

User satisfaction with bank enterprise human resource planning systems in Lagos State, Nigeria

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Abstract

Rationale of Study – The study evaluated the effectiveness of and user satisfaction with enterprise human resource planning systems by staff of commercial banks in Lagos State, Nigeria, using information, service and system quality constructs.

Methodology – A structured questionnaire and interview schedule were used for data collection. The questionnaire was administered to 140 respondents. Collected data were subjected to descriptive statistics, Pearson bivariate correlation, multiple regression, and thematic analysis.

Findings – The respondents were highly satisfied with their banks' service, information, and EHRP system quality. Information, service, and system quality all had significant positive relationships with user satisfaction; however, system quality has the most significant impact. The core challenges with EHRP are inadequate training, user unfriendliness, difficulty navigating, and poor interface design.

Implications – The research underscores the need for banks to prioritise system quality improvements, such as enhancing user-friendliness and interface design, to ensure that employees can effectively utilize these systems.

Originality – This research offers a novel application of the DeLone and McLean IS Success Model in the context of EHRP systems within the banking sector.

Keywords

Enterprise human resource planning systems, user satisfaction, information quality

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1 Introduction

One of the most critical organisational issues determining the future of diverse entities is the enormous increase in the world's population over the years and the reliance on technology for organisational operations. As a result, an integrated system - which entails combining various components and sub-systems into one functional system (Langford, 2013) is necessary for organisations to operate effectively in a way that can handle the entire business process to maintain their competitive advantage and satisfy global requirements (Dey et al., 2010). Software for managing conventional business tasks, such as accounting, purchasing, project management, risk management, compliance, and supply chain management, is known as enterprise resource planning (ERP) software. A complete ERP suite also includes enterprise performance management software, which helps plan, budget, forecast, and report an organisation's financial results (Oracle, 2021). Businesses use Enterprise Resource Planning (ERP) software systems, according to Bischoff (2021), to monitor, modify, and automate labour-intensive daily processes.

This covers operational requirements, including budgeting, human resources, project management, sales orders, supply chains, warehouse management, risk management, and inventory management. ERP systems use automation and business intelligence to reduce the time, money, and aggravation associated with managing multiple systems. Besides using numerous standalone systems to coordinate corporate processes, ERPs apply a single database to streamline organisational demands. This implies that everyone who uses the system, from office workers to the CEO, can produce, save, and utilise the same data obtained through standard procedures (Bischoff, 2021). Businesses employ ERP systems globally, according to Parto et al. (2016), and commercial banks in Nigeria are no exception (Arzizeh & Joseph, 2018).

Their use has benefited organisations that have effectively deployed ERPs over the years. According to Ahmed and Ayman (2011), ERP has helped businesses enhance operational efficiency. Ahmed and Ayman (2011) indicated several benefits of ERP, including a decrease in production time, less time spent on repetitive tasks, better information, quality and supply, enhanced business-wide integration, enhanced production capabilities, a decrease in shipping errors, improved customer service, and shorter lead times for production. ERP systems in the financial sector substitute standardised, cross-functional transaction automation for cumbersome and occasionally manual interfaces between multiple systems. Likewise, automated financial transactions can minimise the time it takes

to reconcile quarterly and annual financial data and the cash-to-cash cycle times (Mabert et al., 2003).

According to Markus et al. (2000), ERP benefits should be assessed at various stages of implementation. They asserted that it is easy to see how an ERP system might increase process productivity due to elements like a decline in errors and prompt availability of reliable information, among other things. These enhancements, which include cost savings and higher employee and customer satisfaction, help organisations operate more efficiently (Chand et al., 2005). Chand et al. (2005) further found that the ERP system's impacts on financial results demonstrated a significant decrease in business operational costs. As a result of fewer work stoppages, quicker data availability, and better controls, businesses have performed better, and there is an upscale in labour efficiency. Costs have also been reduced due to improved inventory and supply chain management. The capacity to provide precise commitments to trading partners and enhance turnaround time has improved the after-market business, increasing revenues (Chand et al., 2005).

The capacity of a system to fulfil a specific set of requirements is a measure of its efficacy. The effectiveness of information systems (IS) is a multifaceted factor, and different organisations may have varied standards for measuring effectiveness, according to Hamilton and Chervany (1981). Information system evaluation is essential to determining the effectiveness of the system. System quality, information quality, service quality, management support, training, users' involvement, perceived usefulness, perceived ease of use, behavioural intention, and user satisfaction are the (ten) fundamental dimensions that Zaied (2012) identified as being interrelated in assessing the efficacy of information systems. Reliability and maintainability, system performance, operational preparedness, and failure-free operation were also highlighted by Hamilton and Chervany (1981) as some of the criteria used to assess an information system's efficiency. The DeLone and McLean model, which switched to a user-centred approach when measuring overall IS success, is one of the most widely recognised and frequently cited approaches for measuring effectiveness in the information systems (IS) field. Six interrelated performance measures make up the DeLone and McLean model from 1992. The primary measurement dimensions are information quality, system quality, use, user satisfaction, and personal and organisational impact.

According to Miller (1996), a consumer's perception and usage of information affects its quality. Kinney (2000) defined information quality as the extent to which an evaluation

technique is used to prepare information that can indicate what a decision maker wants to know (information relevance), the stated methods that have been competently applied, and the results honestly displayed (information reliability or credibility). Information quality is a novel model for most organisations, claims Redman (2004). With data collection, storage, and usage growth within an organisation, the quality of the information produced assumes increasing importance. According to the author, poor information might cause an organisation to spend funds on ineffective projects. However, quality data will assist in identifying needs, routing services to the right people, and making daily tasks more productive. It is widely acknowledged that having access to reliable information is essential to an organisation's success (Hartono & Simpson, 2010). Organisations that understand the information response better understand their internal processes (Gorla et al., 2010). To contribute to a company's success, information must be of excellent quality and support decision-making in those business activities whose outputs are valuable to the organisation (Davis & Golicic, 2010). Poor information quality weakens efforts, lowers production capacity, and demands rework, all of which can increase costs, decrease productivity, and harm the reputation and brand of a business (Redman, 2004). Therefore, extensive study is needed to discover remarkable information quality and develop helpful ways to measure the quality of information (Lillrank, 2003).

Customers' expectations of the service provider's performance and their judgment of the services they receive determine service quality (Alamgir & Shamsuddoha, 2003). According to Zeithaml and Bitner (1996), perceived service quality refers to a customer's assessment of a product or service's general excellence or superiority. Additionally, they stated that "the delivery of exceptional or superior service relative to client expectations" constitutes high-quality service. Perceived service quality was defined by Parasuraman et al. (1988) as "the magnitude and direction of a disparity between customers' perceptions and expectations." The conclusion drawn from the aforementioned definitions of service quality is that it evaluates how well the service meets the clientele's expectations regarding their perceptions of it.

The developer of the information system's level of support is used to gauge the quality of the service. Studies have evaluated this using service quality metrics like the systems support department's assurance and responsiveness as well as the availability of user training (Urbach & Muller, 2012). System assurance is the planned and systematic set of activities necessary to ensure that a system complies with all applicable system requirements for safety, security, reliability, availability, maintainability, standards,

procedures, and regulations (Djenana, 2015). This gives the user reasonable confidence that the system will function as intended in the anticipated operational context. The use of a system is the degree and way staff, and customers utilise the potential of an information system, such as the frequency of use, proportion of use, nature of use, appropriateness of use, extent of use, and purpose of use (DeLone & McLean, 2008). Numerous metrics of IS usage, such as intention to use, frequency of use, self-reported use, actual use, and character of use, have been utilised by empirical studies to quantify its use (DeLone & McLean, 2008). Although measuring the use of an IS is a broad notion that can be viewed from several perspectives, DeLone and McLean recommend using intention as an alternative measure in some contexts when utilising the DeLone and McLean IS model since it is easier to comprehend the said dimension.

User satisfaction constitutes a user's level of satisfaction when utilising an information system (DeLone & McLean, 2008). It is considered one of the most critical measures of information system success (DeLone & McLean, 2008). Measuring user satisfaction becomes especially useful when using an information system is mandatory, and the amount of use is not an appropriate indicator of system success (Urbach & Muller, 2012). DeLone and McLean (2008) noted that metrics such as adequacy, effectiveness, efficiency, enjoyment, information satisfaction, overall satisfaction, and system satisfaction have been developed to exclusively measure user satisfaction in an information system.

Despite the numerous advantages EHRP systems have touted over the years, their effective use - particularly by those who are not IT experts—has experienced some setbacks owing to issues like complicated system understanding and use, inadequate training, complicated system use, cultural barriers, and insufficient infrastructure (Yoon, 2009). Parto et al. (2016) further confirmed that these issues have worsened in developing nations due to outsourcing these systems to foreign EHRP system providers and indirect interactions with service providers, both of which have reduced the systems' potential for use and decreased user satisfaction. However, employees in businesses like Nigerian commercial banks have also experienced similar issues. Since they utilise these systems regularly to carry out vital functional duties essential to the survival and existence of the banks, employees in the human resources departments of commercial banks are among the significant and active users of EHRP systems.

Studies evaluating the efficacy and user satisfaction of EHRP systems used by workers in the human resources department of commercial banks in Nigeria are scarce. Thus, it is

essential to assess the performance of EHRP systems and the difficulties bank staff may have when utilising them. This study's primary goal is to assess the efficiency and user satisfaction of enterprise human resource planning systems used by human resources department staff in commercial banks in Lagos State, Nigeria, by examining the level of information quality, service quality, and system quality resulting from its use. The following research inquiries and hypotheses served as the study's guiding principles in light of these goals:

- What is the level of information quality derived from the use of enterprise human resource planning systems by human resources department staff in commercial banks in Lagos State?
- What is the level of service quality derived from using enterprise human resource planning systems by human resources department staff in commercial banks in Lagos State?
- What is the level of system quality of enterprise human resource planning systems used by human resources department staff in commercial banks in Lagos State?
- What is the level of user satisfaction derived from using enterprise human resource planning systems among human resources department staff in commercial banks in Lagos State?
- What challenges do human resources department staff in commercial banks in Lagos State face when using enterprise human resource planning systems?

The remainder of this paper is structured as follows: The study's methodology is presented in the next part after the study's theoretical underpinning. The results are described in the next section, followed by a discussion. The conclusion, a recommendation, and ideas for additional research round up the study.

2 Theoretical underpinning

The DeLone and McLean model (DeLone & McLean, 1992; DeLone & McLean, 2002; DeLone & McLean, 2003) is mainly used to ascertain success in information systems (IS). This model adopted a user-centred approach when assessing the overall IS success (Stephan et al., 2010). Six interconnected measurements of an IS success constitute the DeLone and McLean model from 1992. The primary measuring metrics include system quality, information quality, use, user satisfaction, individual impact, and organisational impact. These metrics look at the relationship between the independent variables (system

quality, information quality), the dependent variables, and how good an information system, such as ERP systems, functions (use, user satisfaction, individual impact, and organisational impact).

An updated version of the IS-success model by DeLone and McLean (2002) included the service quality metric and retired the effects of individual and organisational behaviour on net benefits (DeLone & McLean, 2002). The model was updated in response to new research published since the authors' initial publication on the subject and developments in the administration and operation of information systems. The word "use" has been replaced with "Intention to use," which refers to an attitude rather than behaviour. This additional model component may allay some of Seddon's (1997) concerns about process vs. causation. However, because attitudes and the links between them and behaviour are difficult to measure, many researchers could stick with "usage" but with a clearer understanding.

The new model shows that, in terms of the process, "use" must come before "user satisfaction," but that, in terms of causality, successful "use" will result in pleasant experiences. Information, system, and service quality are the three main aspects of quality. They expanded the concept by including "Intention to Use." Finally, they substituted "Net Benefits" for "Individual Impact" and "Organizational Impact" and introduced feedback loops to "Intention to Use" and "User Satisfaction." The model has changed to satisfy the criteria established by various information systems and viewpoints.

This study analysed the use of EHRP in selected banks in Lagos, Nigeria, using three constructs from the modified Information Systems Success Model of DeLone and McLean (2003): information, system, service quality, and user satisfaction. Prior literature has used a variety of definitions of information quality, and it has been demonstrated that these definitions have a variety of consequences for information consumers. Operationally, high-quality information is reliable, beneficial, current, and accurate (Rieh & Belkin, 2000). Miller (1996) asserts that a customer's perception and usage of the information determines the quality of the information. The degree to which a measurement method is used to prepare data that can represent what a decision maker wants to know (information relevance), the stated methods that have been competently applied, and the results that have been truthfully displayed (information reliability or credibility), according to Kinney (2000), determines the quality of the information. Information quality is a novel approach for many businesses, according to Redman (2004). As an organisation collects and stores

more data and utilises it for commercial purposes, the quality of the information provided becomes increasingly crucial. He added that poor information might cause an organisation to spend money on ineffectual projects, whereas quality information will help determine needs, target services, and improve daily operations.

System performance is considered system quality in an information system (Petter & McLean, 2009). The utilisation of cutting-edge technology, a system that offers essential features and functions (IS excellence), and user-friendly software that is simple to pick up and maintain are all characteristics of system quality, according to Gorla et al. (2010). System Quality measures how technically sound a system is, according to Chinomona et al. (2014). It refers to the quality of the information system processing, including software and data components. Seddon (1997) espouses that The uniformity of the user interface, usability, quality of the documentation, and occasionally the calibre and maintainability of the program code are all aspects of a system's quality. System quality aims to guarantee consistency in approach, method, and output. A quality system gives an organisation a solid foundation to implement the fundamental principles of quality assurance, a precise set of standards for quality systems and procedures, a way to fulfil contractual commitments, and readily accessible guidance and direction. According to DeLone and McLean (2003), a system's usability, functionality, dependability, data quality, adaptability, and integration are all indicators of its quality.

According to Alamgir and Shamsuddoha (2003), the discrepancy between customers' expectations of the service provider's performance and their evaluation of the services they received determines service quality. According to Zeithaml and Bitner (1996), perceived service quality refers to a customer's assessment of a good or service's general excellence or superiority. Additionally, they stated that "the delivery of excellent or superior service relative to customer expectations" constitutes high-quality service. They are described as "the degree and direction of a discrepancy between customers' perceptions and expectations" by Parasuraman et al. (1988). Every firm must prioritise service quality. According to Baron et al. (2009), unlike good quality, where technical characteristics of quality are obvious, service quality is a highly abstract concept. According to Jiang et al. (2003), service quality is their expectation and should provide a comparison between what clients perceive and what is provided. According to Petter and McLean (2009), service quality refers to the department's support for users of information systems and is frequently gauged by the organisation's responsiveness, dependability, and empathy.

Since the field's inception, several studies have been conducted on user satisfaction with information systems (IS), which is seen as a key measure of their performance. Since the beginning of the IS sector, evaluating the implementation of an IS has proven to be a crucial topic. Information system success indicators include system utilisation, user satisfaction, IS efficacy, and IS effectiveness. User satisfaction has emerged as the most used metric and indicator of IS success (DeLone & McLean, 2003; Petter & McLean, 2009) and is central to IS behaviour research. This construct is used as the dependent variable in this study. Figure 1 shows the conceptual model for this study, which is an adaptation of DeLone and McLean's (2003) model.

3 Conceptual model

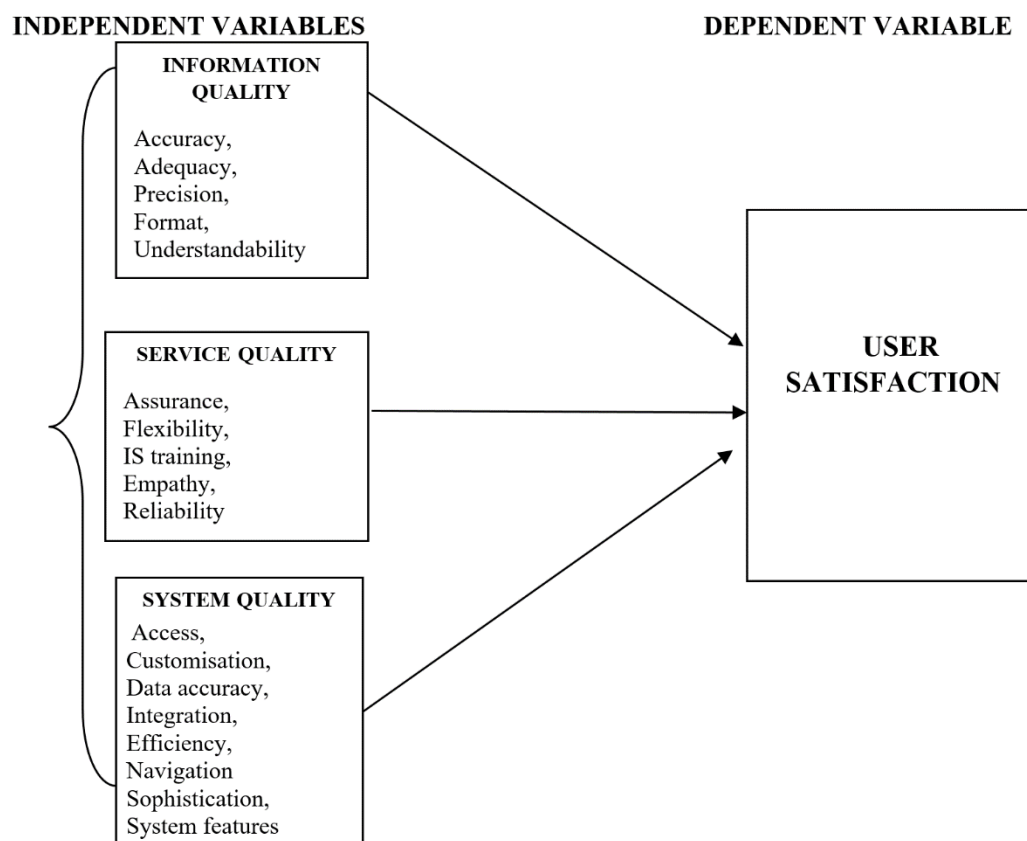


Figure 1: The conceptual model of information, service, and system quality on user satisfaction with EHRP systems

Based on the conceptual framework, the following null hypotheses were tested at a 0.05 level of significance:

- H0₁** There is no significant relationship between information quality and user satisfaction with the use of enterprise human resource planning systems by the staff of commercial banks in Lagos State.

- H0₂** There is no significant relationship between system quality and user satisfaction with the use of enterprise human resource planning systems by the staff of commercial banks in Lagos State.
- H0₃** There is no significant relationship between service quality and user satisfaction with the use of enterprise human resource planning systems by the staff of commercial banks in Lagos State.
- H0₄** There is no significant joint relationship between information quality, system quality, service quality, and user satisfaction with using enterprise human resources planning systems by the bank staff of commercial banks in Lagos State.

4 Methodology

The descriptive survey design was used, and qualitative and quantitative data collection techniques were employed. There are 232 personnel working in the human resources department at the designated commercial banks' headquarters in Lagos State, Nigeria. The employees are in charge of hiring, selecting, vetting, and placing employees. Along with other administrative tasks, they also manage the banks' payroll, benefits, training, and employee relations. The choice of Lagos State was informed by the fact that the state is Nigeria's most prominent economic hub, the city where all the selected commercial banks in the current study are headquartered. The commercial banks included in the study were those with international licenses issued by the Central Bank of Nigeria (CBN). These licenses authorise the banks to provide services inside and outside of Nigeria, significantly increasing their clientele and necessitating the adoption of a foreign EHRP. The chosen banks are appropriate for this investigation since they use international EHRP systems.

Six of the eight commercial banks the CBN has licensed with international authorisation were chosen randomly from a convenience sample. Using the sample size distribution from Saunders et al. (2009), the selection of bank employees was estimated. According to information provided by the human resources division of the chosen banks to the Central Bank of Nigeria, the bank's human resources departments employ 232 people. According to Saunders et al. (2009), a sample size of 151 should be used for a population size of 250 at a 95% confidence level. This represents around 60.4% of the population, which was used to pick a sample of 140.

To gather data, questionnaires and an interview schedule were utilised. The two-part questionnaire was adapted from those of Chiu et al. (2007), used to measure information quality, service quality, system quality, and user satisfaction in a web-based learning

environment, and those of Ifinedo (2007) used to measure the information and system quality of firms in northern Europe. Part A was designed to acquire respondents' demographic information. Part B comprised two sections: Section 1 sought data on the Information, Service, and System qualities ensuing from staff usage of EHRPs, whereas Section 2 focused on gauging staff satisfaction with EHRPS use. A telephone interview was used to gather data from respondents, in addition to the use of a questionnaire. The structured interview schedule was used mainly, but off-the-cuff questions were also used to provide additional information or clarity whenever necessary. Both instruments were validated using content validity. An internal consistency measure using Cronbach's Alpha was used to assess the reliability of the questionnaire's four (4) variables. The reliability test was conducted to ascertain whether the measures' internal consistency indicates the homogeneity of the items in the measured variables. pre-testing of instrument results indicated a high level of internal consistency for the four (4) variables: Information Quality (0.880), Service Quality (0.914), System Quality (0.777) and User Satisfaction (0.891). With the Cronbach alpha for all the items above 0.70, as recommended by Nunnally (1978), the overall reliability of the whole scale is guaranteed.

The instruments were administered to the human resources department staff of the selected banks by the researchers between the months of November and December 2020. Data was collected through a questionnaire and phone interview; the respondents' responses during the interview session were recorded using a smartphone application recorder. In all, 140 copies of a questionnaire were administered, and 128 copies were retrieved; however, only 123 copies were suitable for analysis, which was a 91% return rate. For the interview, 10 interviews were conducted with bank staff. The demographic profile of the respondents revealed that 57.7% (71) of them are male, while 42.3% (52) are female. Also, 44.7% (55) of the respondents are within the age of 20 – 30 years, 37.4% (46) are within 31 - 40 years, 4.9% (6) are within 41 – 50 years, 11.4% (14) are within 51 – 60 years. More so, 43.1% (53) of the respondents have been employed at selected banks for 1 – 3 years, while 30.1% (37) have been working for 4 – 6 years, 13.8% (17) between 7 – 9 years, 7.3% (9) between 10 – 12 years and 5.7% (7) for more than 13 years. On highest educational qualification, among the respondents, 3.3% (4) have OND/NCE, 54.5% (67) have B.Sc./HND, 41.5% (51) have M.Sc., and 8% (1) have a PhD. About 72.4% (89) of the respondents indicated Microsoft Dynamics 365 as their EHRP system at their bank, while 27.6% (34) use Oracle EBS.

Frequency counts and percentage distributions were performed on the data collected. Pearson bivariate correlation and multiple regression analysis were used to test the relationships between variables in the hypotheses at a 0.05 significance level. Interview data were transcribed and later categorised into themes in line with the research questions that guided the study.

During this study, an ethical permit was obtained from the University of Ibadan Research Ethics Committee, and the guidelines for protecting human rights were adhered to. Proper approval to retrieve data from staff working in the selected banks was obtained from the bank's headquarters, and the data retrieved were treated as confidential. Only the researchers had insight into the original unclassified data, while the published data did not bear the name of any bank or personnel who submitted particular data. Names and sensitive information about the staff were not collected during this research. In addition, there was an informed consent procedure whereby the researchers gave potential research participants full disclosure about the nature, purpose, and benefit of data gathering. respondents were also assured of the confidentiality of the information supplied. Participants were allowed to ask questions before deciding whether or not to take part in the interview or fill out the questionnaire. Also, they were informed that participation in the research is voluntary, and participants were free to withdraw their participation at any stage.

5 Results

This section presents results relating to the five research questions that guided the study.

Research Question 1: What is the level of information quality derived from the use of enterprise human resource planning systems used by human resources department staff in commercial banks in Lagos State?

Table 1 below presents findings on the level of information quality derived from using their EHRP systems.

Table 1: Frequency Distribution of the level of information quality derived from the use of EHRP systems

Information Quality	SD(%)	D(%)	A(%)	SA(%)
The information derived from the EHRP system in my organisation is accurate	2 (1.6)	11 (8.9)	71(57.7)	39(31.7)
Information obtained from the EHRP system in my organisation is useful	0(0%)	10 (8.1)	73(59.3)	40(32.5)

The information derived from the EHRP system in my organisation is consistent.	0(0%)	16 (13)	75 (61)	32 (26)
The information on the EHRP system in my organisation is produced promptly.	0 (0%)	13 (10.6)	75 (61)	35(28.5)
The information produced by the EHRP system in my organisation is relevant	0 (0%)	10 (8.1)	72(58.5)	41(33.3)
The information produced by the EHRP system in my organisation is concise	0 (0%)	15 (12.2)	77(62.6)	31(25.2)
I get precise information from the EHRP system used in my organisation	0 (0%)	12 (9.8)	80 (65)	31(25.2)
The information provided by the EHRP system in my organisation is well-formatted	0 (0%)	13 (10.6)	75 (61)	35(28.5)

Table 1 presents the results of the respondents' ratings on the information quality level derived from using EHRP systems in their organisation. It was revealed that 10.5% (13) disagreed that the information derived from the EHRP they use is accurate, while 89.4% (110) agreed. On the usefulness of the information derived from their EHRP system, 8.1% (10) disagreed, while 91.8% (113) agreed. Also, on the consistency of the EHRP system, a good number of respondents, 87% (107), agreed it is, while 13% (16) disagreed. Regarding the timeliness of producing information by the EHRP system, 89.5% (110) agreed it was timely, while 10.6% (13) disagreed. Furthermore, 8.1% (10) of the respondents disagreed that information produced by the EHRP system is relevant, while 91.8% (113) agreed. On how concise the information produced by the EHRP system is, 12.2% (15) disagreed, while 87.8% (108) agreed. Also, 9.8% (12) disagreed that the information from the EHRP system is precise, while a large number of respondents, 90.2% (111), agreed. More so, 10.6% (13) disagreed that the information derived by their EHRP system is well-formatted, while 89.5% (110) agreed it is. Based on the results, it can be said that the level of information quality derived from using EHRP systems by human resources planning department staff in commercial banks in Nigeria is high.

Research Question 2: What is the level of Service quality derived from the use of enterprise human resource planning systems used by human resources department staff in commercial banks in Lagos State?

Table 2 below presents the various responses regarding the service quality level derived from using their EHRP systems.

Table 2: Frequency Distribution of the level of Service quality derived from the use of EHRP systems

Service Quality	SD(%)	D(%)	A(%)	SA(%)
The EHRP system in my organisation guides me during its utilisation	1 (0.8)	14 (11.4)	76 (61.8)	32 (26)
The EHRP system used in my organisation is reliable	0 (0%)	9 (7.3)	76 (61.8)	38 (30.9)
The EHRP system used in my organisation has unique features	1 (0.8)	19 (15.4)	70 (56.9)	33 (26.8)
The EHRP system in my organisation responds effectively to requests given to the system	0 (0%)	17 (13.8)	72 (58.5)	34 (27.6)
The EHRP system in my organisation is flexible	0 (0%)	18 (14.6)	79 (64.2)	26 (21.1)

Table 2 presents the results of respondents' ratings on the service quality level derived from using EHRP systems in their organisation. This revealed that 87.8% (108) of the respondents agreed that they are being guided by the system when using it, while 12.2% (15) disagreed. Also, very few respondents, 7.3% (9), disagreed that the service provided by the EHRP system is reliable, while 92.7% (114) agreed it is. Regarding unique features in the EHRP system, 16.2% (20) disagreed, while 83.7% (103) agreed it had unique features. About 13.8% (17) of the respondents disagreed that the EHRP system responds effectively to given requests, while 86.1% (106) agreed it effectively responds to given requests. More so, 14.6% (18) of the respondents disagreed that the EHRP system in their organisation is flexible, while 85.3% (105) agreed it is. It can be deduced that the level of service quality achieved by human resources planning department staff in commercial banks in Nigeria is high from using EHRP systems.

Research Question 3: What is the level of System quality derived from the use of enterprise human resource planning systems used by human resources department staff in commercial banks in Lagos State?

Table 3 below presents results on the system quality level derived from using their EHRP systems.

Table 3: Frequency Distribution of the level of system quality derived from the use of EHRP systems

System Quality	SD(%)	D(%)	A(%)	SA(%)
The EHRP system used in my organisation is easily accessible	0 (0%)	12 (9.8)	74(60.2)	36(29.3)
The EHRP system in my organisation is convenient to use	0(0%)	14(11.4)	79(64.2)	30(24.4)
The EHRP system in my organisation allows for customisation	1 (0.8)	26(21.1)	68(55.3)	28(22.8)
The EHRP system in my organisation is interactive	0 (0%)	12 (9.8)	86(69.9)	25(20.3)

I get quick responses from the EHRP system used in my organisation	0 (0%)	11 (8.9)	85(69.1)	27 (22)
The EHRP system in my organisation is not tedious to operate	1 (0.8)	14(11.4)	80(65.0)	28(22.8)
The EHRP system in my organisation is efficient	0 (0%)	9 (7.3)	80 (65)	34 (27.6)
The features of the EHRP system in my organisation are adequate	0 (0%)	11 (8.9)	82(66.7)	30(24.4)
The EHRP system in my organisation allows integration with other IT systems	1 (0.8)	14(11.4)	71(57.7)	37(30.1)
It is easy to navigate around the EHRP system used in my organisation	0 (0%)	11 (8.9)	79(64.2)	33(26.8)
The EHRP system in my organisation has good features	1 (0.8)	9 (7.3)	86(69.9)	27 (22)

From Table 3, 89.5% (110) agreed that the system is easily accessible, while 9.8% (12) disagreed. Also, 11.4% (14) disagreed that the system is convenient, while 88.6% (109) agreed that it is convenient. Furthermore, 21.9% (27) of the respondents disagreed that the EHRP system in their organisation allows customisation, while 78.1% (96) agreed that it allows customisation. Also, 9.8% (12) of the respondents disagreed that the EHRP system is interactive, while 90.2% (111) agreed. Regarding quick response from the EHRP system, 99.1% (112) agreed, while 8.9% (11) disagreed. More so, 87.8% (108) of respondents agreed that the EHRP system is not tedious, while 12.2% (15) disagreed. Also, 92.6% (114) agreed that the EHRP system was efficient, while 7.3% (9) disagreed. On the adequacy of the EHRP system, 8.9% (11) disagreed, while 91.1% (112) agreed. Also, 12.2% (15) of respondents disagreed that the EHRP systems allow integration with other IT systems, while 87.8% (108) agreed. On the aspect of navigating with ease around the EHRP system, 91% (112) agreed it is easy to navigate around the system, while 8.9% (11) disagreed. Also, 91.9% (113) agreed that the EHRP system used by their organisation had good features, while 8.1% (10) disagreed. Thus, the level of system quality achieved from using EHRP systems by human resources planning department staff in commercial banks in Nigeria is high.

Research Question 4: What is the level of user satisfaction derived from using enterprise human resource planning systems among human resources department staff in commercial banks in Lagos State?

Table 4 below presents the responses on the level of user satisfaction derived from the use of EHRP systems.

Table 4: Frequency Distribution of the level of user satisfaction derived from the use of EHRP systems

User satisfaction	SD(%)	D(%)	A(%)	SA(%)
I am satisfied with the adequacy of information produced by the EHRP system in our organisation	3 (2.4)	15 (12.2)	75 (61)	30 (24.4)
I am satisfied with the effectiveness of the EHRP system in my organisation	1 (0.8)	13 (10.6)	80 (65)	29 (23.6)
I am satisfied with the efficiency of the EHRP system in my organisation	0 (0%)	14 (11.4)	83(67.5)	26 (21.1)
I enjoy using the EHRP system in my organisation	3 (2.4)	13 (10.6)	80 (65)	27 (22)
I am satisfied with the overall information produced by the EHRP system in my organisation	2 (1.6)	9 (7.3)	79(64.2)	33 (26.8)
I am pleased with the experience of using the EHRP system in my organisation.	0 (0%)	11 (8.9)	78(63.4)	34 (27.6)

Table 4 revealed that 85.4% (105) agreed that they are satisfied with the adequacy of information produced by the EHRP system in their organisation, while 14.6% (18) disagreed. Also, 88.6% (109) of the respondents agreed that they are satisfied with the effectiveness of the EHRP system in their organisation, while 11.4% (14) disagreed. Furthermore, regarding satisfaction with the efficiency of the EHRP system, 88.6% (109) agreed, while 11.4% (14) disagreed. Also, when asked about enjoying the EHRP system during use, 87% (107) agreed, while 13% (16) disagreed. Also, 8.9% (11) of the respondent disagreed that they were satisfied with the overall information produced by their EHRP system, while 91% (112) agreed. The same proportion, 8.9% (11), disagreed that they were pleased with the experience of using the EHRP system in their organisation, while 91% (112) agreed.

Research Question 5: What challenges do human resources department staff in commercial banks in Lagos State face in using enterprise human resource planning systems?

Table 5 below presents the challenges faced using EHRP systems in their organisations.

Table 5: Word Count of Responses on the challenges faced in using the EHRP systems

Word	Length	Count	Weighted %
User-friendly	12	18	5.51
System	6	8	2.45
Use	3	7	2.14
Application	11	5	1.53
Difficult	9	4	1.22
Help	4	4	1.22
Login	5	4	1.22
Training	8	4	1.22
Interface	9	3	0.92
Guideline	9	3	0.92

Table 5 shows the 10 most frequently used words by the respondents in describing the challenges they encounter in using EHRP systems in their organisation. The first on the list is user-friendly, which indicates the users do not find the system user-friendly. Also, words like difficult, help, login, training, interface and guidelines were listed. This shows that users find the EHRP system difficult to use because they had little or no training before using it. Emphasis was also on the system's lack of good interface and guidance. Figure 2 shows the word cloud of the identified themes on the challenge's node to explain this further.



Figure 2: Word Cloud on the challenges faced in using EHRP systems.

Figure 2 presents a word cloud of the challenges encountered by the interviewed staff when using EHRP systems.

A total of ten (10) staff were interviewed regarding the challenges faced in the use of their EHRP systems. Four (4) staff indicated that the EHRP system is not user-friendly; out of the four staff that cited this challenge, three (3) use Microsoft Dynamics 365, while one (1) uses Oracle EBS as their EHRP system. Some of their responses are as directly quoted below:

"The system's user interface is not easy to navigate; it is not user-friendly, but trust me, when you know what to do, it is very useful."

"It has never been user-friendly, the direction has been poor, the navigation has been horrible, and the system's complexity is frustrating."

"Personally, I do not think it is user-friendly."

"One of the major problems is it is not well formatted, in my opinion; it is not user-friendly."

Also, the analysis revealed that users find the system difficult and complex, and four (4) respondents described this as a challenge. Two (2) of the respondents use Microsoft Dynamics 365 as their EHRP system, while the other two use Oracle EBS. While the respondents indicated that the EHRP system used is difficult and sometimes complex to operate or work with, they also noted that this makes the system uninteresting and difficult to use. Some of their responses in this regard are highlighted hereunder:

"...it was complex because the system was not easy to understand; it took me about two months to figure it out."

"I feel like it was too complicated and takes much time to load, at least compared to other applications."

"It is generally complex to use for me."

"... Even logging in was an issue; you have to call the IT guys to help operate the system."

Furthermore, lack of proper training was another challenge identified by the respondents during this interview, as revealed by the word cloud and word frequency, which accounted for a weighted percentage of 1.22. This indicates that training was a major challenge in using the EHRP systems across the chosen banks, regardless of the EHRP system used. Although training is a factor associated with the banks and not the EHRP service providers, some respondents highlighted this as a challenge in using the system. Some of their responses are as follows:

"...So there was no training, but a guideline in PowerPoint format for executing various tasks on Dynamics 365 is available to staff."

"...yes because of limited training and its complexity, it is hard to figure out its capabilities."

"We often have to learn using the systems available here on our own, so basically, there was no training".

The interview session was analysed with word count, and World Cloud identified other challenges associated with using EHRP systems by bank staff in Lagos state. It was revealed that the system's navigation is challenging when operating it. Also, specific modules were not assigned to users or departments as it makes the application too bulky and gives room for redundancy. Some of the responses that highlight these challenges are as follows:

"...I think the modules should be broken down to specific requirements. Instead of having modules, I will not open, which slows down the network."

"It is a bit difficult to navigate".

"The system's user interface is not easy to navigate."

"It is a bulky app, and sometimes the chain of command is not properly profiled, so you might send a request to the wrong person."

Test of Hypothesis 1:

H0₁: There is no significant relationship between information quality and user satisfaction when human resources department staff in commercial banks in Lagos State use enterprise human resource planning systems.

Table 6 below presents the results obtained from the analysis as follows:

Table 6: Information Quality * User Satisfaction. (Pearson Bivariate correlation)

	Level of Information Quality	Level of User Satisfaction
Level of Information Quality	1	0.708
Level of User Satisfaction	0.708	1
N = 123 R = 0.708 Sig. (2-tailed) = 0.000		

As presented in Table 6 above, the R-value was 0.708, which means there is a high correlation between information quality and user satisfaction. Also, the sig. (2-tailed) value arrived at when the level of information quality was correlated with the level of user satisfaction at 0.000. Since correlation is significant when the p-value is < 0.05 , it can be said that the null hypothesis that there is no significant relationship between information quality and user satisfaction is rejected. Hence, there is a relationship between the level of information quality and user satisfaction with using EHRP systems by human resources department staff in commercial banks in Lagos State.

Test of Hypothesis 2:

H0₂: There is no significant relationship between service quality and user satisfaction when human resources department staff in commercial banks in Lagos State use enterprise human resource planning systems.

Table 7 below presents the results obtained from the analysis as follows:

Table 7: Service quality * User Satisfaction. (Pearson Bivariate correlation)

	Level of Service Quality	Level of User Satisfaction
Level of Service Quality	1	0.743
Level of User Satisfaction	0.743	1
N = 123 R = 0.743 Sig. (2-tailed) = 0.000		

As revealed in Table 7 above, the R-value is 0.743, which means there is a high correlation between service quality and user satisfaction. Also, the sig. (2-tailed) value arrived at when the level of service quality was correlated with the level of user satisfaction at 0.000. Since correlation is significant when the p-value is < 0.05 , it can be said that the null hypothesis that there is no significant relationship between service quality and user satisfaction is rejected. Hence, there is a relationship between the level of service quality and user satisfaction in using EHRP systems by human resources department staff in commercial banks in Lagos State.

Test of Hypothesis 3:

H0₃ There is no significant relationship between system quality and user satisfaction with using enterprise human resource planning systems by human resources department staff in commercial banks in Lagos State.

Table 8 below presents the results obtained from the analysis as follows:

Table 8: System quality * User Satisfaction. (Pearson Bivariate correlation)

	Level of System Quality	Level of User Satisfaction
Level of System Quality	1	0.778
Level of User Satisfaction	0.778	1
N = 123 R = 0.778 Sig. (2-tailed) = 0.000		

Table 8 revealed the R-value as 0.778, indicating a high correlation between system quality and user satisfaction. Also, the sig. (2-tailed) value arrived at when the level of system quality was correlated with the level of user satisfaction at 0.000. Since correlation is significant when the p-value is < 0.05 , it can be said that the null hypothesis that there is no significant relationship between system quality and user satisfaction is rejected. Hence, there is a relationship between system quality and user satisfaction in using EHRP systems by human resources department staff in commercial banks in Lagos State.

Test of Hypothesis 4:

H0₄: There is no significant joint relationship between information quality, system quality, service quality, and user satisfaction when human resources department staff in commercial banks in Lagos State use enterprise human resources planning systems.

The composite and independent variables of information quality, service quality, and system quality on user satisfaction were tested with multiple regression analysis to test for the hypothesis. The results are presented in Tables 9-12.

Table 9: ANOVA for the constructs

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	753.111	3	251.037	88.185	.000 ^b
Residual	338.759	119	2.847		
Total	1091.870	122			

a. Dependent Variable: USER_SATISFACTION_ALL

b. Predictors: (Constant), SYSTEM_QUALITY_ALL, INFO_QUALITY_ALL, SERVICE_QUALITY_ALL

Table 10: Model summary for the constructs

Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.831 ^a	.690	.682	1.68722

a. Predictors: (Constant), SYSTEM_QUALITY_ALL, INFO_QUALITY_ALL, SERVICE_QUALITY_ALL

Table 11: Coefficients of the constructs

Coefficients

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.522	1.201		-.435	.665
INFO_QUALITY_ALL	.159	.062	.203	2.583	.011
SERVICE_QUALITY_ALL	.379	.098	.306	3.873	.000
SYSTEM_QUALITY_ALL	.267	.054	.410	4.935	.000

a. Dependent Variable: USER_SATISFACTION_ALL

Table 12: Summary of Multiple Regression table showing the joint and independent effect of Information Quality, Service Quality, and System Quality on User Satisfaction using EHRP systems.

Predictors	Beta weight	t-value	Sig.	R (coefficient of relationship)	R ² (coefficient of relationship)	F- ratio	Sig.
Information Quality	0.203	2.583	0.011	0.831	0.690	88.185	0.000
Service Quality	0.306	3.873	0.000				
System Quality	0.410	4.935	0.000				

Results presented in Table 12 above reveal a significant joint effect of information quality, service quality and system quality on user satisfaction with the use of EHRP systems by the respondents [$F = 88.185$, $R = .831$; $R^2 = 0.690$; $p < .05$] shows that there is a

relationship between the combined independent variable (information, service and system qualities) and the dependent variable (user satisfaction), with the independent variables accounting for 69% of the variance in user satisfaction among the staff. Table 12 also shows that information quality ($\beta = .20$; $p < .05$), service quality ($\beta = .31$; $p < .05$), and system quality ($\beta = .41$; $p < .05$) individually significantly determine user satisfaction with EHRP systems use. Thus, according to Table 12, it is clear that all the constructs have an impact on user satisfaction; however, information quality ($\beta = .20$; $p < .05$) had the least impact, while system quality ($\beta = .41$; $p < .05$) had the most significant impact on user satisfaction. Thus, there is a joint relationship between information, service, and system qualities and user satisfaction with enterprise human resources planning systems used by human resources department staff in commercial banks in Lagos State. This indicates that the independent variables impact users' satisfaction when using the system.

6 Discussion of findings

Findings on the level of information quality derived from the use of EHRP systems by the staff showed that they derived a high level of information quality when using their EHRP system. User satisfaction was particularly in the context of system accuracy, consistency, preciseness, and information concision. This is in line with the submission of Benmoussa et al. (2018), who assessed the impact of information quality on Moroccan information systems and recorded a high level of information quality derived from using information systems in Morocco. It is significant to note that this study and the one conducted in Nigeria have similarities because both were conducted in emerging African nations that use information systems represented by the EHRP system. This study's high level of information quality may be attributable to the banks' usage of EHRP systems that are readily available off the shelf. These systems, made by one of the leading EHRP system producers worldwide, have shown to be among the best over the years.

This study also showed that staff utilisation of EHRP systems led to high-quality services being provided. This covers aspects including the service's dependability, adaptability, the distinctiveness of its features, and the system's effectiveness in responding to emergencies. This supports the findings of Benmoussa et al. (2018), who found that adopting information technology in a Moroccan organisation resulted in high service quality. The fact that top-tier EHRP system providers create the EHRP systems deployed and that experts employed by the banks manage the system may be related to the high degree of service quality.

The study's findings also showed that the staff's use of the EHRP systems had high system quality, considering how highly the staff assessed the system's usability, integration availability, ease of navigation, interaction, and customisability. This demonstrated that the EHRP system suppliers had fulfilled their pledge to meet the system criteria. The fact that these systems were created by the top EHRP system producers in the world may also influence their positive evaluation. The study's findings are consistent with those of Abdullah et al. (2017), who examined the accounting information system used by commercial banks in Nigeria and discovered a high level of system quality through its use. Realising that the accounting information system under investigation is an EHRP system module is critical.

Furthermore, the results of this study showed that there is a high level of user satisfaction among human resource department staff working in commercial banks in Lagos State who use EHRP systems, primarily due to the information produced by the systems, the user experience with the systems, and the effectiveness of the systems. This demonstrated that the personnel had a positive experience with the system and perceived it as successfully performing its functions. Their contentment is undoubtedly a result of their familiarity with the system from frequent use, and they know how to manoeuvre it to fulfil their intended request. It was noted that there is a high degree of user satisfaction with using these systems in these sectors, consistent with the findings of Awolusi and Onigbinde (2013), who evaluated the influence of EHRP systems in manufacturing enterprises in Nigeria.

The findings also highlighted the difficulties staff members encountered when utilising EHRP systems. It was found that staff members received little to no training prior to using the systems, which prevented users from interacting with it to their full potential. Numerous respondents indicated that the training would have enhanced their effectiveness with system use. The lack of proper training by the bank may result from the scarcity of EHRP specialists and the high cost associated with hiring them, as most professional specialists may be hired from abroad as advised by the EHRP service providers. As a result, the banks may opt to use internal instructors who are unqualified to train users in using the system. Additionally, it was discovered that users criticised the EHRP systems' format, interface, and navigation. They also believed the system to be complex and challenging to use, which reduced its usability and ease of use and prevented users from taking full advantage of its capabilities. Some of these issues relate to Bradley and Lee's (2007) investigation of the impact of the EHRP system's issues on user satisfaction. Although the

reported issues are system-based, they can only be resolved by the EHRP system providers and not by the banks. Due to the off-the-shelf nature of these systems, users and managers have little to no control over changes made to the software. As a result, some of these challenges might not be resolved unless the bank develops custom software as its EHRP system, which will consider these issues when developing its software.

The study's results on the relationship between information quality and user satisfaction among the respondents showed a substantial positive correlation, indicating that the staff's usage of EHRP systems to generate information quality predicts the degree of user satisfaction. This demonstrated the high quality of the information obtained by using the system. This backed up the claim by Petter and McLean (2009), who revealed a high positive correlation between information quality and user satisfaction. The results also demonstrated a significant correlation between user satisfaction and service quality. This suggests that users are content with the degree of service quality and that the quality of the service significantly influences users' satisfaction levels. This study supports the claim made by DeLone and McLean (2003) that service quality is a sensitive construct to measure and that there will be disparities in doing so, leading to a need for more measurement methods. Chiu et al. (2007) claimed that the impact of service quality on user satisfaction was not significant in their study, in which they used the information systems model developed by DeLone and McLean (2003). They demonstrated the strongest positive relationships between individual independent and dependent variables for the system quality and user satisfaction constructs. This suggests that the system quality significantly influences the staff's high level of user satisfaction when using the EHRP system.

Findings also showed that information, service, and system quality strongly influence user satisfaction using EHRP systems. All three information system success metrics have a strong influence on user satisfaction. Evidently, the respondents derived high satisfaction from using EHRP systems, especially through the system's quality. This supported the proposition of Petter and McLean (2009), who adjudged that there is a strong positive relationship between information, service, and system qualities on user satisfaction after analysing several works of literature that used DeLone and McLean's Information system success model in accessing information systems. This corroborates this study as the EHRP system is a type of information system, and this study's findings show a strong positive relationship between the independent and dependent variables, supported by Petter et al. (2009). The study by Halawi et al. (2007) also examined the link between these constructs; similarly, to this study, their findings indicated a favourable association between them. The

fact that there is a strong positive relationship between these constructs among the bank employees on whom this study was conducted suggests that these individuals are already accustomed to the system because they have been using it daily for an extended time. As a result, they may be familiar with how to customise the system to meet their needs and consequently derive satisfaction from it.

7 Conclusion

In conclusion, the study highlights that while enterprise human resource planning systems in Lagos State's commercial banks are generally effective and well-received, significant challenges remain, particularly concerning system quality and usability. Addressing these issues through focused training, user-friendly design enhancements, and deactivating unnecessary modules can greatly improve employee satisfaction and system efficiency. The study underscores the importance of continuous system evaluation and adaptation to meet users' evolving needs and optimise organizational performance.

8 Contribution to knowledge and recommendations

This study significantly enhances the global understanding of the intricate relationship between information quality, service quality, system quality, and user satisfaction with Enterprise Human Resource Planning (EHRP) systems, focusing on commercial banks in Lagos State, Nigeria. The research identifies critical challenges faced by employees in Nigerian banks, such as inadequate training, system complexity, and poor interface design. These findings align with global trends where EHRP implementation issues are common across various regions, including Asia, Europe, and North America. Internationally, aligning EHRP attributes is crucial for user satisfaction and organisational success. Studies in the US and Europe emphasise the need for user-friendly interfaces and comprehensive training to maximise system benefits. This study fills a gap in the Nigerian literature and contributes to global discourse by providing localised insights into HR technology challenges in developing economies. The study's recommendations for improving EHRP system satisfaction include enhancing training programmes, simplifying user interfaces, and developing localised support tailored to specific cultural and operational needs. These suggestions are relevant not only for Nigerian banks but also for organisations worldwide facing similar challenges. Future research should explore cross-regional comparisons to identify universal best practices for overcoming these obstacles and optimising EHRP system utilisation across different contexts.

To maximise the system's potential, staff members should receive adequate training on how to use EHRP systems, especially for new users and when new systems are launched.

EHRP system providers should constantly review the level of information quality derived from their EHRP systems and necessary improvements in updated versions of the systems.

EHRP system providers should constantly review their systems' interface, navigation, and user-friendliness and improve subsequent versions of the systems.

Organisations should evaluate the modules required by a specific user and department and only make them available, as installing too many modules reduces system efficiency.

EHRP systems and staff usage should be periodically appraised to identify areas for improvement and ensure efficient utilisation and optimum production.

9 Suggestions for further studies

The areas that were not covered in this research are therefore suggested for further studies as follows:

- Evaluation of EHRP system performance indicators in other Nigerian industries, such as the telecoms and industrial sectors. Since EHRP systems are multifunctional, it is recommended that this be done to assess their efficacy in various industries.
- Other success metric accessing models, aside from the DeLone and McLean Model of Information Systems Success, should be used to access the EHRP systems used in Nigerian banks. This will enable access to other system metrics, which will assist in comprehensively evaluating the EHRP system.
- Finally, a broader study should be undertaken, including more banks, to examine the effect of EHRP systems on intention to use and net benefits, thereby using the full DeLone and McLean Model of Information Systems Success to access EHRP systems.

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