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A STUDY ON THE INFLUENCE OF PERFORMANCE MANAGEMENT SYSTEM ON PERFORMANCE OF EMPLOYEES: MEDIATING ROLE OF WORK ENGAGEMENT

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Abstract

This study examines the impact of Performance Management System Effectiveness (PMSE) on employee performance, focusing on both task and contextual dimensions, within the manufacturing sector of Chennai. Recognizing work engagement as a critical psychological mechanism, the research investigates its mediating role in linking PMSE to enhanced employee outcomes. Using data collected from 125 manufacturing employees, the study employs SEM to analyze direct and indirect relationships among variables. Findings reveal that effective performance management systems positively influence employee work engagement, which in turn significantly boosts both task and contextual performance. Additionally, PMSE exerts substantial direct effects on performance metrics. The results emphasize the importance of fostering fair, transparent, and accurate performance management practices to cultivate employee engagement and improve overall performance. These insights offer practical guidance to manufacturing organizations aiming to optimize their performance management frameworks to drive sustainable organizational success.

Keywords: Performance Management System Effectiveness, Work Engagement, Task Performance, Contextual Performance, Manufacturing Sector.

Introduction

Performance management systems (PMS) are structured approaches that link individual employee efforts with organizational goals to enhance overall performance. Defined as formal processes involving goal setting, feedback, and employee development, PMS have evolved from traditional annual appraisals to continuous performance improvement systems (Armstrong & Baron, 1998; Aguinis, 2019). Effective PMS help align employee behaviors with strategic objectives, fostering higher productivity and engagement. Theoretical frameworks such as Goal-Setting Theory (Locke, 1968) and Expectancy Theory (Vroom, 1964) underpin PMS by explaining how clear objectives and perceived rewards motivate employee performance. Contemporary research emphasizes Performance Management System Effectiveness (PMSE) as a multidimensional construct including feedback quality, fairness, and appraiser competence (Lawler, 2003). However, much of the literature focuses on organizational-level outcomes, often overlooking employee perceptions and psychological mechanisms.

Work engagement, defined as a positive, fulfilling work-related state characterized by vigor, dedication, and absorption, acts as a vital mediator between PMSE and employee performance (Schaufeli et al., 2002). Engaged employees tend to exhibit better task-related and contextual performance—the latter encompassing discretionary behaviors that contribute to organizational effectiveness beyond formal job duties (Borman & Motowidlo, 1997). This study specifically investigates these relationships in the manufacturing sector of Chennai, a dynamic industry critical to India's economic growth, where balancing technical skills and collaborative behaviors is essential. By examining the mediating role of work engagement, this research aims to provide nuanced insights into how PMS effectiveness influences both task and contextual performance, thereby contributing valuable knowledge for designing more impactful performance management practices.

Review of Literature

Performance Management Systems: Concept and Evolution

Performance management systems (PMS) are designed to align individual employee objectives with organizational goals through structured processes such as goal setting, regular feedback, and performance appraisals (Armstrong & Baron, 1998). According to Aguinis (2019), modern PMS emphasizes continuous improvement and employee development, moving away from traditional annual appraisals towards ongoing dialogue and developmental feedback. This evolution highlights the need for systems that are not only evaluative but also developmental, providing employees with clear expectations and opportunities for growth.

PMSE: From Theory to Practice

The effectiveness of PMS (PMSE) is determined by multiple factors, including the timeliness and quality of feedback, the fairness and transparency of evaluation processes, goal clarity, and the competence of those conducting appraisals (Lawler, 2003). Research by Gupta and Kumar (2013) found that employees who perceive their organization's PMS as fair and transparent are more likely to exhibit higher motivation and commitment. Conversely, PMSE falls short when employees view the system as biased, opaque, or disconnected from their daily work.

Employee Attitudes and PMSE

Employees' perceptions of PMSE are crucial because they influence not only job satisfaction but also outcomes such as turnover intentions, organizational citizenship behaviors, and overall performance (Folger & Cropanzano, 1998; Kuvaas, 2006). For example, perceived fairness in performance evaluations has been linked to increased trust in management, greater acceptance of feedback, and improved performance (Kuvaas, 2006). This underscores the importance of designing PMS that are not only technically sound but also perceived as just and meaningful by employees.

Work Engagement: A Key Mediator

Work engagement, conceptualized by Schaufeli et al. (2002) as a positive, fulfilling, work-related state characterized by vigor, dedication, and absorption, serves as a psychological bridge between organizational practices (such as PMS) and employee performance. Engaged employees are more likely to invest discretionary effort, demonstrate creativity, and show resilience in the face of challenges (Bakker & Demerouti, 2008). Research shows that engagement is not static but can be influenced by organizational interventions, including effective performance management (Saks, 2006). According to the Job Demands-Resources (JD-R) model, resources such as supportive feedback, growth opportunities, and fair treatment

provided through PMS can foster engagement, which in turn enhances performance (Bakker & Demerouti, 2007).

Task and Contextual Performance

Employee performance is often categorized into task performance—directly related to core job duties—and contextual performance, which includes behaviors that support the organizational, social, and psychological environment, such as helping colleagues, volunteering for additional tasks, and adhering to organizational norms (Borman & Motowidlo, 1997; Motowidlo et al., 1997). Studies demonstrate that both types of performance are important for organizational success, and both are influenced by employee engagement and perceptions of PMS (Christian et al., 2011).

A meta-analysis by Christian et al. (2011) showed that work engagement has a stronger relationship with contextual performance than with task performance, suggesting that engaged employees are particularly likely to contribute beyond formal job requirements. Similarly, PMSE, when perceived as fair and developmental, encourages both improved task outcomes and greater organizational citizenship.

Empirical Evidence in the Manufacturing Context

In the manufacturing sector, where technical proficiency and teamwork are both critical, the relationship between PMSE, engagement, and performance is especially relevant. Research in Indian manufacturing settings has shown that employees who receive regular, constructive feedback and perceive the PMS as fair are more engaged and productive (Khan & Rasool, 2015). Furthermore, the dynamic and often high-pressure environment of manufacturing makes the mediating role of engagement particularly salient—engaged workers are more adaptable, cooperative, and committed to quality.

Gaps and Future Directions:

Despite the growing body of research, there remain gaps in understanding how different aspects of PMSE (e.g., feedback quality, appraisal fairness, developmental focus) independently and interactively affect engagement and performance. Most studies have been conducted in Western contexts, and there is a need for more research in emerging economies, especially in labor-intensive sectors like manufacturing (Khan & Rasool, 2015). Additionally, the COVID-19 pandemic and the rise of remote work have introduced new variables (e.g., virtual performance reviews) that warrant further investigation.

The literature consistently supports the notion that effective performance management systems—those perceived as fair, transparent, and developmental—positively influence employee performance, both directly and through enhanced work engagement. Engagement, in turn, drives both task-related achievements and extra-role contributions that benefit the broader organizational context. In sectors such as manufacturing, where both technical and collaborative skills are essential, the mediating role of engagement is especially critical. Future research should continue to explore the specific mechanisms by which different dimensions of PMSE influence engagement and performance, particularly in diverse cultural and organizational settings.

Methodology

Research Design

This study employs a quantitative, cross-sectional research design aimed at examining the relationships between Performance Management System Effectiveness (PMSE), work

engagement, and employee performance—including both task and contextual performance dimensions. This design allows for testing hypothesized relationships in a manufacturing sector context.

Sampling and Participants

Data were collected from 125 full-time employees working in manufacturing firms in Chennai, India. A convenience sampling technique was used to select participants who have direct experience with the Performance Management System (PMS) implemented in their organizations. The sample includes employees across various roles and departments to capture a representative perspective on PMS effectiveness and its impact.

Data Collection Procedure

Questionnaires were administered both physically and electronically to ensure participants' convenience and privacy. Participants were informed about the study's academic purpose and confidentiality was assured. Efforts were made to reduce common method bias by separating scale sections and ensuring anonymity.

Measurement Instruments

- **Performance Management System Effectiveness (PMSE):** Measured using a multidimensional scale assessing key facets such as accuracy (clarity of goals, quality feedback) and fairness (procedural and distributive justice). Respondents rated items on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).
- **Work Engagement:** Assessed with the 17-item Utrecht Work Engagement Scale (UWES) developed by Schaufeli and Bakker (2003), covering vigor, dedication, and absorption. Responses used a 5-point Likert scale.
- **Employee Performance:**
  - *Task Performance* measured with a 17-item scale reflecting core job duties.
  - *Contextual Performance* measured with a 16-item scale capturing discretionary behaviors like cooperation and adherence to organizational norms.

Both scales used 5-point Likert scales.

Reliability and Validity

Scale reliability was confirmed through Cronbach's alpha, with coefficients exceeding 0.70 for all constructs, indicating strong internal consistency.

Table 1: Reliability Analysis

Variables	Mean	SD	Cronbach's Alpha
Performance management system effectiveness (PMSE)	4.52	0.401	0.944
Work engagement (WE)	4.40	0.502	0.958
Task performance (TP)	4.18	0.508	0.946
Contextual performance (CP)	4.55	0.578	0.967
Performance management system accuracy (PMSA)	4.68	0.389	0.940
Performance management system fairness (PMSF)	3.36	0.541	0.901

From Table 1, All key variables in the study demonstrate high reliability and positive perceptions among employees. Performance Management System Effectiveness (PMSE) and its accuracy dimension show strong mean scores and excellent internal consistency, indicating employees view the PMS as effective and precise. Work Engagement (WE) is also high, suggesting employees are highly engaged. Task Performance (TP) and Contextual Performance (CP) both have strong scores and reliabilities, reflecting good performance in core tasks and extra-role behaviors. Performance Management System Fairness (PMSF), while reliable, has a comparatively lower mean, indicating some employee concerns about fairness. Overall, all scales exhibit excellent reliability with Cronbach's alpha values above 0.90.

Data Analysis

Structural Equation Modelling (SEM), using AMOS software, tested the hypothesized direct and indirect relationships among PMSE, work engagement, and employee performance. Model fitness was evaluated using indices such as GFI, AGFI, CFI, RMR and RMSRA.

Table 2: Direct and Indirect Estimates

Model	Direct			Indirect		
	Unstd. estimate	Std. estimate	CR	Unstd. estimate	Std. estimate	CR
WE □ PMSE				0.462	0.517**	7.738
CPP □ PMSE	0.453	0.384**	5.233	0.311	0.267**	3.043
TP □ PMSE	0.528	0.465**	7.133	0.302	0.343**	2.981
TP □WE				0.356	0.537**	4.321
CP □ WE				0.395	0.327**	4.372

Table 3: Model Fit Index

Model Fit Index	Obtained Value	Criteria	Reference	Inference
p-value	0.126	> 0.05	Hair et al. (1998)	Acceptable fit
GFI (Goodness of Fit Index)	0.992	> 0.90	Hu & Bentler (1999)	Perfect fit
AGFI (Adjusted GFI)	0.975	> 0.90	Hair et al. (2006)	Perfect fit
CFI (Comparative Fit Index)	0.993	> 0.90	Daire et al. (2008)	Perfect fit
RMR (Root Mean Square Residual)	0.076	< 0.08	Hair et al. (2006)	Perfect fit
RMSRA (Root Mean Square Residual Approximation)	0.042	< 0.08	Hair et al. (2006)	Perfect fit

From Table 2, results show that Performance Management System Effectiveness (PMSE) positively influences employee outcomes both directly and indirectly through work engagement (WE). Although there is no direct standardized estimate provided for PMSE's effect on work engagement, the indirect effect is strong and significant (standardized estimate = 0.517, CR = 7.738), indicating that an effective PMS enhances employees' engagement at

work. PMSE also has significant direct positive effects on contextual performance (CP) and task performance (TP), with standardized estimates of 0.384 and 0.465 respectively, both highly significant. Additionally, PMSE exerts indirect influences on CP and TP through work engagement (standardized estimates of 0.267 and 0.343, respectively), confirming that engagement mediates the relationship between PMS effectiveness and performance outcomes. Work engagement itself has a significant positive impact on both task performance (standardized estimate = 0.537) and contextual performance (standardized estimate = 0.327), further supporting its key mediating role. Overall, these findings demonstrate that an effective performance management system enhances employee performance not only by direct influence but also by fostering greater work engagement, which amplifies both task-related and contextual dimensions of performance.

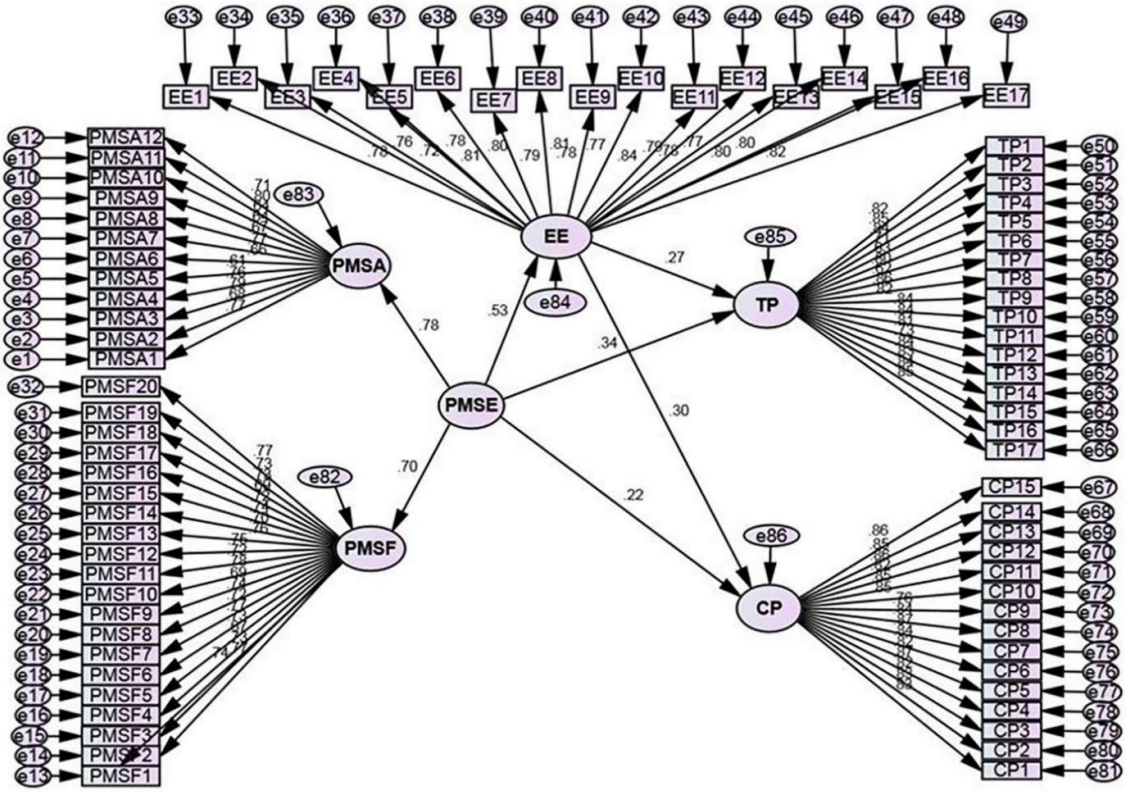

Figure 1: Structural Equation Modelling

Discussion

The results clearly demonstrate that PMSE has a significant and positive impact on both task and contextual performance among employees. The strong reliability scores across all measurement constructs confirm the robustness of the assessment instruments, while model fit indices from the structural equation modeling indicate an excellent fit, underscoring the validity of the analytic approach. Crucially, the findings establish that work engagement acts as a powerful mediator between PMSE and employee performance outcomes. The direct effects of PMSE on both task and contextual performance are substantial, but the indirect effects, operating through heightened engagement, illustrate the critical psychological pathway by which a well-implemented PMS translates into enhanced job behaviors. This aligns with

previous research suggesting that engaged employees are more energetic, dedicated, and likely to go beyond formal job requirements (Schaufeli et al., 2002; Bakker & Demerouti, 2008). Among the dimensions of PMSE, perceived accuracy (clarity of goals, quality of feedback) receives the strongest endorsement from employees, while perceptions of fairness, although consistent, are relatively lower. This suggests that while employees trust the objectivity and clarity of the system, there is still room for improving the sense of justice within performance evaluation processes.

Implications

These findings contribute to the literature by validating the mediating role of work engagement in the PMS–performance relationship within an Indian manufacturing context. They provide empirical support for motivational theories like Goal-Setting Theory and Expectancy Theory, demonstrating that clear, challenging goals coupled with fair and transparent appraisal systems not only directly motivate performance but also foster a positive psychological state (work engagement) that amplifies performance outcomes. Additionally, the study underlines that both task and contextual performance are vital and should be recognized and cultivated through PMS practices. This broadens the scope of performance management research, which has often focused solely on task outcomes. For practitioners, these results underscore the importance of designing and executing PMS that are not only technically sound but also perceived as fair, transparent, and developmental by employees. Organizations should prioritize regular, honest feedback, clear goal-setting, and equitable reward systems to sustain high levels of engagement and performance. Specific efforts to improve fairness—such as involving employees in appraisal discussions, ensuring transparent criteria, and providing avenues for appeal—may help lift perceptions of justice. Likewise, training appraisers to provide constructive and unbiased feedback can reinforce trust in the system.

Limitations and Future Research

While this study yields valuable insights, it is not without limitations. The cross-sectional design precludes strong causal claims, and reliance on self-report measures may introduce bias. Future research could strengthen these findings by employing longitudinal designs, expanding to other sectors, and incorporating objective performance metrics. Examining the impact of digital and remote PMS processes, especially post-pandemic, would further extend knowledge in this area.

Conclusion

In summary, this study demonstrates that effective performance management systems foster both direct and engagement-mediated improvements in employee performance. By investing in fair, accurate, and developmental PMS practices, organizations can not only achieve greater productivity but also cultivate a more committed and proactive workforce. The mediating influence of work engagement stands out as a critical mechanism through which PMS exerts its positive effects, highlighting the need for a holistic approach to performance management in today's competitive business landscapes.

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