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AI in Employee Engagement and Performance Analytics

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Abstract: The use of AI tools in different business sectors and industries have led an impact on employee engagement and performance analytics. The AI tools and strategies which are used for employee engagement are AI powered Chatbot, AI powered News digest, virtual employee support, real time feedback and recognition. The benefits of AI in employee engagement will help in development and learning, improving communication, increasing efficiency and empowerment. The over reliance on technology sometimes can lead to inappropriate results. For increasing the productivity and to attain optimum results employee engagement plays major role. The AI tools used for employee engagement and performance analysis should be linked with HR functions like good working conditions, workforce planning, recruitment and selection, also embodying by legal compliance which will help employee to be valued, raise the workforce enthusiasm and be well connected to designated roles and responsibilities in an organization. This is the conceptual paper which will focus on AI tools used for employee engagement used in line with HR strategies which will help HR managers to boost the productivity. With this study the HR managers will be able to focus on increasing productivity in an organization.

Keywords: AI, HR strategies, employee engagement, performance analytics.

Introduction

Employee engagement tells us about the level of satisfaction, dedication, enthusiasm the employee feel towards his work in the organization. The employee engagement along with job satisfaction and employee morale will be a key to company's success. The engaged employee will have the higher productivity and perform good. To encourage the employee engagement their should be strong communication among employer and employee, giving appropriate rewards, discussing about their career and career advancement. This will lead to increases the employee engagement and retention. With the increasing transformation in business these days, its getting difficult to engage employee and retain them. HR managers face challenges everyday to engage employee and raise their performance. With increasing use of AI tools like CHAT GPT, Chatbots, AI powered tools for evaluating performance all this has made the routine HR task easy.

Employee Engagement

The employees in an organization have clear mindset about their role and work profile. The clarity helps them to work efficiently and achieve their goals aligned with the vision and mission of the organization. The engaged employee are highly motivated to achieve their targets and also works towards increasing their

productivity. The strong emotional and rational connection with an organization helps them to align themselves with the firm and achieve set targets and increase the productivity at every level.

The engaged employees are keen on finding out the growth opportunities, may be personal or professional. As the Employee are Engaged in the organization, loyal towards the company, motivated towards their work, they have the better work-life balance. With the increase use of AI for Employee Engagement the HR managers practices better understanding and communication with employees, work linked to rewards, and motivation leads to increased job satisfaction which increases the productivity of an Employee. With the positive work environment the Engaged Employee feel motivated and it can improve their overall well being. The Engaged Employees are more loyal towards the company by working for long tenures.

Performance Analytics

Performance Analytics with the help of AI has been a game changer. It helps to analyze the performance of an employee. The traditional way of performance analysis was slower as compared to automated AI powered analysis. For better decision making and strategy development the machine learning algorithms are analyzed for the data gathered to process the customer feedback, analyze more work orders etc. The few areas where the performance can be analyzed are consumer behavior, employee performance, marketing campaign effectiveness etc. The AI in Performance Analytics has helped in decision making, enhancing customer experience, increasing efficiency.

Literature Review

The technological advancement has helped the HR managers to get the work completed in more innovative way. This way of getting work done in a strategic

way has played a vital role in organizational development and competitiveness in business world. The use of AI tools has transformed manual work and operations into technological based work leading to more productivity by Engaged Employee. (Yadav,2005).

A study conducted in Indonesia gives evidence about the positive impact of AI based HR analysis. He study shows the close relationship between AI tools and Employee engagement. Further the studies signifies the role of AI in job crafting which mediates the relationship between AI enabled tools with employee engagement and employee performance. (Bagis, Yulianeu, 2024).

The study has explained the power of AI in transformation by enhancing the Employee engagement and Performance Analysis. The AI driven insights drives the effective Employee Engagement aligned with organizational and individual goals. Thus the stud gives insight to businesses to effectively use the AI tools for engaging employee, high performance. (Oladele,2024).

To Judge the strength and weakness of a work place the employee engagement is an important aspect to measure the performance of an employee. The performance is analyzed with different factors and indicators. As we measure the performance of an employee the Mangers can get clear picture of what factors motivates or demotivates the workforce, (Young, 2024).

The effective implementations of AI in Employee Engagement can revolutionize HR offerings for decision making, automation and personalization. The organization should also train the Hr professional with the optimum use of AI tools in an effective way which encourages the learning environment in an organization.(Shirukar, 2004).

The employee engagement has a relationship with the performance of an employee. The engagement factors can be divided into three categories like personal factors, organizational factors and job factors. The personal factor includes his personal energies shown towards work, self-consciousness. The organizational factors includes the working environment, characteristics of work, and the job factors includes job rewards and management style of work. (Bunchapattanasakda, 2019).

Oladele (2004) in his study he states that performance analytics help organization in raising performance by using AI analytical tools further which helps in employee development. The AI tools will revolutionize the way the employee performance is judged, will engage workforce into more productive work giving better rewards and help organization in overall success.

Staff (2025) in his article states that performance analytics has also helped coaches in giving real sight decision and training to sport players. With the help of AI the past performance of both the teams and players can be judged and analysis can be done by coaches which gives an insight for each player for the game. Which player is best suited according to health, injury time and game can be judged easily.

The study conducted by Lark (2024) in Mckensy report suggest that Performance Analytics impacts the workforce in their productivity and leads to innovative business strategies. The companies can use Performance analysis for data driven decision making, improving efficiency of employees, gaining more customer satisfaction.

Objective

- To study the impact of AI on employee engagement and performance analytics.

- To propose a model for inclusion of AI in employee engagement and performance analytics

Research Methodology

The present study is conceptual and descriptive to know about the inclusion of AI in employee engagement and performance analytics. The secondary data used in the study is collected from journals, thesis, academic publications, articles and research paper related to the implementation of AI in specific domains of Human Resource. The literature referred is from the time span of 2019 to 2024. Keywords used for the review included AI, employee engagement, performance analytics.

Findings and Discussion

The findings of this conceptual and descriptive study have been drawn from the review of past literature. The findings of this objective have been presented below. Further a model has been proposed to depict the inclusion of AI in Employee Engagement and Performance Analytics

AI in Employee Engagement

The AI Powered Employee Engagement will incorporate with AI capabilities to analyze, personalize and improve the employee engagement. This will further involve sentiment analysis, personal communication, predictive analysis and feedback analysis to drive engagement.

Pillars of Employee Engagement

- Personalization: Here, the AI systems studied the individual behavior, preference. The AI system analyzes the buying pattern, browsing history. The AI based system will collect the data from various sources like websites, social media interaction. AI personalization is used in E-commerce, marketing, streaming services, customer service. AI here gives personal recommendation for products, for a movie by viewing

preferences, Chatbots helps in understanding emotions of the user.

- **Communication and Feedback:** communication is very important between different level of management. Manager's ability to communicate effectively can lead to increased productivity. Communication gives clear picture about goals and expectation from the employees, along with communication if the feedback is given to employee it will help them in growth and development.
- **Growth and development opportunities:** Everyone want to progress in career and keep the learning process ongoing. If the organization shows clear pathway of career to an employee the retention becomes easy. For their learning proper training through workshops, regular guidance and support should be given to employees by management teams.
- **Work-Life Balancing and well being:** the employee at times feel burnout with the over work, to prevent this wellness programs should be conducted by the organizations. With the wellness programs the employees will feel recharged and raise the productivity, improve mental health and will boost their satisfaction.

Benefits of using AI in Employee Engagement

- AI coaches gives unbiased feedback on employee development, the data related to history, interest can be analyzed and based on area, need and interest training program can be designed.
- AI powered chatbots are used for communication which can handle the query of employee and give quick response.
- As AI handles the work of data entry, summarizing in a apt way, so the repetitive task can be avoided and

employee can focus on meaningful work and feel motivated.

- AI powered apps can help employees in reducing burnout with wellness program, childcare options and worklife balance can be managed easily.

AI in Performance Analytics

The use of AI in performance analytics has been the game changer. It has been used in business, sports and also digital arena. The AI generated performance analysis helps the organize to collect, predict and automate the data. Also the future trend, preference can be predicted with AI tools in Performance Analysis.

Pillars of Performance Analytics

- **Performance Matrix:** To evaluate the efficiency and effectiveness of an organization the performance matrix is been used
- **Real Time analysis:** the real time use of data generates immediate insight for any decision to be made. In sports it helps to make the decisions for the player.
- **Natural Learning Process:** the AI tools analysis and understand the sentiments, human language and generate the automated reports which helps in quick decision making
- **Predictive Analysis:** In business or sports the historical data can be used to make the prediction about sales, player performance and employees performance.
- **Machine Learning:** Algorithms are used from data to make prediction without much explicit programming.

Benefits of using AI in Performance Analytics:

- AI tools are used by several industries for analysis. The fields of healthcare, retail, education, manufacturing, and finance all employ AI.

- In hospital the AI helps to understand the patient care, reduce the waiting time.
- In education the AI tools are used to track the record of student learning, analyzing learning gaps.
- AI has helped banks to detect the frauds, analysis customer service through chatbots,
- AI also helps in supply chain management in manufacturing industries.

Proposed Model

AI has become an innate need of workplaces for improving their operations of all disciplines. Among those disciplines HR practices also have an increasing scope with the use of AI. Among these employee engagement and performance analytics are focussed in this study for inclusion of AI. As the use of AI ensures delivery of agility, personalization, and real-time insights needed to keep pace with dynamic employee expectations and business objectives. By automating routine tasks through machines that spare more time for humans to concentrate on strategy making AI can be beneficial in uncovering hidden patterns in employee behaviour. This analysis would facilitate HR to improve predictive modelling for decision-making. Thus this conceptual model illustrates the impact of AI on employee engagement and performance analytics through a multi-layered framework.

The *Input level* of Organizational Context has four important elements of designing job role. Understanding the culture, working strategy, work environment and leadership role are certain elements that are considered while the organizational context. The organization use AI powered technology to understand employees' potential to adapt to the defined roles,

adaptive to the work environment and how these tools are effective in aligning with the organization. Has the employee need, expectation being fulfilled and operational with the implementation of the AI tool.

In the next stage the focus is on the *AI technologies* like Natural Language Processing (NLP), which helps in understanding the sentiment of an employee. Machine language helps in making prediction about the performance and will it be possible to retain the employee. The HR task are streamlined with the help of Robotic process. The computer vision strategy helps and HR manager to understand the behaviour of the employee towards role and work.

Later in the third stage it describes the *core processes enabled by AI* that shows how AI helps in transforming the HR role into responsive manner. The real time tracking is done with the help of KPI to analyze the effectiveness and productivity of an employee. The personal interventions are done by giving rewards and recognition to the employee for the benefit of growth of employee and organization.

In the last stage of the model i.e. *outcome* stage it depicts with the AI tool the engagement level and performance level of employee is raised and employee feels motivated, valued and supported. The performance improves with the timely feedback. The decision making becomes data driven and provides a inclusion of efficient and high performing work environment.

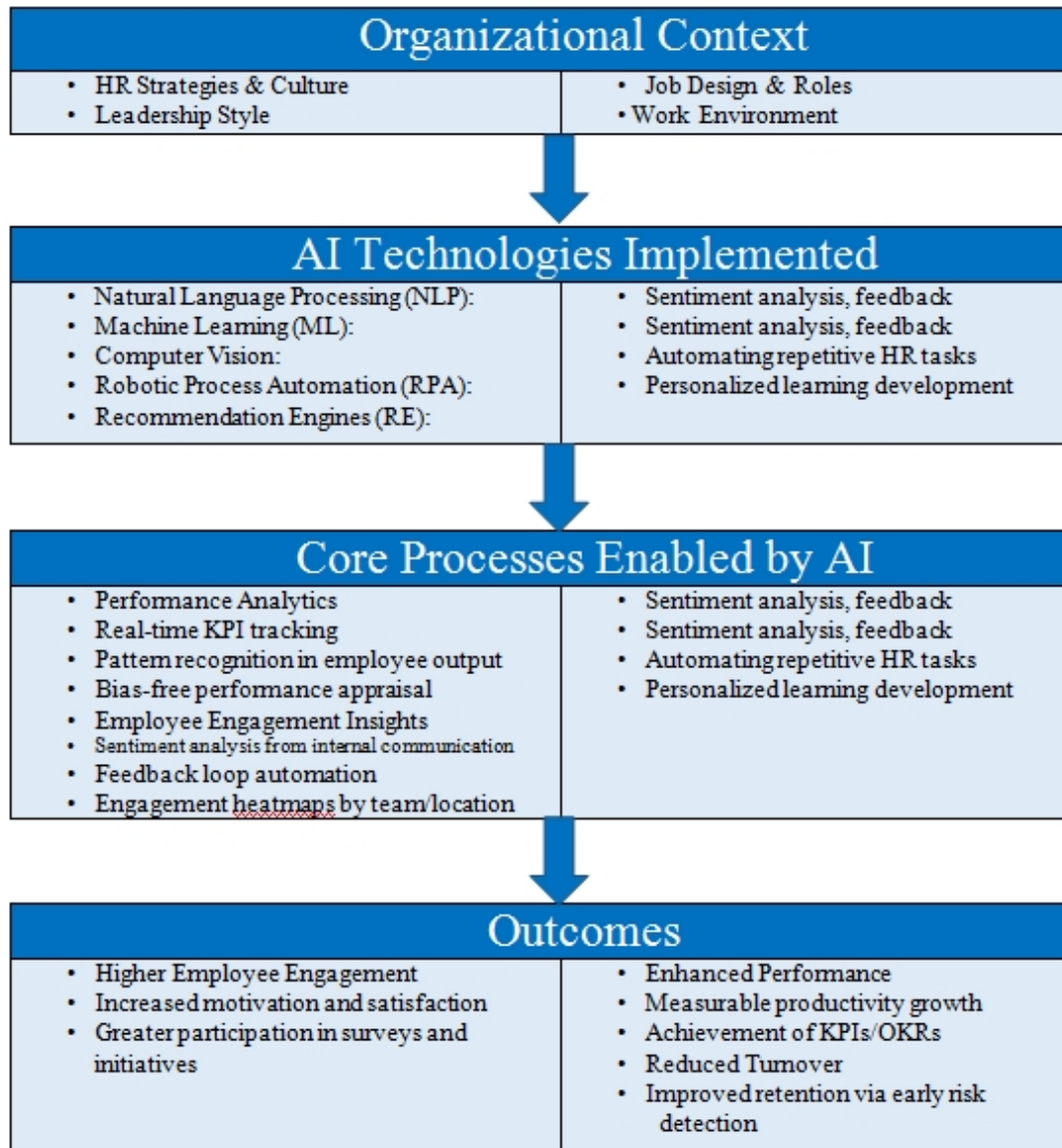


Figure: Model for AI Inclusion in Employee Engagement and Performance Analytics Conclusion

To face the competitive business world most of the organization have started using AI powered tools and technologies. The AI is backed with few challenges like data privacy, data accuracy and resistance to change. The AI should be more focused on giving unbiased results so the employees feel motivated and give productive results. AI technology will evolve and it will shape the future of employees. In future research should explore more innovative ways to engage employees, consider their well beings, and improvise the work culture in digital arena world.

Future Scope

The future of AI powered tools in every sector has scope for raise in its adoption. Its use should not be kept restricted and limited to certain areas rather it should be adopted for more related domains and features. The organization should use more and more AI powered tools to make the work easy, to make quick decisions. The AI based performance and employee engagement strategies should be used by business sectors to make prediction about sales, trend etc. Regulatory norms related to the use of AI should be introduces to ensure data privacy and security. Strict

regulations should be followed for data collection, so the work force feel more safe and secured to share the data. Also the ethical concerns will reduce with the strict norms. Collaborations should be enhanced between machines and humans.

Future researches should work on analysis of newer domains where AI can be used, also the manner in which it can be used should be explored. Studies can also be done on analyzing the regulatory norms required for the use of AI. Stakeholders of the industries using AI and researchers can also work on exploring the areas of enhancing the collaborations of machines and humans for improving employee engagement and performance analytics.

Limitations

Data Privacy: With the increasing use to AI powered tools organization must consider the data security and privacy concerns. Organization must carefully understand the ways of collecting data, sorting it and processing it for the performance analysis use .

Resistance to change: Some of the employees might not find it feasible to share the data and accept the changes that they will have to undergo with the performance analysis.

Data Quality and Accuracy: The accuracy and reliability of data should be checked appropriately as the AI driven performance analysis will impact the validity of data and employee engagement and performance and productivity.

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