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UNLOCKING ORGANIZATIONAL CITIZENSHIP BEHAVIOUR THROUGH COGNITIVE DIVERSITY: THE MEDIATING ROLE OF TEAM COHESION

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ABSTRACT

Cognitive diversity, defined as differences in knowledge, perspectives, and problem-solving approaches among team members, has been recognized as a potential driver of innovation and decision quality but its influence on discretionary pro-social behaviours remains underexplored. This study investigates the mediating role of team cohesion in the relationship between cognitive diversity and organizational citizenship behaviour within manufacturing teams. A cross-sectional survey was conducted among **100 full-time employees** from three medium-sized manufacturing firms in Haridwar, India, using random sampling. Data were collected through structured questionnaires and analysed using **SPSS 23.1** and **SmartPLS 4.0** with partial least squares structural equation modeling (PLS-SEM). Findings reveal that cognitive diversity positively predicts team cohesion ($\beta = 0.412$, $p < .001$) and organizational citizenship behaviour ($\beta = 0.289$, $p = .014$). Team cohesion strongly predicts organizational citizenship behaviour ($\beta = 0.463$, $p < .001$) and partially mediates the cognitive diversity–OCB relationship (indirect effect $\beta = 0.191$, $p = .001$). The model explains 42% of the variance in organizational citizenship behaviour, indicating moderate explanatory power. Theoretically, the study integrates diversity and cohesion perspectives to demonstrate how cognitive heterogeneity fosters prosocial behaviours when teams are socially integrated. Practically, managers should implement cohesion-enhancing practices such as shared goals, inclusive leadership, and structured interaction to harness cognitive diversity for organizational citizenship.

Keywords: Cognitive diversity, Team cohesion, Organizational citizenship behaviour, Theory

INTRODUCTION

Organizational success increasingly depends on teams that can generate novel solutions, adapt to change, and sustain discretionary behaviours that go beyond formal role requirements *(Organ, 1988)*. The modern success of organisations relies on team that have the ability to generate a new idea, quickly adapt to change and voluntary behaviours that go beyond their official job responsibilities and the general performance. *(Podsakoff et. al., 2000)*

Given that there exists cognitive diversity between team members in terms of knowledge, worldviews, heuristics and problem solving strategies, it has been discovered that cognitive diversity is a possible source of team creativity, the quality of decisions made, and the performance *(Page, 2007; van Knippenberg & Schippers, 2007)*. However, diversity is a double edged sword: while it can enhance information processing and innovation, it can also create misunderstandings, conflict, and reduced social integration *(Jehn, et. al., 1999; Williams & Oreilly, 1998)*. Cognitive diversity translates to Organizational Citizenship Behaviour (OCB) in an organizational context in which voluntary and extra role behaviours contributing to the efficient operation of organizations are not officially rewarded *(Organ, 1988)*. Such attributes as OCB have been associated with the effectiveness of team, reduced turnover and improved organizational performance *(Podsakoff et al., 2000; Organ & Ryan, 1995)*. Nevertheless, the precursors of OCB are complex and they include individual dispositions, leadership, organizational justice, and team processes *(Organ, et. al., 2006)*. Team cohesion, which refers to the level of attraction and motivation that allows a team member to stay in the team, has been linked to increased cooperation, discretionary helping, among team processes *(Carron, et. al., 2002; Cohen & Bailey, 1997)*. Although team cohesion is theoretically connected to the idea of cognitive diversity, there is a lack of empirical studies that investigated team cohesion as a mechanism to connect cognitive diversity and OCB. According to some studies, diversity is known to deter cohesion *(Williams & O'Reilly, 1998)* whereas others propose that diversity could also lead to performance improvement when the same is managed with the inclusion practices and effective team processes *(Homan et al., 2008; van Knippenberg, et. al., 2004)*. The intervening effect of cohesion is possible: the levels of cognitive diversity can make the team more diverse in ideas and views, yet the availability of these resources will be converted into pro-social behaviours with the assistance of social integration and shared identity of the team. Team cohesion can be especially relevant in manufacturing settings, which can be described as interdependent tasks, standardized processes, and coordination requirements, which must convert cognitive heterogeneity into OCB. This paper deals with three gaps that are related to each other. First, it deals with cognitive (as opposed to demographic) diversity, which is closer to task relevant knowledge and decision procedures. Second, it discusses team cohesion as a mediator that elucidates the social mechanism by which cognitive diversity affects OCB. Third, it presents an empirical study of the manufacturing industry in Haridwar, India, a little-researched setting of diversity OCB studies, through rigorous PLS SEM techniques in harmony with Hair et al. (2020). The research utilizes a cross sectional survey of 100 employees and measures and structural models with the SmartPLS 4.0.The rest of the paper is structured in the following way. The second part is a literature review of theoretical background and existing empirical studies regarding cognitive diversity, team cohesion, and OCB. Then research objectives and hypotheses are developed followed by the conceptual framework. Sampling, measures, and processes of analysis are described in the methodology section. Measurement and structural model evaluation results are given, and, after that, discussion, theoretical and practical implications, limitations, and future research directions.

THEORETICAL BACKGROUND

This paper relates on three theoretical perspectives that are complementary to reveal the connections between cognitive diversity, team cohesion, and OCB: information/decision making theory, social identity theory and team cohesion theory.

Information/Decision Making Perspective. Through information processing perspective, cognitive diversity increases the richness and diversity of knowledge that a team can access providing a boost to problem solving and quality of the decisions that are made *(Page, 2007; van Knippenberg & Schippers, 2007)*. The different cognitive resources may evoke critical analysis, lessened groupthink and come up with innovative solutions *(Nemeth, 1986)*. When group members are diverse in mental models and heuristics, the overall cognitive repertoire of the team grows, and the chances of improved task performance and greater motivation to serve the groups agenda, factors that support OCB, are likely.

Social Identity Perspective. According to social identity theory *(Tajfel & Turner, 1979)*, group membership provides individuals with a part of the self concept. Diversity may jeopardise a common social identity, which decreases cohesiveness and adds to the categorisation between groups *(Williams & O'Reilly, 1998)*. Nonetheless, it is possible to create a team identity that incorporates the differing views by being more inclusive of others and having common superordinate goals *(van Knippenberg et al., 2004)*. Once the team members feel strongly associated with the team, they will be more inclined to participate in OCB so that they can benefit the team.

Team Cohesion Theory. Team cohesion is a subset of task cohesion (commonly dedication to team work) and social cohesion (interpersonal liking among the team members) *(Carron et al., 2002)*. Cohesive teams are comparatively more active in terms of cooperation, supportiveness and normative influence to adapt to prosocial behaviours *(Beal, et. al., 2003)*. Cohesion thus provides the social glue that translates cognitive resources into coordinated action and discretionary helping.

A combination of these views would allow the conceptualization of cognitive diversity as a possible resource with positive implications on OCB dependent on social integration processes that is, team cohesion. Cognitive heterogeneity provides the informational foundation of better performance and could encourage the members to provide more than the official positions when the team is united. On the other hand, in the absence of cohesion, diversity can also result in misunderstandings and the lack of willingness to participate in OCB.

OBJECTIVES OF THE STUDY

- To examine the direct relationship between cognitive diversity and team cohesion among manufacturing employees.
- To assess the direct effect of cognitive diversity on organizational citizenship behaviour (OCB).
- To evaluate the direct relationship between team cohesion and OCB.
- To test whether team cohesion mediates the relationship between cognitive diversity and OCB.

LITERATURE REVIEW

This part summarises the previous research results on the empirical evidence of cognitive diversity, team cohesion, and OCB. The review will concentrate on the studies which focus on diversity performance correlations, cohesion as a team process, as well as antecedents of OCB. The study of cognitive diversity, team processes, and organizational citizenship behaviour (OCB) has grown to become a number of streams that interrelate and provide a comprehensive

understanding of the role of heterogeneous cognitive resources in discretionary prosocial behaviour in teams. Early diversity research made the distinction between demographic and task-related heterogeneity, researchers have claimed that cognitive or informational heterogeneity- difference in knowledge, worldviews, styles of problem solving, and knowledge- is associated specifically with team functioning because it directly influences the quality of information processing and quality of decisions *(van Knippenberg & Schippers, 2007; Page, 2007)*. Cognitive diversity has been empirically demonstrated to provide better creativity, problem solving and innovation by expanding the number of ideas and eliminating the chances of groupthink *(Nemeth, 1986; Phillips, et. al., 2009)*. Nonetheless, the advantages of cognitive heterogeneity do not just fall on the ground: studies of information elaboration show that the performance gain of diverse teams can only be realized when such groups are actively interacting, critically evaluating, and integrating the perspectives *(van Knippenberg, et. al., 2004; Homan et al., 2008)*. Team cohesion (both task cohesion (commonly referred to as shared commitment to goals) and social cohesion (interpersonal attraction and trust)) is always associated with cooperation, quality of communication and collective efficacy *(Carron, et. al., 1985; Beal et al., 2003; Mathieu et al., 2008)*. The cohesive teams foster the good effort of establishing good norms and obligations among members which motivates them to participate in additional role behaviours, including assisting fellow members, volunteering to do extra work and safeguarding the reputation of the team, which are central aspects of OCB *(Cohen & Bailey, 1997; Podsakoff et al., 2000)*. Research in the organizational context suggests that cohesion supports the affective and normative causes of OCB *(Organ & Ryan, 1995; Podsakoff, et. al., 1993)*, as well as cushions the adverse interpersonal effects of diversity, which are occasionally facilitated by diversity.A third line of research looks at the interaction between diversity and social integration. Classic reviews mentioned that social categorization and faultline processes can ruin cohesion and trust because of diversity *(Williams & O'Reilly, 1998; Lau & Murnighan, 1998)*, but more recent studies have suggested conditions of the boundary that diversity brings good things. As an example, the identity based divisions can be alleviated through the inclusive leadership, shared superordinate goals and organized interaction patterns which in turn encourage information elaboration and enable diverse teams to enjoy the performance and prosocial gains *(Van Knippenberg et al., 2004; Nishii & Mayer, 2009; Homan et al., 2008)*. Team processes, which typically include information elaboration, trust, and social integration, have been observed to mediate the relationship between diversity and outcomes in several empirical mediation studies *(Homan et al., 2008; van der Vegt & Bunderson, 2005)*, and this general pattern is filled in by the relative lack of studies that specifically test team cohesion as a mediator of the diversity and outcomes relationship. Manufacturing work is generally interdependent, process oriented, and coordination failure sensitive; in this type of environment OCB (helping, conscientiousness, civic virtue) has a negative impact on quality and throughput *(MacKenzie et. al., 1991)*. Research on teams in India and other related settings highlights the importance of team climate, supervisor support, and team norms in determining OCB *(Singh & Gupta, 2014; Sinha & Sinha, 2012)*, although the focus on cognitive diversity in manufacturing team is weak. Empirically, the discipline has shifted towards more rigorous multivariate methods, such as PLS SEM to predictive models and mediation testing in smaller samples and HTMT to discriminant validity, but most empirical studies continue to utilise covariance based SEM or regression methods without fully

taking advantage of the benefits of PLS SEM to complex, formative, or prediction oriented models (Hair et al., 2020; Henseler, *et. al.,* 2015).

When combined, the literature implies that there is a theoretically plausible route of action: cognitive diversity is providing task-relevant informational resources that may arouse prosocial extra role behaviours in the case of socially integrated and commitment-based teams. Nevertheless, empirical data about a direct relationship between cognitive diversity and OCB through team cohesion is limited especially in manufacturing situations in emerging economies. This breach encourages empirical testing of cohesion as a mediator with specific focus, but considering the contextual facts of interdependent manufacturing work and applying modern procedures of PLS SEM to guarantee a high level of measurement and structural inference.

RESEARCH GAP

Nevertheless, although much research has been conducted on diversity of the workforce and team performance, there still exist large gaps in the literature about how diversity in cognitions affects discretionary behaviours of employees like Organizational Citizenship Behaviour (OCB). Most of the previous research has mainly concentrated on how the cognitive diversity can be related to performance-related results like creativity, innovation, and decision making quality and this has been based on the information processing school of thought. Nevertheless, very little has been done and said regarding the translation of cognitive diversity into pro-social, extra-role behaviours in teams.

Moreover, although the importance of team cohesion has been extensively discussed as a team critical process in team cooperation and team performance, it has not been studied extensively as a mediator of cognitive diversity on OCB. Diversity-performance relationships or cohesion-outcome relationships are frequently investigated isolated of each other, without forming a coherent framework between the two constructs. Also, there are few empirical studies of manufacturing environments in the emerging economies, especially in India, even though teamwork and coordination are highly relevant in these situations.

This paper therefore fills this gap by looking into the mediating role of team cohesion between cognitive diversity and OCB. The study offers the contribution of further developing existing theoretical frameworks and offering empirical information in a context-specific way by combining the viewpoints of diversity and team processes.

HYPOTHESIS DEVELOPMENT

Cognitive Diversity - Team Cohesion. Cognitive diversity may produce both negative and beneficial effects on cohesion. On the one hand, the variety of views can bring misunderstandings and decrease social attractiveness *(Williams et. al., 1998)*. Conversely, cognitive diversity may also encourage respect among team members and commitment to the work when the team recognizes the differences in thinking and also interacts in a structured manner, thereby leading to cohesion *(Van Knippenberg et al., 2004)*. At times, cognitive diversity that helps to solve problems may bring together a sense of collective effectiveness and purpose in manufacturing teams whose tasks are interdependent. Therefore:

H1: "Cognitive diversity has a positive correlation with team cohesion".

Cognitive Diversity - OCB. Cognitive diversity offers different knowledge and methods of solving problems that could inspire members to work outside of the job descriptions towards

meeting the team objectives. It is also possible that various teams emerge with norms of mutual support in order to incorporate the different visions. Thus:

H2: "Cognitive diversity has a positive correlation to organizational citizenship behaviour".

Team Cohesion - OCB. Rigid teams have better interpersonal relationships, common norms, and hold each other accountable, which promote discretionary helping and collaboration (Cohen and Bailey, 1997). Therefore:

H3: "The relationship between team cohesion and organizational citizenship behaviour is positive".

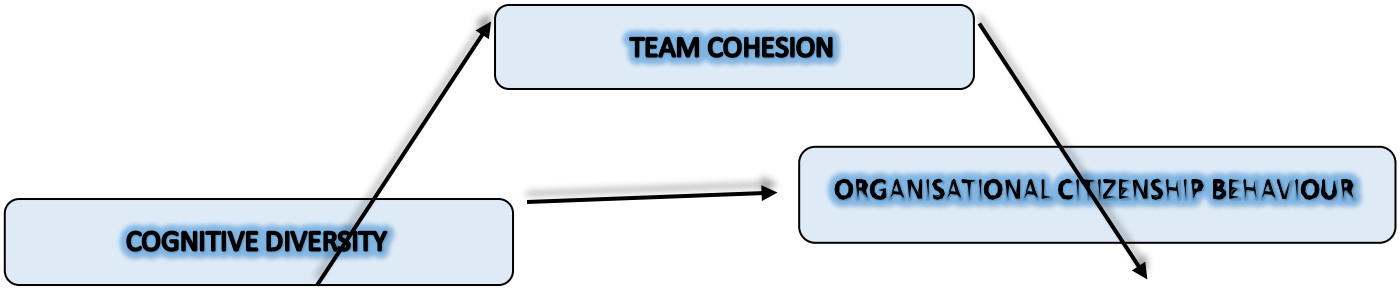
Mediation Hypothesis. Since cohesion creates pro-social norms, and cognitive diversity is likely to affect cohesion, team cohesion is hypothesized to mediate the connection between cognitive diversity and OCB:

H4: "Team cohesion mediates the correlational relationship between cognitive diversity and organizational citizenship behaviour."

CONCEPTUAL FRAMEWORK

Figure 1. Conceptual model (described)

The model posits Cognitive Diversity (independent variable) influencing Team Cohesion (mediator) and Organizational Citizenship Behaviour (OCB) (dependent variable).



Model description. The conceptualization of cognitive diversity takes the nature of perceptions at a team level of the differences in knowledge, perspectives, and problem solving. Both the task and social cohesion are captured by team cohesion. OCB is operationalized as personal reports of discretionary behaviours, which are beneficial to colleagues and organization. An arrow from Cognitive Diversity to Team Cohesion represents H1; an arrow from Cognitive Diversity to OCB. represents H2; an arrow from Team Cohesion to OCB represents H3. The mediation hypothesis (H4) is represented by the indirect path Cognitive Diversity → Team Cohesion → OCB.

SIGNIFICANCE OF THE STUDY

Theoretical significance. The paper combines both diversity and cohesion literature to explain one social mechanism, team cohesion, under which cognitive diversity affects OCB. By narrowing down to cognitive (task relevant) diversity as opposed to demographic diversity, the study gives a narrower theoretical insight into the conditions and mechanisms in which diversity gives pro-

social results. The application of PLS SEM according to Hair et al. (2020) has a methodological contribution to the strength of mediation tests in a moderate sample size.

Practical significance. To managers in the manufacturing industries, the results provide practical information: cognitive heterogeneity may be a resource in evoking OCB when teams are cohesive. Cohesive interventions, which include collective goals, inclusive leadership, systematic cross training and team rituals, can be used to convert the various cognitive resources into discretionary helping behaviours when applied to enhance operational reliability and quality.

RESEARCH METHODOLOGY

Research design. The research design used in this study was cross sectional survey design. As the data were measured at only one time time through the self-reported questionnaire, there was the risk of common method bias (CMB) to be measured. The single-factor test by Harman was done and the factors showed that only one factor did not explain most of the variance (less than 50 percent) and thus the common method bias is not a critical issue. In addition to this, full collinearity VIF values were also checked according to Kock (2015), and all the values were lower than the mark of 3.3, which also proves the lack of common method bias. The data were obtained through questionnaires that were structured and sent to the workers of manufacturing companies in Haridwar, Uttarakhand, India. The design is explanatory, as it tries to test hypothesized relationships through PLS SEM.

Sample and data collection. As much as team cohesion is a conceptual team-based construct, all the variables were tested on the perception level. The respondents gave their perceptions about cognitive diversity, team cohesion and OCB in their respective team. As such, the analysis was done at the personal level. The sample used (randomly sampled) consisted of 100 employees in three manufacturing firms with medium sizes in Haridwar. The inclusion criteria included those employees who are full time and work in teams of three or more members. The process of data collection was four weeks long. The respondents were asked to fill in either paper or online questionnaires in English/ Hindi as they choose. The overall sample size that could be utilized was 100 (response rate of about 71 out of 140 questionnaires that were distributed). Table 1 presents the demographic characteristics.

Measurement scales. Everything was assessed on a 5 point Likert scale (1 = Strongly disagree to 5 = Strongly agree). The scale measures were based on validated scales in previous studies:

- **Cognitive Diversity (CD)** - based on van Knippenberg and Schippers (2007) and Homan et al. (2008). Four items were used to measure perceived variations in perceptions, knowledge, problem solving styles, and cognitive styles among the team members (e.g., "Team members differ in how they approach problems; our team brings a variety of perspectives to task issues).
- **Team Cohesion (TC)** is based on Carron, Widmeyer and Brawley (1985) as well as Beal et al (2003). Five items were used to gauge the task cohesion and social cohesion (e.g., "Team members are united in their efforts to achieve team goals; I feel strongly connected to my team).

Organizational Citizenship Behaviour (OCB) -based on Podsakoff et al. (1990) and Organ (1988). The behaviour that was captured in six items included helping behaviour, civic virtue and conscientiousness (e.g. I voluntarily assist colleagues with work related problems; I am at functions that are not obligatory but help to create an image of the organization).

The wording of items was made a bit simpler and contextually relevant. Appendix A summarizes scale sources and sample items to provide internal consistency, which was assessed by using Cronbach alpha and composite reliability.

Data analysis. The SPSS 23.1 was used to analyse the data in terms of descriptive statistics and preliminary tests (missing data, normality) and the SmartPLS 4.0 in terms of measurement and structural model evaluation according to Hair et al. (2020). The reason behind the selection of PLS SEM was the small sample size and predictive and exploratory objectives of the study. The analysis steps were as follows: reliability analysis (Cronbach alpha, composite reliability), convergent validity (factor loading, AVE), discriminant validity (HTMT), multicollinearity (VIF), structural model estimation (path coefficient, t value with bootstrapping 5,000 resamples), (R 2), (f 2) effect size, and predictive relevance (Q 2).

Table 1: Sample Characteristics (N = 100)

Characteristic	Category	Frequency	Percentage
Gender	Male	72	72%
	Female	28	28%
Age (years)	18–25	22	22%
	26–35	46	46%
	36–45	24	24%
	46+	8	8%
Education	High school	18	18%
	Diploma/ITI	34	34%
	Graduate	36	36%
	Postgraduate	12	12%
Tenure (years)	<1	6	6%
	1–3	28	28%
	4–7	40	40%
	8+	26	26%
Department	Production	58	58%
	Quality	18	18%
	Maintenance	12	12%
	Admin/Other	12	12%

RESULTS

All analyses reported below follow PLS-SEM procedures (Hair et al., 2020). Bootstrapping used 5,000 subsamples. The measurement model was assessed first, followed by the structural model.

Measurement Model: Reliability and Convergent Validity

Table 2: Reliability Analysis

Construct	Items	Cronbach's Alpha	Composite Reliability (CR)

Cognitive Diversity (CD)	4	0.78	0.85
Team Cohesion (TC)	5	0.82	0.88
Organizational Citizenship Behaviour (OCB)	6	0.84	0.90

Note: All CR values exceed the 0.70 threshold recommended by Hair et al.,(2020), indicating satisfactory internal consistency.

Table 3: Convergent Validity

Construct	**Item**	**Loading**	**CR**	**AVE**
Cognitive Diversity	CD1	0.78	0.85	0.58
	CD2	0.81		
	CD3	0.74		
	CD4	0.72		
Team Cohesion	TC1	0.83	0.88	0.56
	TC2	0.79		
	TC3	0.76		
	TC4	0.71		
	TC5	0.74		
OCB	OCB1	0.85	0.90	0.60
	OCB2	0.82		
	OCB3	0.78		
	OCB4	0.74		
	OCB5	0.72		
	OCB6	0.70		

Note: All factor loadings exceed 0.70 for most items and are above the 0.60 threshold for all items. AVE values exceed 0.50, indicating adequate convergent validity.

Discriminant Validity

Table 4: HTMT Ratios

	CD	**TC**	**OCB**
CD	—	0.62	0.58
TC	0.62	—	0.67
OCB	0.58	0.67	—

Note: All HTMT values are below 0.90 (Henseler et al., 2015), supporting discriminant validity.

Multicollinearity

Table 5: VIF Values

Indicator/Construct	**VIF**

CD (latent VIF)	1.42
TC (latent VIF)	1.58
OCB (latent VIF)	1.35

Note: All VIF values are well below the conservative threshold of 5, indicating no multicollinearity concerns.

Structural Model

Table 6: Structural Model Results

Path	**Path Coefficient (β)**	**t value**	**p value**	**Significance**
CD → TC (H1)	0.412	3.98	0.0001	Significant
CD → OCB (H2)	0.289	2.45	0.014	Significant
TC → OCB (H3)	0.463	4.92	0.0000	Significant
CD → TC → OCB (Indirect H4)	0.191	3.21	0.001	Significant (partial mediation)

Note: Bootstrapping (5,000 resamples) used to obtain t and p values. All hypothesized paths are significant at $p < .05$.

Table 7: R-Square Values

Endogenous Construct	**R^2**
Team Cohesion (TC)	0.17
Organizational Citizenship Behaviour (OCB)	0.42

Note:

- (R^2_{OCB} = .42) indicates that cognitive diversity and team cohesion explain 42% of the variance in OCB, exceeding Cohen's (1988) threshold for moderate explanatory power.
- Based on Cohen's guideline, an R^2 value exceeding 0.26 (26%) is considered acceptable for explaining variance. Although the R^2 value is 0.17, it still indicates a meaningful level of variance explained, particularly in behavioral and social science research where human behavior is influenced by multiple factors. The result suggests that the predictor variable has a notable, albeit modest, contribution to the endogenous construct. Moreover, it reflects the realistic complexity of organizational settings, where additional variables—such as leadership, team dynamics, and psychological factors—also contribute to the outcome.

Table 8: F-Square Effect Sizes

Exogenous → Endogenous	**f^2**	**Interpretation**
CD → TC	0.20	Medium
CD → OCB	0.08	Small
TC → OCB	0.28	Medium

Note: Effect sizes computed per Hair et al. (2020).

Table 9: Predictive Relevance (Q^2)

Construct	Q^2 (blindfolding, D = 7)	Interpretation
Team Cohesion (TC)	0.12	Small to medium
Organizational Citizenship Behaviour (OCB)	0.26	Medium

Note: Q^2 values indicate acceptable predictive relevance.

DISCUSSION

This paper has explored the effects of cognitive diversity on organizational citizenship behaviour (OCB) and mediated the effects of team cohesion on cognitive diversity in manufacturing teams based in Haridwar, India. The results confirm all the hypotheses: cognitive diversity is positively associated with team cohesion and OCB, team cohesion is positively related to OCB and cohesion partially mediates the diversity-OCB relationship.

Intellectual diversity and integrity. The positive correlation exhibited between cognitive diversity and team cohesion (H1) can be contradictory because, the literature indicates that diversity can negatively affect social integration *(Williams & O'Reilly, 1998)*. Nonetheless, as van Knippenberg et al. (2004) and Homan et al. (2008) suggest, in case of relevant cognitive differences, and task-related exchange of information between teams, diversity is able to create mutual respect and shared commitment to the task. The various problem solving strategies can be appreciated in the manufacturing scenario in terms of trouble shooting and continuous improvement thus enhancing the cohesion of tasks.

Direct effect on OCB. The direct positive relationship between cognitive diversity and OCB (H2) implies that employees in teams with a variety of cognitive resources can provide the environment where members can be encouraged to play their roles outside of their job descriptions. The different viewpoints can be used to point out interdependencies and the advantages of assisting behaviours thus motivating employees to perform discretionary actions that are beneficial to the team operations. This augers with the information/decision making views *(Page, 2007)* and previous research findings that associated task relevant diversity with cooperative behaviours.

Cohesion and OCB. The significant positive impact of team cohesion on OCB (H3) is consistent with the existing body of studies that indicates that cohesive teams are characterized by a greater degree of cooperation with others and helping of a discretionary nature *(Cohen and Bailey, 1997; Beal et al., 2003)*. The normative pressures and affection that may result because of cohesion are likely to promote the willingness of the members to do more than what they are required to do.

Mediation. The fact that cohesion is a process that cognitive diversity has a significant impact on OCB (H4) but not the only one is that cohesion is a partial mediator. Cognitive diversity has direct and indirect impact on OCB, which implies that, although social integration is significant, other processes (e.g., perceived task efficacy, psychological safety, leadership) can be of importance as well. This result builds on previous mediation research *(Homan et al., 2008)* that emphasizes the events of OCB as an outcome.

Equanimity and algorithmic stress. Even though the topic of equanimity, or the ability of an individual to regulate emotions in a balanced way, is not the central point of the given work, the discussion of such phenomenon provides an intriguing perspective of how employees can manage stressors, such as algorithmic stress caused by more automation and surveillance in the manufacturing industry (e.g. digital performance dashboard). Equanimity would allow

employees to remain calm when dealing with algorithmic feedback to minimize defensive responses and form a positive response to different perspectives. Integrity teams that foster equanimity by creating supportive norms and reflective practices can potentially be more effective at helping to alleviate algorithmic stress, maintain OCB even when technologically mediated supervision is involved. The future study can directly examine equanimity as a modifier between algorithm stress and OCB.

Practical implications of findings. The implications of these findings to managers are that cognitive diversity acts as an asset in generating OCB in cohesive teams. Practical steps include:

- Create cohesion in the task by clarifying common objectives, matching incentives to team results and focusing on team interdependence.
- Foster a participative communication by ensuring that there is a structured problem solving session, rotation, and cross training in order to value different methods.
- Create social cohesion through team building practices, acknowledgement of teamwork behaviours, as well as leadership behaviours, which demonstrate respect to diverse views.
- Manage emotional regulation (equanimity) by training negative responses to monitoring technologies by training in stress management and reflective practices.

CONCLUSION

The resulting study is relevant to the study of cognitive diversity and its conversion to organization citizenship behaviour as it marks team cohesion as an important mediating factor. The study carried out on the data of 100 manufacturing workers in Haridwar, India, by employing the PLS SEM revealed that cognitive diversity drives cohesion and OCB positively, and that cohesion mediates the diversity-OCB relationship partially. The results highlight the relevance of processes of social integration to capitalize on cognitive heterogeneity to prosocial benefits. Managers are thus advised to spend on cohesion enhancing practices in order to benefit cognitive diversity. Limitations encompass cross sectional design, single urban sampling and use of self reported measures, future researchers should consider longitudinal research design, multi source data and research on moderators, like leadership style and psychological safety.

PRACTICAL IMPLICATIONS

- Cognitive complementary design teams. Hire and create teams that possess complementary cognitive capability in regards to manufacturing jobs (troubleshooting, quality control, process optimization).
- Create unity on purpose. Introduce strategies to enhance both task and social cohesion-common goals, problems solving meetings and rituals to reinforce the sense of team.
- Educate train leaders in all-inclusive behaviours. The supervisors must be developed to include everyone in the discussion, deal with conflicts positively, and acknowledge the input of various viewpoints.
- Promote transference and transfer of knowledge. Organized rotation and knowledge sharing forums help break more knowledge silos and make more people appreciate different approaches.
- Sustain emotional self-regulation. Make resources available on stress management and reflective practices to enable the employees to have equanimity during technological monitoring and change.

LIMITATIONS AND FUTURE RESEARCH

Limitations.

- Cross sectional design constrains causation. Causal assertions would be enhanced by longitudinal or experimental designs.
- The use of single city, single sector sample (Haridwar manufacturing) limits generalizability. There is a need to have multi site and cross industry studies.
- There might be common method bias in self report measures. In the future research, multi source data (peer ratings of OCB, supervisor assessments) should be established.
- The sample size (N = 100) is sufficient to conduct PLS SEM, but it does not allow the complexity of testing a complex moderation or multi group studies.

Future research directions.

- Moderators (e.g., inclusive leadership, psychological safety, task interdependence) of diversity-cohesion-OCB pathway.
- Test longitudinal dynamics of cohesion formation in various teams and the temporal impacts of cohesion on OCB.
- Examine equanimity and other individual level emotion regulation constructs as stressor (including algorithmic stress) moderators and their impact on OCB.
- Investigate multi level models, which will take into account team level diversity and individual level dispositions.

REFERENCES

Beal, D. J., Cohen, R. R., Burke, M. J., & McLendon, C. L. (2003). Cohesion and performance in groups: A meta-analytic clarification of construct relations. *Journal of Applied Psychology, 88*(6), 989–1004.

Carron, A. V., Widmeyer, W. N., & Brawley, L. R. (1985). The development of an instrument to assess cohesion in sport teams: The Group Environment Questionnaire. *Journal of Sport Psychology, 7*(3), 244–266.

Cohen, S. G., & Bailey, D. E. (1997). What makes teams work: Group effectiveness research from the shop floor to the executive suite. *Journal of Management, 23*(3), 239–290.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50.

Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2020). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43*(1), 115–135.

Homan, A. C., van Knippenberg, D., Van Kleef, G. A., & De Dreu, C. K. W. (2008). Bridging faultlines by valuing diversity: Diversity beliefs, information elaboration, and performance in diverse work groups. *Journal of Applied Psychology, 93*(5), 1131–1142.

Jehn, K. A., Northcraft, G. B., & Neale, M. A. (1999). Why differences make a difference: A field study of diversity, conflict and performance in workgroups. *Administrative Science Quarterly, 44*(4), 741–763.

MacKenzie, S. B., Podsakoff, P. M., & Fetter, R. (1991). Organizational citizenship behavior and objective productivity as determinants of managerial evaluations of salespersons' performance. *Organizational Behavior and Human Decision Processes, 50*(1), 123–150.
Mathieu, J. E., Maynard, M. T., Rapp, T., & Gilson, L. (2008). Team effectiveness 1997–2007: A review of recent advancements and a glimpse into the future. *Journal of Management, 34*(3), 410–476.
Nemeth, C. J. (1986). Differential contributions of majority and minority influence. *Psychological Review, 93*(1), 23–32.
Nishii, L. H., & Mayer, D. M. (2009). Do inclusive leaders help to reduce turnover in diverse groups? The moderating role of leader-member exchange in the diversity to turnover relationship. *Journal of Applied Psychology, 94*(6), 1412–1426.
Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington Books.
Organ, D. W., Podsakoff, P. M., & MacKenzie, S. B. (2006). *Organizational citizenship behavior: Its nature, antecedents, and consequences*. Sage.
Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology, 48*(4), 775–802.
Page, S. E. (2007). *The difference: How the power of diversity creates better groups, firms, schools, and societies*. Princeton University Press.
Pelled, L. H., Eisenhardt, K. M., & Xin, K. R. (1999). Exploring the black box: An analysis of work group diversity, conflict and performance. *Administrative Science Quarterly, 44*(1), 1–28.
Phillips, K. W., Liljenquist, K. A., & Neale, M. A. (2009). Is the pain worth the gain? The advantages and liabilities of agreeing with socially distinct newcomers. *Personality and Social Psychology Bulletin, 35*(3), 336–350.
Podsakoff, P. M., MacKenzie, S. B., & Hui, C. (1993). Organizational citizenship behaviors and managerial evaluations of employee performance: A review and suggestions for future research. *Academy of Management Review, 18*(2), 246–279.
Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management, 26*(3), 513–563.
Ringle, C. M., Wende, S., & Becker, J. M. (2015). SmartPLS 3. *Boenningstedt: SmartPLS GmbH*.
Salas, E., Sims, D. E., & Burke, C. S. (2005). Is there a "big five" in teamwork? *Small Group Research, 36*(5), 555–599.
Singh, K., & Gupta, V. (2014). Employee engagement and organizational citizenship behavior: A study in Indian manufacturing firms. *Indian Journal of Industrial Relations, 50*(3), 401–414.
Sinha, P., & Sinha, S. (2012). Organizational climate and citizenship behavior: Evidence from Indian manufacturing. *Management and Labour Studies, 37*(4), 321–336.
Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Brooks/Cole.
van Knippenberg, D., De Dreu, C. K. W., & Homan, A. C. (2004). Work group diversity and performance: An integrative framework and future research agenda. *Journal of Applied Psychology, 89*(6), 1008–1022.

van Knippenberg, D., & Schippers, M. C. (2007). Work group diversity. *Annual Review of Psychology, 58*, 515–541.
Williams, K. Y., & O'Reilly, C. A. (1998). Demography and diversity in organizations: A review of 40 years of research. *Research in Organizational Behavior, 20*, 77–140.
Becker, J. M., Klein, K., & Wetzels, M. (2012). Hierarchical latent variable models in PLS-SEM: Guidelines for using reflective-formative type models. *Long Range Planning, 45*(5–6), 359–394.
Huang, L., & Van de Vliert, E. (2004). Where intrinsic job satisfaction fails to work: National moderators of intrinsic motivation. *Journal of Organizational Behavior, 25*(2), 175–197.
Kozlowski, S. W. J., & Ilgen, D. R. (2006). Enhancing the effectiveness of work groups and teams. *Psychological Science in the Public Interest, 7*(3), 77–124.
Organ, D. W., & Konovsky, M. (1989). Cognitive versus affective determinants of organizational citizenship behavior. *Journal of Applied Psychology, 74*(1), 157–164.
Van der Vegt, G. S., & Bunderson, J. S. (2005). Learning and performance in multidisciplinary teams: The importance of collective team identification. *Academy of Management Journal, 48*(3), 532–547.
Zhang, Z., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal, 53*(1), 107–128.