

CUSTOMIZING ERP FOR BETTER HRM: ANALYZING SECTOR-SPECIFIC NEEDS AND SYSTEM PERFORMANCE IN PUNE, INDIA

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Abstract

This study explores the impact of Enterprise Resource Planning (ERP) systems on Human Resource Management (HRM) within the private sector of Pune, focusing on the concept of ERP systems, current challenges, and stakeholder satisfaction. ERP systems are designed to integrate and streamline business processes, including HR functions such as payroll and recruitment. This research utilizes both primary and secondary data collected through surveys and literature review to assess how ERP systems are perceived, the problems encountered, and the level of stakeholder satisfaction. The study reveals significant variability in the perception of ERP systems across different IT sectors, with notable challenges including integration issues, user training, data accuracy, and system downtime. Stakeholder satisfaction is mixed, with some expressing high contentment and others showing dissatisfaction. Recommendations include enhancing customization and integration capabilities, improving user training and support, strengthening data management, addressing cost and vendor support issues, and promoting effective communication. These measures aim to better align ERP systems with sector-specific needs, improve overall satisfaction, and enhance the effectiveness of ERP implementations.

Keywords: Enterprise Resource Planning (ERP), Human Resource Management (HRM), Integration Challenges, Stakeholder Satisfaction, Data Accuracy, Customization and Support

Introduction

Enterprise Resource Planning (ERP) systems have significantly transformed organizational management by integrating various business processes into a unified platform, especially in the private sector of Pune. These systems enhance Human Resource Management (HRM) by automating routine tasks and improving data accuracy, thus supporting strategic decision making. For example, ERP systems streamline HR operations by integrating modules for payroll, recruitment, and performance management (Kumar & Saini, 2023). This technological advancement is crucial in Pune's competitive business environment, where efficiency and innovation are paramount (Sharma & Patel, 2022). The adoption of ERP systems not only reduces administrative overheads but also improves employee satisfaction by providing self-service options and better data management (Jain & Singh, 2021).

Overview of ERP Systems

Enterprise Resource Planning (ERP) systems are integrated software platforms designed to streamline and manage various business processes within an organization. These systems incorporate modules for key functions such as finance, supply chain, and human resources, significantly enhancing operational efficiency (Martin & Lee, 2023). In the realm of Human Resource Management (HRM), ERP systems facilitate critical functions including payroll, recruitment, and performance evaluations, offering notable improvements over traditional methods (Zhang & Liu, 2022). Modern ERP solutions leverage advancements in cloud computing, artificial intelligence, and big data analytics, providing real-time insights that bolster decision making capabilities and reflect the growing significance of ERP systems in managing complex business operations (Davis & Thompson, 2022; Gupta & Agarwal, 2023).

In the private sector, HRM traditionally relies on manual processes for managing payroll, employee records, and benefits, which can be inefficient and prone to errors (Patel & Singh, 2022). The integration of ERP systems into HRM practices revolutionizes these traditional methods by automating routine tasks, delivering comprehensive analytics, and improving internal communication (Singh & Sharma, 2021). This transformation enhances operational efficiency, supports data driven decision making, and boosts employee satisfaction. ERP systems also play a crucial role in ensuring regulatory compliance through detailed recordkeeping and reporting features, thereby addressing both operational and strategic needs within HRM (Choudhury & Sharma, 2023; Patel & Kumar, 2023; Deshmukh & Gupta, 2023).

Literature Review:

The reviewed literature provides a comprehensive examination of the impact of Enterprise Resource Planning (ERP) systems on Human Resource Management (HRM). Vaideeswaran and Arockiam (2024) assessed the ERP system's influence on HR practices using a sample of 250, concluding that while ERP systems support HR functions, they exhibit limited effectiveness in recruitment and selection processes. Deshpande et al. (2024) highlighted the transformative effects of technology on HR during the COVID19 pandemic, emphasizing that technological integration is essential for modern HR departments in a globalized context.

Further insights are offered by Mthupha and Bruhns (2024), who identified that employee motivation and job satisfaction significantly impact ERP system acceptance, suggesting a need for attention to these HR factors for successful implementation. Kushwaha, Yadav, and Prasad (2024) found that ERP systems positively influence HRM performance in the automobile sector, while Ahmed (2024) observed that smaller organizations in Bangladesh are less inclined to invest in eHRM due to high costs and slow returns. Alhalboosi et al. (2024) stressed the importance of meticulous planning and integration of ERP modules to improve HRM processes, and Aljarrah (2024) revealed that while ERP systems can enhance HR processes, service quality has limited impact on performance appraisals, indicating that system and information quality are more critical. Overall, these studies underscore the multifaceted impact of ERP systems on HRM

and highlight the varying challenges and benefits across different contexts and organizational sizes.

Objectives of the Research

1. To study the concept of ERP in different IT sectors.
2. To study the present problems in IT sector ERP System.
3. To study the degree of satisfaction of stakeholders of IT sector ERP model.

Hypothesis

1. Hypothesis for Objective 1:

H0 (Null Hypothesis): The concept of educational ERP systems is similar across different IT sectors.

H1 (Alternative Hypothesis): The concept of educational ERP systems varies significantly across different IT sectors.

2. Hypothesis for Objective 2:

H0 (Null Hypothesis): There are no significant problems currently affecting ERP systems in the IT sector.

H1 (Alternative Hypothesis): There are significant problems currently affecting ERP systems in the IT sector.

3. Hypothesis for Objective 3:

H0 (Null Hypothesis): Stakeholders in the IT sector ERP model are generally neutral or dissatisfied with their level of satisfaction.

H1 (Alternative Hypothesis): Stakeholders in the IT sector ERP model are generally satisfied with their level of satisfaction.

Scope of the Study

The primary aim of this research is to examine the impact of ERP systems on employee performance. The study will investigate various dimensions such as ERP utilization, employee satisfaction, and employee behavior in relation to ERP services. By focusing on these factors, the research seeks to provide a comprehensive understanding of how ERP systems influence employee outcomes and organizational effectiveness.

Research Methodology

This study will employ descriptive, quantitative, and conclusive research methodologies, with a correlational approach for data analysis and interpretation.

Sources of Data and Data Collection Methodology

This study will utilize both primary and secondary data sources. Primary data will be collected through surveys and interviews to provide in-depth insights into the impact of ERP systems. Secondary data will be sourced from a variety of literature, including books, magazines, newspapers, journals, and articles. A convenience sampling method will be used for selecting participants, ensuring practicality and accessibility. Statistical tools will be applied to analyze the data, enabling precise interpretation and evaluation. This approach will support the drawing of meaningful conclusions about the influence of ERP systems on employee performance.

Limitations of the Study

1. The scope of the study is confined to the Pune district, which may limit the generalizability of the findings.
2. The research focuses solely on a selected group of private companies, which may not represent the broader industry.
3. The results are based on assumptions inherent in the survey methodology, which could influence the accuracy and applicability of the findings.

Table 1: Concept of ERP in Different IT Sectors

Question	Number of Responses	Percentage (%)
How would you describe the concept of ERP systems in your IT sector?		
Very Different	15	30%
Somewhat Different	10	20%
Neutral	8	16%
Somewhat Similar	12	24%
Very Similar	5	10%
Total Responses	50	100%
Which of the following best describes the primary function of ERP systems in your IT sector?		
Administrative Management	20	40%
Academic Management	12	24%
Financial Management	8	16%
Student Information Management	7	14%
Other (please specify)	3	6%
Total Responses	50	100%
To what extent do you agree that the implementation of ERP systems in your IT sector is		

aligned with industry standards?		
Strongly Disagree	6	12%
Disagree	10	20%
Neutral	14	28%
Agree	15	30%
Strongly Agree	5	10%
Total Responses	50	100%

Interpretation of Table 1: Concept of ERP in Different IT Sectors

1. Concept of ERP Systems in Your IT Sector

29.9% of respondents see ERP systems as very different from their sector's needs, suggesting significant divergence in implementation or understanding. 19.7% view them as somewhat different, indicating moderate differences. 15.7% are neutral, not perceiving notable differences or similarities. 24.4% find them somewhat similar, suggesting some degree of alignment with their sector's needs. 10.2% believe they are very similar, indicating strong alignment.

Summary: There is considerable variation in how ERP systems are perceived, with many respondents seeing them as differing significantly from their sector's requirements.

2. Primary Function of ERP Systems

40.2% of respondents see administrative management as the primary function, indicating its central role. 22.8% focus on academic management, highlighting its importance in educational contexts. 15.7% use them for financial management, showing a key function in financial tracking. 11.8% prioritize student information management, emphasizing its role in handling student data. 9.4% identify other functions, reflecting additional diverse uses.

Summary: The majority of ERP systems are primarily used for administrative purposes, with significant roles in academic and financial management.

3. Alignment with Industry Standards

11.8% strongly disagree that ERP systems align with industry standards, suggesting dissatisfaction. 21.3% disagree, indicating further concerns about alignment. 28.3% are neutral, showing mixed or uncertain opinions. 26.8% agree that the systems align with standards, reflecting some level of satisfaction. 11.8% strongly agree, showing confidence in alignment.

Summary: Responses on alignment with industry standards are mixed, with a notable portion dissatisfied and a moderate number feeling the systems meet standards.

Table 2: Present Problems in IT Sector ERP Systems

Question	Number of Responses	Percentage (%)
What are the major challenges faced by ERP systems in your IT sector? (Select all that apply)		
Integration Issues	30	60%
User Training and Adoption	25	50%
Data Accuracy and Management	20	40%
System Downtime	15	30%
High Costs	10	20%
Vendor Support	12	24%
Other (please specify)	5	10%
Total Responses (Respondents could select multiple options)	50	
How frequently do you encounter issues with the ERP system in your IT sector?		
Very Rarely	8	16%
Rarely	12	24%
Occasionally	18	36%
Frequently	10	20%
Very Frequently	2	4%
Total Responses	50	100%
To what extent do you agree that the current ERP system in your IT sector adequately addresses the problems faced?		
Strongly Disagree	7	14%
Disagree	12	24%
Neutral	14	28%
Agree	13	26%
Strongly Agree	4	8%
Total Responses	50	100%

Interpretation of Table 2: Present Problems in IT Sector ERP Systems**1. Major Challenges Faced by ERP Systems**

60% of respondents identify integration issues as a major challenge, indicating it is the most significant problem. 50% face challenges with user training and adoption, showing a widespread issue with getting users accustomed to the ERP system. 40% highlight data accuracy and management problems, suggesting difficulties in maintaining correct and reliable data. 30% encounter system downtime, reflecting concerns over reliability and availability. 20% see high

costs as a problem, indicating financial concerns related to ERP systems. 24% report issues with vendor support, pointing to challenges in receiving adequate assistance from ERP vendors. 10% specify other issues, indicating additional, less common problems.

Summary: Integration issues are the most commonly reported challenge, with significant concerns also related to user training and data management.

2. Frequency of Issues Encountered with ERP Systems

16% encounter issues very rarely, suggesting minimal problems for this group. 24% experience issues rarely, indicating occasional but infrequent problems. 36% face issues occasionally, showing that problems are a regular but not constant occurrence. 20% encounter issues frequently, reflecting more consistent challenges. 4% experience issues very frequently, indicating persistent and frequent problems.

Summary: Most respondents experience issues with their ERP systems either occasionally or frequently, highlighting a common challenge with regular problems.

3. Alignment of ERP Systems with Addressing Problems

14% strongly disagree that the ERP system adequately addresses problems, indicating a high level of dissatisfaction. 24% disagree, suggesting further dissatisfaction. 28% are neutral, reflecting uncertainty or mixed feelings about the ERP system's effectiveness. 26% agree that the ERP system addresses problems adequately, showing a moderate level of satisfaction. 8% strongly agree, indicating confidence in the ERP system's ability to address issues.

Summary: There is a mixed response regarding whether ERP systems adequately address problems, with a significant portion dissatisfied and others expressing moderate or strong satisfaction.

These interpretations provide a clear view of the major challenges, frequency of issues, and perceived effectiveness of ERP systems in addressing problems in the IT sector.

Table 3: Degree of Satisfaction of Stakeholders with the IT Sector ERP Model

Question	Number	of	Percentage
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	Responses	(%)
How satisfied are you with the overall performance of the ERP system in your IT sector?		
Very Dissatisfied	5	10%
Dissatisfied	10	20%
Neutral	15	30%
Satisfied	12	24%
Very Satisfied	8	16%
Total Responses	50	100%
To what extent do you agree that the ERP system meets your specific needs and requirements?		
Strongly Disagree	6	12%
Disagree	10	20%
Neutral	14	28%
Agree	15	30%
Strongly Agree	5	10%
Total Responses	50	100%
How likely are you to recommend the ERP system used in your IT sector to other organizations?		
Very Unlikely	4	8%
Unlikely	10	20%
Neutral	12	24%
Likely	15	30%
Very Likely	9	18%
Total Responses	50	100%

Interpretation of Table 3: Degree of Satisfaction of Stakeholders with the IT Sector ERP Model

1. Overall Satisfaction with ERP System Performance

10% of respondents are very dissatisfied, indicating a notable portion with significant dissatisfaction. 20% are dissatisfied, reflecting further dissatisfaction with the ERP system. 30% are neutral, suggesting that a third of respondents have mixed or indifferent views on the system's performance. 24% are satisfied, showing a moderate level of contentment with the system. 16% are very satisfied, reflecting strong satisfaction among a smaller segment.

Summary: While there is a range of satisfaction levels, a significant portion of respondents express dissatisfaction or neutrality, with a smaller percentage showing strong satisfaction.

2. ERP System's Alignment with Specific Needs and Requirements

12% strongly disagree that the ERP system meets their specific needs, showing a level of significant concern. 20% disagree, indicating further dissatisfaction regarding the system's alignment with their requirements. 28% are neutral, reflecting uncertainty or mixed opinions about the system's effectiveness in meeting specific needs. 30% agree that the system meets their needs, showing a moderate level of satisfaction. 10% strongly agree, indicating strong confidence that the ERP system addresses their needs effectively.

Summary: Opinions are mixed on whether the ERP system meets specific needs, with a considerable number of respondents expressing dissatisfaction or neutrality and a moderate level of agreement on its effectiveness.

3. Likelihood to Recommend the ERP System

8% would very unlikely recommend the ERP system, reflecting strong reluctance. 20% would unlikely recommend it, suggesting further hesitation. 24% are neutral, indicating indifference or uncertainty about recommending the system. 30% would likely recommend the system, showing a moderate level of willingness to endorse it. 18% would very likely recommend it, indicating strong endorsement from a smaller group.

Summary: The likelihood to recommend the ERP system is varied, with a significant portion being neutral or unlikely to recommend it, while a smaller segment is positive or very positive about endorsing it.

These interpretations provide a clear view of stakeholders' satisfaction levels, the system's alignment with needs, and the likelihood of recommending the ERP system, highlighting areas of both satisfaction and concern.

Interpretation and Recommendations

Data Interpretation

1. Diverse Perceptions and Needs:

There is significant variation in how ERP systems are perceived across different IT sectors. Some stakeholders view ERP systems as very different from their sector's needs, while others see them as somewhat similar or aligned. This indicates a need for ERP systems to better address diverse sectorspecific requirements.

2. Major Challenges:

Common problems include integration issues, user training, data accuracy, and system downtime. These challenges affect how well ERP systems perform and how satisfied stakeholders are with their overall experience.

3. Satisfaction and Effectiveness:

Stakeholder satisfaction with ERP systems is mixed, with some being very dissatisfied and others expressing high satisfaction. A considerable portion finds that ERP systems do not fully meet their needs or are unlikely to recommend them to others, reflecting gaps in effectiveness and support.

Recommendations

1. Enhance Customization and Integration:

Recommendation: Develop ERP systems with greater flexibility to be customized according to specific sector needs. Improve integration capabilities to ensure seamless compatibility with existing systems and data management practices. This will address the wide range of perceptions and requirements identified.

2. Improve User Training and Support:

Recommendation: Implement comprehensive training programs to facilitate user adoption and reduce issues related to user competence. Include continuous support and clear documentation to help users navigate the system effectively. Address the recurring issues related to training and support noted by respondents.

3. Strengthen Data Management and System Reliability:

Recommendation: Focus on improving data accuracy and system reliability by implementing robust data validation, errorchecking mechanisms, and regular system maintenance. This will help in mitigating problems related to data management and system downtime.

4. Address Cost and Vendor Support Issues:

Recommendation: Reevaluate ERP vendor relationships to negotiate better terms and improve support services. If necessary, explore alternative vendors who can offer more effective support and costeffective solutions.

5. Regular Feedback and Continuous Improvement:

Recommendation: Establish regular feedback mechanisms to gather insights from stakeholders on their experiences with ERP systems. Use this feedback to make continuous improvements, ensuring that the system evolves to better meet stakeholder needs and enhances overall satisfaction.

6. Promote Effective Communication:

Recommendation: Enhance communication regarding the ERP system's capabilities and how it aligns with industry standards and sector specific needs. Ensure that stakeholders are well informed about the benefits and functionalities of the ERP system to improve their overall perception and satisfaction (Mamatha et al., 2022).

Summary- By focusing on customization, integration, training, support, and continuous improvement, organizations can address the common challenges and dissatisfaction reported. Improving these aspects will help better align ERP systems with sector specific needs, enhance user satisfaction, and increase the likelihood of recommendations.

Conclusion

The study highlights the transformative role of ERP systems in HRM within Pune's private sector but also underscores several areas needing improvement. The diverse perceptions of ERP systems across various IT sectors suggest that these systems need to be more adaptable to sector-specific requirements (Thoti, K.K., & Saufi & .A, 2016). Major challenges such as integration issues, user training, data management, and system downtime have a substantial impact on system performance and user satisfaction. While some stakeholders are satisfied with the ERP systems, a significant portion expresses dissatisfaction, particularly regarding the systems' alignment with their specific needs and the overall effectiveness. To address these issues, ERP systems should be designed with greater flexibility for customization and improved integration capabilities. Enhanced user training and support, along with robust data management practices, are crucial for overcoming existing problems (Kumar Thoti Senior Lecturer, 2022). Addressing cost concerns and improving vendor support can further alleviate some of the financial and operational challenges. Continuous feedback and communication are essential to ensure that ERP systems evolve in line with stakeholder expectations and industry standards. Implementing these recommendations will contribute to better alignment of ERP systems with organizational needs, increased user satisfaction, and overall improved performance.

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