, 56% were males, 41.4% were females and 2.6% preferred not to disclose their gender. The respondents aged from 21- over 50 years. Majority of the respondents fell between the ages of 21- 30 years having a 70.2%, closely followed by those between the ages of 31 – 40 with 19.4%. More than three quarters of the respondents were single 76.4% and 23.6% represented those who were married. This shows that the average age for the junior bank employees fell within the ages of 21-30.

Table 1. Demographic data 1

Age	Total	Percentage
Under 20	2	1.0%
21 - 30	134	70.2%
31 - 40	37	19.4%
41 - 50	15	7.8%
Over 51	3	1.6%

Table 2. Demographic data 2

Gender	Total	Percentage
Male	107	56%
Female	79	41.4%
Prefer not to say	5	2.6%

Table 3. Demographic data 3

Marital Status	Total	Percentage
Single	146	76.4%
Married	45	23.6%

## CHAPTER 4

### DATA ANALYSIS AND RESULTS

#### 4.1 Measurement Model (Reliability and Validity)

Firstly, the measurement model was analyzed for convergent validity by using composite reliability (CR), factor loadings and average variance extracted (AVE). For a rigorous assessment of the measurement model, the first stage is to examine the indicator loadings. Hair et al. (2019) noted that, loadings exceeding 0.708 are suitable for providing acceptable reliability for the loaded items. LoBiondo-Wood and Haber (2014) defined reliability as the “ability of an instrument to measure the characteristics of a variable or construct consistently”. There are several ways of measuring reliability of constructs. These includes; test- retest, alternative forms, internal consistency, split-half approach, and interrater reliability approach (Drost, 2011). After reliability has been achieved, internal consistency is the second stage for model assessment. Internal consistency can be assessed using Joreskog’s (1971) composite reliability (Hair et al., 2019).

In their study, Hair et al. (2019) explained that, the high values indicate high levels of reliability. Hence, reliability values within the ranges of 0.60 and 0.70 are accepted in exploratory studies. They added that the Cronbach alpha is another instrument for measuring internal consistency although it produces lower values. The present study adopted internal consistency to achieve desired reliability of the constructs. Internal consistency of the constructs was measured by composite reliability (CR) as Hoffmann and Birnbrich (2012) and Hair et al. (2019) proposed in their study. As table 4 depicts, all research constructs have a CR above 0.7, this suggest the present study achieved desired internal consistency.

The third stage for assessing the reflective measurement model is the assessment of convergent validity. Validity is the ability of an instrument to measure the characteristics of a concept or construct accurately (LoBiondo-Wood & Haber, 2014). Convergent validity is defined as the degree to which the “construct converges to explain the variance of the items loaded” (Hair et al., 2019). The average variance explained (AVE) for all items is used to assess convergent validity. Hair et al (2019) posited that, for AVE to be acceptable, factor loadings loaded should be 0.6 or

higher. Factor loadings in table 4 shows that, all the latent variables exceeded the recommended value of 0.6 except KBHRM, which had a loaded score of 0.506.

Previous studies conducted by Barclay, Higgins and Thompson (1995) noted that, loadings above 0.5 and 0.6 are also acceptable as it is the case of the above construct thus this study has fulfilled the recommendation in that respect. Adding to the above, the fourth stage is the assessment of discriminant validity. Hair et al. (2013) defined discriminant validity “as the extent to which a particular construct is distinct from other constructs”. To ensure appropriate discriminant validity, Kianto et al. (2017) argued that, the AVE should have greater scores than the variance shared between the constructs and other constructs (i.e. the squared correlation between two constructs) thus table 5 in this study clearly satisfies that criterion. The present study employs the Fornell and Larcker (1981) criterion as well as the Heterotrait- Monotrait ratio (HTMT) to test the discriminant validity of the constructs.

The Fornell- Larcker criteria stipulates that, for discriminant validity to be attained, the square root of AVE of each of the constructs in the matrix diagonal should be higher than the related correlation (off-diagonal) in corresponding rows and columns. As table 5 shows, the square root of the main constructs exceeds their related correlation as noted by (Jeon et al., 2019). This means significant discriminant validity has been attained in the present study according to the Fornell- Larcker criteria. Although the Fornell- Larcker criteria for testing discriminant validity has been used by several papers, Hensley et al. (2015) have argued that it does not reliably detect the lack of discriminant validity in quantitative research.

In their study, Henseler et al. (2015) urged researchers to use the heterotrait- monotrait ratio procedure (HTMT ratio), which relies on the multitrait-multimethod matrix in assessing discriminant validity. With their means of the Monte Carlo simulation, they proved that the htmt ratio procedure performs better in assessing discriminant validity than the Fornell- Larcker procedure (Ramayah et al., 2017). For discriminant validity to be achieved, HTMT values should not exceed 0.85 or 0.90. As table 5 shows, the main constructs have HTMT values less than 0.85 and 0.90. This indicates that desired discriminant validity has been achieved in this study as well.

**Table 4. Measurement and model assessment**

Loadings	AVE	CR	Cronbach's Alpha		
Knowledge-based HRM (KBHRM) molar	0.506	0.930	0.919		
Knowledge- based recruitment and selection (KBRC) reflective			0.735	0.893	0.820
KBRC1		0.863			
KBRC2		0.859			
KBRC3		0.851			
Knowledge- based training and development (KBTR) reflective	0.640		0.877	0.813	
KBTR1		0.806			
KBTR2		0.791			
KBTR3		0.804			
KBTR4		0.799			
Knowledge- based performance assessment (KBPA) reflective			0.682	0.865	0.766
KBPA1		0.815			
KBPA2		0.853			
KBPA3		0.808			
Knowledge-based compensation (KBRW) reflective			0.791	0.919	0.868
KBRW1		0.895			
KBRW2		0.904			
KBRW3		0.869			
Perceived information transparency (PIT)			0.662	0.855	0.745
PIT4		0.791			
PIT6		0.800			
PIT7		0.849			

Bank innovative performance (INPF)	0.671	0.910	0.876
INPF1	0.761		
INPF2	0.862		
INPF3	0.764		
INPF4	0.868		
INPF5	0.835		

**Table 4. Measurement and model assessment (continued)**

**Table 5. Discriminant validity**

	1	2	3
<b>Fornell - Larcker 1981 procedure</b>			
Knowledge - based HRM	<b>0.712</b>		
Perceived information transparency	0.696	<b>0.814</b>	
Bank Innovative performance	0.718	0.684	<b>0.819</b>
<b>HTMT Ratio Procedure</b>			
Knowledge – based HRM	-		
Perceived Information Transparency	<b>0.837</b>	-	
Bank Innovative Performance	0.800	<b>0.840</b>	-

## 4.2 Structural Model

In this study, SmartPLS was used to test the structural model and hypothesis. First, before testing research hypothesis, the quality of the measurement model for both first- order and second order constructs was assessed. Reliability and validity was analyzed for the reflective constructs as advised by (Kianto, Sáenz, & Aramburu, 2017) thus table 4 clearly shows the detailed results of measurement model evaluation. In relation to studies conducted by Kianto, Sáenz, & Aramburu(2017), this study used SmartPLS software to check the absence of multicollinearity problems concerning the second order construct (KBHRM). Table 6 shows that the variance inflation factors (VIF) of the model had scores below 5 thus ruling out all multicollinearity problems in the study as proposed by (Kleinbaum, Kupper, & Muller, 1988). After the quality of the measurement model has been approved, bootstrapping techniques was used to examine the path coefficient and amount of variance explained ( $R^2$ ).

Since this study has one mediation relationship hypothesis formulated (H4), the significance of the indirect effect was tested using the SmartPLS software. Figure 2 and table 6 exhibits the  $R^2$  values of the constructs. Table 7 shows a complete summary of the results obtained in the structural model and hypothesis testing. In terms of significance, the impact of knowledge- based human resource management on perceived information transparency and banking innovation performance was significant. In addition, the impact of perceived information transparency on banking innovative performance as well as the mediating effect of perceived information transparency between knowledge-based human resource management and banking innovative performance proved also to be significant. Therefore, H1, H2, H3 and H4 are accepted.

Figure 2. Structural Model

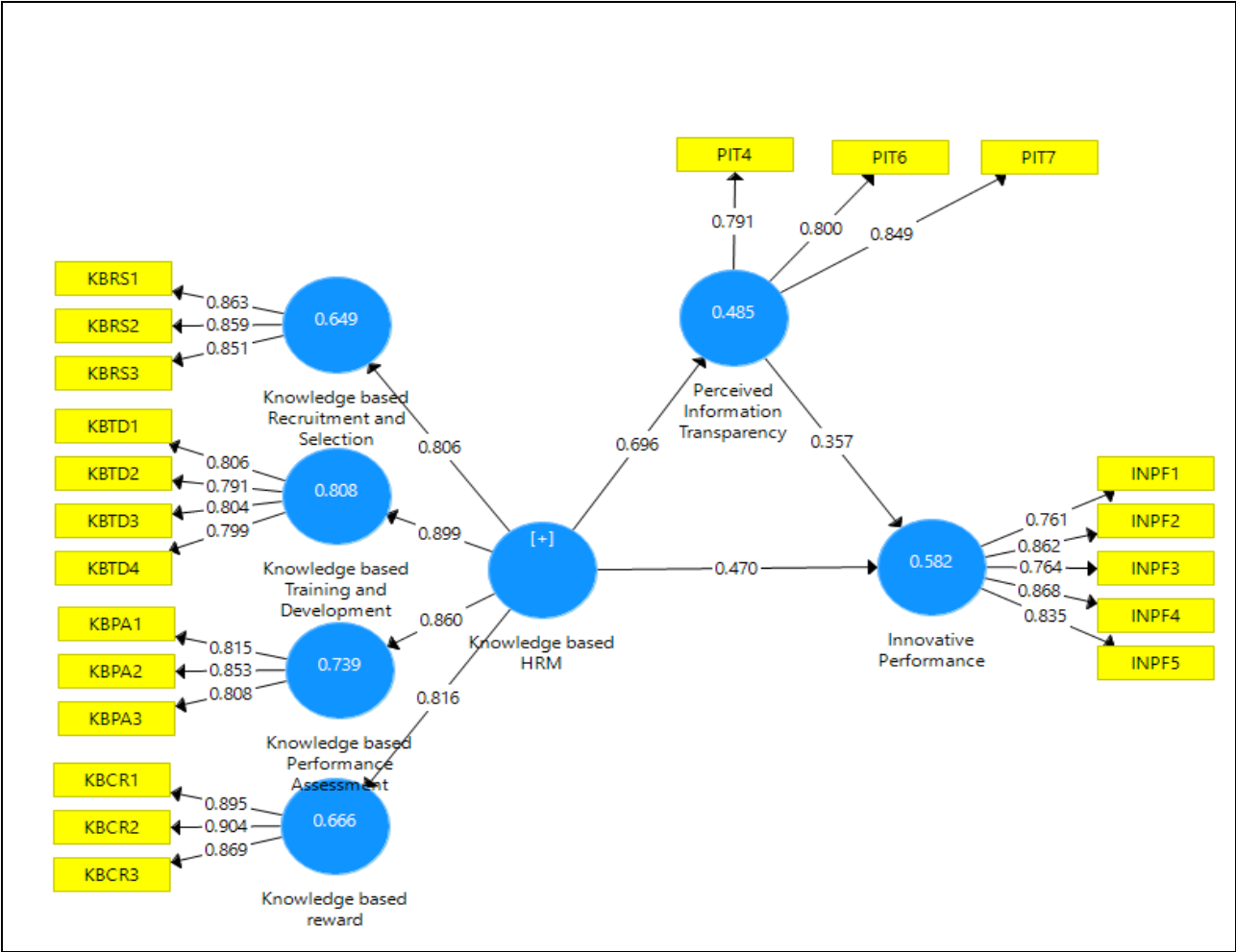


Figure 2. Structural Model

**Table 6. Collinearity and amount of variance explained (VIF and R<sup>2</sup>)**

VIF	R <sup>2</sup>
Knowledge-based HRM (KBHRM) molar	
Knowledge- based recruitment and selection (KBRC) reflective	0.649
KBRC1	2.086
KBRC2	2.142
KBRC3	2.170
Knowledge- based training and development (KBTR) reflective	0.808
KBTR1	2.055
KBTR2	1.887
KBTR3	1.909
KBTR4	2.067
Knowledge- based performance assessment (KBPA) reflective	0.739
KBPA1	1.989
KBPA2	2.041
KBPA3	1.782
Knowledge-based compensation (KBRW) reflective	0.666
KBRW1	2.695
KBRW2	2.839
KBRW3	2.264
Perceived information transparency (PIT)	0.485
PIT4	1.876
PIT6	1.781
PIT7	2.213

Bank innovative performance (INPF)		0.771
INPF1	1.971	
INPF2	2.569	
INPF3	1.843	
INPF4	2.643	
INPF5	2.282	

**Table 6. Collinearity and amount of variance explained VIF and R<sup>2</sup> (continued)**

**Table 7. Structural estimates (hypothesis testing)**

Hypothesis	t values	p values	Decision
H1: Knowledge-based hrm -> perceived info transparency (PIT)		16.770	0.000 Supported
H2: Knowledge-based hrm-> bank innovative performance		6.335	0.000 Supported
H3: perceived info transparency -> bank innovative performance		4.697	0.000 Supported
H4: Knowledge-based hrm -> PIT -> bank innovative performance		4.382	0.000 Supported

a. **\*\*Significant at the 0.05 level (2-tailed).**      b. **\*\*\*Significant at the 0.01 level (2-tailed).**

## CHAPTER 5

This chapter presents the summary of the findings, the theoretical and practical implications of the study as well as the limitation and future research directions of the study.

### 5.1 Discussion

In the last decade, several studies have been conducted in the human resource management field. Most of the studies suggested that, knowledge-management practices in firms is very essential in improving firm's innovative capabilities. However, there is paucity in literature regarding knowledge-based hrm practices, although several studies have discussed the effect of different knowledge management practices on organizational innovative outcomes. Thus the present study aimed to fill the gaps in literature since very little studies have provide empirical evidence linking knowledge-based hrm practices and perceived information transparency as antecedents for innovative performance of firms. This study proposed a research model that examined the link between knowledge-based hrm, perceived information transparency and banking innovation performance.

The empirical findings of this study confirm four out of the four hypothesis produced. Data analysis results confirm that knowledge- based hrm practices significantly influences the innovative performance of firms (Wu et al., 2007; Martín de Castro et al., 2009, Ode & Ayavoo, 2019). It is also consistent with existing literature that provides empirical evidence that, hrm practices positively influence the innovative performance of firms (Delaney & Huselid 1996; Godard, 2004). In support of the above, Han and Li (2015) study provided evidence that, intellectual capital (knowledge of employees) have a positive effect on the firms innovative performance. They added that, knowledge- based dynamic capabilities links the relationship between intellectual capital and innovative performance. The present study found that, the knowledge aspect of human resource practices have a strong positive impact on the innovative performance of the firms hence supports the findings of Han and Li (2015).

In addition, the findings are in agreement with existing research that acknowledge the importance of hrm practices in enhancing information transparency in service firms (Collins

&Clarke, 2003;Al-Jabri & Roztocki, 2015; Rubel et al., 2018). Knowledge- based hrm practices enhances transparency in the firms, which leads to employee commitment and job satisfaction. Furthermore, perceived information transparency also showed a positive impact on bank innovative performance. This finding is also consistent with research findings of Zhong (2018). In her study titled “Transparency and firm innovation”, Zhong provided empirical evidence that, transparency in firms increases their innovative efficiency, which in extension increases the innovative performance of the firms.

Studies conducted by Al-Jabri & Roztocki, (2015) showed that, perceived information transparency provides avenue for the ease and usefulness of technological applications. This in extension affects the creative abilities of employees and leads to higher employee innovative capabilities and job satisfaction. The present study also reports that, transparency in firms is a vital element in boosting employee trust in management and employee innovative capabilities (affects both their in-role and out-role service behaviors), which increases firm innovative performance, therefore supports (Rubel et al., 2018; Al- Jabri & Roztocki, 2015) study. The present study shows that, perceived information transparency in service firms mediate the link between Knowledge-based Hrm practices and the innovative performance of firms. It is consistent with the findings of Che et al. (2019).

In their study, Che et al. (2019) provided evidence that, the relationship between knowledge sourcing and employee innovative capabilities is mediated by the level of information transparency in the firm. The present study reports that, information transparency increases when organizations hire and train employees based on their knowledge and expertise. It also reports that, information transparency increases employee innovative performance as well as mediates the link between knowledge- based Hrm and innovative performance of firms, therefore lies in agreement with Che et al (2019) study. Concerning the individual determinants, knowledge-based hrm is the strongest antecedent in increasing information transparency and innovative capacities of firms as discussed above. This indicates that, firms that adopts knowledge-based management practices have a higher tendency to enhance their work place information transparency and increase employee innovative capabilities, which in extension affects the firm’s innovative performance positively.

The use of perceived information transparency as a mediating variable in the present study features the originality of the study. The study reports also have provided empirical evidence of the role of knowledge-based Hrm and information transparency in increasing the innovative performance of service firms.

## **5.2 Theoretical and Practical Implications**

Theoretically, this study makes important contributions to previous research. Firstly, it adds to the body of Strategic HRM knowledge by increasing understanding of knowledge-based HRM practices. In support of existing literature, the present study provides explicit explanation on various HRM practices that designed to support and enhance knowledge processes in an organization (Kianto, Sáenz, & Aramburu, 2017). The results of the present study showed that, these hrm practices improves the knowledge assets of organizations thus have positive effect on the innovative performance of service firms as reported by (Kianto, Sáenz, & Aramburu, 2017). The present study also contributes greatly to existing literature by examining the effect of knowledge-based hrm on information transparency in firms, thereby providing empirical evidence to support studies that link strategic HRM and information transparency.

The present study enriches information transparency research by analyzing it with other variables to bring more understanding of its importance in service firms. Perceived information transparency had a positive effect on innovative performance and mediated the relationship between knowledge-based Hrm and bank innovative performance in this study. This provides empirical evidence and literature support to firms who aim to increase their transparency and innovative performance. Adding to the above, the study extends knowledge on the banking industry, by empirically providing evidence that, knowledge-based hrm and information transparency has a positive influence on bank innovative performance, thereby contributing to the banking innovative performance and organizational financial performance literatures. Practically, study results clearly show that, human capital and knowledge are important in improving the innovative capacities of firms. Banks in Ghana and other organizations can have higher innovative capabilities and increase their innovation performance when they pursue knowledge-based hrm designed to enhance the creation, application and sharing of knowledge (Kianto, Sáenz, & Aramburu, 2017).

Moreover, this study provides evidence that, to increase information transparency and innovation capabilities and performance, managers must improve their knowledge management systems (information systems) which will increase information transparency on one hand and create an avenue for organizational knowledge creation and innovation on the other hand. This means Human Resource Managers in the various banks in Ghana and around the world should adopt management practices that focuses on building the knowledge management processes of the firms and investing in the knowledge of their employees as human capital is vital in increasing firm innovative performance. Kianto, Sáenz, & Aramburu, (2017) in their study argued that, managers should pay key attention to management practices that focuses on knowledge creation and application.

These practices will significantly increase the innovative drive of the employees and increase the firm's innovative capabilities, which in extension improves their innovative performance. The study also gives a practical guide on how information transparency and innovative performance can be improved in service firms operating in developing countries. In short, managers in most developing countries service firms must have a definite approach in increasing employee knowledge through the various knowledge-based practices analyzed in this study. Study findings depicts that, these practices have a positive effect on the innovative capabilities and tendencies thus when adopted and operationalized, it can contribute immensely to the innovative performance of banks in Ghana, Africa and other service firms in the world.

### **5.3 Limitations and Future Research Directions**

The present study is not short of limitations. Firstly, the study treated KBHRM practices as a bundle rather than considering them as isolated practices. This method limited the ability of the study to examine whether some of the hrm practices discussed were essential for perceived information transparency and innovation performance thus it is recommended that future studies should delve deeper into the particular hrm practices that has a positive influence on innovative performance.

Furthermore, this study is limited with regards to the fact that, it focused solely on understanding the interrelations between knowledge-based hrm practices, information transparency and innovation performance thus overlooked other important variables such as organizational

institutions, infrastructure and many others as noted by (Woolthuis, Lankhuizen, and Gilsing, 2005) that have an effect on firm innovative performance. Therefore, we recommended that future research should take account of these variables in examining the impact of hrm practices on innovation performance.

Adding to the above, this study focused on only one mediating variable to assess the impact of knowledge based hrm on innovation performance hence, future studies can look at other mediators such as trust in management, entrepreneurial orientation and others to provide more understanding to the variables that mediate the link between knowledge-based hrm and innovative performance. In addition, time constraint is another limitation to this study because we believe more respondents could have participated in the research if time was not limited for the study. Future studies should increase the sample size that can provide an avenue for a more elaborate data analysis. Finally, the present study focused on only banking firms in Ghana (developing country context), thus study results may vary if research is conducted in other national and cultural context. Future research can test the proposed research model in other national and cultural context, which can provide empirical evidence of the various variables used in this study as antecedents for innovative performance in service firms.

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## **APPENDIX**

### **APPENDIX A**

#### **SAMPLE OF QUESTIONNAIRE**

Title: Knowledge -Based Human Resource Management, Perceived Information Transparency and Banking Innovation Performance. Evidence from Ghana.

Dear respondent,

This research is aimed to better understand the effect of Knowledge - Based Human Resource Management and Perceived Information Transparency on the Bank Innovative Performance in Ghana.

You are kindly requested to fill out this questionnaire to help achieve research objectives.

The information you provide will be kept strictly confidential. I appreciate your time and participation in this research

Thank you for your cooperation.

Researcher: Abraham Nii Odartey Lamptey

Address: Institute of Post Graduate Education (Antalya Bilim University, Antalya – Turkey)

# Survey Questionnaire

**Survey Link:**[https://docs.google.com/forms/d/1w1bb-N0q-AxHR1wN-wSdcjvD\\_C4BKNUzkZbg8H7Wm8A/edit](https://docs.google.com/forms/d/1w1bb-N0q-AxHR1wN-wSdcjvD_C4BKNUzkZbg8H7Wm8A/edit)

**Assessment scale:** 1 = Strongly disagree 2= Disagree 3=Neutral 4= Agree 5= Strongly agree.

Please read each statement carefully and indicate your disagreement or agreement by selecting one of the appropriate alternatives.

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1	2	3	4	5
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## **PART A. Knowledge based HRM**

### Knowledge- based recruitment and selection

1. When recruiting, our bank pays special attention to relevant expertise.
2. Our bank offer (us) employees training, with up - to - date knowledge.
3. When recruiting, our bank pays special attention to learning and development ability
4. When recruiting, our bank evaluates the candidate's ability to collaborate and work in various networks

### Knowledge based training and development

5. Our bank offer (us) employees training, with up - to - date knowledge
6. Our bank offer (us) employees an opportunity to develop our competence through training tailored to specific needs.
7. Our bank discuss with (us) employees, our competence needs on a regular basis.

### Knowledge- based performance assessment

8. The sharing of knowledge is one of our bank's criteria for work performance assessment.
9. The creation of new knowledge is one of our bank's criteria for work performance assessment.
10. The ability to apply knowledge acquired from others is one of our bank's criteria for work performance assessment.

### Knowledge- based compensation

11. Our bank rewards (us) employees for sharing knowledge.
  12. Our bank rewards (us) employees for creating new knowledge.
  13. Our bank rewards (us) employees for applying knowledge.
-

**Assessment scale:** 1 = Strongly disagree 2= Disagree 3=Neutral 4= Agree 5= Strongly agree.

Please read each statement carefully and indicate your disagreement or agreement by selecting one of the appropriate alternatives.

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1      2      3      4      5

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### **PART B (Perceived Information Transparency)**

14. The knowledge management system in our bank allows me to track my activities.
  15. The knowledge management system in our bank provides information on the organization rules and regulations.
  16. The knowledge management system in our bank provides information about the organization decisions and actions.
  17. The knowledge management system in our bank promotes monitoring of the organization financial expenditures.
  18. The knowledge management system in our bank disseminates information on the organizational performance.
  19. The knowledge management system in our bank promotes openness of the organization processes, like hiring & promotion.
  20. Overall, the knowledge management system in our bank system has enhanced transparency in our organization.
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Please read each statement carefully and indicate your disagreement or agreement by selecting one of the appropriate alternatives.

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1      2      3      4      5

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### **PART C ( Bank Innovative Performance)**

21. The percentage of new products/service in the existing product/service portfolio has increased within last years. e.g. credit cards, payment service system.
  22. The number of new products and service projects in our bank has increased within last years.
  23. Our bank's ability to introduce new products and services into the market before competitors has increased within last years.
  24. Innovations introduced in our bank for work processes and methods has increased within last years.
  25. In our bank, quality of new products and services introduced has increased within last years.
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### **PART D**

What is your gender?

Male     Female     Prefer not to say     other

How old are you?

Under 20     21-30     31-40     41-50     Over 51

What is your marital status?

Single     Married

Thank you for your kind cooperation