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EXPLORING THE IMPACT OF INCLUSION (DIVERSITY) CLIMATE, EMPLOYEE INVOLVEMENT, AND INCENTIVES ON EMPLOYEE PERFORMANCE IN THE CHEMICAL SECTOR IN PAKISTAN

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Abstract
Manufacturing firms in emerging economies often operate under various constraints, yet there is limited context-specific evidence on which workplace levers most effectively strengthen employees' readiness to perform. Addressing this gap in Pakistan's chemical sector, this study draws on the ability-motivation-opportunity (AMO) framework to examine whether inclusion (diversity) climate, employee involvement, and incentive effectiveness predict performance enablement beliefs. Using cross-sectional survey data and employing ordinary least squares regression, results indicate that employee involvement and incentive effectiveness are robust positive predictors of performance enablement beliefs, whereas inclusion climate does not retain a unique association once the other levers are modeled concurrently. The study contributes to AMO-aligned mechanisms by identifying actionable levers that managers can strengthen through structured participation routines and credible incentive systems, while embedding inclusion initiatives into daily practices. Future work can build on this foundation by applying longitudinal and multi-source designs, refining and validating AMO-aligned measures across subgroups, and testing when inclusion climate becomes more influential as it is translated into concrete involvement practices.

Introduction

Reliance on human resource levers to sustain performance under operational pressure, particularly in cost-sensitive environments, has become increasingly important in manufacturing industries. Yet, in emerging economies, empirical evidence remains limited on which organizational levers shape these performance-relevant conditions from employees' perspectives. Since Pakistan's chemical sector is strategically important because it supports downstream manufacturing and export-linked production, understanding people-side levers that cultivate employees' perception of their ability to perform effectively is practically important.

The current study focuses on three HR levers: inclusion (diversity) environment, employee involvement, and incentive effectiveness, which can directly affect day-to-day operations. The inclusion (diversity) environment refers to whether employees perceive fair treatment irrespective of their background, which can reduce relational friction and enable smoother association (Holmes et al., 2021; Nishii, 2013). Employee involvement refers to employee voice and participation in key work-related decisions, a key condition that improves the operational environment and problem-solving (Appelbaum et al., 2000; Combs et al., 2006). Lastly, incentive effectiveness refers to whether incentives are perceived as fair, meaningful, and contingent on

valued contributions, thereby strengthening motivation and sustained effort (Appelbaum et al., 2000; George & van der Wal, 2023).

We situate these levers within the Ability-Motivation-Opportunity (AMO) framework (Appelbaum et al., 2000; Bailey, 1993) to define a particular theoretically proximal outcome: performance enablement beliefs. These beliefs are defined as employees' perceptions that the work environment supports effective performance through supportive conditions, clear goals, and latitude to implement initiatives. By testing this model in a Pakistan-based chemical-sector sample, the study contributes context-specific evidence to the AMO literature and clarifies which levers most strongly relate to a performance-relevant proximal mechanism in an applied, operational setting.

Theoretical Background and Hypotheses

AMO proposes that performance-relevant outcomes are shaped by employees' ability (what they can do), motivation (what they want to do), and opportunity (whether the work environment enables contribution) (Bailey, 1993). Employees can perform effectively in a meaningful and supportive environment that clearly defines goals, gives them discretion to address problems, and supports reliable execution. These perceptions are captured here as performance enablement beliefs, which constitute a proximal, performance-relevant mechanism consistent with AMO's opportunity- and context-enabling logic.

Inclusion (Diversity) Climate and Performance Enablement Beliefs

Inclusion climate signals whether employees perceive fair treatment and equal access across various groups. In an inclusive environment, interpersonal friction and bias-related barriers would be reduced, making it easier for employees to coordinate, share information, and contribute effectively. These conditions align with the enabling context emphasized by AMO (Nishii, 2013). An inclusive climate is more consistently related to performance outcomes than demographic diversity alone, supporting the relevance of lived inclusion for performance-relevant conditions (Holmes et al., 2021). Therefore, we hypothesize:

H1: Inclusion (diversity) climate positively affects performance enablement beliefs.

Employee Involvement and Performance Enablement Beliefs

Employee involvement provides employees with a voice and participation in work decisions. Involvement strengthens opportunities by creating channels through which employees can apply their skills, influence processes, and contribute to problem-solving (Bailey, 1993; Appelbaum et al., 2000). Consistent with research on strategic HR, involvement-oriented practices should strengthen employees' beliefs that their work context enables effective performance (Combs et al., 2006). Therefore, we hypothesize:

H2: Employee involvement positively affects performance enablement beliefs.

Incentive Effectiveness and Performance Enablement Beliefs

Incentive effectiveness reflects the extent to which rewards are perceived as meaningful and fair. AMO suggests that effective incentive systems strengthen motivation and reinforce sustained effort and persistence (Appelbaum et al., 2000). Research indicates that performance-related pay is positively related to performance outcomes, with effectiveness shaped by design credibility and contextual fit (George & van der Wal, 2023). Therefore, we hypothesize:

H3: Incentive effectiveness positively affects performance enablement beliefs.

Methodology

Data Collection and Sample

This study employed a quantitative cross-sectional design, focusing on two chemical manufacturing firms in Karachi, Pakistan, with employees as the unit of analysis. The survey maintained complete anonymity, ensuring that no personal identifiers were recorded. Details on the scales employed, along with specific instructions for their administration and corresponding response options, are available in the measurement section.

In this study, a convenience sampling method was employed to distribute 200 surveys (100 to each of two organizations), yielding a total of 170 responses. The collected surveys underwent rigorous quality checks, including attention checks as outlined by Kung et al. (2018), completeness evaluations to identify missing values, and scrutiny for uniform response patterns across items. Ultimately, the final sample size was 162, surpassing the predetermined minimum requirement of 36 (Faul et al., 2009). Furthermore, the items-to-respondent ratio of 1:15 is deemed sufficient, in line with the prevalent standards (Hair et al., 2018).

The demographic details of the sample are as follows The demographic details of the sample are as follows: gender (male = 93; female = 69); age (≤25 years = 92; 26–30 years = 20; 31–35 years = 20; 36–40 years = 10; ≥41 years = 20); education (intermediate [12 years] = 27; graduation [14 years] = 101; Masters [16 years] = 34); experience (≤5 years = 76; 6–10 years = 49; 11–15 years = 13; ≥16 years = 24).

Measurement

Inclusion (Diversity) Climate. The inclusion (diversity) climate was assessed using a three-item index adapted from the Diversity and Inclusion Scale (Harrison et al., 1996) and subsequently adapted for regional use (Alghazo & Al Shaiban, 2016). Using a 5-point agreement scale (1 = strongly disagree to 5 = strongly agree), items captured employees' perceptions that the organization supports diversity and treats employees equitably across background groups (e.g., "All employees at my organization are treated equally regardless of their educational, socio-economic, religious, and ethnic backgrounds"). To ensure construct purity (inclusion climate rather than demographic composition or gender beliefs), only the organizational-support and equal-treatment items were retained in the final composite (Cronbach's α = .59).***Employee Involvement***. Employee involvement was measured using a three-item subscale adapted from the Employee Involvement Scale (Lawler & Mohrman, 1992). Five response options (1 = *strongly disagree* to 5 = *strongly agree*) captured the extent to which employees perceived voice and participation in decision-making and problem-solving at work (e.g., "Employees are given the opportunity to participate in problem-solving sessions at work"). To maintain close alignment with AMO's opportunity pathway, only the items reflecting participation/voice were retained for the final composite (Cronbach's α = .84).

Incentive effectiveness. Incentive effectiveness was measured using a six-item scale adapted from the Incentive Effectiveness Scale (Heneman et al., 1999). Five response options (1 = *strongly disagree* to 5 = *strongly agree*) assessed perceived fairness, competitiveness, recognition, and reward visibility in the incentive system (e.g., "My organization's incentive program is fair and equitable"). The adapted scale demonstrated excellent internal consistency (Cronbach's α = .90).

Performance enablement beliefs. Performance enablement beliefs were measured using a three-item index adapted from prior performance management and appraisal research (e.g., Gupta & Shaw, 2014) and refined to capture performance-relevant enablement perceptions, namely, a supportive work environment, clarity regarding performance goals, and discretion to apply initiative in resolving work issues. Five response options (1 = *strongly disagree* to 5 = *strongly agree*) were used (e.g., "I am aware of my job performance goals and how they contribute to the firm's success"). The scale demonstrated strong internal consistency (Cronbach's α = .80).

Analytic strategy

Based on preliminary assessment of the data (e.g., screening for missing values, multivariate outliers, and inattentive responding; evaluation of distributional properties; and diagnostics for multicollinearity) and the theory-driven research model, hypotheses were tested using ordinary least squares (OLS) regression. We first evaluated the internal consistency of each multi-item measure using Cronbach's alpha**,** and computed descriptive statistics and zero-order correlations to examine the direction and magnitude of

associations among the study variables. Next, we assessed multicollinearity using variance inflation factors (VIF) to ensure that regression coefficients were not distorted by excessive overlap among predictors. Finally, to test the hypothesized relationships, performance enablement beliefs were regressed on inclusion (diversity) climate, employee involvement, and incentive effectiveness, estimating unstandardized and standardized coefficients along with their associated significance tests. This approach is appropriate for the present cross-sectional survey design and enables clear estimation of the unique contribution of each AMO-aligned lever to the focal outcome. All analyses were conducted in IBM SPSS Statistics (Version 21).

Results

Preliminary analyses

Table 1 presents the preliminary analysis. Internal consistency reliability (Cronbach's α) ranged from .56 to .91 across the refined composites, indicating acceptable to strong reliability overall. Specifically, inclusion (diversity) climate showed α = .56, employee involvement α = .82, incentive effectiveness α = .91, and performance enablement beliefs α = .81. Descriptive statistics indicated moderate-to-high mean levels across constructs: inclusion (diversity) climate (M = 3.58, SD = 0.85), employee involvement (M = 3.57, SD = 0.90), incentive effectiveness (M = 3.67, SD = 0.88), and performance enablement beliefs (M = 3.98, SD = 0.84). All bivariate correlations among focal variables were positive and statistically significant (ps < .001), including performance enablement beliefs with inclusion climate (r = .53), involvement (r = .66), and incentive effectiveness (r = .65).

Hypothesis Testing

Multicollinearity diagnostics indicated no concern. Variance inflation factors were low and within acceptable limits: inclusion (diversity) climate (VIF = 1.94), employee involvement (VIF = 1.74), and incentive effectiveness (VIF = 1.95). Given the cross-sectional design, common method bias (CMB) is a potential concern (Podsakoff et al., 2003). A Harman single-factor diagnostic (principal components analysis on all focal items) indicated that the first factor accounted for 49.16% of the total variance. This is below the conventional 50% cutoff, suggesting that common method bias is unlikely to fully account for the observed relationships; however, the value is close enough to warrant appropriate caution when interpreting association magnitudes.

Table 1

Descriptive Statistics, Reliability, VIF, and Correlations

Variable	M	SD	α	1	2	3
1. Inclusion (Diversity) Climate	3.58	.853	.564	-		
2. Employee Involvement	3.57	.899	.816	.590***		
3. Incentive Effectiveness	3.66	.882	.907	.647***	.591***	
4. Performance Enablement Beliefs	3.97	.835	.806	.527***	.656***	.646***

Note: ***p <.001

Table 2
Ordinary Least Squares Regression Predicting Performance Enablement Beliefs

Predictor	B	SE	t	β	p
Inclusion (diversity) climate	.039	.074	.53	.040	0.595
Employee involvement	.379	.066	5.7	.408	0
Incentive effectiveness	.359	.072	5.01	.379	0

Note. N = 162. Overall: R^2 = .534, Adj. R^2 = .525, F (3, 158) = 60.30, p < .00. B = unstandardized coefficient; SE = standard error; β = standardized coefficient

Hypotheses were tested using ordinary least squares regression with performance enablement beliefs as the dependent variable and inclusion (diversity) climate, employee involvement, and incentive effectiveness as predictors. The overall model was statistically significant and explained substantial variance in performance enablement beliefs (R^2 = .534, Adj. R^2 = .525, F(3, 158) = 60.30, p < .001; Table 2). Employee involvement was a positive and statistically significant predictor (B = 0.379, SE = 0.066, t = 5.70, p < .001; β = .408), supporting H2. Incentive effectiveness also positively predicted performance enablement beliefs (B = 0.359, SE = 0.072, t = 5.01, p < .001; β = .379), supporting H3. In contrast, inclusion (diversity) climate did not show a unique effect once the other predictors were included (B = 0.039, SE = 0.074, t = 0.53, p = .595; β = .040); therefore, H1 was not supported in the multivariate model.

Discussion

Pakistan's chemical sector plays an important role in manufacturing, supporting downstream production and export-linked production. This requires disciplined execution, safety compliance, and discretionary effort, making performance enablement a practical question rather than a purely academic one. Managers need evidence on which day-to-day levers most strongly shape employees' beliefs that performance is realistically enabled through supportive conditions, goal clarity, and discretion to apply initiative. Drawing on the ability-motivation-opportunity (AMO) framework (Appelbaum et al., 2000; Bailey, 1993), this study examined whether inclusion (diversity) climate, employee involvement, and incentive effectiveness predict performance enablement beliefs in Pakistan's industrial workforce. The results supported H2 and H3: employee involvement and incentive effectiveness showed robust positive associations with performance enablement beliefs. Although inclusion climate correlated positively with enablement beliefs (H1), it received weaker support in the joint model. The inclusion climate did not retain a unique association once involvement and incentives were entered concurrently, suggesting that the bundled levers share explanatory power.

In operational environments, opportunity-enhancing involvement appears especially consequential for how employees appraise whether performance is enabled. AMO theory positions opportunity to contribute as the condition that allows employees to translate competence and effort into effective execution (Appelbaum et al., 2000). Involvement is experienced through voice, participation in problem solving, and latitude in task execution. These features map directly onto enablement beliefs. The results in this study are also consistent with recent evidence from Pakistan, showing that people-management practices and participatory systems are meaningfully linked with performance-relevant outcomes (Irfan et al., 2023; Suhail et al., 2025). Importantly, Bos-Nehles et al. (2023) emphasize that AMO studies are strongest when predictors reflect clear mechanism channels, such as opportunity via involvement routines, rather than broad, diffuse best-practice labels. Thus, the strong involvement-enablement association observed in the current study is theoretically coherent because the items capture whether employees perceive real latitude and operational support to contribute.

The positive association between incentive effectiveness and enablement beliefs signifies the motivational side of AMO. It offers a practical, credible signal in resource-constrained contexts. When employees perceive incentives as fair, visible, and contingent on contribution, they infer that effort will be recognized, forcing them to invest voluntary energy. This interpretation aligns with other evidence indicating that performance-related pay and incentive systems tend to show positive (though context-sensitive) relationships with performance outcomes, and that effectiveness depends heavily on perceived fairness and implementation quality (George & van der Wal, 2023). Similarly, research demonstrates that incentives can matter for performance outcomes when employees perceive them as meaningful and linked to contribution (Mbukwana & Ayandibu, 2023). In Pakistan, where employees may face uncertainty about the consistency and transparency of HR implementation, credible incentive systems may therefore serve as a salient motivation lever, shaping whether sustained performance feels worth it in day-to-day work.

Finally, the non-significant unique effect of inclusion climate (after accounting for involvement and incentives) is theoretically informative rather than disappointing. Meta-analytic evidence indicates that diversity/inclusion climates are associated with beneficial employee outcomes, particularly when inclusion is conceptualized as a lived climate rather than solely as demographic representation (Holmes et al., 2021). In operational work systems, employees may experience inclusion primarily through whether they are invited into decisions and whether effort is rewarded transparently, making involvement and incentives more proximal predictors of enablement beliefs than inclusion climate as a standalone signal. This logic is consistent with strategic HRM arguments that practice systems often operate jointly and that their effects can be difficult to disentangle once modelled together (Appelbaum et al., 2000). While also aligning with newer evidence that involvement-oriented systems can produce different effects depending on accompanying conditions and demands, reinforcing the need to interpret high involvement through the lens of context and implementation (Yang et al., 2024).

Theoretical implications

This study extends AMO theory by showing that employees' performance enablement beliefs are shaped most strongly by proximal opportunity and motivation conditions embedded in the work system. Consistent with AMO's core logic (Appelbaum et al., 2000; Bailey, 1993), opportunities to contribute emerge from operational realities, employees' participation in problem-solving, and their discretion to apply initiative, while credible incentives reinforce motivation and persistence. The lack of a unique effect for inclusion climate in the joint model is theoretically informative: inclusion may function as a broader contextual signal whose benefits are most likely realized through more visible, day-to-day mechanisms such as involvement routines and consistent managerial reinforcement via rewards, meaning its explanatory power overlaps with these proximal levers when modelled simultaneously (Nishii, 2013)

Practical implications for Pakistan's chemical sector

For managers seeking feasible levers, the current study results point to two priorities: (a) strengthen employee involvement as an operational practice by institutionalizing structured participation, such as problem-solving huddles, suggestion systems with feedback loops, and local decision rights for workflow improvements, so employees experience real discretion and support to apply initiative (Appelbaum et al., 2000; Bailey, 1993); and (b) improve incentive effectiveness by enhancing credibility, ensuring rewards are perceived as fair, visible, and consistently linked to valued contributions (e.g., safety compliance, process reliability, efficiency), which aligns with evidence that incentives work best when they are meaningful and well-implemented (George & van der Wal, 2023). The inclusion climate should not be ignored; rather, the pattern suggests that inclusion efforts are more likely to translate into performance-relevant benefits when paired with concrete involvement channels and credible

reward practices that make inclusion felt in daily work experiences (Holmes et al., 2021; Nishii, 2013)

Limitations and Future Research

Though we have obtained meaningful results, the findings should be interpreted with caution. First, the cross-sectional design limits causal inference, and common method variance cannot be fully ruled out. Future research should use time-lagged or longitudinal designs and incorporate multiple data sources (e.g., supervisor ratings or objective participation metrics). Second, because the measures were adapted, contextual relevance is strengthened, but comparability with prior work may be reduced; replication using established AMO-aligned scales would strengthen confidence in the results. Third, since the sample is confined to Pakistan's chemical sector, it limits generalizability. Future studies should replicate across other Pakistani industries to clarify boundary conditions. Finally, the model focused on performance enablement beliefs rather than behavioral or objective performance outcomes; subsequent research should extend the model to task performance and safety indicators, particularly in process-industry settings.

Conclusion

This study provides applied evidence from Pakistan's chemical sector that employees' performance enablement beliefs are shaped most strongly by employee involvement and incentive effectiveness, consistent. Although inclusion (diversity) climate was positively related at the bivariate level, it did not explain additional variance once involvement and incentives were considered, suggesting that inclusion may translate into performance-relevant perceptions primarily when embedded in concrete participation routines and credible reward practices. Overall, the findings highlight practical levers organizations can use to foster an environment where employees feel supported, clear about goals, and empowered to take initiative in daily work.

References

Alghazo, A., & Shaiban, H. M. A. (2016). The effects of workforce diversity on employee performance at an oil and gas company. American Journal of Business and Society, 1(1), 1–12

Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. L. (2000). Manufacturing advantage: Why high-performance work systems pay off. Cornell University Press.

Bailey, T. (1993). Discretionary effort and the organization of work: Employee participation and work reform since Hawthorne. Teachers College and Conservation of Human Resources, Columbia University

Bos-Nehles, A., Townsend, K., Cafferkey, K., & Trullen, J. (2023). Examining the ability, motivation and opportunity (AMO) framework in HRM research: Conceptualization, measurement and interactions. International Journal of Management Reviews, 25(4), 725–739. https://doi.org/10.1111/ijmr.12332

Combs, J., Liu, Y., Hall, A., & Ketchen, D. (2006). How much do high-performance work practices matter? A meta-analysis of their effects on organizational performance. Personnel Psychology, 59(3), 501–528.

Faul, F. Erdfelder, E. Buchner, A. and Lang, A. G. (2009), "Statistical power analyses using G* Power 3.1: tests for correlation and regression analyses", Behavior Research Methods, Vol. 41 No. 4, pp. 1149-1160

Gupta, N., & Shaw, J. D. (2014). Employee compensation: The neglected area of HRM research. Human Resource Management Review, 24(1), 1–4. https://doi.org/10.1016/j.hrmr.2013.08.007

George, B., & van der Wal, Z. (2023). Does Performance-Related-Pay work? Recommendations for practice based on a meta-analysis. Policy Design and Practice, 6(3), 299-312.

Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2018), Multivariate Data Analysis, 8th ed., Cengage Learning, Andover.

Harrison, D. A., Price, K. H., & Bell, M. P. (1996). Beyond relational demography: Time and the effects of surface- and deep-level diversity on work group cohesion. Academy of Management Journal.

Heneman, R. L., Delaney, J. T., & Stone, D. L. (1999). Managing rewards systems. New York, NY: McGraw-Hill

Holmes, O., Jiang, K., Avery, D. R., McKay, P. F., Oh, I.-S., & Tillman, C. J. (2021). A meta-analysis integrating 25 years of diversity climate research. Journal of Management, 47(6), 1357–1382

Irfan, M., Khurshid, N., Khurshid, J., & Khokhar, A. M. (2023). Human resource development and organisational performance: Evidence from Pakistan. SA Journal of Human Resource Management, 21, a2020. https://doi.org/10.4102/sajhrm.v21i0.2020

Kung, F. Y. Kwok, N. and Brown, D. J. (2018), "Are attention check questions a threat to scale validity? Applied Psychology, Vol. 67 No. 2, pp. 264-283

Lawler, E. E., & Mohrman, S. A. (1992). Employee involvement and total quality management: Practices and results in Fortune 1000 companies. San Francisco, CA: Jossey-Bass.

Mbukwana, V. L., & Ayandibu, A. O. (2023). Impact of performance incentives on employees' performance in a university in KwaZulu-Natal. SA Journal of Human Resource Management, 21, a2114. https://doi.org/10.4102/sajhrm.v21i0.2114

Nishii, L. H. (2013). The benefits of climate for inclusion for gender-diverse groups. Academy of Management Journal, 56(6), 1754–1774.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879.

Suhail, A., van de Voorde, K., Steen, T., & Meeusen, C. (2025). Exploring the links between human resource practices, employee outcomes and performance at the individual and team levels. Asia Pacific Management Review, 30(4), 100399

Yang, X., Qadir, A., Shahid, B., & Tahir, S. H. (2024). The paradoxical effects of high involvement work practices on employees and service outcomes: a trichromatic perspective. Frontiers in Psychology, 15, 1338171.