



EXPLORING THE IMPACT OF DIGITAL EMPLOYEE ENGAGEMENT PRACTICES ON ORGANISATIONAL PERFORMANCE IN SMES: AN EMPIRICAL STUDY

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Article Info

Article History:

Published: 16 May 2026

Publication Issue:

Volume 3, Issue 5
May-2026

Page Number:

220-231

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Abstract:

The current research examines the influence of digital HRM practices on employee engagement and organizational performance within SMEs operating in the IT industry in Bangalore. A well-structured questionnaire was distributed among 300 respondents with the following factors: requesting leaves, recruitment and induction, recognition, and administrative efficiency. From the descriptive statistics, it is evident that most of the respondents had positive attitudes towards digital HRM, as more than 75% agreed or strongly agreed that digital HRM made the HR processes simpler. The reliability test showed high consistency in the survey (Cronbach's Alpha = 0.953). The correlation analysis shows a significant relationship between digital HRM and employee engagement ($r = 0.853$, $p < .001$), as well as between engagement and organizational performance ($r = 0.816$, $p < .001$). The regression analysis results reveal that digital HRM, engagement, and effectiveness account for 76.5% of the variation in organizational performance; all independent variables are significant. The results show that digital HR processes do not only make things more accessible and communicative but also encourage employee recognition and efficiency, leading to better organisational performance. Nonetheless, the existence of a large neutral zone indicates the need for increased awareness and training for maximum utilization of the potential of adopting digital HR practices. This study illustrates the strategic significance of digital HRM in engaging, being productive, and successful in organisations.

Keywords: Digital HR practices, employee engagement, SMEs, productivity, organisational performance

1. INTRODUCTION

1.1 Background of the study - The digital revolution in human resource management (HRM) has changed the way firms interact with their employees and evaluate performance. The advent of HR tools such as cloud HRM software, artificial intelligence recruitment solutions, electronic learning resources, and HRM analytics has transformed HR activities from purely operational to strategic support for organizational growth. Employee engagement, which has emerged as an important factor influencing employee productivity and dedication, is now often implemented using digital technology by enabling real-time interaction, personalized learning, and effective performance evaluation. Large **businesses** have adopted digital HR technology widely, while SMEs have just started embracing digital HRM technology.

1.2 Significance of Digital HR in SMEs:

Small and medium-sized enterprises (SMEs) constitute a significant part of several economies by playing a vital role in job creation and innovation. Nonetheless, SMEs are faced with various issues including resource limitation, workforce diversity, and quick adaptability needs. Digital HR practices enable SMEs to benefit from cost-effective

means for achieving effective management of the human resource, enhancing worker satisfaction, and boosting organizational effectiveness. Using digital engagement techniques, SMEs can improve their communications, create convenient learning environments, and create a motivational culture within the organization.

1.3 Research gap and purpose:

Although there is an increased implementation of digital practices in the field of HRM, empirical studies showing the effects of such implementation among small organizations are rather few. Studies carried out previously considered only employee engagement or productivity as a factor affecting organizational performance without considering both factors at once. Furthermore, most of these studies were mainly concerned about how these factors affect performance in large corporations rather than small firms. This shows the necessity of conducting empirical studies regarding the combined effect of both employee engagement and productivity as a result of the application of digital HR practices to improve organizational performance.

2. PROBLEM STATEMENT:

These systems are designed to increase employee engagement and organisational effectiveness. Large companies have been able to utilise digital HR systems to maximise communication, learning, and performance. However, small and medium-sized organisations (SMEs) have encountered difficulties in implementing and refining digital HR systems because of their lack of resources, limited knowledge, and different degrees of digitalisation. While digital HR processes offer better access, motivation, and efficiency, there is no definitive information regarding their impact on employee engagement and performance within SMEs. Current literature has mainly focused on either employee engagement or organisational performance but not on both simultaneously. Also, studies have rarely considered SMEs when discussing engagement or performance as a means of improving organisational effectiveness. As such, there is no comprehensive literature on how employee engagement practices can be utilised as an effective driver of organisational performance in SMEs. Filling this gap is crucial for SMEs that want to remain competitive and sustainable in the digital era.

3. REVIEW OF LITERATURE

Engagement of employees has been acknowledged as a critical foundation of organisational excellence for a long time now. Kahn (1990) conceptualized the theory of engagement based on three psychological components including meaningfulness, safety, and availability to engage employees. Further development of engagement concept has been done by Saks (2006), who identified a few antecedents, such as job factors, organisational support, and rewards, as a means of engaging employees. In addition, he showed how engagement is associated with job satisfaction and performance. Recent research has focused on integrating the theories of engagement with the digital world, as presented by studies like those of Singh and Sharma (2023). Digital HR Practices and Organisational Performance

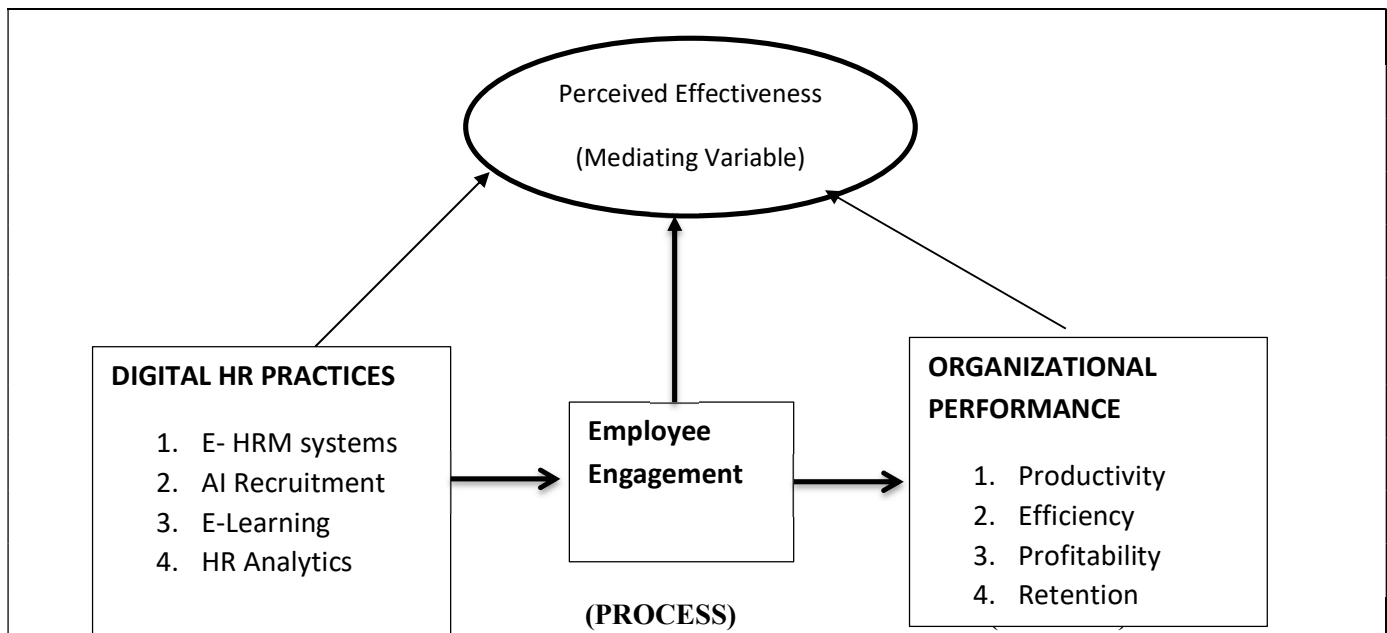
These include cloud HR systems, AI recruitment, e-learning programs, and HR analytics. According to Bondarouk & Ruel (2009), electronic HRM promotes accessibility and visibility, leading to greater employee participation. Strohmeier (2020) defined the theoretical underpinning of digital HRM, which was seen as an efficiency and data-driven decision-making strategic tool. Marler & Boudreau (2017) showed that HR analytics offers meaningful insights that increase organizational efficiency, whereas Vrontis et al. (2022) claimed that artificial intelligence reinforces the strategic planning and job satisfaction functions of HR. Recent studies like those of Stachová et al. (2024) confirm the benefits of E-HRM systems, which foster engagement by increasing transparency and communication, and Yazough et al. (2026) revealed that digitalization of HR positively influences organizational performance through efficiency and adaptability. Empirical Studies on SMEs (2022–2026)

Empirical studies have become more and more concerned about the application of digital HR in SMEs. According to the empirical study by Singh & Sharma (2023), digital HR transformation results in improved employee engagement in Indian firms. Also, according to the empirical study conducted by Gupta & Sharma (2023), there is a direct correlation between digital HR strategies and productivity. The impact of algorithmic management, which includes how digital technologies affect the behaviour and perception of employees, was explored by Meijerink & Bondarouk (2023). Further expanding the scope of algorithmic management to SMEs, Akmil Asril et al. (2026) revealed that digital HRM contributes to better employee performance through mediation effects on employee engagement.

4. IDENTIFIED RESEARCH GAP

Whereas the literature proves the significance of digital HR practices in improving engagement and productivity, the existing body of knowledge mainly focuses on the analysis of these concepts separately or within the scope of big corporations. The empirical link between digital engagement practices and productivity, efficiency, and organizational effectiveness has not been fully studied in the context of SMEs, especially in developing countries. Thus, further research should be conducted in order to fill this gap, as well as improve the competitive position of SMEs in the digital era.

5. CONCEPTUAL FRAMEWORK



6. OBJECTIVE OF THE STUDY

1. To identifying digital HR practices that are commonly used by SMEs.
2. To evaluating the effectiveness of digital HR tools in encouraging employee engagement.
3. To analyse the connection between digital HR practices and employee engagement.
4. To examine the effects of employee engagement on organizational performance.
5. To examine the mediating effect of perceived effectiveness between digital HR practices and organizational performance.

6. To offer recommendations to SMEs in order to improve their digital HR practices for better engagement and productivity.

7. HYPOTHESIS OF THE STUDY

H1: Digital HR practices have a significant positive effect on employee engagement in SMEs.

H2: Employee engagement has a significant positive effect on organisational performance in SMEs.

H3: Digital HR practices have a direct positive effect on organisational performance in SMEs.

H4: Perceived effectiveness mediates the relationship between digital HR practices and organisational performance.

H5: Employee engagement mediates the relationship between digital HR practices and organisational performance.

8. RESEARCH METHODOLOGY

8.1 Research design - The research design that will be employed in conducting the study is the quantitative, descriptive, and explanatory approach. It is an empirical research design since it depends on primary data obtained through surveys administered to employees working in small and medium enterprises (SMEs).

8.2 Data collection method-

Primary data: Gathered using a questionnaire that is split into five parts, namely demographic information, use of digital HR, effectiveness of HR tools, engagement, and organisational performance.

Secondary data: Obtained from books, peer-reviewed Scopus journals, and reports in the industry.

8.3 Sampling Techniques-

Population: Staff who work in small and medium-sized businesses (SMEs) operating in information technology, manufacturing, retailing, consulting, and service industries.

Sampling procedure: Convenience sampling was used because of restrictions in access and the requirement to sample various SME settings.

Sample size: 300 participants, providing enough representation from different ages, genders, educational backgrounds, experience levels, business sizes, and industries.

8.4 Tools of analysis and result-

Descriptive statistics: Frequency, percentage, mean, and standard deviation to describe the characteristics of the participants and responses.

Reliability test: Cronbach's alpha ($\alpha = 0.953$) to ensure the reliability of the scale.

Correlation analysis: Pearson correlation coefficient to analyse the relationship between digital HRM practice, employee engagement, and employee performance.

Regression analysis: Multiple linear regression to verify the direct effect of digital HRM practice, employee engagement, and perceived effectiveness on organisational performance.

9. DATA ANALYSIS AND INTERPRETATION

9.1 PERCENTAGE ANALYSIS

Table-1 Digital HR platforms for leave applications

S.NO	Factor	No. of respondents	Percentage
1	Strongly disagree	6	2.0
3	Neutral	62	20.7
4	Agree	170	56.7
5	Strongly agree	62	20.7
	Total	300	100

Interpretation

From the above table, it is inferred that the majority of respondents (56.7%) agreed that digital HR platforms are frequently used for leave applications. A further 20.7% strongly agreed, while another 20.7% remained neutral. Only 2.0% expressed disagreement. This indicates that leave management through digital HR systems is widely accepted among employees, with very few showing resistance.

Inference

The majority (56.7%) of respondents agree that digital HR platforms are effective for leave applications, reflecting strong adoption of digital HR practices in this area.

Figure-1 Digital HR platforms for leave applications

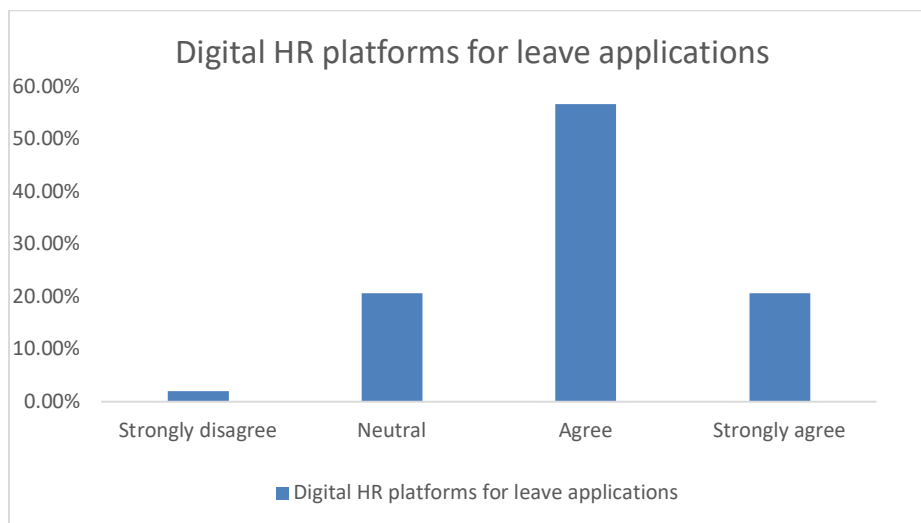


Table-2 Recruitment and Onboarding through Digital HR Systems

S.NO	Factor	No. of respondents	Percentage
1	Strongly disagree	3	1.0
3	Neutral	72	24.0
4	Agree	160	53.3
5	Strongly agree	65	21.7
	Total	300	100

Interpretation

From the above table, it is inferred that more than half of the respondents (53.3%) agreed that recruitment and onboarding are effectively managed through digital HR systems. A further 21.7% strongly agreed, while 24.0% remained neutral. Only 1.0% expressed disagreement, showing minimal resistance.

Inference

The majority (75%) of respondents either agree or strongly agree that digital HR systems streamline recruitment and onboarding processes. This indicates strong acceptance of digital HR in talent acquisition and integration, though the neutral responses highlight the need for further awareness and demonstration of benefits to undecided employees.

Figure-2 Recruitment and Onboarding through Digital HR Systems

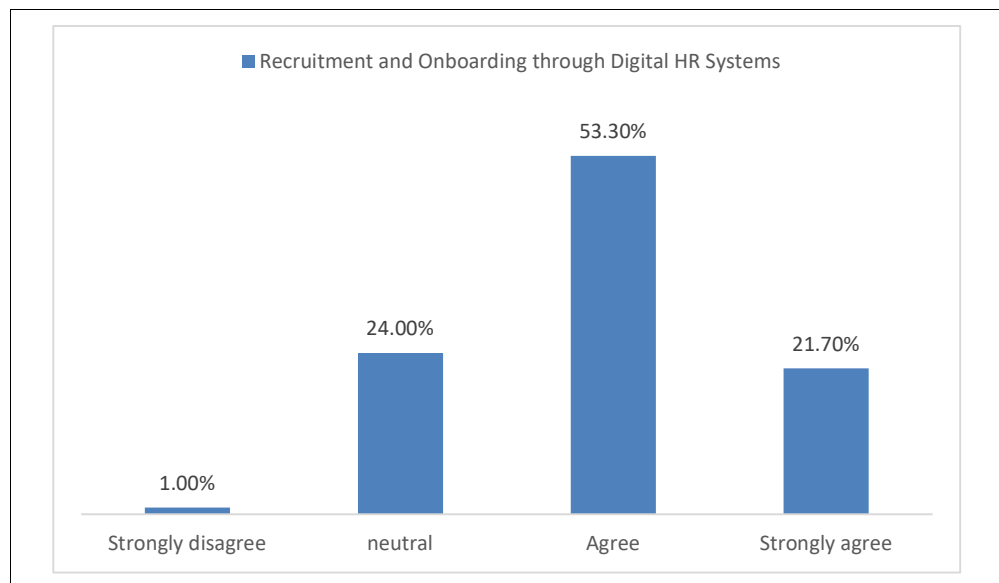


Table-3 Digital HR tools make employees feel valued by the organisation

S.NO	Factor	No. of respondents	Percentage
1	Strongly disagree	3	1.0
3	Neutral	63	21.0
4	Agree	167	55.7
5	Strongly agree	67	22.3
	Total	300	100

Interpretation

From the above table, it is inferred that the majority of respondents (55.7%) agreed that digital HR tools make them feel more valued by their organisation. A further 22.3% strongly agreed, while 21.0% remained neutral. Only 1.0% expressed disagreement, showing negligible resistance.

Inference

The majority (78%) of respondents either agree or strongly agree that digital HR tools enhance their sense of being valued. This reflects a positive impact of digital HR on employee recognition and engagement, though the neutral responses suggest that some employees may not yet fully perceive the added value of these systems.

Figure-3 Digital HR tools make employees feel valued by the organisation

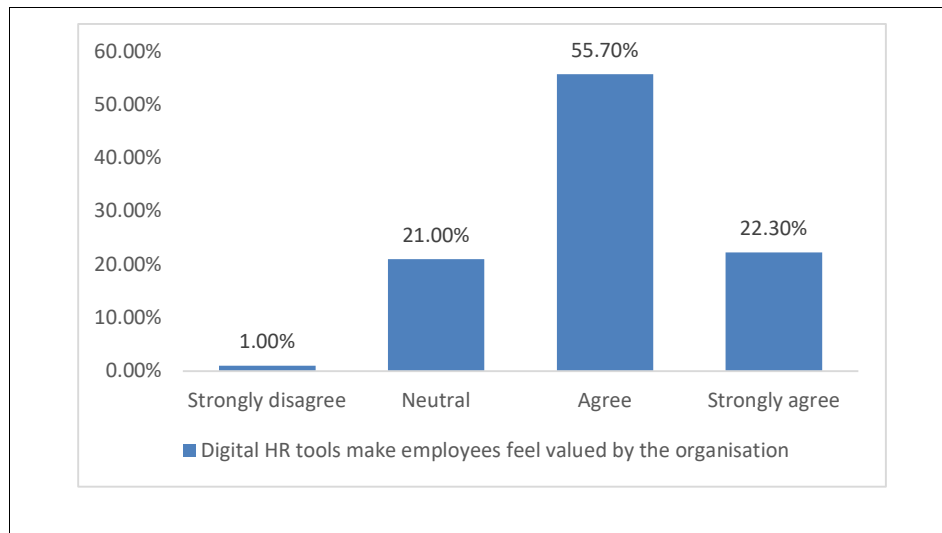


Table -4 Digital HR reduces administrative time

S.NO	Factor	No. of respondents	Percentage
1	Strongly disagree	6	2.0
3	Neutral	64	21.3
4	Agree	165	55.0
5	Strongly agree	65	21.7
	Total	300	100

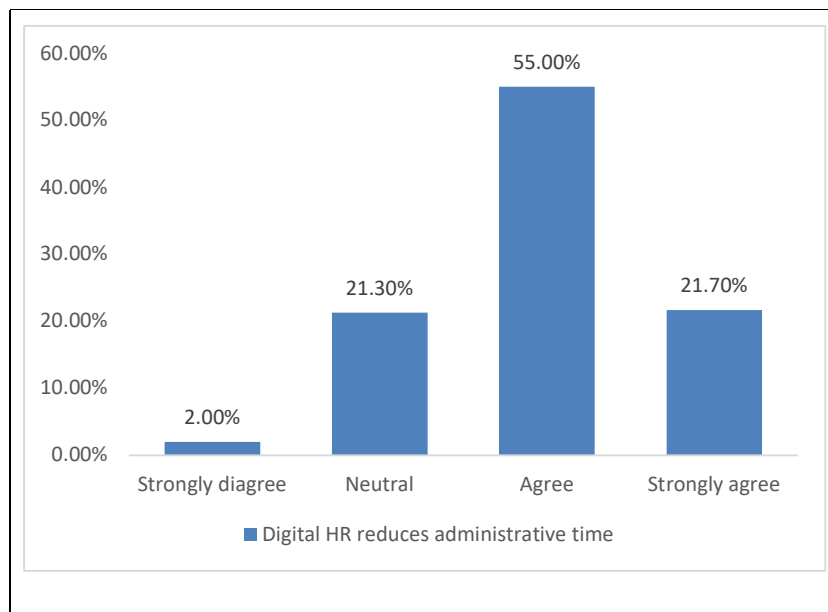
Interpretation

From the above table, it is inferred that the majority of respondents (55.0%) agreed that digital HR tools reduce time spent on administrative tasks. A further 21.7% strongly agreed, while 21.3% remained neutral. Only 2.0% expressed disagreement, showing minimal resistance to the statement.

Inference

The majority (76.7%) of respondents either agree or strongly agree that digital HR systems streamline administrative work. This indicates that digital HR practices are widely perceived as effective in saving time and improving efficiency, though the neutral responses suggest that some employees may not yet fully recognise the extent of these benefits.

Figure -4 Digital HR reduces administrative time



9.2 CORRELATION ANALYSIS

Hypothesis 1

H₀: No significant relationship exists between Digital HR Practices, Employee Engagement, and Organisational Performance.

H₁: Significant relationship exists between Digital HR Practices, Employee Engagement, and Organisational Performance.

Table 5: Correlation Matrix of Digital HR Practices, Employee Engagement, and Organisational Performance

Variables	Digital HR Practices	Employee Engagement	Organisational Performance
Digital HR Practices	1.000	0.853	-
Employee Engagement	0.853	1.000	0.816
Organisational Performance	-	0.816	1.000

Source: Primary Data (N = 300)

Note: Correlation is significant at the 0.01 level (2-tailed).

Interpretation: The data shows a very strong positive relationship between Digital HR Practices and Employee Engagement ($r = 0.853$, $p < .001$), and between Employee Engagement and Organisational Performance ($r = 0.816$, $p < .001$).

Inference: H₀ is rejected. Digital HR practices significantly enhance employee engagement, which in turn positively influences organisational performance.

9.3 REGRESSION ANALYSIS

Hypothesis 2

H₀: Digital HR practices do not significantly affect employee engagement and organisational performance.

H₁: Digital HR practices significantly affect employee engagement and organisational performance.

Table 6: Regression Analysis of Digital HR Practices, Employee Engagement, and Effectiveness on Organisational Performance

Predictor	Estimate	SE	t	p
Intercept	0.460	0.1146	4.02	<.001
Digital HR Practices	0.371	0.0566	6.56	<.001

Employee Engagement	0.213	0.0578	3.68	<.001
Effectiveness of Digital HR Tools	0.298	0.0545	5.47	<.001

Model Fit: $R = 0.875$, $R^2 = 0.765$ (N = 300)

Interpretation: The regression model explains 76.5% of the variance in organisational performance. All predictors are statistically significant, with positive coefficients, confirming that digital HR practices, employee engagement, and perceived effectiveness strongly influence performance.

Inference: H_0 is rejected. Digital HR practices are powerful predictors of organisational performance, both directly and indirectly through engagement and effectiveness.

9.4 RELIABILITY ANALYSIS

Table 7: Scale Reliability Statistics

Scale	Cronbach's Alpha
Overall	0.953

Interpretation: Cronbach's Alpha of 0.953 indicates excellent internal consistency. Item-rest correlations (0.64–0.73) confirm that all items contribute meaningfully to the construct.

Inference: The measurement scale is highly reliable and robust, suitable for advanced statistical analyses such as correlation, regression, and mediation.

10. FINDINGS

- i. The attitudes towards digital HR practices were neutral to positive.
- ii. More than half of the respondents agreed that digital HR systems help in applying for leave, recruiting, onboarding, recognising employees, and minimising administration work.
- iii. Neutral attitude responses (around 20-24%) mean that a proportion of the employees is not sure of the usefulness of digital HR processes.
- iv. The relationship between digital HR practices and employee engagement ($r=0.853$), as well as organisational performance ($r=0.816$), was significantly positive.
- v. The regression results show that digital HR practices, employee engagement, and perceived effectiveness accounted for 76.5% of organisational performance variability.
- vi. Cronbach's Alpha (α) shows excellent internal consistency (0.953).

11. DISCUSSIONS

- i. The study reveals that digital HR systems have positive effects on employee engagement and organisational performance.
- ii. Employees view digital HR systems as being very effective in ensuring accessibility, communication, and reduced bureaucracy.
- iii. The results are in line with previous research findings where digital HR systems are seen as being instrumental for enhancing transparency, justice, and motivation among employees.
- iv. The high correlation coefficients and regression findings provide evidence that digital HR systems not only impact performance directly but also indirectly by impacting employee engagement and their perception of effectiveness.
- v. The significant percentage of neutral views on the issue underlines the need for further training efforts aimed at making full use of digital HR systems.

12. SUGGESTIONS

- I. Training & Awareness:** Organize training sessions to lower neutrality and foster acceptance towards digital HR solutions.
- II. User-Friendly Interfaces:** Make sure HR systems are user-friendly for everyone within the organization.
- III. Feedback Systems:** Incorporate regular feedback systems in digital HR solutions to improve efficiency.
- IV. Career Development:** Extend the application of digital HR solutions to career planning and development.
- V. Communication Improvement:** Employ HR systems to boost communication between HR professionals and employees.

13. LIMITATIONS OF THE STUDY

- I. The research was conducted among IT professionals in Bangalore, thereby limiting its applicability to other sectors and geographical locations.
- II. Convenience sampling could result in sampling bias because all available samples were taken into account.
- III. The research considered employee engagement and performance but not other consequences such as retention, innovation, or satisfaction.
- IV. Most of the data collection process relied on self-reported surveys.

14. CONCLUSION

From the analysis, it is evident that the use of digital human resource processes plays a vital role in increasing employees' engagement and organizational performance. The correlations and regression findings offer statistical support for this assertion. Additionally, reliability testing offers further validation to the soundness of the measurement instrument used. Though it is true that employees adopt positive attitudes toward digital HR, the existence of a sizable neutral category shows the importance of education in such areas.

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