Knowledge of Human Resource Metrics and Engagement of Academic Staff of University of Lagos

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Abstract: The predictors of employee engagement in an organization have been given much attention in the literature, but measuring value added of employee in terms of knowledge of human resource metrics as predictors of employee engagement requires more study especially within the Nigerian context. It is within this purview that this research work examined the perceived knowledge of human resource metrics in employee engagement with particular reference to the academic staff of University of Lagos. A quantitative research method was adopted using a convenient sampling technique to randomly select a total sample size of 103 respondents. Analyses of the data collected through the use of questionnaires were carried out using a regression statistical tool. The regression value for the null hypothesis was 0.388. Therefore, the findings revealed that the knowledge of human resource (productivity) metrics can be used to predict employee engagement. That is, knowledge about contributions, estimated rate of returns and wealth created by each employee will provide monetary arguments for workers/unions when suggesting investments in human resource which can be used to predict employee engagement in terms of their vigour, concentration and dedication to their work. Possible further studies should investigate the disclosure of human resource value in numeric terms so that employees could be better equipped to negotiate their terms and conditions of employment.

Keywords: Human resource metrics, measurement, knowledge economy, employee engagement, Nigeria

Introduction

There is a paradigm shift from a conceptualized human resource management practice to evidence-based human resource management. None of these concepts or practices of human (HR) resource management go beyond using intuition to determine which levers HR can pull to impact a company's overall success, i.e., providing concrete evidence of the true drivers of the company, and how can HR influence those drivers (John & Christopher, 2015). Also noted by Trivedi (2015), that previously, human resource was considered as a managerial function where decision making was typically based on previous proficiency, approaches, or instinct.

This is because of factors such as the advent of new technology, global markets, and continuous changes in business needs; thus, HR professionals must develop their capacity to make lively assessments by using metrics that determine the quality, quantity, cost, and effectiveness of HR curriculums. In other words, a growing interest in evidence-based management has produced a rapidly growing interest in HR metrics and workforce analytics (Carlson & Kavanagh, 2018).

Generally speaking, there are three different kinds of metrics that organizations can collect in order to better understand and evaluate the impact of HR activities and to influence business strategy and business performance. They are *efficiency*, *effectiveness*, and *impact* (Boudreau & Ramstad, 2003, in Edward, Lawler, Alec & John,2014).

The first kind of metric and in many respects the easiest to collect is the one related to the efficiency of the HR function, including productivity and cost metrics for the HR function such as time to fill open positions, HR headcount ratios and administrative cost per employee, as well as human capital return on investment, a measurement tool that is considered when calculating monetary return for one unit financial investment in human capital of an organization and assisting them in calculating the net profitability. Using this metric, companies can determine the value that is created as a result of investment in their workforce (Parham & Heling, 2015).

However, employee engagement is arguably the most critical metric for organizations in this knowledge economy, though other key measures that reflect and drive organizational performance include,

among others, customer satisfaction, innovation, profitability, productivity, loyalty and quality, which are products of engaged and committed employees, because it is believed that managers in both private and public sectors would agree that engaged employees make a critical difference when it comes to innovation, organizational performance and competitiveness (Bakker & Schaufeli, 2008).

Kaplan and Norton (1996) proposed that HR metrics involve the operational expression of the theory of how people contribute to organization success and, in effect, measuring the value of intangible assets as to how closely aligned those assets are to the organizations' strategy will create value for the organization (Kaplan & Norton, 2004, in Bhatnagar & Pandey, 2005). Invariably, one can say that metrics deliver a number of variables that can be precise in showing how HR interposes to the business and employee's knowledge of their contribution to the revenue and cost to the organization's productivity and this shows that HR is aware of the value of human capital dimension in supporting business purposes (Trivedi, 2015).

Thus, employers want to know what will engage workers, what will make them energized and productive on the job and committed to the organization. The employees on the other hand want to know what the organization will do for them in terms of favourable terms and conditions of employment (Boone James et al., 2011).

So, it is imperative to know how knowledge of human resource metrics can impact employee engagement, making human resource metrics a possible tool for predicting employee engagement for standard human resource management practices and policies. Understanding if the employee is aware of the value added to the organization in monetary terms and the cost expended on them in the light of their productivity could affect their engagement.

Literature Review

Different predictive factors like job climate, organizational climate, reward, career, to name a few, have been argued and empirically validated as determining for employee engagement. It seems that every organization, either public or private, often measures its performance based on its productivity, because an increase in productivity means

that the organization has realized more revenue than its costs, which in reality were achieved through its human resource. Based on this premise, the knowledge of productivity metrics as a performance indicator is germane to operationalize the concept of human resource metrics and its influence on employee engagement.

Human Resource Metrics

Roman (2015), noted that statements such as "our employees are our greatest asset" can often be found on corporate websites, in business and social responsibility reports and are supposed to underline the relevance of a company's human capital embodied in its employees, possibly being a strategic success factor. If the saying that 'what you cannot measure, you cannot manage' holds true, then no adequate management behaviour would be able to follow and in practice, the credibility of such statements requires quantitative methods for the assessment of human capital.

Also, Marko, Antti, Jari and Mario's study (2011) describes how human resource metrics and competencies may inform performance measures, in particular business scorecards. The development of key competencies improves organizational performance and performance outcomes. This is why Kaplan (2010) argues that if companies were to improve the management of their intangible assets, they would have to integrate the measurement of intangible assets into their management systems.

After reviewing research and survey findings of Gallup, Hay Group, ISR, Right Management, Blessing White and HR Annexi by Siddhanta & Roy (2010), we concluded that employee engagement depends on four major conditions in the workplace: the organization's culture, continuous reinforcement of people-focused policies, meaningful metrics and organizational performance. Meaningful metrics refer to devising performance measurement criteria in such a way that employees are clear about their goals. Organizational performance leads to pride, job satisfaction, trust and a sense of belongingness to the organization.

However, Pöyhönen & Hong (2006).) explored the role of measurement in enabling continuous organizational learning. First,

they argue that while traditionally, measurement has been mostly used for control purposes; recent changes in the nature of work have brought new challenges which can no longer be met with the old mind-sets and measures, that seeing the purpose of measurement as enabling learning rather than as enabling control implies changing several features. Specifically, they argue that such measures should be dynamic, collective, localized, based on the organizational strategy, oriented towards the future, and aimed at enabling reflexive learning.

Similarly, Momin & Mishra (2015) highlight how the strategic workforce planning provides a multi-dimensional approach towards building human capital. HR analytics help to identify the skills and create the leaders of tomorrow. Thus, with the help of HR analytics a strategic workforce plan will reduce attrition rate, mitigate risks and build a value added training culture for the organization. Trivedi (2015)'s study makes an effort to comprehend the significance of HR metrics and their effectiveness and the instinctive method to determine HR. It shows that HR metrics are an essential way to compute the outlay of HR and then influence the workforce plans as well as HR developments to determine the success or failure of HR propositions.

In the context of resource based view, Roman (2015) emphasizes that Resource Based View of strategic management, analysing the human resource of a specific firm in terms of its potential to serve as a source of a sustainable competitive advantage requires an examination of the resource value. He stated that the question of how to parameterize this value, i.e. how to calculate human capital leads to an integration of RBV reasoning with market based models of the competitive environment at the factor and product market side. However, from the analysis of his study, it shows that using wages and salaries or pricing mechanism of the product market will not be an appropriate basis for the valuation of human resource, unless and until human resources are continuously being viewed as assets, like other intangible assets, then the basis for calculating the value of human resources can be justified both in the long run and the short run.

Human resource metrics and business impact

Ulrich's study (1997) shows the impact of HR on business results, by showing how HR practices relate to a business' balance scorecard through productivity, people, and process indicators; and by showing how to audit HR practices, professionals, and departments. He argues that one of the most common weaknesses of HR professionals is fear of quantitative, measurable results and such fears may come from a lack of knowledge or experience with empirical assessments of HR work.

However, Chhinzer & Ghatehorde (2009) show that multiple studies support a statistically significant relationship between HR metrics and the organization's financial performance (OFR), but not a single one has examined a predictive relationship between them. It is against this background that the authors examine obstacles in the use of HR metrics to affect organization financial performance; the concept of a universal set of traits appeared implausible for a number of reasons. They argue that metrics selected should be dependent on the individual company's strategy, organization, and priorities in such a way that HR measure impact, develop tools to quantify impact, develop steps to make it happen, and actions that link work with business results and the data to prove it.

Also, Marwah, Thakar & Gupta (2014) set out to empirically assess the effects of human metrics on supply chain performance in the context of Indian manufacturing organizations. The outcomes of their research work provide valuable implications for the Indian manufacturing organizations to understand the factors affecting supply chain performance.

In other words, the emerging trend for HR professionals and HR trainer is to become a business partner by understanding the key performance indicators in the business and aligning relevant HR functions to achieve the business objectives. Invariably, as a strategic HR business partner, relevant metrics should be align to the business goals and objectives so as to achieve appropriate return on investment.

Employee Engagement

Employee engagement is defined as the extent to which employees commit to something or someone in their organization, how hard they work and how long they stay as a result of that commitment (Swetha & Kumar, 2010). Also, employee engagement can be viewed as a measurable degree of an employee's positive disposition or negative emotional attachment to job, colleagues and organization which profoundly influences his willingness to learn and perform at work (Siddhanta & Roy, 2010).

However, Bakker's study (2008) shows that job and personal resources are the main predictors of engagement. These resources gain their salience in the context of high job demands and that engaged workers are more open to new information, more productive, and more willing to go the extra mile. Boone James et al. (2011), also argues that the following factors are predictors of employee engagement: (1) supervisor support and recognition; (2) schedule satisfaction; and (3) job clarity for all age groups; (4) career development was a predictor for all but the retirement-eligible employees.

Also, Bhatnagar & Biswas's research (2010) extends the resource-based view of the company to employee engagement and explores linkages with firm performance. He argues that employee engagement interacts with other intangible variables such as the sense of justice and psychological contract which an individual feels and expects, respectively, and that an individual's psychological contract is shaped by the organization's HR policies along with many social cues from the work environment.

As part of HR policies, it appears that performance management can be used to increase levels of employee engagement by conceptualizing five major activities that serve to organize relevant behaviours shown to be either direct or indirect predictors of employee engagement, these major activities include setting performance and development goals, providing on-going feedback and recognition, managing employee development, conducting mid-year and year-end appraisals, and building a climate of trust and empowerment (Mone, et al., 2011).

This is the reason why David, Daniel, Dennis and Suzette (2011) emphasize that measuring workforce attitudes is a business imperative, including during an economic downturn and argue for the business value of an engaged workforce.

Also, a variant from the above arguments by Pati &Kumar (2010) shows that differences between self-efficacy levels in employees are primarily responsible for differences in displayed engagement and based on these findings the study argues and defines engagement as expressed empowerment pertaining to a role thus enriching the management literature concerning engagement.

Similarly, these findings support the notion that lateral social exchange relationships in the workplace are an important antecedent of work engagement and, more importantly, their beneficial effects on work engagement are contingent on certain types and/or levels of personality traits (Liao et al., 2013).

However, putting together the argument of the two contending perspectives on employee engagement, it shows that the antecedent of employee engagement are both situational (job based and organizational based) and personal attributes (levels of individual differences), i.e. organizational context, job context and individual self-efficacy level can be considered as predictors of employee engagement and that HR metrics as a situational tool of performance management has not been considered as a predictor of employee engagement.

Human Resource Metrics and Employee Engagement

More than ever before, managers in both private and public sector would agree that employees make a critical difference when it comes to innovation, organizational performance, competitiveness, and thus ultimately business or organizational success (Bakker & Schaufeli 2008).

In other words, an engaged employee is critical to the organization's success factor. Employee engagement means a high internal motivational state which is reflected in positive feelings and attitudes of an employee towards their job and the organization (Sharma & Raina 2013). Driving employee engagement, MacLeod (2009, in Bhatnagar & Biswas 2010) found in both public and private

sectors that leadership, line management, employee voice and integrity are key enablers of engagement.

In concrete terms, the antecedents of employee engagement are both situational conditions (meaningfulness, safety, availability, support from co-workers) as well as personal attributes (internal locus of control) of the employees (Sharma & Raina 2013).

However, employers increasingly want to know what will engage workers, make them energized and productive on the job and committed to the organization. The employees, on the other hand, want to know what the organization will do for them in terms of organizational favourable job conditions (Boone James et al, 2011).

It is within this purview that human resource metrics becomes imperative as a tool for predicting employee engagement for standard human resource management practices and policies. That is, changes in management practices that increase employee satisfaction may also increase business-unit outcomes, including profit (Bhatnagar & Biswas, 2010).

Putting human resource metrics into proper perspective, antecedents show that traditional approaches to organizational and people development, however, tend to focus more on the law of economics with a view to maximizing financial return on employer investment. These approaches can be traced back to the influential, innovative writings of Taylor (1911) in which strategies for optimizing organizational deliverables focused on matters such as recruitment, job design and motivation based on financial incentive.

Although, a number of researchers in the field of HR (McGregor, 1957; Mayo, 1949 in Havenga, Stanz, Visagie and Karin, 2011), positioned themselves in opposition to the so-called Taylorism and argued that the mechanistic approach of Taylor and his followers was both flawed and unsustainable, largely because it neglected the importance of group dynamics which contribute both to employees' attitudes to work and to their output. Such views initiated a range of theories in the 1950s and 1960s which focused not only on reducing work to its bare elements, but also on enriching it by attending to motivators of individual and team development.

These researches lead to the so-called human relations approach which focuses on workers themselves and suggests strong worker

relationships, recognition and achievement as motivators for increased productivity (Daft, 1997, in Havenga, et al.,2011).

However, as the world of work becomes more competitive, a more recent human resource return on investment (ROI) has been identified, which is return on intangibles. Intangibles represent the hidden value of a company and are becoming an increasingly important portion of a company's total market capitalization (Ulrich & Smallwood, 2005).

Intangible assets, different from financial and physical assets, are difficult for competitors to imitate, which makes them a powerful source of sustainable competitive advantage and if managers could find answers to estimate the value of their intangible assets, it would be possible to measure and manage the organizations' competitive position much more easily and accurately (Kaplan & Norton, 2004 in Bhatnagar & Pandey, 2005). Taking into consideration globalization and varying business dynamics now escalating challenges to HR and line management on how best to progress and arrange a responsive and extremely proficient employees while providing cost efficiency, HR metrics deliver a number of variables that can be precise to show how HR interposes to the business and employee's knowledge of their contribution to the revenue and cost of the organization productivity can influence employee engagement (Trivedi, 2015).

Theoretical Framework of the Study

Social Exchange Theory

Saks (2006 in Sharma & Raina 2013), argued that the stronger rationale predicting employee engagement hinges on the social exchange theory that when individual receive economic and socio-emotional resources from its organization they feel obliged to repay the organization by showing commitment to the aims and objectives of the organization. Similarly, this principle of social exchange theory was acknowledged by Kahn (1990) when he concluded that people are different in their engagement as a function of their perception of the benefits they receive from a role. That is, these benefits might be in the form of meaningful work and/or external recognition and reward. This is pointing to the fact that appropriate recognition and reward are

germane for engagement. The same holds true for a variety of other HR policies and practices like human resource metrics have emerged as the critical predictors of employee engagement especially when they have a knowledge of the extent of value added in monetary terms.

General System Theory

System theory as a unit of analysis is understood as a complex of interdependent parts, an open-versus-closed system, dependent on the environment for inputs, which are transformed throughout to produce outputs that are exchanged in the environment (Bassey & Arzizeh, 2012). Specifically, human resource metrics operate an open system, the cost incurred in training and developing skills, abilities, competences and knowledge from individual employees coming from the environment is the input cost, the cost incurred in ensuring that the employees behaviour in terms of its basic altitude, knowledge, skills and abilities are tailored with the basic goals and objectives of the organization can be term maintenance cost or process cost and the output is the expected return from the organizational performance in terms of its human resource contribution in achieving its effectiveness or efficiency .That is, the levels of engagement within an organization can have a substantial and measurable impact upon the outputs of an organization (Havenga, Stanz, Visagie & Karin, 2011).

It is against this background that the researcher wants to examine the knowledge of human resource metrics as a predictor of employee engagement because understanding if employees are aware of the value added to the organization in monetary terms and the cost expended on them in the light of their productivity could influence their engagement.

Research question

Does the knowledge of human resource metrics affect employee engagement of Academic Staff of University of Lagos?

Research Hypothesis
    Hypothesis I
    H_1: The knowledge of HR metrics has no influence on employee engagement.

Method

For the purpose of this research work, a correlational research method was adopted because our study attempts to explore relationship between or among variables in order to make a prediction which is germane to a quantitative research method. Also, for the purpose of this research work, the data used was primary data and secondary data. The primary data was derived through the administration of questionnaires and the secondary data was from empirical journals, articles, publications, texts written by various authors that related to the study.

The population used for the research consists of the academic staff of University of Lagos, Nigeria. At the time of the study, there are 1272 academic staff in the University. These academic staff span across all the twelve faculties in the University. These are: Faculty of Management Sciences, Faculty of Law, Faculty of Social Sciences, Faculty of Environmental Sciences, Faculty of Education, Basic Medical Sciences, Clinical Sciences, Dental Sciences, Faculty of Arts, Faculty of Science, Faculty of Pharmacy and Faculty of Engineering.

This was chosen with the belief that academic staff is a major driving factor to the growth and development of the university and that it will provide an overview regarding the perceived added value and wealth created by each employee which can provide monetary arguments for unions when suggesting investments in human resource which, in turn, can be used to predict their vigour, concentration and dedication to their work. Generally, it will provide an overview into the perceived use of human resource metrics on staff engagement in the public service. The sample size of 103 was determined using response to item ratio and participants were randomly selected.

This sampling technique was used because it eases the urgency of data collection from the study population with the use of questionnaire. In order to ensure both validity and reliability of the research instrument, i.e. the questionnaire, the validity of the instrument was done through content validity by expert in human resource management which helps to determine whether the questions on the scale cover a wide range or domain of the activities which constitute the construct being measured. In what concerns reliability, Cronbach Alpha was used to test for it. Based on the analysis of the result, the reliability test is 0.877 approximately 0.9 Cronbach's Alpha which is above the

standard of 0.7 for showing the reliability of research questions. Based on the above, it shows that the research instrument used to collect the data is valid and consistent with the data collected.

Results

A simple descriptive analysis was conducted on the demographic data. *Table 1* is an illustration of the summary of the data. The formulated hypothesis is tested using inferential statistics based on 0.05 probability level of significance. The result of the test is also presented in *Table 2* below.

Table 1. Analysis of Respondents

Descriptive	(N=103)	Percent (%)
Gender		
Male	74	71.8%
Female	29	28.2%
Marital Status		
Single	44	42,7%
Married	59	57.3%
Age		
20-29	36	35%
30-39	28	27.2%
40-49	29	28.25%
50 and above	10	9.7%
Qualifications		
B.Sc	34	33.0%
M.Sc	31	30.1%
Ph.D	38	36.9%
Grade levels		
Graduate Assistants	47	45.6%
Assistant Lecturers	17	16.5%

Lecturer 11	18	17.5%
Lecturer 1	8	7.8%
Senior Lecturer	9	8.7%
Associate Prof	2	1.9%
Years in the University		
Below 5yrs	63	61.2%
6-10yrs	21	20.4%
11-15yrs	12	11.7%
16 and above	7	6.8%

Table 2. Analysis of items in the questionnaire

S/N	ITEMS	AGREED	UNDECIDED	DISAGREED
1.	Knowing the amount of wealth created by each employee improves performance	76.7%	6.8%	16.5%
2.	Promotion is based on the amount of profit added by each employee	73.8%	2.9%	23.3%
3.	Salary paid to employees is the contribution made by each employees	41.7%	7.8%	50.5%
4.	Knowing the contribution made by human resource help demand for increase in wages and salaries	72.9%	9.7%	17.5%
5.	Information on contribution per employee has increased human resource development programmes	66.0%	12.6%	21.3%
6.	Estimated rate of return	53.2%	15.5%	31.4%

	per employee cannot be compare with the cost per employee			
7.	Knowing employee estimated rate of return is a sine quo non for employee retention rate	46.8%	9.7%	23.3%
8.	Value of HR contributions provide monetary arguments for unions when suggesting investments in human resources	72.8%	11.7%	15.5%

Test of Hypothesis

Hypothesis I
H_1: The knowledge of HR metrics has no influence on employee engagement.

The test of hypothesis seeks to further analyse research questions which relate to the purpose of the study, that is, depicting the perceived use of human resource metrics on employee engagement among the academic staff at University of Lagos.

Table 3

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.388a	.151	.142	.54851
a. Predictors: (Constant), Knowledge of HR Metrics				

ANOVAa						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.385	1	5.385	17.899	.000b

	Residual	30.388	101	.301		
	Total	35.773	102			
a. Dependent Variable: Employee Engagement						
b. Predictors: (Constant), Knowledge of HR Metrics						

Coefficientsa					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.

Source: SPSS Extract

A linear regression was carried out to ascertain the extent to which knowledge of productivity metrics (PM) can predict employee engagement. A positive correlation was found between knowledge of productivity metrics and employee engagement (r = .388) and the regression model predicted 15.1% of the variance (R square) suggesting that 15.1% variance in employee engagement can be explained through the knowledge of HR metrics. Also, its coefficient suggests that for every one percent increase in the knowledge of HR metrics, there will be 30.6% increase in employee engagement. Therefore, since (F = 4.308, p < .0005) and the significance level is 0.000 which is less than 0.05 level of significance, hence, we reject the null hypothesis H_1 and accept the alternative hypothesis H2 that: *the knowledge of HR metrics has influence on employee engagement.*

Discussion of Findings

It can be concluded that knowledge about contributions, estimated rate of returns and wealth created by each employee will provide monetary

arguments for unions when suggesting investments in human resource that can be used to predict employee engagement in terms of their vigour, concentration and dedication to their work. That is, the demands of academic staff of the universities for earned academic allowance can be informed by the perceived knowledge of HR metrics within the University system. This is consistent with Kahn's findings (1990), that people are different in their engagement which is a function of their perception of the benefits they receive from a role (Kahn, 1990).

Conclusion

This study shows that value in numeric terms should be placed on how individual employees can determine their worth either before or during employment so as to negotiate skilfully with the employers during the process of establishing new or renewing their terms and conditions of employment.

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