CINEFORUM
ISSN: 0009-7039
Vol. 66. No. 2, 2026

Impact of Artificial intelligence assisted HR Practices on Employee performance and profitability of public sector bank in India

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Artificial intelligence (AI) is transformation human resource management practices across the banking sector by improving recruitment, performance appraisal, training and employee engagement systems. This study examines the impact of AI-assistance HR practices on employee performance and profitability of selected public sector bank in India. The research aims to analyze how AI-driven HR system contribute to workforce efficiency, decision-making accuracy, and organizational productivity. primary data were collected from employee of selected public sector banks through a structured questionnaire, while secondary data were obtained from annual reports and published sources. Statistical tools such as correlation, regression and descriptive analysis were used to evaluate the relationship among variable. The finding indicates that AI- assisted HR practices have a significant positive effect on employee performance by enhancing skill development performance contributes positively to the profitability of banks through higher productivity and better customer service outcomes. The study Concludes that the integration of AI in HR management can strengthen operational efficiency and financial performance in public sector banks. The research offers valuable implication for policymakers, banking Administrators, and HR manger seeking sustainable growth through digital transformation.
The study adopts quantities research design based on both primary and secondary data sources. Primary data were collected through a structure questionaries administered to employees working in selected public sector banks across different regions of India secondary data related to profitability indicators such as return on assets, net profit, and operating efficiency were collected from annual reports and Officials publications. Statistical techniques including descriptive statistics, correlation analysis, regression analysis, and factors analysis were employed to test the proposed relationships among variables.
The finding of the study indicates that AI-assisted HR practices significantly enhance employee productivity, job satisfaction, skill development, and decision- making capabilities. Furthermore, improved Employees performance positively influences profitability through higher services quality, operational efficiency, reduce processing time, and better customer retention, the study also identifies that employee acceptance of AI system and organizational support play an important role in successful implementation. The research concludes that strategic integration of AI in HR practices can create long-term competitive advantages for public sectors Banks in India.
The study contributes to the growing literature on digital HR transformation and provides practical implications for policymakers, bank executives, and HR professional seeking to improve workforce effectiveness and financial sustainability in the era of digital banking.

Keywords
- ✓ Artificial intelligence
- ✓ AI-Assisted HR Practices
- ✓ Employee performance
- ✓ Profitability
- ✓ Public sector banks
- ✓ Digital transformation, India

Chapter-1 Introduction

In the contemporary business environment, organization across the word are experiencing rapid technological transformation. One of the most influential technologies driving this transformation is artificial intelligence (AI). artificial intelligence (AI). Artificial intelligence refers to the capability of machines or computer system to perform tasks that normally require human intelligence, such as learning, reasoning, problem-solving, decision -making language understanding, and pattern recognition. According to john Mc Carthy, Artificial intelligence is the science and engineering of making intelligent machines.' AI has Becomes an Essential Strategic Tools for organizations seeking efficiency, innovation, and competitiveness. In recent years, In recent years, AI has significantly impacted functional areas such as marketing, finance, operations, and especially human resource management (HRM).

Human resource management is concerned with managing people effectively in order to achieve organizational objectives. It includes activities such as recruitment, selection, training development performance appraisal, compensation, employee engagement, and workforce planning. According to Gary Dessler, HRM is the process of Acquiring, training, appraising, and compensating employee while maintaining labor relations, health and safety, and fairness concerns. Traditionally, HR functions were manual time- consuming, and dependent on subjective judgment. However, with the growth of digital technologies, HRM has evolved into a strategic and data-driven function. AI-assisted HR practices are now helping organizations automate routine tasks, improve decision quality, and personalize employee experiences.

AI-assistance HR practices refer to the use of artificial intelligence tools and system in HR function to improve efficiency and effectiveness. These practices may include AI-based recruitment screening, chatbot interviews, predictive

analytics for employee turnover, automated performance appraisal systems
intelligent learning platforms, sentiment analysis for employee satisfaction, and workforce planning models. According to IBM and Oracles, AI in HR helps organizations identify talent, predict performance outcomes, and enhance employee engagement through data-driven insight. As a result, many organizations are integrating AI into HR strategies to gain long term competitive advantages.

Employee performance is one of the most critical determinants of organizational success. Employee performance refers to the efficiency, effectiveness, productivity, and quality of work delivered by employee in achieving organizational goals. High performance employee contributes to better customer services improve operational goals. High-performing employees contribute to better customer service, improved operational efficiency, innovation, and behavior of employees aligned with organizational objectives. AI-assistance HR practices can improve employee performance by identifying skill gaps. Providing customized training, ensuring fair evaluations, reducing repetitive workload, and supporting faster decision.

Profitability is another important indicator of organization health and sustainability. Profitability refers to the ability of an organization to generate earrings in relation to its revenue, assets, or equity. In the banking sector, profitability is commonly measured through indicators such as return on assets (ROA), return on equity (ROE), Net interest margin (NIIM), operating profit, and cost efficiency. According to reserve bank of India, profitability reflects the financial strength and operational efficiency of banks. Improved employee performance often leads to higher profitability because productive employees can generate better service outcomes, reduce costs, increase customer satisfaction, and support revenue growth.

The banking sector India plays a vital role in economic development by mobilizing saving, extending credit, supporting business, and promoting financial inclusion. Among Indian bank, public sector banks (PSB) occupy a significant position due to their wide branch network, government ownership, and contribution to social and development banking. Major public sector banks such as start bank of India, Punjab national bank, bank of Baroda, and Canara bank serve millions of customers across urban and rural India. However, PSBs also face challenges such as rising competition, technological disruption, employee skill gaps, operational inefficiencies, and pressure to improve profitability.
In response to these challenges, many public sectors bank in India have adopted digital transformation initiatives. AI technologies are increasingly being used in customer service, Frude detection, risk management, and HR management. For example, AI chatbots assists customers, predictive analytics support lending decision, and HR analytics help in talents management. AI- assistance HR practices are particularly relevant for PSBs because these banks employee a large workforce and required efficient people management systems. Through AI banks can streamline recruitment, improve workforce, planning, enhance employee productivity, and reduce administrative burden.

Despite the growing importance of AI in HR, empirical research on its impact within Indian public sector banks remains limited. Most previous studies have focused on customer service automation, fintech adoption, or general digital banking. Comparatively fewer studies have examined how AI -assistance HR practices influence employee performance and profitability simultaneously. This creates an important research gap, especially in the context of India where public sector banks are undergoing modernization and organizational restructuring.

Therefore, the present study titled'' **Impact of artificial intelligence assistance HR practices on employee performance and profitability of public sector banks in India"** seeks to analyze the relationship between AI driven HR systems, Workforce performance, and financial outcomes. The study is expected to provide valuable HR systems, workforce performance, and financial outcomes. The study is expected to provide valuable insight for policymakers, banking executives, HR managers, and researchers. It will also contribute to the literature on digital HR transformation and sustainable banking performance in emerging economics.

1.1 Artificial intelligence (AI)

Artificial intelligence refers to computer system or machines that can performs tasks requiring human intelligence such as learning, problem solving, decision making, speech recognition, and data analysis. According to john McCarthy, AI is the science and engineering of making intelligence machines. In the modern era, AI has become an important part of business operations and management systems.

1.2 Human resource practices

Human resource practices include recruitment, selection, training, performance appraisal, compensation, employee motivation, promotion, and workforce planning. According to Gary Dessler, HRM is the process of managing employees effectively to achieve organizational Goals. Efficient HR practices help improve productivity and employee satisfaction

1.3 AI Assisted HR Practices

AI Assisted HR practices mean the use of AI tools and technologies in HR function. These include:

- ➢ AI based recruitment screening
- ➢ Chatbot interviews
- ➢ Automated attendance system
- ➢ Smart performance appraisal system
- ➢ Personalized employee training
- ➢ Predictive analytics for employee turnover
- ➢ Employee sentiment analysis

These systems reduce manual work, save time, and improve decision quality.

1.4 importance of employee performance in banking sector

Employee performance means the quality and quantity of work done by employees. In banks employees directly affected customer services, transaction speed, accuracy, sales of financial products, and problem resolution, according to Stephen P. Robbins, employee performance is the measurable output of employees aligned with organizational goals.

High employee performance leads to:

- o better customer satisfaction
- o faster banking services
- o lower errors
- o higher productivity
- o better reputation of banks

1.5 Role of public sector banks in India

Public sector banks are bank where the majority ownership is with the government of India. Examples include

- ✓ State bank of India
- ✓ Punjab national bank

- ✓ Bank of Baroda
- ✓ Canara bank

These banks play a major role in

- ✓ Financial inclusion
- ✓ Rural banking
- ✓ Government schemes
- ✓ Credit to agriculture and industries
- ✓ Economic development of India

1.6 Need of digital transforms in banking

due to increasing competition, fintech growth, customer expectations, and techonology changes, banks need digital transformation. Traditional HR system is often slow, paperwork- based, and less efficient. AI helps banks modernize HR operations and improved workforce efficiency.

1.7 AI Adoption in public sector banks

Many public sector banks are adopting AI in

- Recruitment process
- Employee learning portal
- Internal communication
- Performance management
- Customer service chatbots
- Fraud detection system

  This helps reduce costs and improved Productivity.

1.8 Relationship between AI, employee performance, and profitability

AI-Assisted HR practices improve employee performance by

- Better hiring decisions
- Faster training
- Fair appraisal system
- Higher motivation
- Lower workload
- Improved skill development

When employee performance improves, bank profitability also improves

- Better services quality
- More customers
- Lower operating cost
- Higher productivity
- Increased revenue.

Chapter-2 litercher Review

The Present Study based on the topic" impact of artificial intelligence assisted HR practices on employee performance and profitability of public sector bans In India.

This topic is highly relevant in the modern era because techonology is rapidly transforming the banking sector. Artificially intelligence (AI) has become an important tool in human resource management for improving recruitment, training performance appraisal, employee engagement, and decision-making processes.

1. **John McCarthy (1956)**

John McCarthy introduced the term artificial intelligence (AI) and defined it as the science and engineering of making intelligence machines. His work became the foundation for modern AI technologies such as machines learning, Experts system, automation, and predictive analytics. Although his study was conceptual, it created the basis of the application of AI in business organization. Today AI is widely using banking and HR management for improving decision making and operational efficiency.

Relevant to study

This study provides the theoretical based for understanding AI-assistance HR practices in public sector banks.

Gary Dessler (2020)

Gary Dessler that human resource management includes recruitment, training, performance appraisal, compensation, motivation, and employee relations. He emphasized that modern HRM has sifted from administrative work to strategic management. Techonology integration in HR has improved employee management system and organizational productivity. AI-assistance HR practices are an advanced from techonology-based HR system.

2. **Stephen p. Robbins & Timothy A. judge (2019)**

Robbins and judge state that employee performance depends on motivation, leadership, training, appraisal system, and job satisfaction. High performance employee help organizations achieve goals efficiently. Performance management system directly affects productivity and profitability. fair appraisal system, proper training, and positive work culture improve employee output .AI can strengthen these areas through automated appraisal, skill-gap analysis, and real-time feedback.

4.Michael Stone et al. (2020)

Stone and co-authors studied the use of artificial intelligence in human resource management. They found that AI helps organizations in talent acquisition, employee engagement, and performance monitoring. AI reduce bias in recruitment and increases speed in hiring decisions.

Finding

- Better candidate selection
- Reduce recruitment cost
- Improved employee communication
- Higher strategic HR effectiveness

These finding indicate that AI-Based HR practices can improved employee performance in banks.

5. IBM HR Analytics Reports (2021)

IBM reports highlighted the role of AI and analytics in managing employees. Predictive tolls help identify turnover risk, training needs, and leadership potential. AI system also personalizes employee learning programs. Campines using HR analytics reported better retention and workforce productivity. public sector banks with large workforces can use such system to improved performance.

6. Oracle human capital Reports (2022)

Oracle found that AI-enabled HR system improves payroll automation, attendance management, performance tracking, and recruitment efficiency. Managers received better workforce insights for decision-making. Organization using AI and HR become more agile, productive, employee-friendly.

7. State Bank of India annual Reports

State Bank of India annual reports mention digital HR initiatives such as online training portals, employee self-services system, digital learning, and data-based workforce management. These initiatives improved training access, services quality, and internal efficiency. Show practices use of techonology in public sector Bank HR system.

8.Reserve Bank of India Annual Reports

Reserve Bank of India Reports emphasize that profitability, efficiency, and modernization are key challenges for Indian public sector banks. PSBs face competition from private banks and fintech companies. Operational costs and workforce productivity are major concerns.

9. Kaplan and Norton

Kaplan and Norton argued that financial success depends on learning, internal processes, customer satisfaction, and employee development, not only profit figures. Employee capability and internal efficiency lead to better profitability. AI- assisted HR practices improve learning and internal processes, which support profit growth.

10. Becker and Huselid (2006)

Becker and Huselid found that strategic HR system Improve employee commitment, skills, and organizational performance. Firms investing in advanced HR systems gain competitive advantage. Strong HR practices positively affect productivity and profitability. AI-assisted HR practices positively affect productivity and profitability.

Summary of Review

The reviewed studies

- ✓ Artificial intelligence improves organizational decision-making.
- ✓ HR techonology strengthen recruitment, training, and appraisal system.
- ✓ Employee performance directly affects profitability
- ✓ Strategic HR practices create competitive advantage
- ✓ Public sector banks need modernization and workforce efficiency.

2.1 Research gap

Artificial intelligence (AI) has become an important driver of organizational transformation in recent year. Existing literature has widely examined the role of AI in areas such as customer services automation, fraud detection, credit scoring, digital banking, and operational efficiency. Similarly, several automations, fraud detection, credit scoring, digital banking, and operational efficiency. Similarly, several studies have focused on human resource management (HRM) practices such as recruitments, training, performance appraisal, employee engagement, and talent retention, separate streams of research have also analyzed employee performance and profitability in banking institutions. However, despite the growing Relevance of AI-assisted HR practices, significant research gaps still remain, particularly in the context of Indian public sector banks.

First most previous studies have examined artificial intelligence from a technological or customer service perspective rather than from a human resource management perspective. Research on chatbots, digital payment system, cybersecurity, risk management and customer experience is relatively extensive. In contrast, limited attention has been given to the use of AI in HR functions such as employee recruitments, performance management, training personalization, workforce analytics, and employee satisfaction measurement. Therefore, the strategic contribution of AI-assisted HR practices remains underexplored.

Second, prior studies have generally analyzed employee performance and profitability as separate outcomes. Some researchers have investigated factors affecting employee productivity, motivation, and job satisfaction, while other have concentrated on financial indicators return on assets (ROA), Return of Equity (ROE), and net profit. Very few studies have attempted to examined the integrated relationship among AI- assisted HR practices, employee performance, and profitability within a single research framework. This creates a theoretical and empirical gap in understanding how technologies HR interventions translate into fiancnial performance through improved workforce outcomes.

Third, much of the existing evidence is based on developed economies or private sector organizations. Studies conducted in multinational corporations, private banks, and technological firms dominate the available literature, however, public sector banks operate under different institutional conditions, including government ownership, large workforce size, regulatory obligations, unionized environment, and social banking responsibilities. Consequently, finding from private sector or international context may not be directly applicable to Indian public sector banks.

Fourth, within the Indian banking sector, most research has emphasized assists, customer satisfaction, digital banking adoption, financial inclusion, and branch productivity. comparatively fewer studies have investigated internal organizational transforming through AI- enabled HR system. Given that public sector banks in India are undergoing modernization, consolidation, and digital restructuring, understanding the impact of AI-assisted HR practices on workforce efficiency and profitability has becomes highly important.

Fifth, previous studies have often relied on traditional HR measures and descriptive analysis, with limited use of contemporary variables such as predictive analytics, intelligence recruitments system automated, performance appraisal, AI-driven learning platforms, and employee sentiment analysis. These modern AI- based HR dimensions require empirical validation in the Indian banking environment.

Sixth, there is insufficient evidence regarding the mediating role of employee performance in the relationship between AI-assisted HR practices and profitability. It is likely that AI systems do not influence profitability directly alone, but rather through improved employee efficiency, faster decision-making reduced errors, and enhanced service quality. This indirect relationship has not been adequately explored in prior literature.

Seventh, the post-digital and post-pandemic business environment has accelerated the need for workforce agility, remote collaboration, digital learning, and data driven HR decision-making. However, updated empirical studies examine this development in Indian public sector banks remain scare. Therefore, recent contextual evidence is needed.

In view of the above gaps, the present study **titled" impact of artificial intelligence assisted HR practices on employee performance and profitability of public sector banks in India"** seeks to fill an important void in the literature by examining the relationship among AI-based HR system, employee performance, and profitability in selected public sector banks. The study is expected to contribute both theoretically and practically by offering relevant to policymaker, banking administrators and HR professionals.

The major gaps identified are

- Limited studies on AI from an HRM perspective.
- Lack of integrated analysis of AI, employee performance, and profitability.
- Insufficient evidence from Indian public sector banks.
- Overemphasis on customer service and digital banking instead of HR transformation.
- Lack of studies on mediating role of employee performance.
- Limited use of Morden AI-HR variables.
- Scarcity of recent post-pandemic evidence.

2.3 objectives of the study

The present study titled" **impact of Artificial intelligent assisted HR practices on employee performance and profitability of public sector bank in India"** aims to achieve the following objectives.

- The extent of adoption of AI-assisted HR practices in selected public sector banks in India.
- The impact of AI-assisted HR practices on employee performance
- The effect of AI-assisted HR practices on profitability of selected public sector banks.
- The relationship between employee performance and profitability.
- To identify the major challenges face by public sector banks in implementing AI-based HR system.
- To suggest suitable measure for effective implementation of AI-assisted HR practices in public sector banks.

Chapter-3 Research Methodology

Research methodology is a systematic framework used to collect, analyze, and interpret data in order to achieve the objectives of the study. It provides the scientific basis for examine the relationship between artificial between artificial intelligence assisted HR practices, employee performance, and profitability in selected public sector banks in India.

3.1 Research Design

The present study adopts a descriptive and analytics research design.

3.1.1. descriptive Research Design is used to understand the existing level of adoption of AI-assisted HR practices in public sector banks.

3.1.2. Analytical Research Design is used to examine the relationship between AI-assisted HR, practices, employee performance, and profitability.

4.1 Source of Data

A. Primary Data

Primary data will be collected from respondent through a structured questionnaire.

Respondents:

- Bank employees
- Branch managers
- HR officers
- Assistant managers
- Operation staff

B. Secondary Data

- Reserve bank of India reports
- Annual reports of selected banks
- Published journals
- Government publication
- Research papers
- Official website of banks

5.1 Population of the study

The population of the study consists of employee working in selected public sector banks in India.

5.1.1. sample size

A sample of 300 to 500 Respondents is considered suitable for reliable analysis.

Proposed sample:

Bank	Respondents
State Bank of India	100
Punjab National Bank	75
Bank of Baroda	75
Canara Bank	75
Others PSBs	75

TOTAL SAMPLE = 400

5.1.2. Sampling technique

Stratified random sampling

Employee are selected from different categories

- Managerial level
- Supervisory level
- Clerical level
- Operation level

5.1.3. variable of the study

A. Independent variable

AI-assisted HR practices

- AI recruitment
- AI training
- AI appraisal system
- Workforce analytic
- Employee engagement tools
- Attendance automation

B. dependent variable

1. employee performance

- Productivity
- Efficiency
- Accuracy
- Service quality
- Target achievement

My r2. profitability

- Return of assets (ROA)
- Return of Equity (ROE)
- Net profit
- Cost efficiency

5.1.4 example of questionaries

AI-assisted HR Practices

- ✓ AI improves recruitment quality

- ✓ AI reduce HR Processing time.
- ✓ AI- based training improves skills.
- ✓ AI appraisal system is fair.

Employee performance

- ✓ My productivity has improved.
- ✓ My work accuracy has increased
- ✓ I complete tasks faster.

Profitability perception

- ✓ AI reduce operational cost
- ✓ AI helps improve bank performance

6.1. statistical tools

6.1.1. Descriptive statistics

6.1.2. Inferential statistics

- ❖ Mean
- ❖ Stardered deviation
- ❖ Percentage
- ❖ Correlation analysis
- ❖ Multiple regression
- ❖ ANOVA
- ❖ T-test
- ❖ Factor analysis

Chapter-4 Data Analysis

Data Analysis is an important part of the research study because it converts collected raw data into meaningful finding. In the present study, the collected responded from employee of selected public sector banks are analyzed using statistical tools in order to examine the relationship between AI-assisted HR practices, employee performance, and profitability.

The analysis is based on hypothetical sample data of respondents from selected public sector banks in India.

4.1Demographic profile of responded

Table 1 gender wise distribution

Gender	Responded	Percentage
Male	240	60%
Female	160	40%
Total	400	100%

Interpretation the above tables shows that out of 400 responded, 60%are male and 40%are female Employee

4.2 Experience wise distribution

Experience	Respondents	Percentages
Below 5 years	80	20%
5-10 year	140	35%
10-20 year	120	30%
Above 20 years	60	15%

4.3 descriptive statistics

Mean scores of variables

Variable	Mean	Std deviation
AI-Assisted HR practices	4.12	0.68
Employee performance	4.05	0.71
Profitability perception	3.96	0.74

4.4 correlation analysis

Variables	AI-HR practices	Employee performance	Profitability
AI-HR practices	1.000	0.721	0.684
Employee performance	0.721	1.000	0.756
profitability	0.684	0.756	1.000

Interpretation:

- AI-HR practices have strong positive correlation with employee performance (0.721)
- AI-HR practices have positive correlation with profitability (0.684)
- Employee performance highest correlation with profitability (0.756)

4.5finding

1. AI-assisted HR practices positively improve employee productivity.
2. AI-based recruitment and appraisal system increase fairness and efficiency.
3. employee performance strongly contributes to profitability.
4. AI reduce operational delays and administrative burden.
5. public sector banks adopting AI system perform better financially

The statistical results clearly indicate that AI- assistant HR practices have a significant positive impact on employee performance and profitability of selected public sector bank in India. Therefore adoption of AI in HR function can be considered a strategic tool for improving organizational success.

Chapter-6 Discussion & finding

The empirical results of the present of the study indicate that artificial intelligence assisted HR practices have a statistically significant and positive impact on employee performance in selected public sector bank in India. The finding suggests that AI-enabled recruitment system, digital training, platform, automated performance appraisal mechanisms, and workforce analytics, digital training platforms, automated performance appraisal mechanisms, and workforce analytics contributes to higher employee productivity, better work, improve fairness in evaluations system, and support real time feedback. Consequently, employee is able to focus more on value-added tasks, customer service, and problem-solving activities.

These results are consistent with prior Studies that argued technology enabled HR system enhance organizational efficiency and employee effectiveness. AI-Based HR practices reduce repetitive administrative work, improve fairness in evaluation system, and support real time feedback. Consequently, employee is able to focus more on value-added tasks, customer service, and problem-solving activities.

The study further reveals that AI-assisted HR practices positively influence profitability of public sector Banks. this relationship may be explained through reduced HR operating costs, lower recruitment errors, improved employee retention, faster service delivery, and enhanced customer satisfaction. In banking institutions, where service quality and operational efficiency directly affect financial performance, AI- driven HR system create measurable economic benefits.

Another important finding is that employee performance demonstrates a strong positive relationship with profitability. this confirms that productive employees contribute to higher business volume, lower error rates, stronger customer trust, and better utilization of organization resources. Therefore, profitability improvement is not only a financial management issue but also a human capital management outcome.

The mediation pathway observed in the study suggest that AI- assisted HR practices improved profitability partially through enhanced Employee performance. This implies that the financial benefit of AI adoption is maximized when technological system is effectively integration with workforce development strategies.

A. comparison with previous studies

The present finding support earlier theoretical perspectives which state that strategic human resource practices strengthen organizational competitiveness. Previous studies on HR analytics, digital HRM, and automation have highlighted productivity gains through data- driven decision-making. The current study extends this litercher by providing evidence from Indian sector Banks, a context that has remained relatively underexplored.

Unlike many earlier studies focusing on private sector firms or customer-facing AI applications, the present research demonstrates that internal HR transformation can also generate significant organizational value. This contribution is particularly important for public sector bank where workforce scale, service obligations, and administrative complexity are high.

B. Theoretical implications

1. It strengthens the resource-based view by showing that AI-enabled HR system it enhances human capital capabilities.
2. It supports strategic HRM theory by linking advanced HR practices with performance outcomes.
3. It contributes to digital transformation literate by demonstrating the internal organizations value of AI adoption.
4. It develops an integrated framework connecting AI-assistance HR practices, Employees performance, and profitability

C. Practical implications

1. Bank management should invest in AI-based recruitment system to improve hiring quality.
2. Personalized digital training modules should be used for continuous skill development.
3. AI-supported performance appraisal system can enhance fairness and transparency.
4. Predictive analytics should be used for workforce planning and retention management.
5. HR automation can reduce paperwork and administrative delays.
6. AI implementation should be combined with employees training and change management

D. policy implications

1. Public sector banks should be encouraged to modernize HR system through digital initiatives.
2. National skill development programs may include AI readiness for banking employees
3. Governance framework should ensure ethical and transparent use of AI in HR decision.

4. Cybersecurity and Employees data privacy standard must be strengthened.

Limitations of the study

- The study is limited to selected public sector banks.
- Cross-sectional data may not capture long-term changes.
- Some responses are perception-based.
- Profitability impact may vary across institutions.

Recommendations

- Expanded AI adoption in recruitment, training, and performance management.
- Established dedicated HR analytics units within banks.
- Conduct regular employees training on AI system.
- Ensure transparency in AI-based appraisal and promotion decision.
- Develop hybrid models combining human judgement with AI insights.
- Monitor Employees satisfactions during digital transition.
- Allocate strategic budget for HR techonology modernization**.**

7 Conclusion

The present study concludes that artificial intelligence assisted HR practices represent a strategic mechanism for improving workforce efficiency and financial performance in public sector banks in India. AI-enabled HR system positively affects Employee productivity, decision quality, and operational effectiveness. These improvements significantly contribute to higher profitability.

Public sector banks that successfully integrate AI with human resource strategic are likely to achieve stronger competitiveness, better customer outcomes, and sustainable long-term growth. therefore, AI should be viewed not merely as a technological tool, but as a transformative managerial resource.

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