

A Study on the Relationship between Knowledge Diversity, Locus of Control, Collective Locus of Control and Employee Performance in Manufacturing Companies...

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Abstract: The contemporary manufacturing environment increasingly depends on collaborative work systems, knowledge integration, and collective problem-solving capabilities. In such environments, employee performance is not merely influenced by individual psychological traits but also by team-level cognitive orientations and diversity dynamics. This study examines the relationship between Individual Locus of Control (LOC), Collective Locus of Control (CLOC), and Knowledge Diversity measured through the Blau Index (BLAU) with employee performance in manufacturing organizations. The study further investigates the moderating role of knowledge diversity on the relationship between LOC, CLOC, and employee performance.

The study is based on empirical data collected from 116 employees working in manufacturing organizations. Regression analysis was employed to examine the predictive relationships and interaction effects among the variables. The findings reveal that Collective Locus of Control and Knowledge Diversity significantly and positively influence employee performance. The interaction effect between CLOC and Knowledge Diversity was also found to be positive and statistically significant, indicating that knowledge-diverse teams strengthen the positive impact of collective locus of control on employee performance. Individual LOC demonstrated a statistically significant relationship with employee performance; however, the moderating effect of knowledge diversity on the LOC–performance relationship was not strongly supported.

The study contributes to organizational behavior and human resource literature by introducing Collective Locus of Control as a relevant construct in team-oriented environments and by highlighting the strategic role of knowledge diversity in enhancing collaborative performance. The findings have practical implications for talent management, team composition, organizational design, and leadership development in manufacturing organizations..

Keywords: Locus of Control, Collective Locus of Control, Knowledge Diversity, Blau Index, Employee Performance, Manufacturing Industry, Team Diversity..

Introduction

Rapid industrial transformation, increasing technological integration, and growing dependence on collaborative systems have significantly altered the nature of work in manufacturing organizations. Contemporary manufacturing operations rely heavily on teamwork, knowledge sharing, cross-functional coordination, and collective decision-making processes. Consequently, organizations are increasingly concerned with understanding the psychological and structural determinants that influence employee performance.

Employee performance represents one of the most critical factors contributing to organizational competitiveness and sustainability. Previous research suggests that employee performance is influenced not only by technical competencies and organizational systems but also by psychological characteristics such as motivation, beliefs, and perceptions (Motowidlo & Van Scotter, 1994). Among these psychological variables, Locus of Control (LOC) has received substantial attention in organizational behavior research.

Locus of Control, originally conceptualized by Rotter (1966), refers to an individual's belief regarding the extent to which outcomes are controlled by personal actions versus external forces. Individuals possessing an internal LOC generally believe that outcomes result from their own efforts, decisions, and abilities, whereas individuals with an external LOC attribute outcomes to luck, fate, environmental circumstances, or external influences (Spector, 1982). Research has consistently linked internal LOC with greater motivation, initiative, adaptability, and work effectiveness (Thomas et al., 2006).

However, the increasing prevalence of interdependent and collaborative work systems has raised questions regarding the adequacy of examining control beliefs solely at the individual level. In team-oriented environments, organizational outcomes are frequently shaped through collective action rather than individual effort alone. This has created the need to explore Collective Locus of Control (CLOC), which reflects shared team-level beliefs regarding collective influence over organizational outcomes.

Collective control beliefs may become particularly important in knowledge-intensive work environments where employees rely on collaborative expertise and coordinated effort. Teams possessing strong collective control orientations may exhibit improved cooperation, accountability, and resilience, ultimately enhancing performance outcomes.

In addition to psychological orientations, diversity within teams also plays a significant role in shaping organizational effectiveness. Knowledge diversity refers to variations in educational background, technical expertise, experience, and functional specialization among team members. Diverse teams often possess broader perspectives and enhanced problem-solving capabilities, which may improve organizational learning and innovation (Van Der Veegt et al., 2001).

The Blau Index (BLAU) is widely used to measure heterogeneity and diversity within groups. Higher Blau Index values indicate greater diversity among team members. Although knowledge diversity may contribute positively to creativity and performance, its effectiveness often depends on the quality of coordination and collective functioning within teams.

The present study therefore examines the relationship between Individual Locus of Control, Collective Locus of Control, Knowledge Diversity, and Employee Performance in manufacturing organizations. Additionally, the study investigates whether knowledge diversity moderates the relationship between LOC, CLOC, and employee performance.

Literature Survey

Locus of Control and Employee Performance

Locus of Control (LOC) is a widely recognized psychological construct that explains individuals' beliefs regarding the extent to which they can control events and outcomes in their lives. The concept was originally developed by Rotter (1966) as part of Social Learning Theory. According to Rotter (1966), individuals with an internal locus of control believe that outcomes are largely influenced by their own abilities, efforts, and decisions, whereas individuals with an external locus of control perceive outcomes as being shaped by external forces such as luck, chance, fate, or powerful others.

Within organizational settings, LOC has been extensively associated with employee attitudes, motivation, and work-related behavior. Employees possessing an internal LOC generally exhibit greater initiative, accountability, and persistence while performing organizational tasks (Spector, 1982). Such individuals are more likely to proactively address workplace challenges, engage in problem-

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solving activities, and demonstrate adaptive behavior under uncertain conditions (Ng et al., 2006). Conversely, employees with an external LOC may demonstrate reduced personal responsibility and lower motivation because they perceive outcomes as being beyond their personal influence (Lefcourt, 1982).

Previous empirical studies have consistently identified a positive relationship between internal LOC and employee performance. Judge and Bono (2001) reported that employees with internal control orientations tend to display higher levels of job satisfaction and work effectiveness. Similarly, Ng et al. (2006), through a meta-analytic review, found that internal LOC positively influences career success, job performance, and organizational commitment. Research further suggests that internal LOC contributes to stronger self-efficacy, emotional stability, and work engagement, all of which positively influence employee performance (Judge et al., 2002).

LOC has also been linked with leadership effectiveness and innovation-oriented behavior. Employees with strong internal control beliefs often perceive organizational rewards and recognition as outcomes of their personal effort and competence, thereby encouraging greater participation, accountability, and task involvement (Martin et al., 2005). In manufacturing organizations, where employees frequently encounter technological changes, process improvements, and operational uncertainties, internal LOC may support adaptability and continuous performance improvement.

Collective Locus of Control

Although traditional LOC research primarily focuses on individual-level beliefs, contemporary organizations increasingly operate through collaborative systems and team-based structures. Modern manufacturing organizations depend heavily on teamwork, cross-functional coordination, and collective problem-solving mechanisms to achieve operational efficiency (Campion et al., 1993). As a result, collective psychological orientations have become increasingly important in understanding employee performance within organizational settings.

Collective Locus of Control (CLOC) refers to the shared belief among team members that collective effort, cooperation, and coordinated action can influence organizational outcomes. Unlike individual LOC, which focuses on personal control perceptions, CLOC emphasizes collective influence and team-level responsibility. Teams characterized by stronger collective control beliefs are more likely to demonstrate collaboration, trust, mutual accountability, and coordinated problem-solving behavior (Bandura, 1997).

The theoretical foundation of CLOC can be linked to the concept of collective efficacy proposed by Bandura (1997), which suggests that groups possessing strong shared efficacy beliefs tend to remain more resilient, motivated, and persistent while addressing organizational challenges. Teams with strong collective orientations are generally more capable of integrating efforts and maintaining coordination under demanding work conditions.

Research examining team interdependence and collective identity also supports the relevance of collective psychological constructs in organizational environments. Widiyanto et al. (2024) observed that collective identity and task interdependence significantly contribute to team effectiveness and performance outcomes. Similarly, Pearce and Ravlin (1987) suggested that collective beliefs improve team coordination and strengthen commitment toward shared organizational goals.

Within manufacturing environments, where operational activities are highly interconnected and dependent on coordinated execution, CLOC may significantly influence employee performance by improving collaboration and collective accountability.

Knowledge Diversity and Blau Index

Knowledge diversity refers to differences among employees in terms of educational qualifications, technical competencies, professional experience, and functional expertise. Organizations increasingly rely on knowledge-diverse teams because heterogeneous groups are often capable of generating broader perspectives, innovative solutions, and improved problem-solving capability (Van Knippenberg & Schippers, 2007).

Diversity within teams may enhance creativity and organizational learning because employees with varied knowledge backgrounds contribute unique perspectives and experiences to workplace decision-making processes (Williams & O'Reilly, 1998). In manufacturing organizations, knowledge diversity becomes particularly important due to the increasing complexity of operations, technological integration, and innovation requirements.

The Blau Index is one of the most widely accepted measures of diversity and heterogeneity within organizational groups. Blau (1977) proposed the index as a statistical measure of diversity based on categorical distribution within a group. The Blau Index is represented mathematically as:

$$B = 1 - \sum P_i^2$$

where P_i represents the proportion of members belonging to a particular category within the group. Higher Blau Index values indicate greater heterogeneity and diversity among team members.

Prior studies suggest that knowledge-diverse teams often demonstrate stronger innovation capability, enhanced learning behavior, and improved decision-making effectiveness (Lee et al., 2015). Van Knippenberg et al. (2004) further argued that diversity contributes positively to organizational performance when teams effectively integrate varied knowledge resources and perspectives.

However, diversity may also create coordination difficulties, communication barriers, and interpersonal conflict if teams lack effective collaboration mechanisms (Williams & O'Reilly, 1998). Therefore, the effectiveness of knowledge diversity frequently depends upon organizational culture, leadership, and team coordination processes.

Moderating Role of Knowledge Diversity

Knowledge diversity may significantly influence the relationship between psychological orientations and employee performance outcomes. In highly diverse teams, employees are often required to coordinate across different educational backgrounds, technical specializations, and professional experiences. Such environments increase the importance of communication, collaboration, and collective integration mechanisms (Van Knippenberg et al., 2004).

Under these conditions, collective psychological orientations may become increasingly relevant because employees must rely on shared understanding and coordinated action to utilize diverse knowledge resources effectively. Teams possessing strong collective control beliefs may therefore be better positioned to integrate heterogeneous expertise and convert it into productive organizational outcomes.

Research on work-group diversity and task interdependence suggests that collaborative environments strengthen the role of shared goals, collective identity, and mutual accountability in improving performance (Campion et al., 1993; Widiyanto et al., 2024). Consequently, knowledge diversity may strengthen the positive relationship between Collective Locus of Control and employee performance.

In contrast, the moderating effect of knowledge diversity on the relationship between individual LOC and employee performance remains less clearly established in existing literature. Although internally oriented employees often demonstrate higher initiative and adaptability, highly diverse and interdependent work environments may require stronger collaboration and collective coordination than individual effort alone. Therefore, further investigation is necessary to understand how knowledge diversity influences the effectiveness of individual control beliefs within organizational settings.

Research Methodology.

The research employs an exploratory approach to examine how individual perceptions of task interdependence influence the relation between employees' locus of control and task performance, while research design is descriptive in nature. The objective of the research shall be as follows,

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To examine the relationship between Individual Locus of Control and Employee Performance.

To examine the relationship between Collective Locus of Control and Employee Performance.

To study the impact of Knowledge Diversity (BLAU Index) on Employee Performance.

To examine the moderating effect of Knowledge Diversity on the relationship between LOC and Employee Performance.

To examine the moderating effect of Knowledge Diversity on the relationship between CLOC and Employee Performance.

The scope of the research is limited to manufacturing companies located in and around Pune. The study employs both secondary and primary sources. Primary data was collected directly by the researcher, while secondary data was obtained from existing studies and literature. A total of 116 participant employees were selected from manufacturing sites in the region using a convenience sampling approach.

Secondary data was gathered from a range of physical and digital resources, including both published and unpublished materials. These resources included books, journals, articles, periodicals, magazines, online news sources, and other digital platforms.

For collection of Primary data, the present study utilized standardized and previously validated measurement scales to ensure reliability and consistency in data collection. Individual Locus of Control (LOC) was measured using Rotter's Locus of Control Scale developed by Rotter (1966). The scale is one of the most widely accepted instruments for assessing individuals' perceptions regarding control over life and work-related outcomes. The scale evaluates whether individuals attribute outcomes to internal factors such as personal effort and abilities or to external influences such as luck, fate, or environmental circumstances. Rotter's scale has been extensively applied in organizational behavior and psychological research due to its strong theoretical foundation and established reliability across different occupational settings (Rotter, 1966; Spector, 1982).

Collective Locus of Control (CLOC) was measured using a scale adapted from the Individual Locus of Control at Work Scale. The adaptation was undertaken to align the construct with team-based and collaborative organizational contexts where outcomes are influenced collectively rather than individually. The modified scale assessed employees' shared perceptions regarding the extent to which collective effort, team coordination, and collaborative action influence work outcomes and organizational performance. The adaptation was considered appropriate because contemporary manufacturing organizations increasingly operate through interdependent work structures requiring coordinated effort and collective responsibility. Similar adaptations of individual psychological constructs to collective or team-level contexts have been supported in organizational and group behavior research (Bandura, 1997; Widianto et al., 2024).

Employee Performance was assessed using a Supervisor-Rated Performance Scale. Supervisor evaluations were used to minimize self-reporting bias and improve objectivity in performance assessment. The scale measured employees' effectiveness in performing assigned tasks, achieving work objectives, maintaining work quality, demonstrating responsibility, and contributing to organizational goals. Supervisor-rated measures have been widely recommended in organizational research because supervisors are generally better positioned to evaluate employee productivity, task execution, and overall workplace performance (Motowidlo & Van Scotter, 1994). The use of supervisor ratings also strengthened the credibility and practical relevance of the study findings within the manufacturing work environment.

The collected data was digitized, compiled, and systematically coded for analysis. MS Excel and SPSS were extensively utilized for processing and analysing the cleaned data. Descriptive statistical tools, such as frequency tables, percentages, distribution graphs, and scatter plots, were employed to interpret the results. Regression analysis, including ANOVA, was conducted to investigate potential relationships between LOC and employee work performance. The findings from these analyses served as a foundation for understanding and exploring the connection between an individual's LOC and their workplace performance.

Data Analysis & Data Interpretation

This section examines and interprets the primary data collected from the organization, with a particular focus on exploring the connection between employees' Collective Locus of Control, Individual locus of control and knowledge diversity in Team. Data analysis utilized descriptive and inferential statistical methods, conducted using MS Excel and SPSS software.

A summary of the data obtained from respondent employees has been reported as below,

Table 1: Regression Analysis for the Model (LOC, CLOC, Diversity and Employee Performance)

<i>Regression Statistics</i>	
Multiple R	0.727
R Square	0.529
Adjusted R Square	0.507
Standard Error	1.973
Observations	116

As given in Table 1, the regression model explains approximately 52.9% of the variance in employee performance, indicating a strong explanatory power.

Table 2: Anova Results for Model (LOC, CLOC, Diversity and Employee Performance)

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	479.807	95.961	24.664	0.000
Residual	110	427.986	3.891		
Total	115	907.793			

As indicated in Table 2 indicates the ANOVA results indicate that the regression model is statistically significant ($p < 0.001$).

Table 3: Regression Results for Model (LOC, CLOC, Diversity and Employee Performance)

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	15.641	1.568	9.976	0.000	12.534	18.749
LOC X BLAU	1.337	0.775	1.725	0.087	-0.199	2.873
CLOC X BLAU	1.063	0.163	6.527	0.000	0.740	1.386
LOC	-0.542	0.099	-5.462	0.000	-0.739	-0.345
CLOC	0.066	0.020	3.365	0.001	0.027	0.105
BLAU	4.024	1.576	2.553	0.012	0.900	7.147

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As in Table 3, The regression results indicate that the overall model significantly predicts employee performance. Among the independent variables, Collective Locus of Control (CLOC) showed a significant positive relationship with employee performance ($\beta = 0.066$, $p = 0.001$), suggesting that stronger collective control beliefs improve employee performance. Similarly, Knowledge Diversity measured through the Blau Index (BLAU) also demonstrated a positive and significant effect on performance ($\beta = 4.024$, $p = 0.012$).

The interaction effect between CLOC and BLAU was highly significant and positive ($\beta = 1.063$, $p < 0.001$), indicating that knowledge diversity strengthens the positive influence of collective locus of control on employee performance. In contrast, the interaction between LOC and BLAU was not statistically significant at the 5% level ($\beta = 1.337$, $p = 0.087$), suggesting limited moderating influence.

Interestingly, Individual Locus of Control (LOC) exhibited a significant negative relationship with employee performance ($\beta = -0.542$, $p < 0.001$), indicating that stronger individual control orientation may not necessarily enhance performance in highly collaborative and knowledge-diverse work environments.

Interpretation of Data Analysis

Individual Locus of Control and Employee Performance: The regression analysis revealed that Individual Locus of Control (LOC) has a statistically significant relationship with employee performance ($\beta = -0.542$, $p < 0.001$). However, the coefficient was found to be negative, indicating that stronger individual control orientation may not necessarily contribute positively to employee performance within collaborative manufacturing environments. The negative coefficient suggests that employees operating in highly interdependent and knowledge-diverse settings may rely more on teamwork, coordination, and collective problem-solving rather than purely individualistic approaches. The findings imply that excessive focus on personal control and independent decision-making may be less effective in environments where operational success depends heavily on collective effort and coordinated execution.

Collective Locus of Control and Employee Performance: Collective Locus of Control (CLOC) demonstrated a positive and statistically significant influence on employee performance ($\beta = 0.066$, $p = 0.001$). The results indicate that employees working in teams characterized by stronger shared beliefs regarding collective influence over outcomes are more likely to perform effectively. Teams with stronger collective control orientations may exhibit higher levels of collaboration, accountability, and engagement, thereby improving organizational performance. The statistically significant positive coefficient further highlights the growing relevance of collective psychological orientations in manufacturing organizations that depend heavily on teamwork and operational interdependence.

Knowledge Diversity and Employee Performance: Knowledge Diversity, measured using the Blau Index (BLAU), also exhibited a positive and statistically significant relationship with employee performance ($\beta = 4.024$, $p = 0.012$). The findings suggest that teams comprising employees with diverse educational backgrounds, technical expertise, and functional experiences tend to demonstrate stronger problem-solving capability, broader perspectives, and enhanced decision-making effectiveness. The positive coefficient indicates that knowledge diversity contributes positively to employee performance by facilitating creativity, innovation, and cross-functional learning within manufacturing environments.

Moderating Effect of Knowledge Diversity: The interaction effect between Collective Locus of Control and Knowledge Diversity (CLOC \times BLAU) was found to be highly significant and positive ($\beta = 1.063$, $p < 0.001$). This result indicates that knowledge diversity strengthens the positive influence of collective control beliefs on employee performance. In highly diverse teams, collective coordination and shared understanding may become increasingly important for integrating varied expertise and ensuring effective collaboration toward organizational goals.

In contrast, the interaction effect between Individual Locus of Control and Knowledge Diversity (LOC \times BLAU) was not statistically significant at the 5% significance level ($\beta = 1.337$, $p = 0.087$), although marginal significance was observed at the 10% level. This suggests limited evidence regarding the moderating role of knowledge diversity on the relationship between individual LOC and employee

performance. The findings imply that collective orientations may play a more influential role than individual control beliefs in highly diverse and interdependent work environments.

Key Findings

The regression model demonstrated strong explanatory capability for employee performance. The statistical model developed in the study was found to be significant in explaining variations in employee performance. The model generated an R^2 value of 0.529, indicating that nearly 52.9% of the variation in employee performance can be explained through Individual Locus of Control (LOC), Collective Locus of Control (CLOC), Knowledge Diversity (BLAU), and their interaction effects. In addition, the regression model was statistically significant with an F-value of 24.663 and a significance level below 0.001, confirming the robustness of the overall model.

Collective Locus of Control emerged as a significant positive predictor of employee performance. The findings showed that Collective Locus of Control had a positive and statistically significant impact on employee performance ($\beta = 0.066$, $p = 0.001$). This indicates that employees working within teams characterized by stronger collective beliefs and shared responsibility tend to perform more effectively. The results suggest that collaborative environments encouraging teamwork, coordination, and collective accountability may positively influence workplace outcomes in manufacturing organizations.

Knowledge Diversity positively contributed to employee performance. Knowledge Diversity, measured using the Blau Index, was also found to have a significant positive effect on employee performance ($\beta = 4.024$, $p = 0.012$). The results imply that teams composed of employees with varied educational qualifications, technical expertise, and professional experiences are likely to achieve improved performance outcomes. Diverse teams may benefit from broader perspectives, enhanced creativity, and stronger problem-solving capability, thereby contributing positively to organizational effectiveness.

Knowledge Diversity strengthened the effect of Collective Locus of Control on performance. The interaction effect between Collective Locus of Control and Knowledge Diversity (CLOC \times BLAU) was positive and highly significant ($\beta = 1.063$, $p < 0.001$). This finding indicates that the positive influence of collective control beliefs becomes stronger in knowledge-diverse work environments. In teams consisting of employees with varied expertise and backgrounds, collective coordination and shared understanding may become increasingly important for integrating knowledge and achieving performance objectives effectively.

Individual Locus of Control showed a significant but negative relationship with employee performance. Individual LOC demonstrated a statistically significant relationship with employee performance ($\beta = -0.542$, $p < 0.001$). However, the relationship was negative, suggesting that stronger individual control orientation may not always support improved performance in highly collaborative and interdependent work settings. The findings indicate that manufacturing environments requiring continuous coordination and teamwork may rely less on purely individualistic approaches and more on collective functioning.

The interaction between Individual LOC and Knowledge Diversity was comparatively weak. The interaction effect between Individual LOC and Knowledge Diversity (LOC \times BLAU) was not statistically significant at the 5% significance level ($\beta = 1.337$, $p = 0.087$), although marginal significance was observed at the 10% level. This suggests that knowledge diversity does not substantially alter the relationship between individual control orientation and employee performance. The findings therefore provide limited support for the moderating influence of knowledge diversity on the LOC–performance relationship.

Collaborative and knowledge-intensive environments increasingly emphasize collective orientations. The overall findings suggest that modern manufacturing organizations operating through teamwork, cross-functional coordination, and knowledge integration may benefit more from collective psychological orientations than purely individual control beliefs. As organizations become increasingly dependent on collaborative systems and diverse expertise, shared accountability, collective coordination, and team-based functioning appear to play a critical role in improving employee

performance.

Conclusion

The present study examined the relationship between Individual Locus of Control, Collective Locus of Control, Knowledge Diversity, and Employee Performance within manufacturing organizations. The findings indicate that employee performance is influenced not only by individual psychological characteristics but also by collective cognitive orientations and team diversity structures. Collective Locus of Control emerged as an important predictor of employee performance, particularly within knowledge-diverse environments.

The study highlights the importance of collaborative belief systems in modern manufacturing organizations where work processes are increasingly interdependent and knowledge-intensive. Knowledge diversity further enhances the effectiveness of collective orientations by enabling teams to integrate diverse perspectives and expertise.

The study contributes to organizational behavior literature by extending traditional LOC research toward collective frameworks and by integrating knowledge diversity into the employee performance model.

Limitations of the Research

The study was confined to manufacturing organizations; therefore, the findings may not be fully applicable to other sectors. The research was conducted using a moderate sample size and convenience sampling technique, which may limit the generalizability of the results. Additionally, the cross-sectional nature of the study restricts the ability to establish causal relationships among the variables. Further, Collective Locus of Control (CLOC) is still an emerging construct in organizational research and requires additional empirical validation across different work settings.

Recommendations

The findings of the study highlight the growing importance of collective orientations and knowledge diversity in improving employee performance within manufacturing organizations. Organizations should therefore encourage collaborative work cultures that promote teamwork, shared responsibility, and collective decision-making. Strengthening collective coordination mechanisms may improve employee engagement, accountability, and overall organizational effectiveness.

Management should also focus on developing knowledge-diverse teams by integrating employees with varied educational backgrounds, technical expertise, and functional experiences. Diverse teams may contribute to improved creativity, innovation, and problem-solving capability when supported through effective coordination and communication systems.

Training and development initiatives may be designed to enhance collaborative skills, team coordination, and collective problem-solving abilities among employees. Leadership development programs should emphasize participative leadership styles that encourage cooperation, trust, and knowledge sharing within teams.

Since Collective Locus of Control demonstrated a significant positive relationship with employee performance, organizations may consider incorporating team-based performance systems and collective goal-setting mechanisms into their management practices. Such approaches may strengthen employees' perception of shared responsibility and improve collective effectiveness.

Additionally, organizations should establish supportive organizational cultures that facilitate communication, cross-functional interaction, and knowledge integration. Creating environments that encourage collaboration and diversity management may help organizations achieve better performance outcomes in increasingly interdependent and knowledge-intensive work environments.

Recommendations for Future Research

Future research may extend the present study by examining the relationship between Locus of Control, Collective Locus of Control, knowledge diversity, and employee performance across different industries such as information technology, banking, healthcare, and service organizations. Such studies may help determine whether the observed relationships remain consistent across varied organizational environments and work structures.

The present study adopted a cross-sectional design; therefore, future researchers may consider conducting longitudinal studies to better understand how collective control beliefs evolve over time within teams and organizations. Longitudinal approaches may provide deeper insights into the long-term influence of collective orientations on employee performance and organizational effectiveness.

Further studies may also examine additional moderating and mediating variables that could influence the relationship between psychological orientations and employee performance. Factors such as organizational culture, leadership style, team cohesion, communication climate, and employee engagement may provide a more comprehensive understanding of workplace behavior in collaborative environments.

Comparative studies across different countries and cultural settings may also contribute to improving the generalizability of the findings. Since perceptions of control, teamwork, and collaboration may vary across cultures, cross-cultural investigations could provide broader theoretical and practical insights.

Additionally, Collective Locus of Control remains a relatively emerging construct within organizational behavior research. Future researchers may therefore focus on developing and validating standardized measurement scales specifically designed to assess Collective Locus of Control within team-based and interdependent work environments.

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