

THE RELATIONSHIP BETWEEN HUMAN RESOURCE INFORMATION SYSTEM AND HUMAN RESOURCE MANAGEMENT

Rukevwe Juliet Olughor

Ajayi Crowther University, Department of Business Administration, Oyo, Nigeria

rukevwejolughor@gmail.com

Abstract

The current outlook of business has endorsed to the fact that human resource is the most attractive and valuable asset of an organization. Moreso, this realization could further be strengthened by the use of Human resource information system (HRIS). It is a transformational tool for HR managers that serve as a connection between operations and implementation. The study investigated the relationship between human resource information system and human resource management (HRM) practices. Data was collected from employees in the management levels of Food and Beverage firms in Nigeria. The result shows HRIS influences HRM practices with improvement in communication, decision-making, workflow processes and it is viewed as a synergic factor that gives support to employee in the achievement of competitive advantage.

Keywords: HRM Practices, Human Resource Information System, MIS, Competitive Advantage, Decision Making, Nigeria

INTRODUCTION

Firms in the globe today are continuously facing change and fierce competition. Human resource management (HRM) role therefore becomes a vital tool as Intellectual capital is a crucial resource for competitiveness, growth and success in the economy. More than ever, the human factor which is a key element of Intellectual capital affects all activities of the organization. According to Sue (1994), "Manpower is the competitive advantage. No matter how effective the technology and process are, people are the final performers." Therefore, the skills

and ability individual employee possess, brings with it value required by management to earn competitive edge and return on investment in the global market.

In view of the fact that, the human factor and indeed HRM resolve and transform 'to a large extent these aptitudes, capacities and attitude' (Jimenez-Jimenez and Sanz-Valle, 2005) for organization success, it is imperative then for organisations to focus on means to support and engage employees to boost their general confidence level and survivor of the firm. Based on the organizations outlook, adapting business processes to meet current challenges will impact on performance. Areas of particular interest, is looking at HR processes, organizational support systems and HR information technology to continually capture, sustain and develop strategic information to improve firm's effectiveness. Information communication technology (ICT) have aided the transformation of the activities of human resource (HR) specialist by proving them speedy value information, for resolving complex problem and 'have facilitated the adaptability of organizations to the dynamics changes in their environment (Martinson, 1997).

Human resource information system (HRIS), is seen as the 'operational link between strategic operational vision and human resource implementation' (Mayfield, Mayfield and Lance, 2003). They opined that HRIS is based on: Strategic integration, Personnel development, Communication and integration, Records and compliance, Human resources analysis, Knowledge management, Forecasting and planning and Organisational vision.

The continuous challenges faced by business in the environment (technology, economic, political, social and cultural) makes it clear for an up-to-date and timely source of information for development of firm's strategic human resource plan. The impact will be on improved organisational effectiveness by keeping relevant documentation of employee records, budget and payroll records, firms' reviews etc

Researchers have noted that information system is highly underdeveloped, predominantly unmanaged and relatively distorted. Attention to HRIS is on the rise. According to Richards-Carpenter (1991), 'if the personnel function is to take the next big step in its development, it will have to integrate with information technology'. To explore the prospect of HRM in developing economy like Nigeria, emphasis on HRIS in the workplace is important.

LITERATURE REVIEW

This section briefly reviews the process of Human resource management (HRM) and Human resource information system (HRIS). The process of managing people in the organization which is termed 'Personnel management' has over the years been replaced with such terms as 'Human resource management' (HRM) and 'Human resource' (HR). According to Armstrong (2006) Human resource management is defined 'as a strategic and coherent approach to

management of an organization's most valued assets- the people working there who individually and collectively contribute to the achievement of its objectives'. Therefore the process involves management harmonizing its human resource needs with ever changing situation of the market to achieve its organizations' goals. More so, as (Beer & Spector, 1985; Boxall & Purcell, 2000) opined that HRM involves all management decisions and actions that affect the nature of the relationships between the organization and its employees.

HRM has been confronted by trends like globalisation, empowerment, cross functional teams, downsizing, learning organisations and knowledge workers are changing the way of life of managers and the way they manage people (Kermally, 2006). Employees in the present era therefore 'are more questioning and demanding' (Kunde, Malhan and Kumar, 2007). The expert aptitudes possess by employees makes them flexible and mobile. The competences require of management to handle and direct people and coordinate operations becomes an optimal necessity to determine continuous existence. According to Noe, Hollenbeck, Gerhart, & Wright, (2000) HRM 'refers to the policies, practices and systems that influence employees' behaviour, attitudes and performance'. The fundamental point is that organizations' success can be explained by human resource match and mismatches which are inhabited with discernment of management. For instance, management decision to invest on a new technology and consequently embarks on training and development of its employees will result in multiple effects on the sustainability of the organization. Employees accordingly want superior prospects but ever more, they also want an environment that enables them put in best performance.

There are various practices of HRM which are grouped into five (5) functional areas; staffing, training and development, performance appraisal, reward/compensation management and job analysis and design (Peck, 1994; Gomez-Mejia et al., 2001). The performance of these HRM practices is a crucial function that drives organizations and individuals to attain stated objectives. Furthermore HRM activity can be subdivided according to (Wright, McMahan, Snell and Gehart, 1998), into three: transactional, traditional and transformational. Transactional activities involves record keeping, entering payroll information, employee status changes and employee reward management. Included in the traditional activities are HR programmes of planning, recruiting, selection, training, compensation and performance management. Lastly, transformational activities include cultural or organizational change, structural realignment, strategic redirection and increasing innovation. For HR managers to arrive at improved performance and meet the current pressure from trends in the business environment, the use of HRIS becomes indispensable 'and can assist by providing strategic level support to organizations' (Soft world Report, 1996, 1997; Robinson 1999).

Human Resource Information System

HR information system is a research theme in Information System (IS). It is traditionally intended to assist the activities of HR managers in an organization. It gives emphasis to the procedural activities 'to process the data of human resource' (Hilkka Poutanen, 2010).

In the present dispensation whereby organizations compete against one another, researches into the use of technologies have help in the determination of how business is conducted. HRIS has been found to be a more reliant device in the improvement of organization effectiveness (Lippert and Swiercz, 2005; Troshani, et al., 2011; Ball, 2001). As a technological tool, HRIS is 'advocated as an opportunity for human resource (HR) professionals to become strategic partners with top management' (Khaled Mahmoud Al-Shawabkeh, 2014). HRIS is defined by Hendrickson, (2003) as an 'integrated system used to gather, store and analyze information regarding an organization's human resources' comprising of databases, computer applications, hardware and software necessary to collect, reward, store, manage, deliver present and manipulate data for human resource function'. Ball, (2001) citing Kavanagh, Gueutal & Tannenbaum (1990:29) defined HR information system as 'a system used to acquire, store, manipulate, analyze, retrieve and distribute pertinent information about an organization's human resources'. While explaining the activities of planning, executing and relating information technology, (Strohmeior, 2007) uses the term e-HRM equally for networking and sustaining the individuals and groups in shared HR responsibilities. These definitions explain the fact that HRIS assists HRM to sustain, monitor and make decisions that affect the organization as a whole.

The use of HRIS enables the extension of HR activities and programmes to all members of the organization through the internet or intranet; making it an IT-based work environment. More so in the opinion of Snell, Stueber and Lepak (2002), hinging on information technology, makes HR capable of becoming at the same time strategic, flexible, cost-efficient and customer-oriented. This reinforces organizations' personality and enables it to compete favourably.

A range of research work have advocated the capability of HRIS in shaping the incorporation between human resource management (HRM) and Information Technology by sustaining planning, administration, and strategic decision-making, and control (Gerardine DeSanctis, 1986; Tannenbaum, 1990; Hendrickson 2003). They are of such opinion that HRIS boost administrative competence which enhances better decision making that affects most HRM practices such as employee recruitment and selection process, placement, reward management, human development. In the study of India companies by Kundu and Kadian, (2012), results showed that respondents supposed that 'technical and strategic HRM' and 'performance and reward management' are the most vital factors for HRIS applications.

In addition, the study conducted by Ball, (2001) of 60 percent of Fortune 500 firms, showed that in the late '90s, HRIS was used to shore up daily HRM procedures. Equally, Ngai and Wat (2006), in their survey of HRIS implementation in Hong Kong organizations, it was observed that the 'greatest benefit from such implementation was a quick response and access to information that it brought.' Ordóñez de Pablos (2004) initiated that with the formation and improvement of information based resources, HRM structure may lead to uphold competitive advantage. Base on the support of HRIS capabilities leading to improvement on administrative and decision-making purposes and HRIS sustainability for competitive accomplishment, the aim of this study is to examine the relationship between HRIS and HRM practices in the food and beverage industries in Nigeria. Accordingly, the study tries to answer the following hypothesis:

H₁: Human resource information system will significantly predict human resource management practices

METHODOLOGY

The study employed a survey design to investigate the relationship between HR information system (HRIS) and Human resource management (HRM) practices in the Food and beverage industry in Nigeria. The target population was all HR staff in the top, middle and lower level management of five (5) companies from Lagos and Ibadan metropolis. The instrument used for the study was the questionnaire which was validated by a group of conference experts. The questionnaires was administered to a sample of 285 respondents drawn using a simple random techniques. However, only 205 questionnaires were returned out of which only 184 questionnaires about 65% were found usable for the study. About 35% of the questionnaires were not usable due to non response and missing values.

ANALYSIS AND DISCUSSION OF FINDINGS

H₁: Human resource information system will significantly predict human resource management practices

Table 1: Showing the Pearson Correlation of the Independent and Dependent Variable

		Human Resource Information System	Human Resource Management Practices
Human resource information system	Pearson Correlation	1	.675**
	Sig. (2-tailed)		.000
	N		184
Human resource management practices	Pearson Correlation	.675**	1
	Sig. (2-tailed)	.000	
	N	184	

** Correlation is significant at 0.01 level (2-tailed)

In order to test this hypothesis, the Pearson's Correlation was used and the result as shown in the table above revealed that human resource information system correlates positively with human resource management practices ($r = .675$, $p = 0.00$).

Table 2: Showing Regression Analysis of the Independent and Dependent Variables

Model	R	R Square	Adjusted R square	Std. Error of the Estimate
1	.675 ^a	.456	.453	1.87797

- a. Predictors: (Constant) Human Resource Information System
 b. Dependent variable: Human Resource Management Practices

To further test the hypothesis, a simple linear regression analysis was conducted. From the above it is observed that the value of $R = .675\%$ and R square = $.456\%$. This means the independent variable – human resource information system- explains about 46% of the dependent variable. In addition, table 3 shows the result of the Anova which is found to be significant with $F = (152.329; p < 0.01)$. This shows a fit of the models. Therefore the hypothesis is accepted.

Table 3: Showing the Analysis of Variance (ANOVA) between the Variables

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	537.233	1	537.233	152.329	.000 ^a
Residual	641.875	182	3.527		
Total	1179.109	183			

- a. Predictors: (Constant) Human Resource Information System
 b. Dependent variable: Human Resource Management Practices

Table 4: Showing Relative Contribution of the Independent Variable to the Dependent Variable

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. error	B		
1 (Constant)	6.342	.902		7.034	.000
Human resource information system	.409	.033	.675	12.342	.000

- a. Dependent variable: Human Resource Management Practices

The table above shows the relative contribution of the independent variable to the dependent variable. The result of the coefficient shows the constant is significantly positive. This means other variables apart from the independent variable that are not mentioned contribute positively to the dependent variable of human resource management practices. The contribution of the

dependent from the above result, shows that the t value ($t = 12.342$; $p < 0.05$). Thus there is a strong positive relationship between the variables and the hypothesis, is therefore accepted.

CONCLUSION

This study investigated the relationship between HRIS and HRM practices - recruitment and selection, HR development, communication, compensation management and decision making. HRIS in the literature has evolved over the years into a sophisticated information tool that supports not only HR managers but the entire organization. It is found to enhance the recruitment function which provides easy of processing application, pre-screening exercises among others

The result of this study when taken together is thus supported in the literature. For instance, in the study of Kundu and Kadian, (2012), that showed respondents support for technical and strategic HRM and performance and reward management are the most vital factors for HRIS applications. Ngai and Wat (2006) which reported the benefit derived from HRIS as quick response for decision making and easy access to information.

The overall consensus of the study is that respondents observed that HRIS is a useful tool for organization success. The different departments and management level perceived that the use of HRIS has enhanced communication and easy workflow among them. Therefore HRIS is seen as a synergic factor that holds to improve working relationship among employee to enhance organizations' competitive advantage.

However, a major limitation of the present study is that the variables were conducted on a single industry. More so, there are some practices of HRM such as planning and performance which are not measured in the study. Therefore, an extended study on the assessment of various industries is needed to ascertain common and different factors related to HRIS and HRM practices.

REFERENCES

- Armstrong, M (2006). *A Handbook of Human Resource Management Practice*, New Delhi: Kogan Page India.
- Ball, K.S. (2001). The use of human resource information systems: a survey. *Personnel Review*, 30(6), 677-693.
- Beer M., Spector B., Lawrence P. R., Quinn Mills D. and Waltson R.E., (1984) *Managing Human Assets*. New York: Free Press
- Boxall, P., & Purcell, J. (2000). Strategic human resource management: Where have we come from and where should we be going? *International Journal of Management Reviews*, 2(2), 183.
- Daniel Jimé'nez-Jimé'nez and Raquel Sanz-Valle (2005). Innovation and human resource management fit: an empirical study. *International Journal of Manpower*. 26(4), 364-381

- Gerardine DeSanctis (1986). "Human Resource Information Systems- A Current Assessment" *MIS Quarterly* 10 (1), 15-27
- Hendrickson, A. R. (2003). Human resource information systems: Backbone technology of contemporary human resources, *Journal of Labour Research*, 24(3), 381–394. <http://dx.doi.org/10.1007/s12122-003-1002-5>
- Hilkka Poutanen(2010) Developing The role of Human resource information systems for the activities of Good Leadership
- Kermally, S.(2006). *Gurus on Managing People*, New Delhi: Viva Books Private Limited.
- Khaled Mahmoud Al-Shawabkeh (2014) Human Resource Information Systems and Their Impact on Human Resource Management Strategies: A Field Study in Jordanian Commercial Banks. *Journal of Management Research*, 6(4), 99-108
- Kundu S.C., & Kadian, Rajesh. (2012). Applications of HRIS in Human Resource Management in India: A Study. *European Journal of Business and Management*, 4(21), 34-41.
- Kundu, S.C., Malhan, D., and Kumar, P., (2007). "Human resource management practices in Shipping companies; A Study". *Delhi Business Review* 8(1), 75-88
- Lippers, S. K., & Swiercz, P. M. (2005). Human resource information systems (HRIS) & technology trust. *Journal of Information Science*, 31(5), 340-353. <http://dx.doi.org/10.1177/0165551505055399>
- Martinsons, M. (1997). Human resource management applications of knowledge-based systems. *International Journal of Information Management*, 17(1), 35-53.
- Mayfield, Mayfield, & Lunce (2003), "Human resource information systems: A review and model development"
- Ngai, E. W. T., & Wat, F. K. T. (2006) 'Human Resource Information Systems: A Review And Empirical Analysis', *Personnel Review*, 35(3): 297-314.
- Noe, R.A., Hollenbeck J.R., Gerhart, B., & Wright, P.M. (2000), *Human Resource Management – Gaining a competitive advantage*, Singapore Mc-Graw Hill Book Co.
- Ordóñez de Pablos, P. (2004). A guideline for building the intellectual capital statement: the 3R Model. *International Journal of Learning and Intellectual Capital*, 1(1), 3 18.
- Peck, S.P. (1994). "Exploring the link between Organizational Strategy and the Employment Relationship: The Role of Human resources Policies, *Journal of management Studies*, 3(15), 715-736
- Ricards-Carpenter, C. (1989). "The Computerized Personnel Information Systems Survey Results", *Personnel Management* 21, 48-9
- Robinson, (1999) "HR Information Systems Audit" Cambridge Strategy Publications.
- Snell, S., Stueber, D., & Lepak, D. (2002). Virtual HR departments: Getting out of the middle. In
- Heneman, R.L. & Greenberger, D. B. (Eds.), *Human resource management in virtual organizations* (pp. 81-101). Greenwich, CT: Information Age Publishing
- Soft world Report "Human Resource Management Software" Conspectus, PMP (UK) Ltd 1996 & 1997
- Strohmeier, S. (2007). Research in e-HRM: Review and implications. *Human Resource Management Review*, 17(2007), 19-37.
- Sue, Y. C. (1994). "The Hidden Competition", *Common Wealth*, China.
- Tannenbaum, S.I. (1990) 'Human Resource Information Systems: User Group Implications', *Journal of Systems Management*, 41(1), 27-32.
- Troshani, I., Jerram, C., & Rao, S. (2011). Exploring the public sector adoption of HRIS. *Industrial Management and Data Systems*, 111(3), 470-488.
- Wright, P., McMahan, G., Snell, S., & Gerhart, B. (1998). *Strategic human resource management: Building human capital and organizational capacity* (Technical report). Ithaca, NY: Cornell University.