



## Personalized and technology-enabled recognition: Its impact on it workforce engagement and performance

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### Abstract

In contemporary professional settings, the paradigm of employee recognition has transitioned from conventional methods to sophisticated, personalized, and data-driven systems termed smart recognition. This study investigates the effects of smart recognition on employee engagement, motivation, and performance among 323 IT employees in Coimbatore district. Employing a quantitative, descriptive-cum-causal research design, data were gathered through a structured questionnaire and analyzed using descriptive statistics, correlation, multiple regression, ANOVA, and moderation analysis. The results indicate that smart recognition exerts a significant and positive influence on engagement, motivation, and performance, with  $\beta$ -values of 0.61, 0.57 and 0.52, respectively. Notably, employees in hybrid and remote work environments reported more pronounced positive outcomes than those working on-site, underscoring the importance of digital recognition in technology-driven workplaces. Additionally, moderation analysis revealed that organizational culture enhances the efficacy of smart recognition, suggesting that supportive and recognition-oriented environments amplify employee responses. In summary, this study concludes that smart recognition is a vital and strategically significant tool for improving employee outcomes in the IT sector, particularly within hybrid and remote work models. These findings contribute to the expanding understanding of digital recognition practices and offer practical implications for organizations aiming to enhance workforce engagement and productivity.

**Keywords:** Smart recognition, employee engagement, motivation, performance, hybrid work, organizational culture

### Introduction

In the rapidly changing landscape of today's workplace, recognition has evolved beyond a simple gesture of gratitude to become a strategic mechanism that significantly impacts employee motivation, performance, and enduring commitment. As organizations adapt to hybrid work environments, heightened employee expectations, and intensified competition for talent, conventional recognition methods are proving to be inadequate. Contemporary employees desire genuine, prompt acknowledgment that reflects their individual contributions.

This transition has led to the emergence of smart recognition, characterized by a data-driven, personalized, and intentional approach to acknowledging employee accomplishments. Smart recognition transcends generic commendation by utilizing insights, consistency, and deliberate action to foster meaningful interactions that motivate employees and enhance the organizational culture. When effectively implemented, it serves as a significant catalyst for engagement, productivity, and retention. This article examines the mechanisms of smart recognition, its significance, and how organizations can leverage it to cultivate more cohesive and motivated teams.

### Review of Literature

Arunraj *et al.* (2024) [3] identify a significant correlation between structured recognition programs and enhanced employee engagement and retention. They further observed that the effectiveness of these programs is contingent upon organizational culture, the nature of recognition, and employee expectations.

Anitha and Begum (2022) [2] support established motivation theories, such as the need for esteem and belonging, by illustrating that regular and meaningful acknowledgment significantly improves job satisfaction and employee engagement.

Komen (2024) [10] integrated numerous previous studies and corroborated that elements such as recognition, feedback, opportunities for growth, and a supportive environment are significantly correlated with enhanced productivity, innovation, retention, and decreased absenteeism.

Ahmed and Nawaz (2015) [1] affirm that regular and meaningful recognition significantly enhances job satisfaction, motivation, and loyalty. Collectively, these studies demonstrate that intelligent, consistent, and authentic recognition exerts a profound and positive influence on employee behavior and organizational outcomes.

Brown and Reilly (2013) [5] indicate that structured recognition systems are significantly correlated with decreased employee turnover and enhanced organizational performance.

### Research Gap

The literature consistently demonstrates that employee recognition enhances engagement, motivation, performance, job satisfaction, and retention (Brun & Dugas, 2008; Saks, 2006; Stajkovic & Luthans, 2003) [6, 11, 14]. However, most existing studies focus on traditional forms of recognition, such as praise from supervisors, reward systems, feedback interventions, and organizational recognition climates.

While these findings underscore the significance of recognition, they offer limited insights into contemporary, technology-enabled, or data-driven recognition systems, often referred to as smart recognition. Only a limited number of recent studies have addressed digital recognition platforms, and even these provide broad descriptions without examining their actual impact on employee behavior or organizational outcomes. The reviewed studies do not adequately explore how smart recognition functions in hybrid or remote work settings, where digital appreciation may play a more central role than face-to-face interactions. Overall, although recognition has been well-studied, the specific impact of smart recognition, characterized by personalization, immediacy, digital platforms, and data-driven decision-making, remains underexplored, creating a clear research gap that necessitates further investigation.

**Research Questions**

1. What influence does smart recognition have on employee engagement, motivation, and performance?
2. Is smart recognition more effective than traditional recognition methods in enhancing employee outcomes?
3. How do employees perceive the authenticity and meaningfulness of technology-enabled recognition?
4. What is the impact of smart recognition on employees operating in hybrid or remote environments?
5. How do personalization, immediacy, and digital features contribute to the effectiveness of smart recognition systems?
6. What organizational or contextual factors affect the successful implementation of smart recognition systems?

**Research Objectives**

- To examine the impact of smart recognition on employee engagement, motivation, and performance.
- To compare the effectiveness of smart recognition with traditional recognition practices.
- To investigate how smart recognition influences employees in hybrid and remote work settings.
- To evaluate the role of personalization, immediacy, and digital platforms in shaping recognition outcomes.
- To identify organizational factors that enhance or hinder the effectiveness of smart recognition systems.

**Hypotheses**

- **H1:** Smart recognition has a positive and significant effect on employee engagement.
- **H2:** Smart recognition leads to higher levels of motivation than traditional recognition methods.
- **H3:** Smart recognition positively impacts employee performance.
- **H4:** Employees in hybrid and remote work settings experience stronger positive effects from smart recognition than employees in fully onsite roles.
- **H5:** The effectiveness of smart recognition is moderated by organizational culture, with supportive cultures showing stronger outcomes.

**Research Methodology**

**Research Design**

This study utilized a quantitative research design characterized by a descriptive causal approach. The

descriptive component aims to elucidate employees' perceptions of smart recognition, focusing on its authenticity, meaningfulness, and effectiveness in influencing engagement, motivation, and performance. The causal component seeks to investigate the cause-and-effect relationship between smart recognition and key employee outcomes. A structured survey method will be employed to collect data to facilitate the systematic measurement of employees' experiences and responses. This design enabled a comprehensive analysis of both the prevalence and impact of smart recognition practices within organizations.

**Sampling Technique**

This study focuses on information technology employees in the Coimbatore district. A sample size of 323 respondents was selected for this study. Stratified random sampling was used to ensure adequate representation of employees from various work arrangements, including onsite, hybrid, and remote settings. The population was divided into strata based on their work environment, and participants were randomly chosen from each stratum to maintain a proportional representation. This methodology ensured diversity in responses and enabled the study to capture variations in the perception and effectiveness of smart recognition across different work environments, which is particularly pertinent given the increasing adoption of hybrid and remote work models.

**Statistical Tools and Analysis**

The data obtained via the structured questionnaire will be analyzed using both descriptive and inferential statistical methodologies to address the research questions and evaluate the proposed hypotheses. Descriptive statistics, including the mean, standard deviation, frequency, and percentage analysis, will be employed to summarize demographic characteristics and provide an overview of employees' perceptions of smart recognition practices. Cronbach's alpha was used to assess the internal consistency of the measurement scales. Correlation analysis was conducted to examine the relationship between smart recognition and various employee outcomes, such as engagement, motivation, and performance. To test the hypotheses and ascertain the causal influence of smart recognition on employee outcomes, multiple regression analysis was applied. Additionally, ANOVA and independent sample t-tests will be employed to compare the effectiveness of smart recognition across different employee groups, such as traditional versus smart recognition recipients and on-site versus hybrid/remote employees. To examine the moderating effect of organizational culture, moderation analysis was performed using regression-based techniques. Collectively, these statistical tools provide a comprehensive approach to analyzing the data and deriving meaningful insights regarding the effectiveness of smart recognition in the workplace.

**Results And Discussion**

**Table 1:** Descriptive Statistics of Key Variables

Variable	Mean	SD	N
Smart Recognition	4.12	0.71	323
Personalization	4.15	0.74	323
Immediacy	4.08	0.7	323
Authenticity	4.15	0.73	323
Employee Engagement	4.09	0.69	323
Employee Motivation	4.17	0.67	323
Employee Performance	4.03	0.72	323

**Source:** Primary Data

Descriptive statistics revealed that employees had a highly favorable perception of smart recognition and its associated components. All variables exhibited mean values exceeding 4, indicating a strong consensus among respondents. Specifically, Smart Recognition had a mean of 4.12, while Personalization (4.15), Immediacy (4.08), and Authenticity (4.15) also demonstrated high scores. These findings suggest that employees perceive recognition practices to be personalized, timely, and authentic. The low-to-moderate standard deviation values (ranging from 0.67 to 0.74) suggest relatively consistent responses among participants, reflecting shared views on the effectiveness of smart recognition. Similarly, the employee outcomes exhibited favorable ratings. Engagement (4.09) and motivation (4.17) reflect strong positive perceptions, indicating that recognition practices contribute to employees feeling motivated and enthusiastic about their work. Employee Performance also presents a solid mean (4.03), suggesting that employees believe that recognition positively influences their work effectiveness. Overall, the results underscore that smart recognition is well received and closely associated with positive employee attitudes and behaviors.

**Table 2:** Reliability Analysis (Cronbach’s Alpha)

Construct	Cronbach’s Alpha ( $\alpha$ )
Smart Recognition	0.91
Employee Engagement	0.89
Employee Motivation	0.88
Employee Performance	0.87

Source: Primary Data

Reliability analysis indicated that all constructs employed in the study exhibited excellent internal consistency, with Cronbach’s alpha values ranging from 0.87 to 0.91. The Smart Recognition construct demonstrated the highest reliability coefficient (0.91), signifying that the items measuring this construct were highly consistent and effectively encapsulated the concept. Employee Engagement (0.89), Employee Motivation (0.88), and Employee Performance (0.87) also displayed strong reliability, affirming that the questionnaire items for these variables were stable and dependable. Given that all alpha values surpassed the commonly accepted threshold of 0.7, the measurement scales utilized in this study were deemed highly reliable. This suggests that the respondents interpreted the survey items consistently and that the data collected were sufficiently robust to support further statistical analyses, including correlation, regression, and ANOVA. Overall, the strong reliability results enhance the credibility of the findings and reinforce the effectiveness of this research instrument.

**Table 3:** Correlation Analysis

Variables	Engagement	Motivation	Performance
Smart Recognition	0.62**	0.58**	0.54**

Source: Primary Data

Correlation analysis revealed a robust and positive association between smart recognition and three key employee outcomes: engagement, motivation, and performance. The correlation coefficient between smart recognition and employee engagement was 0.62, indicating a strong and statistically significant relationship. This

finding suggests that as employees receive more timely, personalized, and meaningful recognition, their engagement level increases substantially. Similarly, smart recognition exhibited a significant positive correlation with employee motivation (0.58) and employee performance (0.54). These results imply that smart recognition fosters increased motivation among employees and enhances their work output and effectiveness. Given that all correlations are significant at  $p < .001$ , the findings provide compelling empirical support for the notion that smart recognition plays a pivotal role in shaping employees’ psychological states and improving their overall workplace behavior and outcomes.

**Table 4:** Regression Analysis for Hypothesis Testing

Hypothesis	Dependent Variable	$\beta$ Value	t-value	p-value	Result
H1	Engagement	0.61	11.24	<.001	Supported
H2	Motivation	0.57	9.87	<.001	Supported
H3	Performance	0.52	8.46	<.001	Supported

Source: Primary Data

The regression analysis indicates that smart recognition serves as a robust and significant predictor of key employee outcomes, namely, engagement, motivation, and performance. The  $\beta$ -values reveal substantial positive effects, with the most pronounced impact on employee engagement ( $\beta = 0.61$ ), followed by motivation ( $\beta = 0.57$ ) and performance ( $\beta = 0.52$ ). The elevated t-values and exceedingly low p-values ( $p < .001$ ) confirm the statistical significance of these findings. This suggests that enhancements in smart recognition consistently lead to elevated engagement, motivation, and performance among employees. Overall, the results provide strong support for all three hypotheses (H1, H2, and H3), illustrating that smart recognition plays a crucial role in augmenting essential employee attitudes and behavior.

**Table 5:** ANOVA Results – Smart Recognition Across Work Modes

Work Mode	Mean Score	SD	N
On-site	3.91	0.72	90
Hybrid	4.28	0.69	181
Remote	4.19	0.71	52

Source: Primary Data

ANOVA:  $F(2,320) = 6.47, p = .002$

The findings demonstrate that employees’ experiences with smart recognition vary significantly across different work modalities. Hybrid employees reported the highest mean score (4.28), indicating that smart recognition practices are particularly effective and well received in hybrid environments, where digital communication complements limited face-to-face interaction. Remote employees also rated smart recognition highly (4.19), underscoring the importance of technology-enabled appreciation in fully virtual environments. Conversely, on-site employees reported a lower mean score (3.91), suggesting a greater reliance on direct, in-person recognition, which may render digital or smart recognition less impactful. Overall, the results suggest that smart recognition is especially valuable in hybrid and remote work settings where traditional recognition opportunities are diminished.

**Table 6:** Moderation Analysis – Organizational Culture

Variable	$\beta$ Value	p-value
Smart Recognition	0.54	<.001
Organizational Culture	0.32	<.01
Interaction Term (Moderation Effect)	0.18	<.01

Source: Primary Data

Moderation analysis revealed that smart recognition exerted a substantial direct effect on employee outcomes ( $\beta = 0.54$ ,  $p < .001$ ), indicating that employees derived significant benefits from recognition that was timely, personalized, and meaningful. Additionally, organizational culture exhibited a positive and significant influence ( $\beta = 0.32$ ,  $p < .01$ ), suggesting that a supportive, open, and appreciation-oriented culture enhances overall employee experience. Notably, the interaction term ( $\beta = 0.18$ ,  $p < .01$ ) confirms a significant moderating effect, indicating that organizational culture amplifies the impact of smart recognition. In essence, smart recognition is more effective in workplaces where the culture fosters communication, collaboration, and acknowledgment. This underscores that technology-driven recognition is most effective when it is supported by a positive organizational environment.

**Findings of the study**

The findings of this study substantiate that smart recognition significantly enhances employee engagement, motivation, and performance, thereby validating the primary hypotheses. Robust correlations and regression analyses indicate that personalized, timely, and meaningful recognition plays a crucial role in fostering positive employee outcomes. Notably, one of the key findings was that hybrid and remote employees derived greater benefits from smart recognition. This observation aligns with contemporary research suggesting that digital appreciation addresses the recognition gap resulting from diminished physical interaction. Furthermore, the results underscore the influence of organizational culture on the effectiveness of smart recognition systems. A supportive culture enhances employees ‘sense of value and respect upon receiving recognition, thereby further augmenting motivation and performance. Overall, the results imply that smart recognition is a potent and pertinent tool for modern workplaces, particularly in technology-driven hybrid work environments.

**Further Research**

Although this study provides meaningful insights into the impact of smart recognition on employee engagement, motivation, and performance, further research is needed to deepen our understanding of this area. Future studies should explore this topic across different industries and geographical regions to improve generalizability. Longitudinal research could also help examine the long-term effects of smart recognition on employee behavior. Additionally, qualitative methods, such as interviews or focus groups, may offer deeper insights into how employees perceive digital recognition. Finally, future research should investigate additional variables, such as employee well-being, innovation, and job stress, to provide a more comprehensive understanding of how smart recognition influences workplace outcomes.

**Conclusion**

This study examines the impact of smart recognition on employee engagement, motivation, and performance among IT employees in the Coimbatore district. The findings indicate that smart recognition—characterized by personalization, immediacy, and digital delivery—exerts a significant and positive influence on key employee outcomes. The study reveals that employees respond more favorably to recognition that is timely, specific, and delivered through digital platforms, particularly in contemporary workplaces where hybrid and remote work models are increasingly prevalent. The regression results confirmed that smart recognition is a strong predictor of engagement, motivation, and performance. Furthermore, the comparative analysis demonstrates that hybrid and remote employees derive the greatest benefit from smart recognition, suggesting that digital acknowledgment effectively compensates for the absence of physical interactions. The moderating role of organizational culture underscores that recognition initiatives are most effective when they are supported by a positive, inclusive, and appreciative work environment. Overall, this study concludes that smart recognition is a strategically valuable tool for enhancing workforce morale and productivity. Organizations that adopt technology-enabled recognition systems are better positioned to retain talent, foster commitment, and cultivate a motivated workforce.

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