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HUMAN RESOURCE TACTICAL SYSTEMS AND EMPLOYEE RESOURCE UTILIZATION IN MANUFACTURING FIRMS IN RIVERS STATE

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ABSTRACT

This paper investigated the relationship between human resource tactical systems and employee resource utilization in manufacturing firms in Rivers State. The specific objectives of the study were to assess the relationship between human resource tactical systems and product offerings. Data was obtained from 82 respondents from the population of 22 manufacturing firms in Rivers State using the questionnaire instrument. The Spearman's rank order correlation tool was utilized in the test for the relationship between the tactical systems and the measures of organizational performance. Evidence revealed that there is a significant relationship between tactical systems and employee resource utilization. Based on this analysis, all previous hypotheses were rejected. In conclusion it was stated that the adoption and application of utilization systems in the functionality and processing of human resource activities drives organizational long-term goals and offers a repositioning of human resource functions and behaviour which enhances the resource utilization of manufacturing firms in Rivers State

Keywords: Human Resource, Tactical systems, Employee Resource Utilization,

INTRODUCTION

The keen interest of this study is on manufacturing firms in Nigeria. This focus is borne primarily out of the noted significance of the industry to the economic wellbeing and growth of the nation. Ojua (2016) noted that the positioning of the industry within other nations has offered them economic and competitive advantages which despite some of them being oil producing nations, are offered economic alternatives that have enhanced their economic growth and improved the standard of living for their populace. Ojua (2016) further observed that the Nigerian manufacturing industry has the potential to bridge the gap between its economic lapses and its growing population of unemployed citizenry. This is because a functional manufacturing sector offers the nation a hybrid of opportunities that accommodates a variety of workers (skilled, semi-skilled and even unskilled) as well as graduates and non-graduates in a form that is highly integrative of and supportive of the agricultural, health, electronic, food and beverages as well as construction facets of the nation's economy.

While previous studies on Nigerian manufacturing firms have bothered primarily on human resource management and organizational performance (Olughor, 2016; Omiunu, 2014; Cogin, Ng & Lee, 2016; Hussain & Wallace, 2007; Hekkala, Stein & Rossi, 2018); little has been done with regards to the application of human resource information systems in driving the performance of organizations within a context such as the manufacturing firms in Nigeria. This would offer a shift from its manual functions and reliance on primitive activities in addressing issues such as workers performance tracking and appraisal, payroll, compensation, workers detailing and profile management, recruitment etc. to the more efficient and advanced application of information systems and database management techniques in addressing such issues (Ojua, 2016). The human resource information system also implies a more consistent and technologically based approach towards control and the coordination of its human resource in a way that effectively harnesses workers inputs and capabilities by detailing weak-points within the system through detailed comparisons of performance and output (Lippert & Swiercz, 2005; Stair & Reynolds, 2001).

Evan and Davis (2005) observed that human resource information systems are a form of advanced technological human resource management platforms that effectively address the challenges, processes and goals of the organizations human resource. It is effective in the sense that it offers a more consistent and less biased approach towards workers issues; identifying the lapses in their functions and responsibilities and at the same time facilitating transparency and trustworthiness of the organization in the eyes of its workers. Alter (2002) argued that the application and installation of human resource information systems underscores the organizations commitment to the development and support of its workforce. This is as the system serves as a platform for the regulation of human resource actions and behaviour, and also serves as a memory for decision-making and human resource policy formulation. From their position, Lippert and Swiercz (2005) asserted that the human resource information system is an integrating framework which helps to effectively engage the worker and address possible challenges in their functions, behaviour or relations with other staff.

In their study Hussain and Wallace (2007) observed that the human resource information system facilitates employee performance through its specification of duties and skill requirements. Their study also highlighted the role of performance tracking and appraisal as providing the yardstick for workers performance evaluation and subsequent reward. Their study offered a significant connection between the application of human resource information systems and workers performance in a way that suggests that the system determines the effective application of workers capabilities and skills on the job. Their study however did not address the overall implications of human resource information system on the performance of the organization itself. This is as Azara *et al* (2013) argued that although employee performance and effectiveness offer a major understanding of the state and wellbeing of the organization, notwithstanding, they only pin-point a singular dimension of a more embracing concept.

Research Hypotheses

HO_1: There is no significant relationship between tactical systems and resource utilization of manufacturing firms in Rivers State

Human Resource Tactical systems

The second dimension of human resource information systems addresses facets such as training/development, job analysis and compensation. This is as the system can equally be used by managers, employees and training staff to plan and administer all types of training interventions. Typically, such systems will hold a range of data: a catalogue of learning options, course dates, HR skills inventory, record of training expenses incurred; competency or training requirements associated with positions/jobs, employee training data (learning plan, training history competencies, qualifications and so on).

The HR skills inventory capability provides succession planning tools needed to implement and maintain comprehensive talent management, and identify high potential employees as part of an organization wide succession planning process. This capability allows for the establishment of core competency requirements against roles, at all levels within the organization. Appointee's capability is then measured against the roles competencies and supports employee progress towards acquisition of competencies, through training and professional development. With regard to training and development work focus has been through human resource information systems. The system helps track training, skills and competencies.

Human resource information systems can be used to manage human capital and maximize talent. The system stores electronic resumes for each current employee, which gives the company an electronic inventory of its human capital. It can track where skills are in short supply and HR can develop appropriate training; training needs analysis, training cost benefit analysis, promotion analysis; this supports decision on career management, simulation, training evaluation and decisions (Lin, 2006). De vries et al, (2008) argues that accuracy in data provides for a qualified workforce hence organization performance.

In most situations, human resource information systems will also lead to increases in efficiency when it comes to making decisions in e-training. The decisions made should also increase in quality training as a result, the productivity of both employees and manages should increase and become more effective. These systems enable employees to manage much of their own HR administrative work. They can take care of many routine transactions whenever they wish. In addition to their former operational role, HR professionals can also act as a competency manager by arranging the right people to the right positions in the right time with their new skills

According to El-kot and Leat (2011) in their study on e-training observe that career and succession plans - most existing HR solutions provide tools and technologies to store career and succession plans for the workforce. Integrating these plans with performance management processes is crucial to support employee growth and job satisfaction. Executives have requested this data for years, as retention is a top metric within most companies. Today, this data is not a request, but a requirement, and the need to automate a very manual process is crucial for success and keeping a competitive edge. They further observe that competency management, understanding the skills and abilities of the workforce continues to baffle most executives.

Many organizations know more about their IT investments and expenses than about their people. On average, companies spend 8 percent of their total expense line on IT and 70% on labour. The fact that a company would know more about how much memory is in a computer, who sends email to whom and what Web sites get visited most frequently than what their most important asset‖ knows illustrates the need for a renewed critical focus on assessing the true value of the workforce (El-kot & Leat, 2011).

Resource utilization:

As duly noted by Barney (1991), firm's resources include all assets, capabilities, organizational processes, firm's attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive and implement strategies that improve its efficiency and effectiveness. The relationship between firm's resources and competitive advantage is significantly enhanced by attributes and elements such as value, rareness, inimitable and non-substitutable (VRIN factor). Recent study and findings on resource attributes and performance in international joint ventures in Malaysia by Ainuddin et al. (2007) strengthens the significance of the VRIN factor in the resource-based view of competitive advantage.

In a study by Peteraf (1993), it illustrates the fundamentals of resource-based view in explaining competitive advantage by integrating firm's resources and the resulting firm performance. The study argues that resources must exhibit elements such as resource heterogeneity, imperfect mobility, ex-post and ex-ante limits to competition (imperfect imitability and imperfect substitutability) in order to significantly attain and sustain competitive advantage and eventually achieve superior firm performance.

However, Chaharbaghi and Lynch (1999) argue that a new classification of resources has emerged, namely the hierarchical resource classification (peripheral, base, competitive and strategic resources) in order to relate significantly to the competitive and strategic advantage position. Further, they also demonstrate that rents are more relevant than profits in the analysis of firm's resources and sustainable competitive advantage. As mentioned, the study by Fahy (2000) on competitive advantage and resources provides a detailed insight into the logic of the resource-based view and highlights its contributions to the debate on the nature of competitive advantage. The study operationalizes the significant relationship between resources and competitive advantage in terms of superior firm performance, characteristics and types of advantage generating resources, and strategic choice by management.

Further, Barney (2001) explains that resource-based view (RBV) theorists argue that strategic implementation of resources and capabilities will give the firm a competitive advantage, provided such resources has elements of value, rareness, are inimitable and non-substitutable, i.e. the VRIN factor. Eventually such resources and the competitive advantage position will significantly enhance the firm's performance. Nonetheless, Priem and Butler (2001) in their criticism of Barney (2001)

stress that resource-based view (RBV) theorists have argued that competitive advantage results from significant superior resource, knowledge, or luck, or combination of those factors. Resources and competitive advantage should further be conceptualized in terms of capital, assets, brand names, technology, skilled personnel, machinery, efficient procedures, knowledge and value.
Miller and Ross (2003) explore the overall utilization of resources at the organizational unit level by investigating why resource utilization, is measured by efficiency, might significantly differ within a firm. To measure the significant relationship between resource utilization and competitive advantage, they have conceptualized the variables in terms of scale resources, programmatic and managerial efficiency and firm performance. King (2007) studies the relationship between competencies, resources, capabilities, competitive advantage and causal ambiguity. These variables are analysed in terms of their tacitness, complexity, interconnectedness, temporal & spatial distance, cultural & strategic distance, motivation & cognition.

The General Systems Theory
A system is defined as a regularly interacting or interdependent group of items forming a unified whole, and as a group of devices or artificial objects or an organization forming a network especially for distributing something or serving a common purpose. Meadows (2009) defined system as a set of things, people, cells, molecules, or whatever, interconnected in such a way that they produce their own pattern of behaviour over time. These definitions are consistent with other existing definitions of a system, as they share four common elements: (1) having a group of objects, molecules, or forces; (2) the relationships and interactions between the groups within their environment; (3) how these groups make up a larger whole; and (4) the function or purpose of the elements within the group, that affects the function or purpose of the group as a whole.
Organisations are regularly described in systems terminology. Such descriptions have become an important aspect of explaining the nature of organisations and how they function. As well, these descriptions provide a common language for discussing issues relating to how to manage them more effectively. Robbins and Barnwell (1998) point out that describing organisations as systems provides insights into their make-up. For example, Harvey and Brown (1992) use systems terminology to describe a dynamic model of organisational change. Systems theory is an abstract model for better understanding the nature of the interactions and processes that occur within the organization and how these impact on the organization as a whole (Bechtold 1997).
The organisation is seen as being capable of making changes to these sub-systems, although it is recognised that this is not a simple process. From the presence of these interdependent parts, the organisation develops configuration and structure. The sub-systems can form into a hierarchy of systems. For example, organisations are made up of individuals at the micro level. Individuals work within the context of groups at another level. The organisation is also seen as a sub-system of a larger macro system, which may be identified as a larger organisation, industry, society or economic zone.

Research Design
The researcher in this study, adopted the quantitative methodology in the assessment of the relationship between the study variables.

Research Population
The population for this study was drawn from all manufacturing firms within Rivers State. This captured all sectors including food and beverages, electronics, roofing and housing accessories etc. Given the level of analysis – organizational; the population for this study therefore comprises of a total of 88 managers from 22 manufacturing firms in Rivers State. In this case, 4 managers were identified within key positions relevant to this study (general manager, production/operations manager, human resources/administrative manager, and the budget/finance manager). These were identified as pervading in all 22 manufacturing firms and as such served in defining the population for the study.

Instrumentation
The primary data for the study will be generated using the structured questionnaire, while the secondary data will be sourced from reports, published materials and existing verifiable content from the target organizations, or from online publications on the organizations.

Data Analysis Techniques
The test for hypotheses in the study will be carried out using inferential techniques such as the Spearman's rank order correlation coefficient for the test on bivariate relationships (bivariate analysis)
The formula for the Spearman's rank order correlation is presented as follows:

$$r_s = 1 - \frac{6\sum_{i=1}^{n} D_i^2}{n(n^2 - 1)}$$

Where r = rho value
n = sample size
D = difference between the two ranking

RESULTS
HO_1: There is no significant relationship between tactical systems and resource utilization of manufacturing firms in Rivers State
The test on this hypothesis revealed both variables to have a significant relationship where tactical systems at a rho = 0.383 and a P = 0.000 is observed to significantly contribute towards outcomes of resource utilization within the manufacturing firms in Rivers State. As such the hypotheses is rejected on the basis of the evidence presented.
The results from the analysis identify tactical systems as a significant antecedent of organizational performance. This is premised on the evidence which establishes tactical systems as impacting positively on outcomes of product offering and resource utilization. While both instances are observed to be significant, there is nonetheless a higher and more substantial relationship between tactical systems and product offerings of this organization. This suggests higher implications of tactical functions and processes on the services and product features of the organization, when compared to that of resource utilization. In view of the evidence presented the findings on this set of tests are stated as follows:

i. Tactical systems significantly influence the resource utilization of manufacturing firms in Rivers State

Discussion of the Findings
Tactical systems impact significantly on the organizational performance of manufacturing firms in Rivers State
The relationship between tactical systems and organizational performance is revealed to be significant in the sense that tactical systems enable the integration of information available to all departments and functions across an organisation. Tactical systems consist of a number of integrated applications, such as training and development, job analysis, compensation as well as other functions related to improving the human resource features of the organization (Kamau, 2013; Lin, 2006). Tactical systems reflect an organisation-wide system that enables development and communication across the organization and also facilitates access to appropriate data through an existing data-base (El-kot & Leat, 2011). It is estimated that during recent years, organisations worldwide have spent around US$18.3 billion annually on their human resource tactical systems (Rietsema, 2015). However, despite the difficulties and risks encountered by organisations when

adopting and implementing these systems, tactical system adoption continues to grow globally. Moreover, there is a relatively small number of academic research publications within the information systems community on tactical systems compared to the size of the human resource they control (Kamau, 2013).

The implementation of tactical systems is problematic because of the generic off-the-shelf nature of most systems (El-kot & Leat, 2011). In the past, organisations first studied their needs through the four steps of the system development life cycle (SDLC): system planning and selection, system analysis, system design and system implementation and operation. SDLC is defined by Kamau (2013) as a systematic process for the effective selection or construction of large information systems dealing on the development and wellbeing of the workers or human resource and the organization as a whole. It is claimed that the SDLC process guaranteed that the new system would fit the organisational needs (Kamau, 2013). Another alternative is to analyse what is needed and then choose the application that would support requirements.

Tactical systems are noted to change previous human resource management features (Ball, 2011), as companies have to adapt their business to the characteristics of the changing market and human resource management trends. It is the market that defines the requirements of the business. In essence the company can choose the modules that will fit their human resource needs and then the organisation can configure the module to their particular requirements (Rietsema, 2015). This is not always an easy task as it may involve adapting some of the functionalities of the system to the uniqueness of each process. By making these changes companies do not realize that they are impacting other areas or functions of the system that were not designed for that particular process. One example of this is tactical system adoption and implementation in service institutions. Because the majority of information systems were originally designed for use in manufacturing, their operability differs considerably to the requirements of a service institution. The terminology used across the institution has to be changed to fit the industry requirements, causing considerable uncertainty, and the adoption has been rejected by some users (Ball, 2011). Changes in the system can also affect the organisational culture. According to Dery et al (2009), successful companies empower people to innovate. When organisations are innovative and flexible, it is very likely that staff will attempt to modify the system as they are constantly improving processes in the organisation. This may harm the overall operability of the system, if the system is not flexible enough to effectively incorporate those changes. Hence the innovation and the flexibility of the company is diminished or moderated by the unlikelihood of making continuous changes in the system.

CONCLUSION

This study through its empirical activities has established human resource information systems as a significant predictor of organizational performance of manufacturing firms in Rivers State. The application of tactical systems in the processing and coordination of human resource actions and functions details amore integrating work framework that further improves on the resource utilization of manufacturing firms in Rivers State

RECOMMENDATIONS

The following recommendations are premised on the observed link between human resource information technology and organizational performance. As well as the moderating contributions of organizational structure and size to the relationship between the variables. On this basis, it is recommended that:

i. The adoption of tactical systems should focus on addressing the technicalities associated with the integration of various groups, departments and units in a manner that does not emphasize only on present functions but such that emphasizes on the long-terms goals and objectives of the organization
ii. The structuring of relationships, tasks and responsibilities should be formatted to offer the necessary support and reporting features which enhance the role of the human resource

information system in the actualization of organizational performance of manufacturing firms in Rivers State

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