The Impact of AI in Redefining Performance Appraisal System and its Significance in the Changing Workplace – A Review of Research

Dr.Subramanya Manjunath
Former Principal and Dean, SSIMS, Tumkur, Karnataka,
Visiting Faculty: Christ University and Jain University, Bangalore,
Advisor – HRM to Industries and Corporate Trainer.
Email: drmsblr@gmail.com

Abstract

Indeed, organizations are witnessing rapid technological advancement and innovations in mobile technology, followed by increasing trends in global competition and a continuously changing business environment in the later part of the second decade of the twenty-first century. Organizations were compelled to redefine the nature of work and the workplace in the post-COVID era due to new ways of working, such as remote working, flexible work schedules, and hybrid models of working. Laterally, the world of business has undergone major transformation with the advent of digitalization, which necessitated organizations to revamp their business processes and HR practices as well. As the expectations of today's workforce are different from those of yesteryear, they expect from their employer meaningful job content and challenging work assignments that add value to the company's business, and in turn, they expect timely feedback on their performance to update and upgrade their knowledge and skills to facilitate a fast-track career. In such a situation, standard performance management seems obsolete and needs to be revamped to suit the aspirations of the young workforce and cope with the digital era. With these perspectives, the AI-powered tools that have the capability and potential to transform business processes and HR processes are felt as a need to redefine the standard performance appraisal processes. This research starts with an overview of standard performance appraisal processes that used to be followed for a long time which includes many of the reputed organizations, followed by that an examination of the significance of AI-powered tools in the changing work environment is given an emphasis. Subsequently, the role of AI in digitalization of performance appraisal systems, and the accruing benefits for the employer and employees is

given thrust. The study concludes with research findings and posits the role of HR in the digital transformation of performance appraisal systems.

Introduction

The rapid advancement and innovations in technology have enforced organizations to digitalize their business processes.   Nevertheless, the needs and aspirations of today's workforce have revamped the organizational culture and HR practices over a period of time, particularly with the significant changes following the global pandemic (Harsha Palwe, 2021). While engagement of employees and managing their performance are crucial for organizations to achieve business goals, facilitating the employer through a periodic employee performance appraisal system and review process used to be the core activity of the HR department. In today's dynamic business world and fast-growing digital era, the standard appraisal process seems standard, which was recognized as only a ritual process both by the employer and the employees due to subjectivity in the appraisal process and improper feedback mechanisms. However, with the advent of artificial intelligence as a digital tool, which has been proven to be most significant in transforming business processes into digitalization, HR practices are also undergoing major metamorphosis with the changing work culture. Indeed, AI has already transformed many of the HR practices into digitalization, like workforce planning, talent acquisition, HR analytics, learning and development, etc. This research is an attempt to get an insight into how AI impacts redefining performance appraisal systems (PAS) and its significance in the changing workplace.

Rationale of the Study

With changing times and fast-growing technological developments, the needs and aspirations of today's workforce are blooming, and expectations are seemingly complex than those of yesteryear. While digitalization has reshaped and transformed the business to redefine, organizations are striving to meet the needs and demands of their customers through the digitalization of their business operations and are determined to redefine workplace practices as well. In today's working environment, employees expect meaningful and challenging job content and look forward to continuous feedback on their performance from their superiors, besides advancing their knowledge and skill sets and fast-track career growth. In this context, the periodical and standard performance appraisal systems do not suit and have lost their essence due to their subjectivity in rating and biased opinions by their reporting managers (Fazeelath Tabassum, et.al., 2018). When organizations are keen on digitalizing their HR practices with Artificial Intelligence (AI), a digital tool which aids as a catalyst in redefining standard performance appraisal systems into a digital process that enables employees to accept the system easily in view of its consistency and transparency. With this perspective, the aim of this research is to examine and analyze how AI transforms the digitalization of performance appraisal systems and its significance in the changing workplace. Though a large number of research studies are available on the performance management system per se, the study of this nature is limited, and thus provides a source for HR practitioners and researchers with value addition.

Objectives

1. To get an insight into the standard performance appraisal system and understand its lacuna in the changing workplace.
2. To understand the role and significance of Artificial Intelligence in the changing work environment.
3. To examine the role of Artificial Intelligence in redefining performance appraisal systems through digitalization and analyze how it impacts HR practices.
4. To comprehend the implications for organizations and HRM in particular.

Research Methodology

This research is an exploratory study based on the secondary data available from various research papers, journals, blogs, and online sources. During this review process, the factors that supplement the changing facet of standard performance appraisal systems and its significance in the present work environment have been considered for the study.

An Overview of Standard Performance Appraisal System and its Need for Transition to Digitalization

It is imperative for the management of organizations to monitor and measure employee performance ever since Frederick W. Taylor advocated his pivotal work on 'Principles of Scientific Management', which revolutionized business processes more than a century ago (Michael Schrage, et.al., 2023). Performance management, a strategic process, is vital for organizations to plan, monitor, and measure the performance of employees in order to achieve set objectives that facilitate their growth and that of the company as a whole. Though performance management is evident in every organization, the methods adopted to assess employees may vary based on the business structure, policies, and work practices. Some of the standard methods of appraising employees include Graphic Rating scales, Ranking methods, Paired Comparison methods, Forced Distribution methods, Checklist methods, Critical Incident methods, and so on. All these methods are based on the rating scale to assess performance and personal attributes like knowledge, skills, attitude, capability, judgment, initiative, loyalty, leadership, behavior, etc. With the modernization and growth of other sectoral industries, standard methods were improvised to measure employee performance and potential, such as Management by Objectives, Behaviorally Anchored Rating Scale (BARS), 360-Degree Feedback, Assessment Center Methods, Psychological Appraisal, etc. (Srikant Chellappa, 2022). It is a fact that the proper implementation of any of these appraisal methods in an organization aims to achieve business goals such as assessing the past performance and future potential of an employee, garnering input for decisions on promotions and higher responsibilities for fair growth opportunities, identifying training needs to bridge skill gaps, providing feedback on performance

and areas required for improvement, and enhancing employee engagement through rewards and benefits (Chellappa, 2022).

While departmental or functional managers are directly responsible for managing the performance of their employees besides other resources, they have an important role to assess on their assigned job either biannually or annually by evaluating their skills, abilities, and contribution to the company and providing feedback to enhance their skills and performance improvement (Alrashedi, et.al.,2021). The HR Manager / Team plays a facilitating role by coordinating with managers for periodical performance assessments of their employees and reviews of performance by senior management (Michael Schrage et al., 2023).

Though standard PAS was well accepted by the majority of firms based on the system of performance evaluation of employees on set targets and defined metrics and gained credibility for its time-tested standardized rewards and recognition, it gradually faded and was considered obsolete with the changing times and work culture due to its limitations, such as being time-consuming, having a minimum scope for improvement, a lack of consistent feedback, and the perceived opinion of the appraises regarding biased assessment by the appraisers.

With the advent of modernization of work culture and revolutions in information and communication technology (ICT) and mobile technology, followed by an increasing trend of digitalization, the aspirations and needs of the younger workforce sought new ways of working with their employers. Simultaneously, when digitalization embraced revamping of business operations / methods with the aid of artificial intelligence (AI), organizations perceived the benefits of digitalization of business processes through significant improvements in terms of quality, value, delivery, and service, as well as speed. Further, the transformation of business operations into digitalization enabled organizations to satisfy the needs and expectations of their customers and, more importantly, enhance value for them. Likewise, workplace practices dramatically changed with the changing work environment, such as remote working, flexible work schedules, and hybrid models of working. And in addition, the outbreak of COVID-19 necessitated organizations to embark on the digitalization of some of the HR processes, viz., workforce planning, recruitment processes, HR analytics, talent retention, etc., which facilitated

the employees to perform their job more efficiently and effectively through remote working (Kalyan Kumar. E.S., et.al., 2020). All these resulted in raising the need for the transformation of standard PAS into an online system of performance assessment of employees into a continuous and more inclusive framework through digitalization (Ajay Kumar, 2021).

Significance of AI in the Changing Work Environment

Though Artificial Intelligence is not a new concept in the world of business, the post-COVID era has transformed business processes into digitalization, and obviously, the world of business has transitioned into a new way of working through the digitalization of HRM practices and workplace activities. While the innovations in mobile technology have grasped the aspirations of today's workforce, the role of Artificial Intelligence is becoming significantly more important at the workplace, and some of them are highlighted herewith.

Empowering Employees through AI

Artificial Intelligence is changing the workplace to be more efficient, productive, and conducive to employee growth and empowerment. For instance, employees can leverage the benefits of AI-powered tools that have the ability to automate monotonous and mundane activities that used to be time-consuming, and as a result, the workforce of today is able to focus on more creative, strategic, and value-added activities (Brown, 2023).

AI Capabilities in Employee well-being and Work-life Balance

As organizations strive to retain talent, employers are gradually focusing on the well-being of employees and maintaining their quality of work-life. For example, Artificial Intelligence can analyze employee data to identify patterns related to stress, burnout, or dissatisfaction. Employers can use these intuitions to tailor well-being programs and interventions to the specific needs of their workforce. In addition, AI enables organizations to change from responsive to proactive employee engagement strategies through AI-based self-assessment tools that offer personalized recommendations and facilitate employees taking accountability of their workplace

performance, work-life balance, and overall well-being. Further, AI has nudging capabilities to identify project disordered and tasks requiring immediate attention and extend personalized support and guidance for employees by optimizing workplace-specific algorithms that are meticulously designed to boost productivity, ensuring employees receive timely, customized feedback (Walker, 2023).

AI Powered Decision-Making

While AI has made a remarkable impact in transforming business processes through digitalization, organizations are finding it easy in the decision-making process with the aid of AI, which evaluates data and variables in multifaceted situations by using AI-powered tools such as predictive analytics and natural language processing. This enables organization leaders to make faster, more reliable, and more informed decisions. Though AI is not complete automation, it serves the purpose of making better decisions through efficient processes and the effective use of data (Brown, 2023).

AI Powered Chatbots and Virtual Assistants

In today's fast-changing business world, AI-powered tools are one of the priorities for organizations to cope with global competition by streamlining business operations and satisfying the needs of customers through efficient and personalized interaction around the clock. Further, AI-powered chatbots and virtual assistants have made a significant impact in providing quick responses, enhancing customer service by gathering data for better decision-making, and adding more value to businesses. Typically, chatbots and virtual assistants use natural language processing (NLP) and machine learning algorithms to simulate human-like conversations with customers, which can operate either on websites, mobile apps, or messaging platforms. While chatbots are typically text-based, interacting with customers through written messages, virtual assistants are more versatile, often capable of both text and voice interactions (Kristijan Krstanoski, 2023).

AI Governance and Data Security

In today's era of digitalization, handling, preserving, and storing data is essential for businesses because it is a strategic asset that promotes innovation, improves customer experiences, and drives decision-making. Indeed, it is a fact that without effective data management and governance practices, organizations may face cyber threats and loss of data. Hence, to strike the right balance between data and usage, data governance aids as the foundation for managing the flow of digital information to ensure the quality, consistency, availability, and security of data across an organization and is the key to protecting sensitive data and ensuring information security. The application of AI algorithms is of paramount importance as they have the capability to process vast datasets, identify patterns, and draw conclusions at speeds incomparable to those of human analysts, ensuring that data processing and decision-making are transparent and interpretations become easier (Walker, 2023).

Role of AI in Performance Appraisal System

The rapid advancement in technology and innovation in ICT have enabled today's workforce to be more tech-savvy and agile. Further, in today's competitive and global work environment, the younger generation looks for meaningful and challenging work content from their employer, which adds value to the business and facilitates advancement in their career, besides seeking prompt feedback from their superiors on their performance and contributions to the company. While the applications of AI have proved the capability and potential of transforming business processes, even HRM practices and workplace activities are gradually in sync with the digitalization of business operations. In retrospect, standard periodical performance appraisal reviews were the benchmark, even in reputed organizations. AI-powered digital applications, with their wide spectrum of revolutionizing business processes, have embarked on a digital transformation of performance appraisal systems, which have made a major impact from the perspectives of employees and employers. Studies indicate that organizations are influencing the power of AI for performance reviews, which has become a necessity for nurturing employee growth, enhancing organizational effectiveness, and achieving strategic goals. To emphasize some of the AI-powered performance appraisal processes, such as: 1) analysing employee

performance through seamless collection of data and providing actionable insights into strengths, weaknesses, and areas for improvement, which aid managers in making informed decisions about training, promotion, and resource allocation; 2) providing real-time insights on employee progress, allowing timely interferences that bring more flexibility and make necessary changes to suit organizational goals; 3) providing continuous feedback based on employee performance data and identifying the areas for continuous improvement and growth; 4) highlighting employee performance trends based on historical data, which facilitates organizations to make data-driven decisions, anticipate challenges, and develop proactive strategies; 5) mitigating bias and relying on objective data to promote fair and equitable assessments; 6) optimum utilization of resources that facilitates organizations to allocate resources efficiently by identifying performers—those who excel and those who require additional support; 7) AI-powered tools aid in not just performance reviews but also avoid repetitiveness and tasks that are time-consuming and facilitate organizations to locate the right talents and make the right hiring decisions; 8) enable organizations to create a supportive workspace by developing teamwork and mitigating hierarchy, bias, or inconsistency (Sinha Ray, 2024).

Thus, in today's competitive landscape, while attractiing and retaining of talents are challenges for organizations, AI's role is predominant in performance appraisal reviews that enhance correctness, objectivity, and efficacy, benefiting employees and employers as well.

Discussion and Findings

It is evident from research studies that digitalization has transformed business processes and continues to grow rapidly with changing times. It is also observed from the studies that AI-powered tools are transparent and a clear example of how they are transforming what people do, either in their daily routine or at work. Though AI cannot replace humans, it has the capability of executing multiple tasks simultaneously, assisting human beings to avoid repetitive tasks, and providing solutions to complex problems. In today's digitalization era, the application of AI is becoming a necessity, stretching every sphere of activity, either at work or in the market economy. While many HR practices, like administration, workforce planning, recruitment processes, etc., are already garnered by applications of AI, the need for Artificial Intelligence in

performance management is also observed in modern organizations, and it is the expectation of today's workforce too. It is perceived from this research that AI's role is predominant in redefining standard performance appraisal processes and impacts maintaining consistency, quality, reliability, and gaining the confidence of employees and employers as well. The following are a few findings of the study:

1. The Performance management of employees through a system of appraisal and review processes and engaging them through suitable rewards and benefits is necessary for organizations to achieve business goals.

2. Today's workforce expects meaningful and challenging job content and looks forward to continuous feedback on their performance from their superiors, besides advancing their skill sets, and abilities and fast-tracking career growth.

3. In the changing nature of work and the workplace, the periodical and standard performance appraisal systems do not suit and have lost their essence due to their subjectivity in rating and biased opinions by their reporting managers.

4. It is observed that the standard performance methods are based on a rating scale to assess performance and personal attributes like knowledge, skills, attitude, capability, judgment, initiative, loyalty, leadership, behaviour, etc.

5. With the advent of remote working and employees working from different geographic locations, the need is felt for the transformation of standard PAS into an online system of performance assessment for employees in a continuous and more inclusive framework through digitalization.

6. The role of AI is gaining significant momentum in the changing work environment as innovations in mobile technology have engrossed the aspirations of a younger workforce.

7. Employees feel empowered to work and perceive value addition in their work as they are leveraging the benefits of AI for its efficiency, creativity, and ability to automate monotonous and mundane tasks that used to be time-consuming.

8. AI-powered tools have the capability to transform organizations from reactive to proactive employee engagement strategies through AI-based self-assessment tools that offer personalized recommendations and facilitate employees taking accountability of their workplace performance, work-life balance, and overall well-being.

9. AI has made a significant impact on the organizational decision-making process through AI-powered tools such as predictive analytics and natural language processing, which facilitates organization leaders to make faster, more reliable, and more informed decisions.

10. AI-powered chatbots, which are typically text-based and interact with customers through text messages, and virtual assistants, which are more versatile and capable of both text and voice communications, have made a significant impact in providing quick responses and enhancing customer service by gathering data for better decision-making and adding more value to businesses.

11. AI's role is predominant in maintaining governance and data security, which serves as the key for organizations in protecting sensitive data and ensuring information security. The application of AI algorithms is of paramount importance as they have the capability to process vast datasets, identify patterns, and draw conclusions at speeds incomparable to those of human analysts, ensuring that data processing and decision-making are transparent and interpretations become easier.

12. It is opined from the study that organizations are influencing the power of AI for performance reviews, which has become a necessity for nurturing employee growth, enhancing organizational effectiveness, and achieving strategic goals. AI-powered tools have the capability to analyze employee performance through data-driven insights such as seamless collection of data and providing actionable opinions on employee progress,

continuous feedback based on employee performance and identifying areas that need improvement and growth, relying on objective data and mitigating bias, optimal utilization of resources, creating a collaborative and conducive workplace, and facilitating organizations to make data-driven decisions.

Implications for Management of HR

In the continuously changing business scenario and work environment, organizations are striving to excel in the competitive landscape. While Artificial Intelligence has become a necessity in transforming business and HR processes, the role of HR is vital in implementing AI-based power tools to drive performance management processes. Indeed, it becomes more appropriate for HR to institute reward and employee benefits initiatives through an AI-based performance management system, such that employee engagement would be more effective in creating a favourable work environment and enhancing organizational productivity (*Nadezhda Buravleva*, 2023). In addition, an effective implementation of AI-powered HR processes and workplace practices creates an environment that facilitates enhancing brand identity to attract and retain talent. Further, HR should initiate and inculcate educating and training employees as a strategy for learning and development to make the best use of AI applications efficiently and enhance organizational effectiveness.

Scope for Further Research

The digitalization of business operations and workplace practices has strengthened organizations to be more competitive and agile in responding to customer needs. This research study on the role of Artificial Intelligence in performance management is the tip of the iceberg, aimed at focusing on how AI-powered tools are effective and beneficial in managing the performance appraisal system. The discussions and findings of this study could be a source for practitioners and researchers to strengthen existing research. Some of the broader areas of research in this arena include other areas of HRM practices such as recruitment, learning and development, talent management, workforce planning, and the like.

Limitations of the Study

This review paper is not an exception to limitations, as the author puts forth and emphasizes based on experiences and secondary data sourced online. The sourced data through online research papers was limited to peer-reviewed management journals to get an insight into AI-driven performance management systems.

Conclusion

In today's dynamic business world, the power of digitalization is transforming business processes and workplace practices through the applications of AI. It is imperative for organizations to fully equip their processes and people, as digitalization is evolving continuously in every sphere of work and the workplace. Indeed, digitalization of work and workplace practices facilitates organizations to be more agile and effective in responding to increasing customer requirements and the needs of employees as well. It is evident from this study that digitalization and online processing of employee performance management with the aid of AI-powered tools benefit organizations in paperless processing of employee appraisals, reduction of time, maintaining consistency, enhanced quality and reliability, upgrading of feedback mechanisms, and, more importantly, gaining the satisfaction of employees, thereby influencing a higher level of employee engagement, leading to an improvement in productivity and organizational effectiveness.

goals. HR plays a vital role in implementing employee-friendly HR policies, giving more thrust to the health, safety, and well-being of employees, and initiating sustainable drives such as CSR, training on sustainable practises, and community development, which may facilitate the employees in fully engaging to achieve organisational objectives and attain business sustainability.

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