ELECTRONIC HUMAN RESOURCE MANAGEMENT (e-HRM) AND ORGANIZATIONAL COMMITMENT IN A DEVELOPING ECONOMY: THE MEDIATING EFFECT OF JOB SATISFACTION

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Abstract
The paradigm shifts that technological innovation brings to organisational outcomes has strategic values on human resource management practices. This study was carried out to examine the empirical effect of electronic human resource management (e-HRM) on organizational commitment and the mediating effect of job satisfaction on the relationship between e-HRM and organisational commitment underpinned by, the Resource Based View theory. The survey research design quantitative study was carried out in a public sector para-military organisation-The Nigeria Immigration Service Headquarters office in Abuja and Lagos Nigeria. Questionnaire was used as a research instrument to source data from a population of 1772 senior ranking officers from the two locations. Multi-stage sampling procedure was deplored to arrive at a sample size of 326 using Slovin sample size determination formulae. Data were analyzed with both descriptive and inferential statistics in Statistical Package for Social Sciences (SPSS) version 29. The results revealed that e-HRM has a significant positive effect on Organizational Commitment ($f = 46.888$, $p < 0.05$, $R^2 = .142$ and Adjusted $R^2 = .139$, $\beta = .314$, $t = 6.847$). Furthermore, the study empirically revealed a positive significant mediating effect of job satisfaction on the relationship between e-HRM and organisational commitment ($f = 102.595$, $p < 0.05$, $R^2 = .421$, $\beta = .690$, $t = 11.659$, $p < 0.05$). The findings implies that organisations under study should place more strategic values on digitally enabled human resource practices which is e-HRM to be integrated into the main strategic managerial decisions that enhance organisational commitment through job satisfaction.

***Key words**: e-HRM, Organisational Commitment, Job Satisfacti*

Introduction

Organization strives to succeed in its operation in order to ensure its continuous existence by maximizing its profits and lowering it costs. Human resource Management is an essential department in every organization for they ensure that organizational workforce is made up people with prerequisite knowledge, technical know-how and skills that perform to place the organization in a competitive and comparative advantage over competing firms providing similar services. The business environment is dynamic thus requiring human resource development professionals and organisations to be proactive in the development of human resource tools, models, principles and policies to ensures that the organization are within the trend of what happens in their operating environment. Human resource management is a systematic and strategic act of managing workforce in an organization. It entails aligning the various HR practices such as planning, recruitment, with organizational goals, leveraging organizational resources to attain a competitive advantage over others, and creating work processes and polices that promote employee growth and development as well as retention (Snell *et al.*, 2016) The impact of globalization and the desire of organization to have cutting edge advantages over competitors with changes in technology and information system developments, has brought a paradigm shift in HRM practices which has evolved in changes to Electronic Human Resource Management (e-HRM). Researchers have described e-HRM as a way of implementing HR strategies, policies and practices in organisations through a conscious and directed support of and/or with the full use of web-based-technology (Ruel, Bondarouk & Looise, 2004). Digital technologies have brought about development of e-business and human resource (HR) and HR professionals are faced with the challenge of performing in ways that are in line with the business. In this view human resource management (HRM) functions become critical partners in driving success, but to do so requires that HR changes its focus, its role, and its delivery systems (Abiodun, *et al.*, 2013).

E-HRM is a strategic initiative to make the organisation propel itself in the information age, by freeing itself from daily operational, monotonous requirements and making it more in tune with the decision making and more strategic in understanding of the employees. Technological changes and advancement are effective force towards paradigm shift of traditional HRM function to digital form. Evolving technology has resulted in new dimensions towards HR by way of creation of virtual workforce, e-recruitment, e-training, e-performance and e-compensation, (Ahmed, 2019) In the last two decades, the concept of e-HRM has evolved as a strategic measure that organisations in private and public sector deplores to ascertain the strategic nature of HRM practices within the organisational corporate vision (Parry, 2011). In this period of knowledge in e-HRM, studies have been carried out to find out the predictive nature of e-HRM to organisational performance but not on organisational commitment

(Haitham & Khalid, 2022). Meanwhile, studies in this regard have been carried out in the private sector and majorly done in the developed economies of the world. Despite the impressive advancement in literature in relation to the predictive power of e-HRM, the public sector had not really explored its strategic relevance (Amah & Oyetunde, 2019). Limited studies have revealed the potential values of e-HRM practices in the public sector as it relates to organisational commitment (Haitham & Khalid, 2022). The organisational commitment level of employees in the public sector of developing countries have been observed in literature to be very poor (Singh & Onahring, 2019). This has necessitated the need for an empirical study in e-HRM and organizational commitment within the public sector of Nigeria.

Literature Review

e-HRM

e-HRM has been defined in various areas of HRM functions depending in the area of interest which could be relational, transactional or transformational. Strohmeier 2007, Bondarouk & Ruël (2009) explained that, e-HRM was adopted from the pretext of e-Commerce, signifying the use of electronics capability in business. The term e-HRM was later adopted officially meaning, the use of internet in conducting human resource activities (Lengnick-Hall & Moritz, 2003). Kettley and Reilly, (2003) defined e-HRM as the enhancement and improvement of human resource administration, transactions and process performance by the use of internet. Strohmeier (2007) defined e-HRM as the "planning, implementation and application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of HR activities". Foster (2009) views e-HRM as a "fully integrated, organization wide electronic network of HR related data, information, services, databases, tools, applications, and transactions". Bondarouk and Ruël, (2009) further described e-HRM as digital activities that binds all HRM functions and modern technology together, creating values within and across its users as well as building good interactions amongst employees and management.

In the application of e-HRM, Lepak and Snell (1998) explained that there are three levels of application for HRM, namely operational, relational, and transformational. Operational level is concerned with the day-to-day operations of HR functions such as management of employee payroll and updating of employee personal data. At this level, employees are provided with access to upload and update their information such as change of next of kin, marital status, into the HRM network, it also enables the smooth work operations, reduces work stress and also improves the amount of work done per day. Thus, the implementation of e-HRM can speed up the process of obtaining the latest data, reduce work-related to HR staff administration, and reduce the number of

excess HR staff (Ruel et al., 2004).

The concept of e-HRM has been observed in literature to have various components where this study reviewed from. These components include e-Recruitment, e-Training, e-Performance Management and e-Compensation which has been described in literature as the usage of electronic and web-based technologies to perform such HR activities as recruitment, training, performance management and compensation (Gueutal & Falbe, 2005) Gupta & Shaw, 2001).

Organisational Commitment:

Organizational Commitment is the employee psychological state that characterizes the employee's relationship with the organization and has implications for the decision to stay or not stay with the organization (Meyer & Allen, 1991). Organizational Commitment is expressed as the connection or bond and loyalty an employee has towards his/her organization. It is further described as a bundle of emotional feelings an individual feels towards an organization, which can take different forms such as described by (Meyer *et al.,* 1993) to be psychological state that encompasses affective commitment (emotional attachment), continuance commitment (cost of leaving), and normative commitment (obligation to stay). They emphasize that these components collectively influence an employee's emotional condition with their organization and their desire to remain.

Job Satisfaction

The concept of job satisfaction varies differently among individuals, scientists and scholars. It has been associated with numerous psychosocial issues ranging from leadership to job design. Job satisfaction is the state of well-being and happiness of an employee concerning performance in the workspace and its environment. It connects to the emotional and enjoyable state resulting from the evaluation of one's job (Danish & Usman, 2010). Job satisfaction occurs when someone feels he/she has proficiency, value, and is worthy of recognition as opined by (Garcez, 2006). Job satisfaction entails not only an individual's emotional state towards their job but also the inherent characteristics of the job and the individual's expectations regarding the job's provisions. It includes job conditions, communication, characteristics, organizational policies and procedures, compensation and benefits, prospects for advancement, recognition and appreciation, security, supervision, and relationships. It is a pull factor that gears a worker towards giving his or her best which in turn leads to the feeling of fulfillment and self-actualization thus promotes safe haven and good working relationship among co-workers. (Kaliski, 2007).

Empirical reviews show limited studies on the relationship between e-HRM and organizational commitment but, HRM on organizational commitment. Teo, *et al.*, (2007) carried out a study on Singapore firms to investigate the impact of HRM practice (training and development, compensation, performance appraisal, and employee involvement) during the Asian financial crisis on organizational performance, job satisfaction, and organizational commitment. The researchers collected data through surveys distributed to HR managers in Singaporean firms. Statistical Analysis was used to determine the relationship between HRM practices and firm performance. The study found out that training and development and employee involvement have a higher relationship with job satisfaction while compensation and performance appraisal are linked to have a higher level with organizational commitment. The overall firm performance was positively impacted by the strong HRM practice implemented during the financial crisis which made the employees feel more valued thus ensuring that the organization retained their employees and sustain their performance levels.

Savanevicience and Sankeviviute , (2011) carried out a study to determine the relationship between HRM practices, job satisfaction and organizational commitment. Adopting the Ability Motivation Opportunity Framework (AMO), they discovered that job satisfactions are positive with ability enhancing opportunities while commitments are enhanced with motivation enhancing opportunities. Meanwhile, a closely related empirical study revealed positive effect of e-HRM on organizational commitment in a study carried out in the Jodan Banking industry by (Haitham and Khalid, 2022). The quantitative empirical study employed a predictor in job satisfaction and remote e-working.

From the reviewed literatures, this study formulated two alternate hypotheses as stated:

H_{01}: there is a significant positive effect of e-HRM on organizational commitment

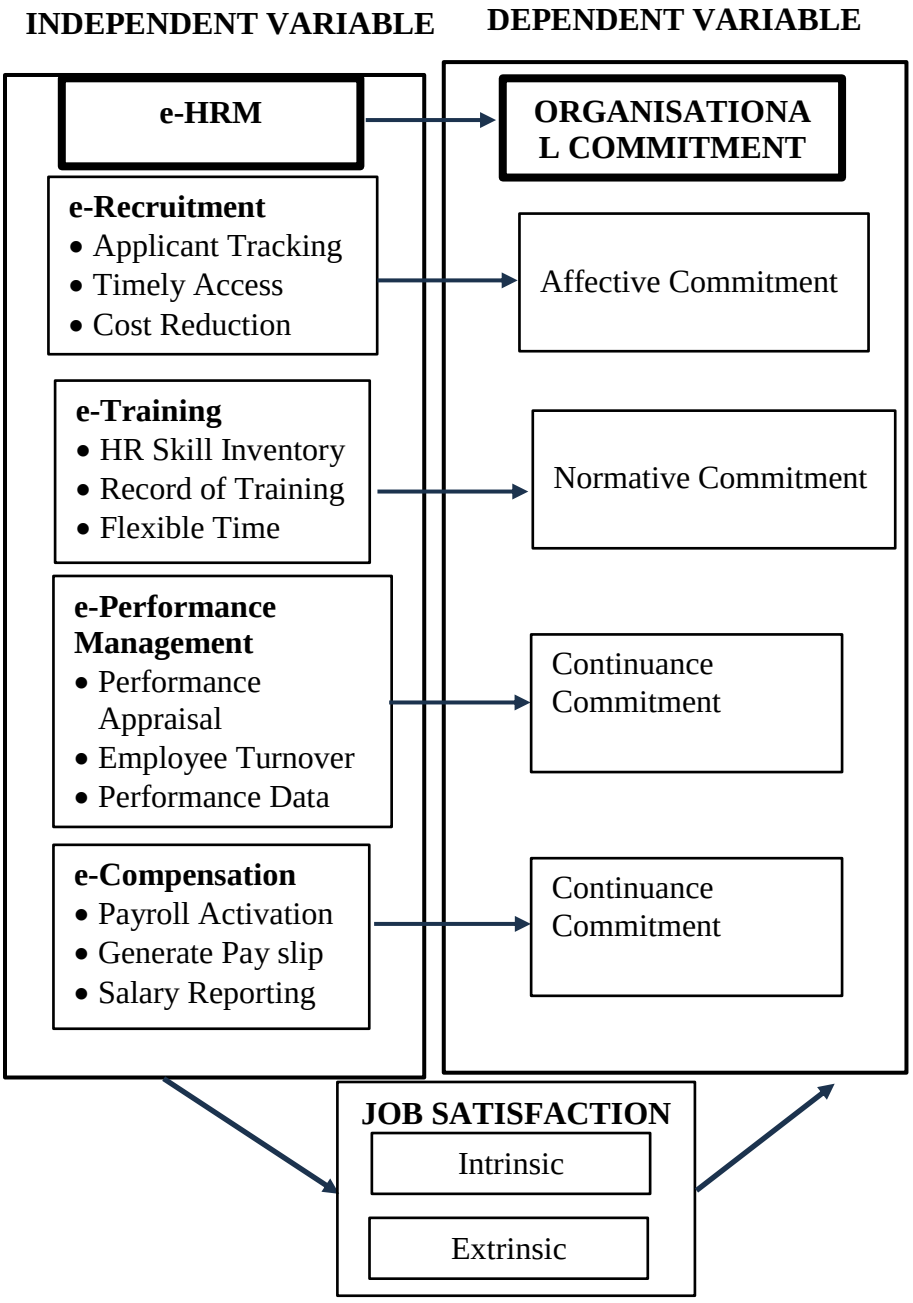
H_{02} there is a significant positive mediating effect of job satisfaction on the relationship between e-HRM and organizational commitment

Theory Underpinning

The theory underpinning this study is Resource-Based View Theory. This theory was originally proposed by Werenfelt (1984). He adopted a prescriptive approach focusing managerial attention on external consideration as a way of sustaining competitive advantage. However, modern view of Resource –Based View Theory is a proponent of Barney (1991). He argued that competitive advantage is a function of the resources and capabilities of the firm. The theory stated that for a firm to have competitive advantage over others, it must possess these attributes of, Value, Clarity, Imperfect Imitable and

Non-substitutability. He emphasized that value resources aid firms to capitalize on opportunities and avoid threats in the environment and this enables the organization to develop and implements strategies to improve its efficiency and effectiveness. The theory emphasizes building competitive advantage by capturing extraordinary organizational resources of both physical and non-physical in nature. With resource-based theory, organizations are seen to be made of dissimilar features in the form of material, money, man- power, and machine, distributed within and across industries. It advocates competitive advantage through capturing both resources within and outside the organizational operating environment, optimizing its strengths and opportunity and minimizing the threats and weakness. The RBV provides a useful framework for establishing associations between HRM and e-HRM practice such as recruitment, training, performance management and compensation, Job satisfaction and Organizational commitment thus RBV accords a direct and strategic role for HRM.

Conceptual Framework



Source: Adapted from: (Abiodun, *et al*., 2013; Meyer, *et al*.,1997).

3. Methodology:

Research design: This study engaged a survey research design carried out in a strategic public image organization, Nigeria Immigration Service, Headquarters, Abuja Lagos main command in Nigeria. The Nigeria Immigration Service (NIS) is a paramilitary organization saddle with the responsibility of ensuring the controlling of person's in and out of the Nigeria, issuance of travel documents including Nigeria Passport to Nigerian's within and outside Nigeria, issuance of residence permits to foreigners in Nigeria, Controlling of Smuggling of Migrants, Control of Nigeria Borders (Air, Sea and Land), Investigation and Surveillance, enforcement of laws and regulations with which we have been charged.

Study Population: The population consists of 1772 senior ranking officers in the Nigeria Immigration Service, whose offices are domiciled in the Service Headquarters, Abuja and Lagos main command. This is sourced from the NIS HRM Directorate

Sampling technique and Sample size: The study adopted a random sampling technique with a sample size extracted from the population using the Solvin (1960) formula which resulted to 326. A total of 326 were distributed but 285 were received for analysis, which represents 87% of the questionnaires administered.

Source of Data: Primary source of data collection was adopted, using a well-structured questionnaire as research instrument**.** The questionnaire was divided into four sections: Social and Demographic Information, Measures to assess e-HRM (e- recruitment, e-training, e-performance management, e-compensation), Measures to assess Organizational Commitment (affective commitment, Normative Commitment and Continuance commitment) and Measures to assess Job Satisfaction. Five-point Likert scale measurement was adopted from, strongly agreed to strongly disagreed.

Method of Data Analysis: Statistical Package for Social Sciences (SPSS) version 29 was used to carry out the analysis of the data obtained from the administered questionnaire, using both descriptive statistics and Inferential statistics, adopted using Regression analysis to test the hypothesis.

Results

Variable measurement and Reliability Analysis

This study has three variables measured with validated indicators as used in past studies. The independent variable (e-HRM) was measured with e-recruitment, e-training, e-performance and e-compensation, adapted from (Abiodun, Adeyemi & Osibanjo, 2013). The dependent variable (organisational commitment) was measured with

affective commitment, normative commitment and continuance commitment, adopted from (Meyer, Allen & Smith, 1993). Whereas, the mediating variable (job satisfaction) was measured with the short form of intrinsic and extrinsic Minnesota satisfaction questionnaire (Weiss *et al*; 1967). The Cronbach's alpha for all the scales were above .70, which indicated their reliability. ER=e-Recruitment (.853 with 4items), ET=e-Training (.794 with 4items), EP=e-Performance (.776 with 4items), EC=e-Compensation .914 with 4items), AC=Affective Commitment (.736 with 5items), NC=Normative Commitment (.739 with 6items), CC=Continuance Commitment (.769 with 8items) and JS=Job Satisfaction (.823 with 20items).

Table 1: Social-Demographic Profile of the Respondents

CHARACTERISTICS	FREQUENCY	PERCENTAGE
SEX		
Male	130	45.6
Female	155	54.4
TOTAL	**285**	**100**
AGE		
Below 20yrs	8	2.8
20-29yrs	113	39.6
30-39yrs	69	24.2
40-49yrs	87	30.5
50-above	8	2.8
TOTAL	**285**	100
MARITAL STATUS		
Single	118	41.4
Married	149	52.3
Divorced	6	2.1
Separated	7	2.5
Widowed	5	1.8

TOTAL	**285**	**100**
LITERACY LEVEL		
WASSCE/GCE	32	11.2
NCE/OND	94	33.0
HND/BSC	111	38.9
Post Graduate	48	16.8
TOTAL	**285**	**100**
LENGTH OF SERVICE		
1-5YRS	98	34.4
6-10YRS	69	24.4
11-15YRS	67	23.5
16-20YRS	32	11.2
21+YRS	19	6.7
TOTAL	**285**	**100**
DEPARTMENT/DIRECTORATES		
Human Resource Management	142	49.8
Finance and Accounts	35	12.4
Migration	27	9.5
Passport and Other Travel document	41	14.1
Visa & Residency	2	0.7
Others	38	13.3

Source: Field Survey 2024.

Regression Analysis and testing of Hypotheses

Table 2 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.377[a]	.142	.139	.49929	.142	46.888	1	283	.000

a. Predictors: (Constant), EHRM

Table 3 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.689	1	11.689	46.888	.000[b]
	Residual	70.550	283	.249		
	Total	82.239	284			

a. Dependent Variable: ORGC
b. Predictors: (Constant), EHRM

Table 4 Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.552	.190		13.426	.000		
	EHRM	.314	.046	.377	6.847	.000	1.000	1.000

a. Dependent Variable: ORGC

To analyse the first hypothesis, the researchers employed the multiple linear regression analysis at 95% confidence intervals. From Table 2 above, the analysis showed a good model fit (f =46.888, $p < 0.05$, $R^2 = .142$ and Adjusted $R^2 = .139$). Furthermore, the analysis form Table 4 showed e-HRM has a positive effect on organizational commitment ($\beta = .314$, $t=6.847$, $p < 0.05$). Hence the formulated hypothesis which states that there is a significant positive effect of e-HRM on organizational commitment in the Nigeria Immigration Service, is hereby accepted. Moreover, to test the second hypothesis, the researchers introduced the mediating effect of job satisfaction on the relationship between e-HRM and organizational commitment, which is shown in the tables below.

Table 5. Model Summary for mediation of Job Satisfaction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.649[a]	.421	.417	.41086	.421	102.595	2	282	.000

a. Dependent Variable: ORGC

Table 6. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.906	.211		4.301	.000		
	EHRM	.055	.044	.066	1.265	.207	.743	1.346
	JS	.690	.059	.613	11.659	.000	.743	1.346

a. Dependent Variable: ORGC

To test the second hypothesis, the researchers employed similar multiple linear regression analysis at 95% confidence intervals by introducing an additional variable as mediator on the relationship between e-HRM and organizational commitment. From Table 5 above, the analysis showed a good model fit (f =102.595, $p < 0.05$, $R^2 = .421$ and from Table 6 (β= .690, t=11.659, $p < 0.05$). Hence the formulated hypothesis which states that there is a significant mediating effect of job satisfaction on the relationship between e-HRM and organizational commitment is hereby accepted.

Discussions

This study has empirically revealed that e-HRM predicts organizational commitment within an organization in the public sector of Nigeria. The regression model is assessed by R^2 and Adjusted R^2. The R^2 shows the variability in the dependent variable as explained by the independent variable. The R^2 .142, indicate that 14.2 % of the change in the dependent variable (ORGC) is explained by the independent variable (E-HRM). Furthermore, the study revealed the mediating effect of job satisfaction on the relationship between e-HRM and organizational commitment. The findings from this study relates to past empirical studies of Jamaad *et al*, (2019) in human resource management influence on organizational commitment as significant positive effect was established. Furthermore, this study is in agreement with Haithan and Khalid (2022) which found a positive significant effect of e-working, e-HRM on organizational

commitment in the banking industry of Jordan. The results from this study revealed that the technologically enabled HR practices which is e-HRM can also drive organizational commitment as mediated by job satisfaction.

Furthermore**,** this study agrees with the research output of Parry (2011), which revealed that e-HRM acts as a means to increase the value of the HR Function. The increase in organisational commitment level results from the increase in value of HR function which is as a result of e-HRM within the organisation. The researcher has examined the potential use of e-HRM as a means to increase the value of the HR function, within the framework of the resource-based view. This study also proved that e-HRM as a resource within the organization aligns with the Resource Based View theory, for e-HRM stands as a major organizational resource that can propel firms to gain competitive advantage. Moreover, this study has been able to prove empirically that job satisfaction does mediate on the relationship between e-HRM and organizational commitment. The implication of this is that, the improvement on organizational commitment that the deployment of e-HRM components usage predicts can be enhanced with job satisfaction among employees within the organization. The usage of e-HRM can further be enhanced by deploring recently advanced digital innovation technologies like Artificial Intelligence (AI) on HR practices to further drive other organizational variables like employee's engagement or retention. The public organisations should re-strategize progressively as a matter of organizational policy and further reposition to embrace digitally enhanced HR practices to gain competitive advantage and become strategic player on human resource management practices.

Limitation and Suggestion for Future studies

While the study revealed the strategic influence of e-HRM as measured by four identified components, on organizational commitment through job satisfaction, the findings still give room for future studies especially on other relevant e-HRM components or other digitally enabled HR practices that could be caried out in related paramilitary settings or another public sector organization in Nigeria.

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