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Electronic human resource management strategy (e-HRM) and organizational success in Nigeria

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ABSTRACT

This paper investigates Electronic Human Resource Management (e-HRMs) strategy and organizational success in Nigeria. The objective of this paper is to empirically investigate into the nature of Electronic Human Resource Management Strategy and to examine if organizations in Nigeria actually benefit from its use. EHRMS help organizations achieve competitive success through strategic people. Such requires a fundamental strategic change in how managers think about organization's workforce and how they view the work relationship. Data were obtained from 10 organizations constituting 100 Human Resources Managers of both government and private sector businesses, all in Rivers State of Nigeria. Data obtained from the field were analyzed using Multiple Regression Statistical Techniques. The paper finds that there is a significant relationship between the rotational e-HRMS and productivity improvements. This paper further reveals that there is an inverse relationship between relational e-HRMs and cost reductions. The paper recommends that organizations in Nigeria whether small or large should learn to engage the use of web-based technology to facilitate human resource processes; the application of the web-based technology will assist the corporations in reducing costs.

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Introduction

Every organization has a set of goals and objectives it intends to attain in the course of its operations. For this reason, so much effort is made by organizations in apportioning responsibilities to every department. Electronic Human Resource Management (e-HRMs) is the use of Web-based technologies for implementation of various Human Resources Management (HRM) strategies or practices, (Ruel, Bondarouck and Looise 2004). Voermans and Veldhoven (2007), defined e-HRM as the administrative support of the Human Resources (HR) function in organizations by using internet technology. It includes all Human Resource Management processes which are performed with the help of information technologies to generate value for organizations.

All departments within an organization have an important role to play towards the successful achievement of the set goals and objectives of the firm. Amongst these departments, the most crucial is the Human Resources Department which deals with the organization's vital and most difficult to -manage resource (human capital). Human capital refers to the people who work in an organization and are referred to as vital because "management is the art of getting things done with people" (Follett, 1868-1933).

HRM departments are created to manage all issues connected with the organization's workforce. Such duties include employees' performance, recruiting, human resources planning, training, payments, compensations, employees' benefits, etc. (Stolt, 2010). Therefore, organizations need to find and recruit the best and retain talented employees (Laumer, Eckhardt, & Weitzel, 2010). Nowadays, technology is an inherent part of our daily lives as people have been

simplifying certain routine tasks and problems with the use of computers and the Internet. This has sped up some processes and increased the efficiency of some performed assignments. The constant challenges and dynamism of the business world globally has caused HRM to adapt various changes and improvements. One of these changes and improvement is technology which has greatly affected the way HRM departments in organizations work.

In contemporary business, Information Technology (IT) tools are fundamental as they help in resolving certain processes in a faster and more efficient way. Because global competition is demanding, organizations have to adopt innovative ideas to stay competitive. The development of the Internet and other IT tools drive companies to utilize their possibilities in doing business and improving performance. According to Paauwe, Farndale and Williams (2005), the HRM function is subject to radical and dramatic change because of the implications of Web-based organizing. As a result of this particular change, electronic Human Resources Management (e-HRM) has become more and more popular in the last years. E-HRM strives to implement all the operational activities that the HRM is concerned with. E-HRM has been widely used to facilitate the recruitment and selection processes, from the simple task of uploading a Curriculum Vitae to a webpage platform, filling an online job application to the moment of the actual hiring. Also, online training options and accessing performance information online is becoming more and more popular.

Purpose of the Study

The major focus of this paper is to investigate into the nature of e-HRMs and to examine if organizations in Nigeria

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actually benefit from its use. Therefore, the context of the problem is to investigate whether e-HRM systems provide the users with associated benefits or success.

Research Problem

The act of creating innovative ideas by organizations in Nigeria to improve its operations is what any organization would like to achieve. Organizations are familiar with the saying that “Time is money”, therefore, any tool(s) that would speed up its activities, improve productivity or cut costs, are being implemented. The research problem therefore is to know if e-HRM systems as an innovative tool bring any sort of positive or negative outcome to the organizations that use the new system in Nigeria.

Theoretical Foundation

Electronic Human Resource Management (e-HRM) is a good vehicle to implement Human Resource (HR) strategies, policies, as well as practices in organizations through an ongoing and directed support by full use of Web-technology-based channels and networks. Human Resource Management (HRM) departments are formulated in order to manage all concerns relating to the organizations workforce. Such duties among others are employees’ performance, human resources planning, staffing, training, payments, appraisals, employee’s benefits and compensations (Stolt, 2010). Stolt, (2010), states that HRM is the process of managing the organization’s most vital asset - those persons that make inputs to the company’s success either individually or in a group- in a planned strategic manner.

Amongst the various ways in which HRM has been adapting the different types of changes and improvement is the application of technology which has immensely affected the way HRM departments in organizations work. The presence of internet as well as other Information Technology (IT) tools pushes organizations to make use of its possibilities in transacting business and improving performance. Paauwe, Farndale and Williams (2005), assert that the HRM function is subject to radical and dramatic change as a result of the implications of web-based technology. Premised on this change, e-HRM has become more and more popular in the last several years. E-HRM, strives to implement all the operational activities that HRM is concerned with due to technological tools in a fast and more accurate manner, involving recruitment and selection processes, filling an online job application until hiring; also training options and accessing performance information online that is becoming more and more popular. The function of Human Resources Management in any organization becomes important because it deals with a very important and difficult to manage resource (human capital) because they make the organization work. Firms need to recruit, scout the best person-job fit and keep talented employees (Laumer, Eckhardt and Weitzel 2010).

Study Variables and Research Framework

In our paper, Electronic Human Resource Management (e-HRMs) is our predictor variable with Relational e-HRMs as its dimension while organization success is our criterion variable with Productivity improvements and cost reduction as its measures, and security is our moderating variable. The attributes to these variables are:

Relational e-HRMs

This deals with “business processes” such as recruitment, training, and performance appraisals (Ruel, et al. 2004).

Transformational e-HRMs: This relates to strategic human resources action such as organizational change and strategic orientation (Snell, et al 2001).

Operational e-HRMs:

This involves administrative functions such as salaries and personnel data administration (Ruel, et al 2001).

Based on the foregoing research variables, our theoretical model for the study is expressed in the functional relationships as indicated below.

$$\begin{array}{lcl} \text{OS} & = & f(\text{e-HRMs}) \text{ cf } - \quad - \quad - \quad - \\ 1 & & \\ \text{E-HRMS} & = & \text{R} \quad - \quad - \quad - \quad - \\ 2 & & \\ \text{MV} & = & \text{S} \quad - \quad - \quad - \quad - \\ 3 & & \\ \text{E-MRMS} & = & \text{F(R)+S} \quad - \quad - \quad - \quad - \\ 4 & & \end{array}$$

Where:

OS = Organizational success

E-HRMS = Electronic Human Resources Management Strategy

MV = Moderating Factor

R = Relational e-HRMs

S = Security

PI = Productivity Improvement

CR = Cost Reduction

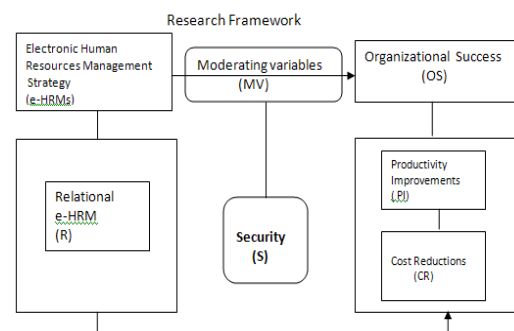


Figure 1. Conceptual Framework on Electronic Human Resources Management Strategy (e-HRMs) and Organizational Success in Nigeria

Source: Desk Research, 2013

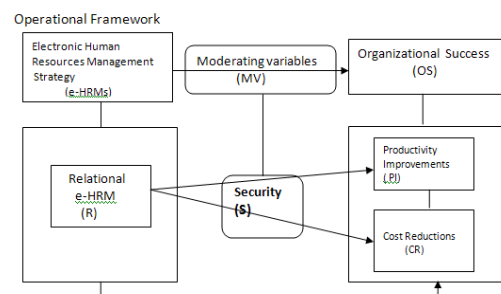


Figure 2. Operationalization on Electronic Human Resources Management Strategy (e-HRMs) and Organizational Success in Nigeria.

Source: Desk Research, 2013

Research Hypotheses

Premised on our research framework, the following hypotheses were drawn from the relational e-HRMs as a dimension of the predictor variable and productivity improvements and cost reduction as measures of the criterion variable to guide our research.

H₀₁: There is no significant relationship between relational e-HRM and productivity improvements in organizations in Nigeria.

H₀₂: There is no significant relationship between relational e-HRM and cost reduction in organizations in Nigeria.

H₀₃: Security system does not moderate the influence of Electronic Human Resources Management Strategy on organizational success in Nigeria.

Review of Relevant Literature

Electronic Human Resources Management (e-HRM) according to Strohmeier (2007), is 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. It is a term that includes all HRM processes which are performed with the help of information technology to effectively actualize goals for the organization. Moreover, it offers the opportunity to automate administrative HRM work and to optimize value creating HRM processes (Biesalski, 2003). This process can be fully achieved with the aid of Information Technology (IT) tools.

Information Technology (IT) Tools

Information Technology (IT) tool aids the process of using technological applications and its infrastructure in supporting traditional business processes.

E-HRMS Effectiveness

In this case, the effectiveness determines among others, all the possible processes, the optimum strategy that will maximize the outcome on its highest level, which refers to getting the right things done.

With regard to a company, the term “effectiveness” can be referred to as the degree to which an organization achieves the goals that its stakeholders expect from it. From the Human Resource Management (HRM) perspective, effectiveness according to Boundarouk and Ruel (2005), takes a slightly different way as it can be identified by the level of commitment, development and change that the organizations employees demonstrate in response to the HRM practices.

Efficiency

Efficiency in general describes the extent to which time, effort and other resources are well used for an intended task or purpose. It is often used with the specific purpose of relaying the capability of a specific application of effort to produce a specific outcome effectively with a minimum amount or quantity of waste, or without unnecessary effort. From the e-HRM context, efficiency is associated with the capability of the employer to use any web-based technology in order to transmit certain information to the employees in the fastest way possible (Boundarouk and Ruel, 2005). Moreover, efficiency refers to the ability of getting the same results but with less effort or cost in achieving the stated goal.

Conceptualization of E-HRM

Electronic Human Resources Management (e-HRM) is a function of HR that is concerned with the use, management, and regulation of electronic information and processes within an organization. According to Strohmerier (2007), e-HRM is the planning, implementation and application of information technology for both networking and supporting at least two individuals or collective actors in their shared performance of HR activities. It is a term that includes all HRM processes which are performed with the help of information technology to effectively actualize goals for the organization.

E- HRM as stated by Ruel, Bondarouk & Looise (2004), is the use of web-based technologies for the implementation of various HRM strategies or practices.

According to Bondarouk and Ruel (2009), “e-HRM is an umbrella term covering all possible integration mechanisms and contents between HRM and information technologies

aiming at creating value within and across organizations for targeted employees and management”

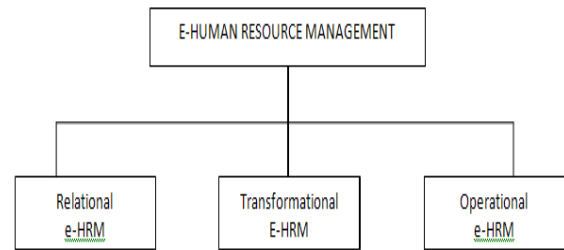


Fig 1. Types of E-HRM

Source Desk Research, 2013

Relational e-HRM

This is concerned with business processes such as recruitment and selection, training and performance appraisal and helps employees to administer their data themselves (i.e., performance measurements, training options online) and managers to speed up some important processes (i.e. selection of job applicants). Relational e-HRM takes less care about the processes, and focuses more on developing advanced activities regarding the interpersonal field. This, in other words refers to the activities that have the closest contact with the people and their role within the company. Moreover, relational e-HRM aims at the tools that enhance basic HRM processes such as recruitment and selection of new personnel, training, performance management and appraisal, motivation and rewards (Ruel, et al 2014). The potential of relational e-HRM, leads to the standardization of processes between stakeholders, no matter the culture, language or country where the company has its operations (Strohmeier,2007).

According to Ruel, et al. (2004), relational e-HRM decentralizes the execution of the Human resource activities and helps to centralize policy making in the Human Resource department.

Also, considering the specific parts of relational e-HRM for recruitment, an organization can decide where and how to seek new employees and in what ways to select them. This can be done in an electronic form, through a webpage or a web-based recruitment platform, or in traditional paper solutions such as newspaper advertisements, paper applications and letters, or third party job boards such as naijajobs.com. For some aspects of training, a firm can decide to invest in an online platform for employee’s development. This can be particularly useful for companies with many locations and also intent to provide training for its geographically dispersed workforce.

Components of Relational E-HRM

E-Recruitment

The buzzword and the latest trends in recruitment is the “E-Recruitment”. Also known as “online recruitment”, which is the use of technology or the web based tools to assist in the recruitment process. This tool can be either a job website like naijahotjob.com, the organization’s corporate web site or its own internet. Many big and small organizations in Nigeria as earlier mentioned below are currently using the internet as a source of recruitment through the advertising of job vacancies through worldwide web. The job seekers send their applications or curriculum vitae (CV) through an e-mail using the Internet, or filling an online application form on which required personal data is inputted. Alternatively, job seekers place their CV’s in worldwide web, which can be drawn by prospective employees depending on the employees requirements.

The three kinds of e-recruitment that can be used by organizations in Nigeria are:

- **Job portals-** This involves the organizations posting the position with the job description and the job specification on the job portal and also searching for the suitable resumes posted on the site corresponding to the opening in the organization.
- **Creating a complete online** recruitment/application section on the organization's own website, where the 'passive' job seekers can submit their resumes into the database of the organization for consideration in future, as and when the roles become available.
- **Web-based** recruitment tools, also give potential employees the chance to experiment what it is like to work inside the organization on a regular day with different visual aids (videos, picture galleries, animations etc.) that can help applicants to evaluate if their needs will be satisfied with the job and decide whether to continue with the process or head to a different direction. For instance, companies such as Google and Skype, have created interactive sections on their web pages where anyone can have an inside view of their offices. By streaming a set of videos and some other aids, these companies promote a relaxed atmosphere and well equipped facilities which aim to assure future employees a pleasant workplace. Hence e-Human Resource Management Strategy is therefore seen as a veritable strategy that can ensure effective human resources management and overall organizational success.

E-learning/Training

An additional component of relational e-HRM is e-learning or e-training. This process is being implemented in companies since it does not have the limitations of traditional training such as time and location (Bell, 2007). Bell (2007), further mentioned that the fast development of telecommunications has made e-learning possible and advantageous. E-learning is also less expensive than traditional training because companies do not have to book training rooms, pay for level costs and trainers (Strother, 2002).

Kaplan-Leiserson (2002), stated that the American Society of Training and Development defines e-learning as "a wide set of applications and processes, such as web-based learning, computer-based learning. Virtual classrooms, and digital collaboration" (Oiry, 2009).

As mentioned previously, the time and location restrictions have been eliminated with the help of technological advances. The connection between mentor and trainee can occur in different geographical locations and in different time zones. In addition, standardization of training, self learning, and the availability of learning content has made earning an attractive option for organizations that have the necessary resources. For a company to make the transition from traditional to new ways of training, it must compare the two methods and analyze how e-learning could bring benefits to the firm and its employees.

Before implementing e-learning, companies used traditional training to help employees develop their skills. This method is characterized by a teacher giving a course to a class with "Learners" in a specific location and a specific time. To overpass the time and location obstacle, more companies are applying e-learning techniques. As mentioned by Oiry(2009), this method allows employees to train whenever they want. Having the freedom of training employees and not paying for travel cost allows companies to save money. According to

Strother (2002), IBM saved US \$200 million in 1999 by using new e-training techniques.

A characteristic of e-learning that can be of advantage over traditional training is that the mentor and the learner do not go through the learning process face-to-face (this can also be a disadvantage which will be explained at the end of this section). In the first stage of mentoring, the apprentice can be intimidated and show lack of openness due to the instructor's higher status (Kasprisin, et al, 2003). E-training may decrease those initial feelings because the interaction is done through a computer or other technology tools. In addition, since the interaction between the parties does not occur at the same time, the trainee has time to think about the response he or she will give and can be more reflective (Kasprisin, et al, 2003).

Traditional face-to-face training is limited to smaller groups in order to have better results. In this type of training, having a big group meant more work for the trainer and the risk of not getting everyone's attention. With e-training, organizations have the ability to coach more personnel simultaneously. Multinational corporations can have trainings with different personnel from their subsidiaries or from different locations at the same time and cut down costs.

Companies must be aware of positive and negative characteristics if they want to implement e-training. Cost saving is an important goal for every organization but the consequences brought by this goal must be monitored carefully; it is said that e-learners have the need to socialize with people in order to feel involved in the learning role (Oiry, 2009). In other words, once a person is trained, he or she needs to make sure the learning outcome was achieved. A good way of doing this is by having interaction with trainers and other trainees face-to-face. For this reason, companies are implementing what is called "blended learning" According to Mantyla (2001), and relatedly Oiry (2009), blended learning is the use of two or more methods to improve the content of a course and the learning experience of a learner.

It is vital to note that e-learning strategy is creating benefits by saving time, eliminating location constraints, cutting down costs and creating standardization in training processes. On the other hand, it still lacks the "socialization" part of the learning process. Employers need to mix both electronic training with personal interaction to guarantee better results. Depending on the training, Employees should be supervised by tutors when taking part in e-trainings. For this reason, it is important for companies to implement "Blended learning" as a strategy which will bring benefits to the company and at the same time, be beneficial to its employees.

E-Performance Appraisal

One of the issues that relational e-HRM is concerned with are online performance appraisal systems (e-PA). In fact, as Gueutal (2003), stated, the fastest growing e-HRM trend is employee self-service systems, which give them the possibility to manage their own information in an online network (Payne, Homer, Boswell, Schroeder, & Stine-Cheyne, 2009). On the other hand, companies use managerial self-service, that allows the managers to access employees' information and complete performance evaluations.

Electronic or online performance appraisal refers to the use of web-technology necessary to create systems and processes by which the employees are evaluated and rated, according to their performance on the tasks needed within a company. In order to understand online performances evaluations, it is crucial to first look at general features of appraisals. According to the model of effective appraisal

(Piggot-Irvine, 2003), there are several features that have to be fulfilled to give useful and variable feedback. As Poggoy-Irvine (2003), says, appraisal should highlight employees' strengths and weaknesses, as well as show the road for prospective development.

In order for the process to be considered reliable, the information used should be objective and not "loose and casual" lack of objective data could result in the perceived lack of transparency and injustice among employees. Moreover, the evaluation should be transparent and confidential. It may seem like these two criteria exclude themselves, however there is an explanation for it. The appraiser should be strictly confidential with all the information accessed and gained, and needs to ensure the respondents that their data will not be tampered with (Piggot-Irvine, 2003). Additionally, mutual respect and trust should be of no doubt, and should be contained throughout the whole year and not only in the evaluation period (Appelbaum, Roy & Gilhiland, 2011).

This model presents ten key criteria for an effective appraisal. The benefit of this is that hardly anything is omitted, however it may seem overwhelming. The model cannot be fully applied to online or web-based solutions for performance evaluations. Features like "mutual respect" could only be used for face- to -face conversations; it is hard to respect a computer system. However, we should look beyond the obvious. Therefore, we think mutual respect suggests an attitude towards the appraisal. Managers should keep in mind, that it is people on the other side who will receive the evaluation and (in the perfect situation), will have a personal meeting with the manager to discuss the feedback.

Furthermore, some of the factors in this model are automatically fulfilled by the use of an online Performance Appraisal (PA) for instance; transparency is easily achieved with online PA systems, as well as the continuity of the process (with the help of archived data).

Previous research (Payne, et al, 2008), has shown that online performance appraisal systems reduce companies' costs and increase the speed of the process. Additional advantages of those systems include the storage of historical data that helps managers to compare the employees' results and evaluations for the last years in an easier way. Employees see the differences and similarities in received feedback and can access it at any time, and therefore control their own work in terms of suggested improvements at any time of the year. Besides from the system being accessible at all time, it can also be restricted by user names and passwords. In some pieces of software, it can be viewed who accessed the system and left comments. This can improve the transparency of performance appraisals and help the accountability of the later (Payne, et al. 2008). Payne et al. (2008), also made the assumption that online performance systems may help the perceptions of information being kept secure, instead of being placed in employees' files in offices. However, the later research has shown that this was not the case and the perceptions have not differed from the traditional "paper-and-pencil" (P&P) performance approach.

Transformational e-HRM

It is related to strategic human resource actions, such as organizational change and strategic re-orientation. It provides employees with endless possibilities when it comes to communicating from different parts of the world and during different times of the day.

Operational e-HRM

This strictly involves administrative functions such as salary and personnel data administration. It is concerned with the reduction of costs and improvements of efficiency.

For this work, much attention is directed to relational e-HRM and transformational e-HRM more than operational e-HRM. This category as developed by Ruel, Bondarouk and Looise (2004), firstly describes that every organization which decides to implement e-HRM, needs to have an existing strategy and policy for traditional HRM. This policy was divided into three approaches by Walton (1984). These approaches include:

- Bureaucratic approach which is adopted by organizations operating in a stable technological and socioeconomic environments.
- Market approach which is adopted by companies within markets with high fluctuations that need to respond quickly to change.
- Clan approach used by organizations that rely on innovation and delivering quality to their customer.

Moving further to the second part of the classification (e-HRM goals), Ruel et a. (2004), have described the different goals of companies that when implemented for online personnel management systems, the company's initial strategy would have an impact on the types of goals the organization is willing to achieve. Ruel (2004) identified three types of goals that could be fulfilled with the use of electronic HRM, which include:

- The development of strategic focus of Human Resources Management,
- The reduction of strategic costs and increased efficiency,
- The improvement of customer service and assistance for all employees.

For these types of goals, strategic issues are part of transformational e-HRM described in the following section. It is important that HRM departments focus on these matters as they add value to the organization. Additionally, HRM managers should ensure efficient work and keep costs in mind, by finding ways to reduce them. Lastly, HRM departments need to be service-oriented towards both employees and managers.

Electronic Human Resources Management Strategy (e-HRMS) and Organizations in Nigeria

Nigeria has a high unemployment rate and few created employment opportunities as compared to the large number of qualified citizens who are not entrepreneurial and seek jobs daily. Recruiting electronically is the best, given the Nigerian situation and its constraints. According to Ben (2010), Nigeria's internet market remains extremely under served with approximately 70 per cent of the internet subscribe base as reported by local internet service providers (ISPs) which account for corporate subscribers, whilst the rest are home, small office and cyber café users. Available data from the International Telecommunications Union (ITU) reveals that out of 150 million Nigerians, only 11 million have access to the internet. It is important to note that, the slow and disheartening access to the information superhighway as a result of the dearth of fixed line (Landline) infrastructure and poor service quality on the part of ISPs is further disheartening by the fact that only meagre 3 spms of bandwidth is available to the 11 million internet users in the country. This situation indicates a somewhat slow growth which is not good for an effective and efficient e-recruitment for the organizations mentioned in this paper. The practice of e-recruitment is

evidence in organizations such as *Liquefied Natural Gas (LNG)*, *Nigeria Army*, *Nigerian Police Force*, *GLaxo Smirth Kline Nigeria, Plc*, *Crystal Blend Group Nigeria*, *Chevron*, *Shell*, *Nigerian Navy* and *Nigerian National Petroleum Corporation (NNPC)*, *Nigerian Breweries Plc*, *Nestle Nigeria Plc*, and *Cadbury Nigeria Plc*. For example, the e-application website for the Nigerian army is www.nigerianarmy.ms.org. In this website, applicants normally click on "register" to fill the registration form ensuring the pin code obtained from the bank (ECO) is typed in correctly. On successful registration on this website, the applicants receive a successful email and SMS. Applicant's application/qualification is normally edited to check for correctness. This process continues until the applicant is hired.

Broadly speaking, technology can be viewed as the methods, processes, systems and skills used to transform resources (inputs) into products (outputs). If a company finds a better product, process or procedure to accomplish its task, they have found an innovation, entrepreneurship and entrepreneurship, as well as job opportunity creation enhancement.

Innovation is a product of reengineering and a change in technology- a departure from previous ways of doing things to a new method. Once Human Resource Planning is completed, managers can focus on filling the positions required in an organization. One of the staffing functions in organization consists of three related activities of which recruitment is a vital one and must be fulfilled. Business organizations in Nigeria have no choice but to change and be in vogue as the world is moving and shifting fast. The history of "change management" teaches that a simple recipe for change alone does not work. Change remains difficult but becomes inevitable since the right business structure provides the efficiencies, innovation and ability that business needs to succeed and sustain its growth. It is therefore vital that incessant reorganizing, reengineering and restructuring in the name of efficiency continue to exist. This scenario can only be achieved when strategic managers and teams in organizations in Nigeria come to agree on outcomes and common ground for moving forward. It is therefore necessary that working together in order to know and understand difficult challenges and resolve them is important. As businesses face change, they must invest in leadership culture and technology that will match any unfolding change (McGuire, 2009).

Electronic Human Resources Management (e-HRM) has in recent times gained tremendous popularity in Nigeria as a result of enormous benefits associated in adopting the concept. The new concept has attracted organizations such as *Liquefied Natural Gas (LNG)*, *Nigerian Breweries PLc*, *Nestle Nigeria PLc*, *Cadbury Nigeria Plc*, *Shell*, *Chevron*, *Nigerian Army*, *Nigerian Police Force*, *Glaxo Smith Kline Nigeria Plc* and *Crystal Blend Group Nigeria*, *Lucky Gold Star (Life is Good)* etc. In using e-HRM, they have moved their recruitment activities online in order to improve the speed through which job seeking candidates can be matched with job vacancies. According to Cappelli (2001), it is estimated that, it costs only about one twentieth as much as to recruit a job applicant and train through electronic device (on line), if it is the only method used as it does to hire the same person through traditional sources. Today, a company cannot succeed without incorporating into its strategy the astonishing technologies that exist and continue to evolve. Technological advances create new products, advanced production technology evolves, new industries, markets, competitive niches develop. In order to

cope with environmental uncertainty, organizations frequently make adjustments in their structures and work process to achieve its goal.

Significantly, new technologies provide new production process, work process and techniques that enhance productivity in an organization. In manufacturing, sophisticated robots perform jobs without suffering fatigue as was in traditional system. New technologies also provide new ways to manage and communicate. Computerized Management Information System (MIS) make information available when needed. Computers monitor productivity and note performance of workers in organizations. In order to cope with environmental uncertainty, organizations frequently make adjustments in their structure and work processes.

The formal structure is put in place to control people, decisions and actions, while in today's fast-changing business environment, responsiveness-quickness, agility, the ability to adapt to changing demands is more vital than ever to a firm's survival. Progressive companies place a premium on being able to act fast, and want to act in accordance with customer needs and other outside pressures. They want to take actions to correct past mistakes, and also to prepare for an uncertain future in order to respond to threats and opportunities. To do these things, they try to operate organically, manage size effectively, process huge amounts of information, and adopt new forms of management as noted in the e-HRM.

The Impact of Technology on e-HRMs

Organizations have had to adjust to the new reality of online recruitment. These technologies have created both problems and opportunities for organizations. Organizations can significantly reduce costs to advertise positions by using third party job boards (e.g. naijajobs.com) or through company websites. The inexpensive nature of online recruiting permits the conveyance of large amounts of information to potential applicants at a minimal cost relative to traditional advertising venues such as newspapers. Media content can be substantially richer including graphics, photos, interactive text, and video (Gueutal, et al 2009).

The potential also exists for the immediate tailoring of recruitment information to target the needs of prospective applicants (Ruel, 2004). For example, after completing a needs questionnaire online, a prospective applicant could conceivably be provided with targeted information about the organization, its benefit programs, and opportunities that addresses their individual needs. Along these lines, Ruel (2004), found that customized information about likely fit (combined with good web aesthetics) decreased viewing time and recall of low fitting individuals, suggesting a means to avoid these individuals of being attracted to the organization. Clearly, customized real time recruiting approaches are within the realm of existing technologies.

Despite the benefits and efficiencies of online recruiting, a downside is that many employers complain about the flood of unqualified applicants that can result from online advertising (Gueutal et al 2009).

This deluge of applicants can inflict considerable costs on the organization if the online recruiting process is not accompanied by effective and efficient personality-fit screening tools and online recruitment needs cannot be overemphasized in this aspect of HRM practice perspective. Researchers have also begun to focus more specifically on what makes an effective company website for recruiting purposes (Cappelli, 2001).

Table 1. Multiple Regression Result on Electronic Human Resource Management Strategy (e-HRM) and the Measures of Organizational Success

Model	Unstandardized Coefficients		Beta		Sig.	95.0% Confidence Interval of B	
	B	Std. Error				Lower Bound	Upper Bound
(Constant)	22.501	14.575		1.544	.366	-162.687	207.690
Prod-Impr	2.156	.541	1.59	3.987	.156	-4.714	9.026
Cost_Red	-1.943	1.134	.653	-1.713	.336	-16.358	12.471

For instance, and in specific, this author suggests that web-site content (e.g. cultural information), appearance (e.g., use of colours and pictures) and navigability (e.g. links to job applications and useable layout) are all important for recruiting purposes. Cappelli (2001) found that perceptions of the website aesthetics and usability accounted for 33 per cent of the variance in pursuit intentions and 31 per cent of the variance in recommendation intentions. Clearly, investing resources in website aesthetics such as the use of pleasing colours, pictures of smiling employees, and easy to navigate functions such as direct links to application forms can have appreciable benefits for recruiting. Strother (2002), provided another practically important finding in which he found that setting up a recruiting oriented website (instead of a screening oriented web site) was associated with significantly higher attraction by prospective applicants.

E-HRM Outcomes

Finally, the last part of the classification as reviewed describes the e-HRM outcomes. It is logical that an organization that adapted e-HRM strategies, would expect visible results and outcomes. E-HRM outcomes are divided into four possibilities (Ruel, et al, 2004).

- High Commitment, related to motivation and understanding of the workforce;
- High competence, that describes the abilities of employees to learn new tasks if required;
- Cost effectiveness, related to employee turnover rates and pay competitiveness.
- Higher congruence, which is concerned with the internal organization.

Methodology

The objective of this paper is to empirically investigate the outcome of e-HRMs as a veritable strategy that will ensure organizational success as well as, examining if organizations in Nigeria actually benefit from the use of e-HRM. Data from this study were obtained from 10 organizations constituting 100 Human Resources Managers of both government and private sector business all in Rivers State of Nigeria. The organizations were chosen using a random sampling procedure from organizations listed in Nigerian Business Book. A 5-point Likert Scale was used to design the questionnaire (Walton 1975). Data obtained from the field were analyzed using multiple regression analysis with the aid of the statistical package of Social Sciences (SPSS) version 14.0.

Result and Discussions

The dimensions of electronic resource management strategy (e-HRMs) which is relational e-HRMs, was regressed against the two measures of organizational success (OS) in this study, i.e. productivity improvement (PI) and cost reduction (CR). The aim was to ascertain if the electronic resource management strategy dimension significantly

correlates with the chosen organizational success measures. The Multiple Regression statistic was used in this analysis. In addition, the Pearson's Product Moment Correlation technique was used to analyze the moderating variables and these are as shown in tables I and II below.

a) Predictor Variable: E-HRMS

i) Coefficient of Determination (R^2) measures the percentage change in the dependent variable that is explained by the independent variable(s).

ii) T-test tests the significance of the coefficients individually. Rule of thumb: If $|t| > t_{\alpha/2}$, we reject the null hypotheses, otherwise, we accept it at 5% level of significance.

iii) F-test tests the overall significance of the coefficients of the regression model all together, Rule of thumb: If $F > F_{\alpha/2}$ we reject the null hypotheses at 5% level of significance, otherwise, we accept it and conclude that there is no significant relationship between the variables.

iv) Durbin –Watson (d) test, test for the presence of serial co-linearity of the independent variables was used in the analysis. The closer the (d) is to 2, the absence of serial co-linearity of the first-order.

v) b_0 . This is the interception of the regression model. It is expressed as the difference between what is projected and the actual outcome of the regression result

vi) b_1 . This is the intercept of the predictor variable (i.e. PU). It shows what happens to the criterion variable (i.e. y) as a result of a change in the predictor variable (i.e. PU). Therefore b_1 is the coefficient of PU.

vii) U_1 - This is the stochastic term. It simply means other variables which are important to the regression but were not represented in the regression model.

Data Presentation and Interpretation

$$\begin{aligned}
 \text{e-HRM} &= b_0 + b_1 \text{Prod Impr} + b_2 \text{Cost -Res} + U_1 \\
 \text{e-HRM} &= \text{Electronic Human Resource} \\
 \text{Management Strategy} & \\
 \text{Prod Impr} &= \text{Productivity Improvements} \\
 \text{Cost-Red} &= \text{Cost Reduction} \\
 \text{e-HRM} &= 22.501 + 2.156 \text{Prod Impr} - 1.943 \text{Cost_Red} + U_1 \\
 \text{se} &= (14.575) (0.541) (1.134) \\
 \text{t-test} &= (1.544) (3.987) (-1.713) \\
 \text{f-test} &= 16.013 \\
 \text{Durbin-Watson (d)} &= 2.478 \\
 R^2 &= 0.0970
 \end{aligned}$$

The data above show that the coefficient of determination R^2 is 0.970. This means that there is almost a perfect fit of the regression line. 97% of the changes in the dependent variable are explained by the independent variables thereby leaving only 3% to disturbance terms (U_1). Also, the f-test shows that the variables taken together are statistically significant at 5% level of significance. We therefore reject the null hypotheses and conclude that there is

a significant relationship between the dependent variable and all the independent variables taken together.

The Durbin-Watson statistic shows the absence of serial co-linearity of the first-order among the variables used in the regression analysis.

H₀₁: The result of the analysis on hypothesis one reveals a positive relationship between relational e-HRM and Productivity Improvements. A unit change in e-HRM will improve Productivity by 2.156 units and vice versa; also, the t-test of 3.987 shows that the relationship is statistically significant at 5% level of significance. We therefore reject the null hypothesis and conclude that there is a significant relationship between e-HRM and Productivity Improvements.

H₀₂: The result of the test of hypothesis two revealed that there is an inverse relationship between relational e-HRM and Cost Reduction.

The result shows that if e-HRM is stepped up a unit, Cost decreases by 1.943 units and vice versa. The t-test, however, shows that it is not statistically significant at 5% level of significance. This may be due to the size of the data used by the researcher(s) for the analysis.

Conclusions and Recommendations

Conclusion

E-HRM is a good method of implementing human resource strategies, policies and practices in organizations through a continuous and directed support by full use of web-technology-based channels and networks.

Electronic Human Resource Management Strategy (e-HRMs) is a web-based technique used in automating and supporting Human Resource process. E-HRMs is a way of implementing human resources strategies, policies and practices in organizations with complete application of web-technology based channels. E-HRMs cover all areas of human resources management such as personnel administration, career development, job descriptions, education and training, hiring process and interviews with employees. It also facilitates the usages of human resources market place as well as offering a more self-service work to the employees.

Finally, Electronic Human Resource Management Strategy is now an advanced business solution that provides complete online support in the management of all processes, activities, data and information required to manage human resources in a modern company.

Recommendations

The paper recommends that:

- Organizations in Nigeria whether small or large should learn to engage the use of web-based technology to facilitate human resource processes
- The application of the web-based technology will assist the corporation in reducing costs;
- The use of this will bring ease of recruitment, selection and assessment,
- The employment of this technology will bring about ease of administering employee records as opposed to the tradition system of recruitment.

References

Bandarouk, T.V. and Ruel, HJM (2009): Electronic Human Resource Management: Challenge in the digital era. *The International Journal of Human Resource Management*, 20(3), 505-514.

Bell, J. (2007): E-learning: Your Flexible Development Friend? *Development and Learning in Organizations*, 21(6), 7-8

Ben, U. J. (2010): Nigeria's Internet Quandry. Available at [http://www. Businessdayonline.com/index.php? Option. Com-content and view=articles & id = 9327](http://www.Businessdayonline.com/index.php?Option.Com-content&view=articles&id=9327) Nigeria's Internet quantry & catid= 117 news & Hemid =349.

Biesalski, E. (2003): Knowledge Management and e-Human Resource Management, workshops. Retrieved 2011-5-6 from [http://www.Kde.cs. uni-Kassel.de/ws/LLWS03/fgwm/schedule.html](http://www.Kde.cs.uni-Kassel.de/ws/LLWS03/fgwm/schedule.html).

Bondarouk, T.V., and Euel, H.J.M (2005): Does e-HRM Contribute to HRM Effectiveness? Results from a quantitative study in a Dutch Ministry. Retrieved 2011-5-15. From [http://doc.utwente.nl/506049/1/HRM Network 2005pdf](http://doc.utwente.nl/506049/1/HRM%20Network%202005.pdf).

Cappelli, P. (2001): Making the Most of online recruitment, *Harvard Business Review*, 79(3), 139-146.

Gueutal, H. G & Stone, D.L. (20009): The brave new world of eHR: Human Resources Management in the Digital Age. California: Jossey-Bass.

Kasprisin, C.A., Single P.B. Single, R.M and Muller, C.B. (2003): Building a better Bridge; Testing e-training to improve e-mentoring programmes in Higher Education. *Mentoring and Tutoring* 11 (1), 68-78.

Laumer, S. Eckhardt, A., and Weitzel, T. (2010): Electronic Human Resource Management in an e-business environment *Journal of Electronic Commerce Research* 11(4), 240-250.

Oiry, E. (2009): Electronic Human Resource Management: Organizational Responses to Role Conflicts Created by e-learning. *International Journal of Training and Development*, 121,111-123

Paauwe, J. Farndale, E; and Williams R. (2005): Web-based Organizing in Traditional Bricks-and-Mortar Companies: The impact on HR in T. Tones-Coronas and M. Arias-Ohva (Eds), *E-human Resources Management: Managing, Managing knowledge people*.

Payne, S.C. Horner, M.T.; Boswell, W.R.; Shroeder, A.N, & Stine-Cheyne, K.L. (2009): Comparison of online and Traditional Performance Appraisal Systems. *Journal of Managerial Psychology* 24 (6) 526-544

Piggot-Irvine, E. (2003): key Features of Appraisal Effectiveness. *The International Journal of Educational Management*, 17(6), 254-261.

Ruel, H.; Bondarouk, T. and Looise, J. K; (2004): E-HRM, Innovation or Irritation. *Management Review*-15(3), 364-379.

Snell, S.A.; Stueber, P. & Lepak, D.P (2001), *Virtual HR Department: Getting Out of the Middle: Cornell University ILR School*. Retrieved 2-17-2011 from [http://digitalcommon.iir.cornell.edu/cgi/viewcontent.cgi? Article = 1070](http://digitalcommon.iir.cornell.edu/cgi/viewcontent.cgi?Article=1070) and context cahrs wp.

Stolt, R. (2010): Differences and Similarities Between Domestic and International HRM. Norderstedt, Germany.

Stronhmeier, S. (2007), *Research in e-HRM: Review and Implications*. *Human Resource Management Review*, 17 (1), pp. 19-37.

STrother, J. (2002): An Assessment of the Effectiveness of e-learning in Corporate Training Programmes. *International Review of Research in open and Distance Learning*, 3(1) 1-7

Voermans, M. and Van Veldhoven, M. (2007): Attitude Towards e-HRM: An Empirical Study at Philips. *Personnel Review*, 36 (6), pp. 887-902

Walton, K. (1975): Development of a Scale for Innovativeness. *Journal of Business Research*, (2), 5-15.