

RESEARCH ARTICLE

HR Data Insights & Analytics; A Knowledge Management Enabler in Organisations

Casely Ato Coleman

Senior Fellow, IMANI Center for Policy Education, Ghana.

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Corresponding Author: Casely Ato Coleman, Senior Fellow, IMANI Center for Policy Education, Ghana.

Abstract

Technology has triggered the need for organizations to leverage data and insights to manage talent. Human Resources (HR) professionals are expected to facilitate the positive effect of nimble Human Resources Information systems (HRIS) to ensure operational excellence to drive organizational impact and results. HR strategies are operationalized through technical approaches in talent acquisition, performance management, rewards, employee engagement and change management. In this study we examined how HR data, insights and analytics play a knowledge management mediating role in enabling HR strategy execution. A Sample of 196 respondents from HR and leadership teams of three organizations in the profit and not for profit sectors in Ghana and Senegal were surveyed to examine the relationship between HR analytics, knowledge management and HR strategy execution. Our study confirms that HR data, insights and analytics provides knowledge management capabilities to assess the delivery of HR strategies and this offers practical tools for Organizational leaders and HR practitioners to measure HR contribution to organizational performance. The study highlights the often overlooked anthropological dimension of HR and the need for organisations to have a relatively enduring culture of values and norms that generate data and analytics for leadership decision making on HR management.

Keywords: HR Data Insights, Analytics, Knowledge Management, Anthropology.

1. Introduction

Organizations are progressively adopting data-driven decision-making to enhance organizational performance, facilitated by advancements in HR technologies (Karikari et al 2015). Marler and Boudreau (2017) define human resource analytics as an HR practice that employs information technology to examine data using descriptive, visual, and statistical techniques. It focuses on HR processes, human capital, organizational performance, and external economic challenges, with the objective of analyzing business outcomes and fostering data-driven decision-making. These innovations have transformed HR management, enabling organizations to make informed, evidence-based decisions that align HR activities with their overall business strategy HR data,

insights and analytics is the method and process for capturing information to assess the execution of HR strategies in line with the overall employment value proposition of the organization which is framed into outputs and outcomes. It provides evidence of how HR technical approaches and initiatives contribute to broader organizational strategic priorities. (Dahlbom et al 2020)(Faletta et al 2017).

2. Literature Review

2.1 HR Data Insights & Analytics

Bassi (2011) and Gaspar (2021) highlight that human resources data, insights and analytics involves applying an evidence-based approach to decision-making in personnel-centric business domains HR data, insights and analytics helps Leadership to make

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decisions on all aspects of HRM. (Stieglitz, et al., 2018). HR data, insights and analytics is beneficial for the organization in various ways.(Kaur et al 2017). Organizations can make use of people analytics for finding the best practices in sourcing the right kind of candidates evaluating their fit for the role. (Shrestha, et al., 2021). Applicant tracking system (ATS) helps in analyzing which sources provide the best results, the turnaround time to hire the appropriate candidate and the cost indulged in attracting choosing and onboarding the talent. HR data, insights and analytics can provide both high-level and deep dive analysis to assess a back to back recruitment –onboarding-probation cycles. HR data, insights and analytics can be used to conduct staff engagement surveys and assess organizational strengths and capabilities gaps from an organizational design perspective. This helps to measure the level of staff engagement. (Gubbins, et al., 2018). Effective technology that captures data employs a wide range of tools and methodologies, from rudimentary HR metrics reporting to advanced predictive modeling. Its growing prominence as a strategic tool stems from its ability to generate actionable insights, enhance operational efficiency, and drive organizational success. However, human resource analytics is not merely about acquiring and processing HR data; it also requires applying research designs and advanced statistical techniques to uncover solutions and support evidence-based decisions. (Tomar et al 2020)

2.2 Knowledge Management & HR Data Insights & Analytics

Human resource data, insights and analytics is not simplistically restricted to acquiring and processing HR data; it also requires applying research designs and advanced statistical techniques together with an anthropological lens to uncover solutions and support evidence-based decisions. The knowledge management and anthropological dimensions are reflected through values and norms that define a “meaning system” that enables leaders, managers and employee and HR professionals within an organization to utilize data and insights to attribute meaning and values to the various external and internal events they experience as they contribute towards organizational goals. This aligns with a knowledge management perspective of HR data and insights analytics. A review of the literature on knowledge management indicates varying perspectives with respect to the philosophical definition on knowledge(Dueck,2001, Martensson, 2000, Fahey &Prusak, 1998). Three varying perspectives have been identified in the

literature: (1) knowledge as an object (2) knowledge as residing in individual minds and (3) knowledge as being constructed socially. The definition of knowledge as an object posits that knowledge exists outside of people. This definition is associated with engineering(Hendriks 2001). It limits knowledge to information ie data organized and structure in a context relevant to the user (Wiig 1997). On the other hand, the philosophical perspective of knowledge as residing in individual minds, defines knowledge as residing in the minds of individual employees of the organization who apply cognitive processes to transform information into knowledge (Nonaka 1994). Knowledge is created through knowledge conversion, focusing on a dialogue between tacit and explicit knowledge. Finally, the social perspective considers knowledge to be socially constructed as groups of individuals engage in talk and activity around shared tasks or problems (Merriam & Caffarella, 1999).

In line with the three philosophical perspectives of knowledge, we argue that HR data, insights and analytics produces axiomatic knowledge that explains the “why” of HR data, insights and metrics, dictionary knowledge that explains the “what of HR data, insights and metrics”, directory knowledge that explains the “how of HR data, insights and metrics” and recipe knowledge that explains the “should of HR data, insights and metrics”.

3. Objective of the study

- To examine how HR data, insights and analytics play a knowledge management mediating role in enabling the execution of HR strategy
- To provide a practice framework for HR professionals in the use of HR data, insights and analytics to track the delivery of HR strategy.

4. Research Methodology

4.1 Research Method

The research was remotely conducted virtually from February 2026 to April 2026. We briefly examine the research method used to answer the research problem to achieve the research objectives. In the context of the quantitative research, the focus of the research was to conduct a facts finding study; the reason is that the sources of data in this study include participants’ ratings that need to be analysed to study how HR data, insights and analytics play a knowledge management mediating role in enabling the execution of HR strategy in order to provide a practice framework for HR professionals in the use of HR data, insights and analytics to track the delivery of HR strategy.

4.2 Data Collection Techniques

In HR research, data can be collected through interviews and questionnaires. Each of these techniques is defined as follows:

- *Interview*: an interview is ‘conversation between two or more people, requiring the interviewer to establish rapport, to ask concise and unambiguous questions, to which the interviewee is willing to respond and to listen attentively’ (Saunders et al., 2012, p. 372). There are three types of interviews: structured interviews, semi-structured interviews, and unstructured or in-depth interviews.
- *Questionnaire*: a questionnaire is a data collection technique in which each person is asked to respond to the same set of questions in a predetermined order (Saunders et al., 2012, p. 679).

A survey questionnaire was designed to collect data and opinions of 196 participants from HR teams from three organisations with staff strength of 600-2500. The participants were purposely selected due to their direct and supportive roles in facilitating HR data and analytics. These included respondents working in rewards, talent acquisition and employee engagement roles, Learning & Development, Employment relations and HR business partnering roles as well as those in Management & Leadership roles and others working in cross functional or matrixed roles. The questionnaire was used because this research involves the structured collection of data from purposely selected employees of the four case study organisations. SurveyMonkey, an online survey tool, was used to create and publish a web-based and self-completed questionnaire. Each respondent responded to the same set of questions and recorded their own answers online. The respondents were surveyed to examine how HR data, insights and analytics play a knowledge management mediating role in enabling the execution of HR strategy. The

4.4 Findings of the Study

Table 1. Demographic Details

Variables	Respondents	Percentage %
Gender		
Male	117	59.69
Female	78	39.7
Total	196	100
Age		
30-34 yrs	65	33.16
34-45 yrs	66	34.18
Above 45 yrs	64	32.65
Total	196	100

study is quantitative in nature and the primary data was collected through purposive sampling method. Mean test using a 5-point Likert scale was applied to analyse the data results.

4.3 Background of Respondent Organizations

Organization A was established in 1991 and focuses on implementing projects in education with an annual budget of Fifteen million dollars. It has projects in 8 out of the 16 administrative regions in Ghana. It raises funding from donors. It has a staffing strength of circa 600 and its corporate headquarters is based in the Netherlands. Company B was established in Senegal in 2005 and is an international development organization with experience in facilitating the development of socially sound and profitable supply chains. It focuses on stimulating sustainable supply chains through operational excellence in livelihood projects. It has a staff strength of circa 2260 and its corporate headquarters is based in the USA. It has an annual budget of circa Forty-six million dollars and operates in 8 out of the 14 administrative regions in Senegal. It raises 75% of its funds from its individual and corporate sponsors, and the remaining 25% from donor funds. Established in 2001, Company C is a leading private company operating in the oil, gas and logistics sector in Senegal. It has a global logistics services delivery model with a focus on client’s satisfaction. The company has established itself as one of the most reliable players in its sector and has grown to become a respected company in Senegal and within the sub region. The company currently employs circa 1250 time staff with an average turnover of \$107m and is currently embarking on expanding its business by acquiring new clients and also sustaining current competitiveness in a rapidly changing business landscape. The organization’s portfolio of clients has grown to include some of the most influential and dynamic global brands in Senegal.

Teams		
Reward & Talent Acquisition & Employee Engagement	35	17.85
Learning and Development & Employment relations & HR Business Partners (HQ&Field)	65	33.16
Management & Leadership	72	36.73
Others cross cutting matrix roles(eg Global Mobility, Health & Safety, Internal Communication)	24	12.24
Total	196	100
Designation		
Chief HR Officer	48	24.48
People & Culture Manager	65	33.16
Talent Solutions Specialist	53	27.04
Others (cross cutting matrix roles eg Global Mobility, Health & Safety, Internal Communication)	30	15.30
Total	196	100

Table 1 Total 196 respondents 59.69% are male and 39.7% are female. Among them 33.16.% are from the age group of 30-34 yrs, 34.18% belongs to age group 34-45 yrs and rest 32.65% are above 45 yrs of age. 17.85% of the respondents are working in rewards, talent acquisition and employee engagement roles, 33.16% in L&D, Employment relations and HR business partnering roles, 36.73.% in Management&

Leadership roles. The rest category, constituted 12.24% colleagues working in cross functional or matrixed roles 12.24%. 24.48% of the respondents are Chief HR Officers, 33.16.% are People & Culture Manager, 27.04% are talent acquisition roles and rest 15.3% of the respondents are working in cross functional or matrixed roles across the organisation.

Table 2. Data Insights And Analytics & Knowledge Management

Survey Questions	Mean score
HR data, insights and analytics enable rational decisions	3.22
HR data, insights and analytics provide knowledge that enables an assessment of strengths and gaps in organizational capabilities in the execution of HR strategies and technical approaches	3.34
HR data, insights and analytics provides knowledge to improve employee performance	3.73
HR data, insights and analytics provide evidence based knowledge to improve quality assurance across all work processes using HRIS	3.21
HR data, insights and analytics enable the oversight role of the Advisory Board, Board of Directors, Board of Trustees	3.60
There are gaps in explaining the technical data, insights and analytics for non HR staff	3.22
We trust the credibility of the analysis done by the HR team	3.89
Our current HR strategy and HRIS are aligned and this multiple data sources to develop status quo and predictive analytics	3.79
There is adequate financial investment to build the capacity of HR staff to provide quality insights	3.99
There is political will by senior leadership to enable a culture of generating knowledge through HR data, insights and analytics.	4.0

Summary Analysis

- High level of political will by senior leaders to enable a culture of generating knowledge through HR data, insights and analytics with mean score of 4.0. This confirms senior leadership provides oversight and accountability for creating a culture of quality reporting.
- This is further reinforced by a high mean score of 3.73 on the extent to which quality data enhances performance management and knowledge management. This score further shows the importance of senior leadership ownership and

- accountability for data driven decision making on HR initiatives and interventions.
- There is adequate financial investment to build the capacity of HR staff to provide quality insights with mean score of 3.99. This confirms a commitment to fund HR staff capacity building to enhance quality decision making in these organizations.
- There is a moderately good score of 3.79 on the extent to which HR strategy and HRIS are aligned to enable status quo and predictive data, insights and analytics. This confirms that HR strategies

- must be measurable to enable quality monitoring and evaluation of key metrics.
- There is a fairly good level of trust in the credibility of the data produced by the HR team with a score of 3.89. This confirms the importance of securing trust through quality data insights and analytics.
- HR data enhances corporate governance and this is reflected in the mean score of 3.60
- HR data, insights and analytics provide knowledge that enables an assessment of strengths and gaps in organizational capabilities in the execution of HR strategies and technical approaches
- Equally significant findings were the score on the need to improve the education of non HR staff by communicating the data, insights and analytics in a form that can be understood. The mean score of 3.2 confirms that importance of strengthening the internal communication skills of HR professionals when presenting HR data, insights and analytics.

Table 3. Output Based Analytics

Survey Questions	Mean score
In your organization nimble talent management is measured by % high performing/ high potential staff who stay for at least 2-4 years.	3.88
In your organisation talent bench quality is measured by -# mission critical roles with no successor	3.72
Compensation is measured by legally compliant 1) Job evaluation,2) Market benchmarking 3) Distribution of comparatio in line with compensation philosophy	3.78
1. Employee engagement is measured by % Engaged staff :[based on annual staff survey] 2. % Voluntary turnover the rolling 12 month average of leavers who resigned /total staff	3.22
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Performance management ie where staff can describe what they are responsible for and how their role fits in to the organisation is measured by 1. % Reviews completed 2. % of high quality individual development plans	3.89
Employee relations is measured by Turnaround time [ratio of ER grievances issues resolved within 30-45 days	3.79
Talent acquisition is measured by 1. % internal/external hires: 2. % time to fill - % open positions filled within 60-75 days 3. % formally onboarded – [# staff who complete onboarding within 90 days of joining 4. % of onboarded staff who score onboarding experience of 3.5 and above using 5 point likert scale	3.98
The effectiveness of HRIS is measured by 1. Quality of self service and Manager service 2. Turnaround time for responding to queries in the system	4.0

Table 4. Knowledge Management Based Outcomes

Survey Questions	Mean score
The outcomes of your firm’s nimble talent management is measured by capabilities of high performing staff to reconfigure and transform the organization, culturally, technologically etc (recipe and directory knowledge)	3.85
The outcomes of your compensation practices is measured by high employee engagement leading to organizational capabilities that erect barriers to imitation by peers in the sector (axiomatic, dictionary, recipe & directory knowledge)	3.76
The outcomes of performance management results in organizational learning, experimentation, experience and internal dissemination (knowledge residing in individuals & socially constructed when talent interacts with others)	3.22
The outcomes of your talent acquisition approaches results in market sensing capabilities ie how the organization is equipped to monitor & pick up discernible shifts in industry, market trends in the labour market and respond accordingly.	3.89
The outcomes of learning and development results in 1. the conversion of tacit knowledge into explicit knowledge 2. Externalization of knowledge through dialogue which improves quality programming and results 3. Knowledge transfer captured through databases, documents, briefing etc 4. Internalisation ie staff understand, absorb explicit knowledge and transferring it to tacit knowledge held by the individual.	4.3

The outcomes of HRIS is measured by Speed, validity and reliability of information which is available, accessible and utilized to drive data driven decision making	4.0
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Summary Analysis

The analysis confirms that HR data must not be obtained for bureaucratic purposes but must add value and be relevant to track outputs and outcomes in the execution of HR strategy and related organizational initiatives. This aligns with the study by Rasmussen & Ulrich(2015).Applying a knowledge management lens to HR data, insights and analytics enhances decision making to strengthen organizational design and corporate governance. The high scores on knowledge management outcomes in talent management, compensation, performance management, talent acquisition, learning and development and HRIS also introduces an anthropological dimension to HR data and analytics.

4.5 Anthropology of HR Data Insights & Analytics

The anthropological dimension is reflected in how senior leaders nurture a culture of data insights and analytics that drive effective HR strategy execution. The culture of using data and insights to measure HR contribution to organization performance is manifested in the very high scores using local insights to review flexible HR business models underpinned by the culture and climate surrounding use of outputs and outcomes measurement. The findings from this study confirms the need for organizations to have a relatively enduring set of values and norms that underline an organizational system that generate data and analytics for decision making on HR management. The analysis from this study indicate that these values and norms may not be entirely conscious. They define a “meaning system” that enables leaders, managers and employee within an organization to attribute meaning and values to the various external and internal events they experience as they contribute towards organizational goals.

5. Conclusion

The demand from organizational stakeholders for evidence of impact has triggered the need to leverage data, insights and analytics to manage talent. Human Resources (HR) professionals are expected to facilitate the use of nimble Human Resources Information capabilities to ensure operational excellence to drive organizational impact and results. HR strategies are operationalized through technical approaches in talent acquisition, performance management, rewards, employee engagement and change management. In

this study we examined how HR data, insights and analytics play a knowledge management mediating role in enabling HR strategy execution. A Sample of 196 respondents from HR and leadership teams of three large organizations in the profit and not for profit sectors in Ghana and Senegal were surveyed to examine the relationship between HR analytics, knowledge management and HR strategy execution.

5.1 Key Contribution of Our Study to The Discipline and Practice of HR

- Leadership plays a role in nurturing a culture of using data, insights and analytics to ensure a strong relationship between HR decisions and overall business outcomes.
- It reinforces the importance of senior leadership ownership and accountability for data driven decision making on HR initiatives and interventions which in turn enables an evaluation of the contribution of HR teams to organizational outcomes and results.
- Credibility of HR data, insights and analytics is contingent on investing in the capabilities of HR professionals in data science, data analysis, monitoring and evaluation
- Applying a knowledge management lens to HR data, insights and analytics enhances decision making to strengthen organizational design and corporate governance.
- The findings from this study illustrates the often overlooked anthropological dimension of HR and the need for organisations to have a relatively enduring culture of values and norms that underline an organizational system that generate data and analytics for decision making on HR management.
- The knowledge management and anthropological implications of this study indicate that these values and norms define a “meaning system” that enables leaders, managers and employee and HR professionals within an organization to utilize data and insights to attribute meaning and values to the various external and internal events they experience as they contribute towards organizational goals.

Our study confirms that HR data, insights and analytics provides knowledge management capabilities to assess the delivery of HR strategies and this offers a practice framework for Organizational leaders and HR practitioners.

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