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IMPACT OF DISRUPTIVE TECHNOLOGIES ON HUMAN RESOURCE MANAGEMENT

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ABSTRACT

The study informed by the prevailing lack of proper planning among corporate organisations for effective human resource management. Hence, they have become reactive rather than proactive in technologies. The study intends to determine the effect of artificial intelligence, robotics and block chain technologies on human resource management performance of corporate organisations. Technology is universally and it is erratic the way things work, henceforth it is disruptive. Human resource management reforms have also been affected by disruptive technology, and it is in the form of artificial intelligence, block chain and robotics. Artificial intelligence is used in resource management such as recruitment area, legal work area, monitoring employee's area, coaching and performance management. Robots are used for interview and selection manner, learning, communication, and also in controlling harassment. Block chain are used to record transaction across systems so that any record within in the block chain system cannot be altered without the modification or alteration of all subsequent blocks. This paper summarizes the impact and effects of disruptive technology on human resource management practices and discovered that it is more employee friendly, critical to their survival, reduced cost and increase profitability.

Key words: *Artificial Intelligence, Block chain, Disruptive Technology, Human Resource Management, Robotics.*

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1. INTRODUCTION

Over the years, scholars and management practitioners holds human resource as key to organizational performance. The differences in the knowledge, aptitude and personality of the employees make it important that organizations must develop an operational model that efficiently fuses the unique capacities of the employees for the good of the organization, managing human resource in this ICT driven market changes is therefore more tasking. Changes in business processes have therefore taken its toll on human resource practices. One of such changes is the advancement in information and communication technology and its adoption in business practices. Moreover, the complex and dynamic nature of business

environment makes it expedient for organizations to have a reliable system of data flow for decision making purposes (Pavitt, 2019). These days, it is believed that technology can assist human being in automating and streamlining several processes and procedures in human resource management ranging from recruitment, orientation, training and development, employee benefits, employee engagement, retention, and attrition as well. Nowadays, almost all the practices of human resource management are positively impacted by the technology which in turn results in augmentation and enhancement of workforce capabilities. To attain a competitive edge in the industry, an organization has to be up-to-date with the latest technological advancements that significantly influence the industry. The latest disruptive technologies and practices that are revolutionizing the human resource management are focused on the artificial intelligence, robotics, networks and machine learning et cetra (Dauda & Akingbade, 2021).

Organizations have greatly benefited by the use of technology. Constant and frequent changes in technology present challenges and opportunities for the growth of business. In the past decade, disruptive technology has grown in a tremendous way and has changed the way we work. In this article, we will be discussing the impact of technology on human resource management (HRM) practices in organizations. Describing Technological advancement, Mumford (2020), posit that it is the process of combining and reorganizing knowledge to generate new ideas. The development of technology has an impact on firm performance. Technological advancement comes from internal advancement and internal advancement comes from employee capability. So there is a close relationship between technological advancement and employee performance. Technologies can only lead to increased productivity or improve performance when combined with other resources effectively by human resources or when done effectively, and use technology productively and ethical

There has been rising interest in the recent years, in embracing technology in the business world, which relates to adoption to the theory of innovation. Various studies have been done to get more informed and enlightened about the issues that affect implementation of disruptive technology in an organizations. Conceptual models have been developed by several researchers to confirm the acceptance of disruptive technology behavior traits. The number of studies done have not managed to give a comprehensive view of issues hindering acceptance of technology inventions in disruptive technology (Schillewaert, 2012). The organization is end up responding to incidents once occur, due to lack of proper planning for their human resource management and hence they become reactive, rather than proactive.

When such incidences occur, the organization is unable to make future forecast of its resources. This leads to last minute recruitment drive for personnel and hence end up compromising the quality of candidate applying for the job. The company is experiencing understaffing because of inappropriate human resource management systems. The management had not foreseen how systems improves efficiency, their belief on high costs and need for expensive expertise has put them off the systems despite the usefulness of the HRM. As a result of these observation, this study is aimed at examining elements that have an impact on descriptive technologies and human resource management firms in Nigeria.

1.1 Objectives

This study evaluates the impact of disruptive technologies and human resource management. Specifically,

1. it assesses the impact of artificial intelligent, robotics and block chain on human resource management.

2.1 Conceptual Review

2.1.1 Disruptive technology

Disruptive technology is a technology which displaces the existing technology used, resulting in changing the entire industry. Christensen coined the word disruptive technology in his bestselling book The Innovator's Dilemma. Christensen classifies technology into categories namely sustaining technology and disruptive technology. Disruptive innovation as defined by Christensen is a process by which a product or service takes root initially in simple applications at the bottom of a market and then persistently moves up market, eventually displacing established competitors. He also specifies that the change and innovation we see today have its root in technology. The best companies may lose market leadership despite doing the right things if they do not adopt the disruptive technology. Disruption does not occur all of a sudden and it is overlooked by the business houses until the market has already moved away from them. Disruptive technology is summarised into four categories of artificial intelligence, robotics, networking and advanced manufacturing (Evans, 2017). Empirical results show that organizations respond to disruption by changing or extending or adapting the resources, processes and values/culture present in the organization. Digital disruptions are about big data, convenience, personalization and contextual services with the use of algorithms, data visualization and machine learning. Any organization which focuses on surviving in the marketplace has to consider the companies which cause disruption in the

market and take into account current trends, markets, competitors and customers (Kassel, 2017).

2.1.2 Disruptive technology and Human Resource Management Practices

Human capital is the differentiating force and active asset of the organization. The positive and significant relationship is identified between human capital and competitive advantage of firms (Kamukama, 2022). Human resources (HR) are the firm's intangible resources, which can become a competitive advantage for the firm as they are difficult for the competitors to imitate. In order to lead and drive growth, new ways of managing the human capital are important. One of the competency domains for HR on individual effectiveness and business success is being a technology proponent, which means improving and leveraging technology and also building internal processes which align with the external environment demands. Achievement of organization goals by exercising better control over the performance and behaviour of employees is made possible through electronic human resource management (E-HRM), a concept that utilizes information technology to do functions related to resource (Sabir et al., 2015). E-HRM transforms the HR function to be more strategic and effective. For effective use of E-HRM, the organizations also have to look into the skillsets of the resource professionals.

Boudreau and Cascio, (2017) necessitates organizations to take effective steps to ensure that human resource leaders have technological skillsets like innovative reasoning, master of employee intelligence (data analytics), mindset focused on business (the effect of HR on the entire organization), design thinking HR (designing the way employees work, using technology which results in employee retention and stakeholder satisfaction), cross-cultural competency, technological competency, creative inquiry (finding right, healthy, less disruptive solutions to complex business problems) and new media literacy (leverage the new tools for attaining goals). The right logic (strategy of talent), the right analytics (questions and results that are valid), the right measures (data sufficiency) and the right process (knowledge management) strengthens the resource metrics and analytics. These act as a force towards strategic change.

2.1.3 Human Resource Management

The introduction of the concept of Human Resources Management came to light in the 1980`s. This trend was ushered in after an intense term in which the application of scientific methods was used to solving the problem of obtaining maximum efficiency in industrial work. Human Resource Management was used to break the trend or belief that man is a man and not a robot. Human resource management is the area of administrative focus dealing with an organization`s employees. In most cases, human resource management is the term used to describe formal systems devised for the management of people within an organization. Essentially, the purpose of human resource management is to maximize the productivity of an organization by optimizing the effectiveness of its employees. As Edward L. Gubman observed in the Journal of Business Strategy, ´´The basic mission of human resources will always be to acquire, develop, and retain talent; align the workforce with the business; and be an excellent contributor to the business. Those three challenges will never change. This proclamation is unlikely to change in any fundamental way, despite the ever-increasing pace of change in the business world.

Shammy, (2022) emphasizes that what makes organizations effectiveness is how they organize staff and manage their human capital. Modern organizations are dependent on complex systems and the knowledge of their employees. He also mentioned that if human resource can identify key talent areas and man-aging critical talent, it has opened the door to being a major strategic player, with respect to organizational effectiveness. Organizational effectiveness is hard to measure as there is no unified definition of the organizational effectiveness. Each company has to design its own measures and has to define the desired target values. The organizational effectiveness is essential for the triumph of the recent organization.

2.1.4 Disruptive Technology and HRM Practices in Organizational outcomes

The outcomes for the organization, when internet/intranet is used in HRM transactions are classified into three major categories viz. operational (administrative aspects), relational (connection, communication and cooperation aspects) and transformational (strategic aspect) (ampersand-& Bellou, 2016). Acceptance of technology in HR by users gives way to a positive attitude towards the system while increasing the efficiency of HRM activities and practices. The realization of E-HRM goals depends on the IT users' acceptance (ampersand-& Bellou, 2016). The use of e-business technologies has a direct and indirect effect on the organizational performance. Outcomes of E-HRM include HRM processes which are more

efficient, a higher level of HR service delivery, strategic contribution of HR, and all these would result in achieving organizational goals. Usage of technology in HR facilitates virtual relationships which can be utilised in the areas of recruitment in the organization. E-HRM can decrease the transactional cost and also the head count of the HR department. Implementation of technology in the functions of HR results in improvement of performance by increasing value for users and also helps in saving human and other resources. descriptive technologies environment has a strong influence on HRM effectiveness as the frequency of usage results in higher value creation (Sabir et al., 2015). The use of technology in HR positively influences HRM responsiveness, service quality and helpfulness (Obeidat, 2016).

2.1.5 Impact of disruptive technology in an Organization

2.1.5.1 Human Resource Intelligence

Artificial intelligence (AI) means the development of computer systems performing tasks that require human intelligence. The primary goal of AI is to make machines smarter. Turing test measures how effectively AI can pretend to be human (Evans, 2017). Machine learning is designing, developing algorithms and techniques allowing computers to learn. It is the approach used for artificial intelligence. Google's Allo, Facebook's Messenger, Window's Cortana, Amazon's Alexa, Apple's Siri have paved way for the next stage of significant developments in artificial intelligence. They are accessible from various platforms like mobile phones, watches, cars, home hubs, etc., and some multi-platform.

Human resource leaders are experimenting with the use of artificial intelligence in various HR functions like recruiting, onboarding, development, coaching, etc. Data and information is transformed into analytics and intelligence in the organization. If not, it is of little value to the organization. Expert systems are an integral part of artificial intelligence and meta-learning approach is followed wherein mathematical models are built-in which enables the system to learn (Chase, 2017). In the HR intelligence cycle, the data analytics has to be communicated, as intelligence results in enabling strategy and decision making in the organization. According to Falletta, HR intelligence is a process which is proactive, systematic, gathers, analyses, communicates and uses HR research and analytics results in order to help the organizations achieve strategic objectives. The results of the study conducted by organizational intelligence institute points out that organizations go beyond metrics and scorecards and they perform a lot of research. They take this intelligence in framing strategy which helps in HR strategy development and decision making. Organizations have to transcend from limited analytics to a broader field which requires enterprise-wide effort for

the analytics-driven culture, new analytical skills and technology (Chase, 2017). Artificial intelligence tools help in identifying candidates for the job. AI tools also help in evaluating a candidate's performance in a job interview and in choosing the right person for the job (Lennon, 2017). Jon Bischke, Entelo's Chief Executive says computers are used to collect large volumes of information available in public domain about the people who have applied for the position. Computers were used in earlier stages of recruitment for bringing down the voluminous data to a manageable size (Hill, Smith, & Mann, 2020). After the initial data collection, Unilever is using an algorithm-based recruiting strategy for prescreening candidates and gathering evidence for choosing the right person before the interview phase. Some companies like Utah-based HireVue, uses algorithms to assess data submitted by candidates in the form of videos (Hill, Smith, & Mann, 2020).

The ideal software automates tasks like screening, sourcing and scheduling of interviews. Zoom.ai improves and simplifies employees experience through its automated assistant software which includes schedule meetings, transcribe calls and create departmental knowledge bases. Artificial intelligence can be used to coach managers in leadership and soft skills (Gale, 2017b). Artificial intelligence software company Butterfly.ai, based in New York has developed an automated tool for on-spot coaching while the entire industry is focusing on micro learning at a self-pace. Performance management when linked with artificial intelligence, reduces the bias related to the assessor. Better Works is a software that provides a platform for analytical goal-setting and performance assessment. It provides continuous feedback and performance review in real-time. This motivates employees as they can see how their contribution is helping the organization achieve its goals and affects the bottom line. In case the employee does significant work, he/she is instantly rewarded and vice versa. Interventions are immediately triggered when an employee finds it difficult to achieve the set goals (Marr, 2017). AI monitoring software has been implemented in organizations for monitoring productivity of employees, their job satisfaction, potential harassment, behavioural issues and retaliation by them (Parrella-Aureli, 2017). The monitoring tools can be installed and run undetected in the user's computer. Hebbian Inc., has a software solution, Hebbian View which does web monitoring by recording the time and effort spent by the employee on web pages. They also balance surveillance and workplace privacy. Talent management company – crossover has a productivity tool, Work smart which takes screenshots of the workstation every ten minutes and this when combined with the data helps in monitoring employees. Interguard is another employee monitoring tool by awareness technologies.

Artificial intelligence is used in legal work (Lennon, 2017). Document discovery tools have helped to identify sources as required by lawyers for cases. A software used by JPMorgan called contract intelligence (COIN) identifies sources in seconds. Without AI a lawyer would take 360,000 hours for going through multiple documents, case files and legal briefs (Winick, 2018). AI is used in the legal field in the areas of validating background information, predicting the legal outcome, legal analytics, document automation and billing.

2.1.6 Transition to Strategic Human Resources

People analytics is emerging as a business discipline within HR that supports varied functional areas ranging from operations and management to talent and financial performance. Many organizations are now opting for an integrated approach, where HR data is not analyzed and used in isolation but is aligned with other functional areas to provide an appropriate context. Chevron Corporation is a good example of an integrated system for people analytics (Collins, Fineman and Tsuchida, 2017). It created one integrated team of HR business partners, specialists and data analysts across different Chevron units. This enabled the people analytics community at Chevron to overcome a problem of non-alignment between HR and other business areas. They ended up delivering 30% improved productivity along with a significant restructuring to allow for strategic decision-making. Thus, organizations like Chevron e achieving higher productivity, and reduced redundancy and are making material changes in their policies through use of people analytics.

2.1.7 Implications of Disruptive Technology in an Organization

Digitization, technology and automation are happening rapidly across various regions, sectors and organizations. Bajgoric (2014) emphasizes on the increased role of information technology in enhancing business continuity. Human resource will become a specialist and an expert activity, as all the routine queries can be addressed faster and accurately through chat applications or by robots. Skills needs are changing and people with skills that are in demand, need to continuously learn and adapt themselves; the best blend of human strength in the skills revolution era is the combination of soft skills, technical and digital skills. Organizations have started to look for agility as one of the competencies required during recruitment itself (Bersin, 2018). Agility refers to the ability of the organization to adapt and accommodate quickly to unplanned and sudden changes. It is seen as the outcome of achievement gained through technology, organizational and managerial capabilities and a product of human skills, abilities and motivations.

HR with ubiquitous skills are in stagnant level; and also there are risks of technology taking over all the jobs and robots replacing people at work (ManpowerGroup, 2018). Issues relating to privacy, surveillance and security may crop up because of the advancements in technology in the organization. The attitude of workers towards technology contributes to the frustration, due to lack of knowledge to work with the system but the attitude of workers can be positively focused towards a technology by having timely open communication through influencers and HR leaders in the organization.

2.1.8 Challenges of Human Resource Management in the Disruptive Technology Era

Kamal & Ashish (2013), discussed the challenges of HRM in the disruptive technology era as follows; A. Challenges of HRM in Modern Management: Technological advances is a challenging task of adapting workplace to rapid technological changes which influence the nature of work and generate obsolescence. Advanced technology has tended to reduce the number of jobs that require little skill and to increase the number of jobs that require considerable skill, a shift we refer to as moving from touch labor to knowledge work. There is new working technology. In this situation organizations have to change it technology. New technology creates unemployment and in other hand, there comes scarcity of skilled manpower. Like this, technological change brings difficulties and challenges in organization. Some of the HR changes induced by technological advancement include; · Globalization · Workforce Diversity · Changes in political and legal environment · Changes in the Economic Environment · Mobility of Professional Personnel · Revolution in Information Technology. · Technological advances disruptive technology as a structural factor and instrument transforms the architect of organizations, business processes and communication, and is increasingly integrated into HRM. While disruptive technology has impacts on HR, at the same time managers, employees, customers and suppliers increase their expectancies for HR functions.

2.1.8.1 Challenges of Information technology on HR Function

a. New skills required
b. Downsizing
c. Collaborative work
d. Telecommuting
e. Internet and intranet revolution
f. Business environmental change
g. Development of technology
h. Service improvement

2.1.9 Trending Disruptive Technology and Human Resource Management

Technology is a great enabler it has made it possible for human to create more efficient operations and processes while providing invaluable data which can be used to push businesses forward. It's the turn for the human resource departments now for getting their opportunity to be a part of technology boom as more and more digital platforms, operations, processes and services are being unveiled and unleashed in the market each and every day. Here are the few more disruptive human resource technology trends.

2.1.9.1 Artificial Intelligence (AI)

It is an undeniable fact that the scope and reach of artificial intelligence is massive these days, there has been an indecisive understanding on the technological jargons that AI encompasses under its banner. AI could be named an umbrella term for all those set of algorithms, methods and technologies that enables systems to perform tasks that demands natural intelligence. AI seems like just another tech buzzword, in the sphere of human resource, the trend toward more AI-powered systems is taking a strong hold of companies these days, and that is undoubtedly expected to continue and progress in the upcoming years (Klotz, 2016).

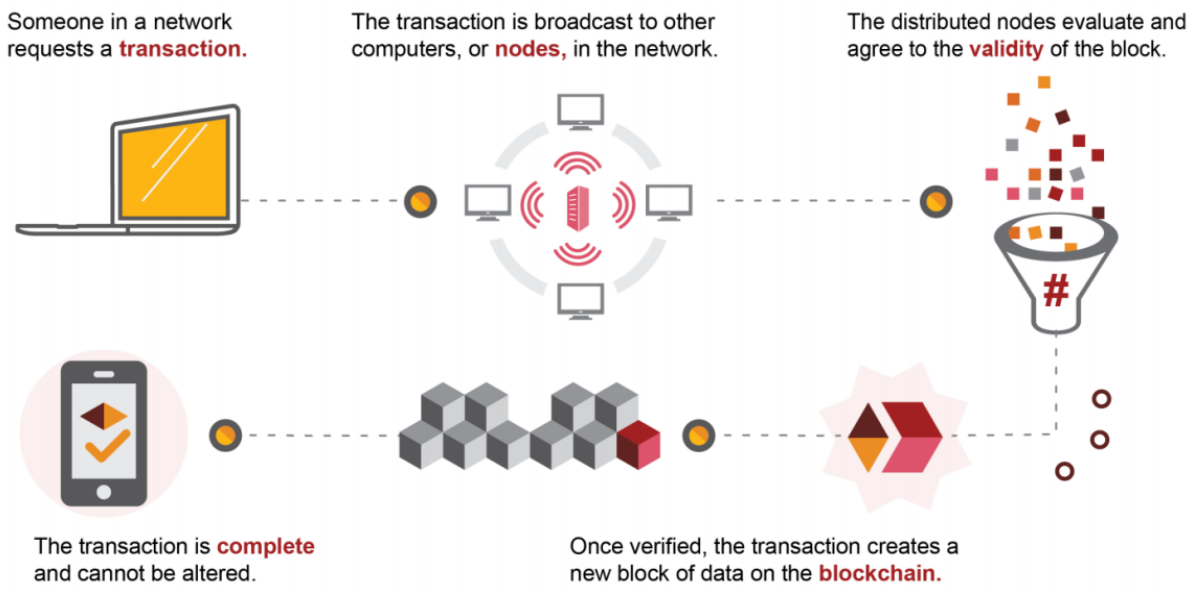
2.1.9.2 Robotics Process Automation (RPA)

Many time-consuming and repetitive tasks will be compressed and executed by simple applications. This human resource tech trend is currently being used in talent acquisition, employee onboarding and training, and performance management. Earlier robots were used only in industrial systems but now service robots are being used in organizations (Bugmann, 2015). Schmitt thinks that within 20 years robots will be doing some of the analytical decisions now being done by human managers and he urges managers to start preparing for the time when both human and artificial intelligence work together. Robots may outsmart human beings in information processing and decision making but that is not all; some capabilities of humans have still not been replicated by robots like emotions and creativity. Humans will still have control over tasks that require skills such as problem-solving, creativity, decision making and soft skills. In the field of recruitment and selection, robots are being used. Matilda, a robot has been developed by the Director of the Research Centre for Computers, Communication and Social Innovation, Australia's La Trobe University; and Matilda is a specialist in interviewing people for sales positions. Matilda reads emotions and determines whether the person is compatible emotionally and culturally for the position.

2.1.9.3 Blockchain

A blockchain technology is a growing list of records, called blocks that are connected using cryptography. A blockchain technology is a decentralized digital ledger that is used to record transaction across systems so that any record within in the blockchain system cannot be altered without the modification or alteration of all subsequent blocks. While disruption from this technology is mostly association with areas like capital markets and payments, its effects on human resource will be profound, instead of focusing on the complications and intricacies of the technology, human resource functions should focus on the advantage of technology. Blockchain technology in human resource has the potential to store and share data on prospective candidates completely sate and also allows payment to geographically diverse employees in the currency of their choice. The security, speed and transparency of block-chain may be one of the most disruptiveforces in human resource in the forthcoming years (Lennon, 2017). The typical blockchain application in human resource can be described as depicted in the diagram below

Figure 1: Blochchain technologies and human resources management

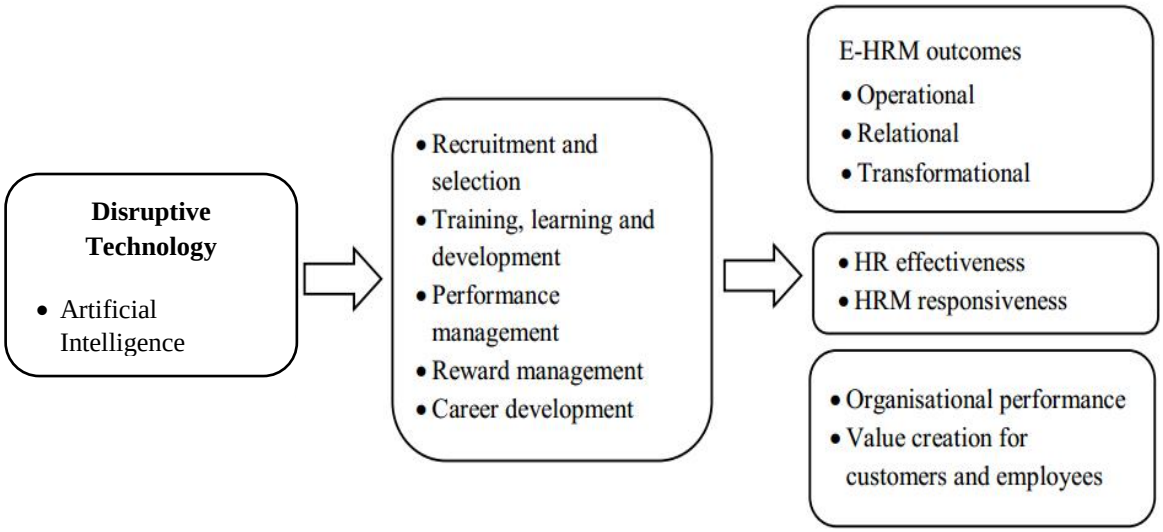


Blockchain is a type of database that maintains a growing list of records that cannot be edited or altered because alterations would require the impossible task of changing every node in the distributed network. It holds data and programs in encrypted "blocks" of individual transactions and the results of executable files, programs and codes. Each block is linked to the previous block making it a "blockchain". In an area like HR where data privacy, validity, and authenticity are critical, data about potential, existing, and terminated employees using

blocks chained together without possibility of altering or changing at any stage can revolutionize the HR data management.

2.1.10. Underlying conceptual framework

Figure 2 Framework enumerating the impact of disruptive technology on human resource management practices and outcomes.



7 Change in the role of HR manager in an Organization

Processes of HR are rapidly changing with changes in business practices which is the result of the impact of new technologies in this volatile business environment (Azeem and Yasmin, 2016). Technology enables HR professionals to effectively deliver HR administrative services. It also plays a major role in connecting with customers inside and outside (Ulrich et al., 2011). HR managers as technology exponents can advocate, access, analyse and align technology with HR services for information, efficiency and relationships. Being a technology proponent, HR has to understand and use technology for sharing information, improving HR operations utility, connecting with people both inside and outside the organization and for leveraging social media tools. HR manager needs to leverage their effectiveness by adopting different forms of technology in terms of AI, robots and social networks as brought out by this paper.

8 Guidelines for adopting disruptive technology in HRM practices

Owusu-Ansah et al. (2016) in their research point out that in order to have better performance, techno stress (change and uncertainty because of implementation of new technology) of people has to be worked on as it may have negative consequences on work places. For

implementing new Technology or replacement of earlier technology, organizations have to invest in time, talent and resources. The HR system has to be one that is easy to use and the conditions facilitate the implementation process (Sabir et al., 2015). Organization has to understand its current position and decide on the technology to implement after the evaluation of benefits and outcomes. Based on the current position of the organization and its strategy, it has to decide on the goals and objectives specifically. Finally, integration of IT department and HR department need to happen for the effective functioning and implementation of technology in HR (Chaturvedi, 2016).

2.2 Theoretical Review

This research was anchored on the following theories concept of acceptance theory and substantive theory which are discussed on the following subsection.

2.2.1 Concept of Acceptance Theory

The Concept of Acceptance Theory by Dillon & Morris, (1996) demonstrate that users are willing to embrace information technology as it supports them in their day to day tasks. The concept is not being used in situations which will require evidence of use, or to use it for the purposes that is not planned by the designer (a good example is using internet at work for personal entertainment or for other uses that are personal), to some level it's still not clear since its actual usage may drift from planned usage, but from the theory such drifts are not that important, what this means is that the steps involved in the user acceptance of information technology can be tailor made to fit the purpose intended. (Bagozzi & Warshaw, 2022). System users who do not accept the systems have proven to be one of the hindrances that affects the success of new information system in organizations. Best performance cannot be actualized due to failure of the user from properly utilizing the system. What this means is that the most crucial component that contributes to the success of any information system relies fully on the users acceptance. Hence it is important to address and analyze this topic well in order to provide more insights on various aspects and factors that are problematic and also look at findings from different scholars up to date (Bagozzi & Warshaw, 2022).

2.2.2 Substantive Theory

Substantive Theory was developed by Ellul in 2020. Substantive theory is best known through the literature of Ellul where they argue that technology has evolved to an extent that it currently consists of a new system where a lot of restructuring has been done globally and hence provided new ways of doing things. This system is dynamic in nature and it has

ultimately overtaken every prêt-technological territory and reform the entire social life. What this means is there is no escape other than retreat as instrumentalization of society is destined to happen. A return to the old ways of doing things is the only solution to deal with this huge force of change. Ellul argues that technical phenomenon has become a defining trait which accommodates all societies in the modern world regardless of their political class. He also states that Technique has become independent. Heidegger agrees that technology force is evolving at a very first rate will eventually overtake us will relentlessly overtake us in due time. People are more focused in changing the world entirely. He believes that technical changes of the current society is established in a more holistic approach to improve the potential of man and hence avoid any destructions (Igbaria and Cavaye, 2022). These assertions relates to this study on implementation of HRMIS in the context that during the implementation of the system, the organization has a responsibility to examine the holistic power and will to accepting the technology so that it can be implemented successfully.

2.3 Empirical Review

One most important tool for many businesses is Human Resource Management (HRM), Hair, Samouel and Page (2022) says even the small offices need to understand the benefits such as efficiency, they would gain by using HRIS. Firms have not realized the amount of losses they make in terms of monetary and time wastage by use of manual human resource management until they sit down and analyze the resources used. As technology evolves HRIS has shown a upward growth and its slowly converting into a technical field. The firms become more efficient and effective as the system helps in cutting down costs by automating routine tasks and allowing fast access to information that is used to make quick decision. In order for organizations to have a competitive edge they need to be effective and efficient in every sector of their business including HR department with all its functions and strategies which is aligned with the business goals and objectives.

Beadles, Lowery and John (2015) in their survey on how Human Resource Information Systems affect the public sector, Beadles, Lowery and Johns found that lack of staff, budgetary allocation, collaboration of all functions in the firm, lack of technical support and time management in the management of HRIS were some of the constraints. These are some of the common hindrances that are related to any information system, there are factors that are more distinct and they also act as potential barrier during managing and implementing the system. Some of these barriers are related to high complex processes involved in formulating HR policies.

Man, Ahmad and Khurram (2012) studied the determinants of Information Systems and Performance of Human Resources Department. The methodology used in the study involved the use of a questionnaire with Likert-type items and open-ended questions to weigh what is perceived by the human resource directors in relation to the determinants of the Human Resource Information Systems (HRIS), turnaround time for all the activities, the cost involved in HR functions and the use of information by the different management levels in the organization. Out of the twenty surveys that was done for the HR professionals, only eighteen of those who concluded the survey, their response was what was used in drawing conclusions of the study. The study found organizations are now more informed and appreciate the importance of access of information in a more speedy way and being able to store large data for organization in a way that is more secured.

Chapman and Webster (2013) studied how technology is used in hiring, evaluating large numbers of job applicants and finally selecting the most competent applicant for firms which are in the manufacturing industries in Nairobi. It was found that in order to deliver the strategic competencies promised remained unrealized. Initial findings suggested that although technology has evolved and systems have been upgraded, Human Resource Information Systems was used to automate routine tasks and other functions traditionally performed by HR professions, it was also noted that its strategic potential was not realized. The results of the study showed three main challenges that hinders HR from playing their role as a strategic partner. The first challenge was getting full support and commitment from the senior management and the resources required for upgrading the system. The second concern was managing functionality associated with the system and its complexity. The third challenge was user acceptance most especially the key managers and employees and how to manage changes that comes with the introduction of the new system or upgraded system.

Nga and Wat, (2012) studied the implementation of HRIS in Processing firms in Kenya. The study adopted descriptive statistics. The study found that what stood out to be the most important advantage gained from the implementation of human resource information systems was, the speedy feedback and also improved the rate at which one can access information, which enhanced efficiency and reliability. The most significant limitation was financial backing due to the fact there was no sufficient budget if any to cater for the cost. The study further revealed that users participation, perceptions, characteristics, intentions, computer experience, external pressure, support from the management, information from external

source and training have a great impact on successful adoption of information technology and how it's accepted widely.

Bahlol, Vimarlund and Timpka, (2012) studied Implementation of Health Information System being a qualitative meta-analysis found that healthcare information systems (HISs) are normally adopted with the main aim being, to improve the efficiency and ensure the services offered are safe as well as to observe all quality standards which are patient driven. However the adaption of HIS have not met expectations. There is still a lot more that can be done to enjoy full benefits. An analysis was performed by multi-disciplinary team that covered various areas of the primary studies. It was discovered that efficiency of the organization depends on other factors as well other than HIS alone. Such factors include strategic, tactical, and operational actions, including management involvement, compatibility of software's, integration in healthcare workflow and most importantly, involving the persons using the system, training and education.

Kinyua (2012) studied the difficulties faced in execution of HRIS by government institutions in Kenya. A census survey was done from a representative subset which was appropriate since the investigation was done on real time and the information showed what was happening in the current day and time. The study included all state corporations in Kenya and a questionnaire that was semi-structured to allow flexibility when collecting the primary data. The study targeted Human Resource professions who were heading HR functions in the state corporations and the questionnaires and feedback were sent via email. The information collected was processed through the use of descriptive statistics and coding. The findings of the research indicated that major challenges faced by majority of the human resource managers in the execution of HRIS in government institutions, is embracing Information Communication Technology (ICT).

3.0 Future of Technology Driven Human Resources Management

Artificial Intelligence (AI) and Machine Learning (ML) have been adopted quite rapidly in healthcare and manufacturing sectors. RPA (Robotic Process Automation) is a related technology being adopted in many industries to perform routine tasks in hospitals, office, factory floors, and executive suites. Most workplaces of the future will have a mixture of automated, semi-automated, and manual roles for workers. The impact of these new technologies will be felt by HR departments in recruitment, retention, and management of the highly skilled employee base. Amazon.com, Inc. has already started utilizing an AI recruiting

tool to support its growth plans. New technologies get better over time and are not without their teething troubles. For example, the Amazon tool for AI recruitment learnt by going through the previous many years of company hiring. As relatively far more male candidates were hired historically, it initially concluded that male candidates are better than women candidates (Dastin, 2018). This example highlights the need for an active involvement of the HR users in the development of future technologies to remove biases. This further reinforces the need for HR personnel to have broader skillsets overlapping with technology to truly unlock the potential of technology to transform HR. It is certain that while it has its fair share of challenges, analytics and disruptive technologies will influence HR roles. A newcomer to the disruptive technology group is "Block chain" which can facilitate data collection and storage as well as ensure data security and confidentiality from inception.

4. Conclusions

Disruptive technology has made human resource functions more employee friendly and effective. It has changed functioning of human resource and is the need of the hour. The organizations need to imbibe disruptive technology because it is critical to their survival (Evans, 2017). Disruptive technology also passes on advantages like reduced costs and increased profitability. The key for new market entry, growth and creating a learning culture lies in the usage of new emerging technologies in the organization. Monotonous and repetitive work has got automated which increases the availability of human resource for high-priority work. The role of human resource has changed but it has not lost its significance. The majority of the time relationships. Being a technology proponent, human resource has to understand and use technology for sharing information, improving human resource operations utility, connecting with people both inside and outside the organization and for leveraging social media tools. human resource manager needs to leverage their effectiveness by adopting different forms of technology in terms of AI, robots and blockchain as brought out by this study.

In the future, human resource roles will see a significant increase in their power as they see a shift in their traditional roles from managing hard employee data to being strategic partners in policy changes and future leadership for organizations. Such a dramatic change in scope of responsibilities will require human resource organizations to re-tool their own skill base to include data scientists and cyber security experts. They also need to keep pace with rapidly evolving technology and integrate it within boundaries of business requirement and cultural alignment.

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