

Demographic Variation in DEI Perceptions and Employee Engagement: Evidence from Indian IT Employees

Mamta Kumari ¹, Sunil Kumar Pandey ², Pranjal Kumar ³

¹ Ph.D Scholar, Department of Management Studies, Birla Institute of Technology, Mesra, Ranchi, India,

² Assistant Professor, Department of Management Studies, Birla Institute of Technology, Mesra, Patna, India,

³ Assistant Professor, Department of Management Studies, Birla Institute of Technology, Mesra, Ranchi, India,

Abstract

Diversity, Equity and Inclusion have become important pillars of contemporary organizational practice, especially in knowledge-intensive sectors where employee engagement depends on fairness, participation and psychologically safe work environments. While DEI has been widely discussed in relation to employee engagement, little attention has been paid to whether employees across demographic groups experience DEI, Psychological Safety and Employee Engagement in the same way. This study explores the demographic differences in perception of the employees on Diversity, Equity, Inclusion, Psychological Safety and Employee Engagement in Indian IT sector. It also explores whether DEI and Psychological Safety act as predictors of Employee Engagement beyond demographic attributes. The data were collected from 360 employees working in Indian IT organisations including software developers, web developers, mobile application developers, database administrators, cybersecurity analysts and project/team leads.

The constructs were measured by a questionnaire using a five-point Likert scale. The analysis was conducted using descriptive statistics, reliability analysis, independent-sample t-test, one-way ANOVA, Tukey post-hoc comparison, correlation analysis and hierarchical regression. Results indicate selective demographic differences in perceptions of DEI. There were gender differences in Equity and Psychological Safety, tenure differences in Inclusion and Psychological Safety, and organization size influenced perceptions of Diversity and Equity. However, there were no significant differences in Employee Engagement across demographic groups. Hierarchical regression analysis indicated that demographic variables alone were not significant predictors of Employee Engagement, while Diversity, Equity, Inclusion and Psychological Safety significantly contributed to explain engagement after controlling for demographic variables. The study found that employee engagement is less likely to be determined by demographic identity and more by the employees' experience of fairness, inclusion, diversity and psychological safety at work.

Keywords: Diversity; Equity; Inclusion; Psychological Safety; Employee Engagement; Demographic Variations; Indian IT Sector; Hierarchical Regression

1 Introduction

In the changing work environment, Diversity, Equity and Inclusion has become key to organizational performance, employee wellbeing and sustainability of business. In the context of an evolving, globalized and knowledge-based labor market, organizations need to effectively engage employees from diverse socio-cultural, educational and professional backgrounds. When managed in a meaningful way, workforce diversity can result in employee engagement, productivity, innovation and long-term organizational competitiveness (Zallio et al., 2024; Miller Dyce et al., 2024). But diversity alone does not guarantee positive workplace results. Employees are more likely to engage when they feel they are being treated fairly, included in a meaningful way and allowed to participate without fear.”

Inclusion is not just about being represented. It measures the extent to which employees are afforded dignity, included in workplace decision making processes and acknowledged as equal contributors to organisational life. Equitable opportunities to participate, collaborate, be recognized and grow professionally create an inclusive work environment (Goswami & Goswami, 2018). When a workplace has strong DEI practices, it allows employees to

focus on their work without fear of discrimination and creates a healthier organizational climate, greater job satisfaction, and higher productivity (Judd & McKinnon, 2021). Healthy team-to-team and intra-team relationships foster a culture that boosts morale and motivates employees to go above and beyond the formal scope of their roles (Azizah & Hidayah, 2025). Employee Engagement is an important organizational outcome. Engaged employees are emotionally and cognitively involved, enthusiastic, loyal and willing to contribute to organizational goals. Engaged employees are related to improved productivity, innovation, retention and organizational performance (Ahmad & Touseef, 2024; Feitosa et al., 2022). A DEI-focused workplace creates an environment where employees feel valued, respected and comfortable sharing alternative perspectives. These can stimulate creativity, problem-solving and collaborative energy, all of which are important indicators of organizational success (Panicker & Balu, 2018).

While organizations are placing more focus on DEI, many companies are still struggling to translate formal DEI policies into a meaningful employee experience. Effectively embedding DEI frameworks into everyday organizational life remains a critical managerial challenge (Nwachuku et al., 2024). One reason is that employees from different demographic groups might not experience fairness, inclusion and psychological safety in the same way. For example, gender, age, tenure, job role and organization size might impact the extent to which employees see DEI practices as visible, consistent and meaningful. So, it's not just a question of whether DEI influences engagement, but also whether perceptions about DEI vary by demographic group.

Psychological Safety is an important lens to view this issue through. Psychological Safety is when employees feel safe to share ideas, ask questions, voice concerns and participate without fear of embarrassment, rejection or retribution. Psychological safety encourages collaboration, innovation, and engagement among employees (Gasnier et al., 2022; Newman et al., 2018). Psychological safety in the context of DEI means the ability of employees to express individual differences, participate openly, and experience the workplace as respectful and secure. Therefore, the application of DEI through the lens of psychological safety can assist organizations in translating inclusion at the policy level into impact engagement outcomes. The context of this study is the Indian IT industry which is marked by professional diversity, high work pressure, rapid technological change and cross-role and cross-team collaboration. Fairness, inclusion and psychological safety are often key to sustained engagement for employees in project-based environments in this sector. However, few studies have examined whether DEI and psychological safety are experienced differently by IT employees across various demographic groups. Prior research has focused on diversity management, inclusion, psychological safety and employee engagement separately or as mediation models. However, there has been less attention to demographic variation and the relative importance of workplace experience after controlling for demographic characteristics.

The present study fills this gap by looking at the demographic differences in employee perceptions of Diversity, Equity, Inclusion, Psychological Safety and Employee Engagement in the Indian IT sector. It further examines the extent to which DEI and Psychological Safety can predict Employee Engagement, while accounting for gender, age, education, tenure, job role and organization size. This study adds to the literature by focusing the lens away from demographic identity and toward quality of workplace experience. It argues that engagement is not simply a function of who employees are but how they experience fairness, inclusion and psychological safety in the reality of everyday organizational life.

The purpose of the study is to:

1. To investigate whether perceptions of Diversity, Equity and Inclusion vary by demographic group.
2. To identify if Psychological Safety varies by demographic groups.
3. To explore if Employee Engagement varies across demographic groups.
4. To examine if demographic variables are significant predictors of Employee Engagement.
5. To test whether DEI and Psychological Safety predict Employee Engagement, controlling for demographic characteristics.

2 Literature Review

The literature on Diversity, Equity and Inclusion (DEI) has increasingly highlighted its role in shaping employee experience, workplace participation and organizational outcomes. DEI practices are no longer viewed as only compliance-driven policies but rather as workplace conditions that affect how employees experience respect, fair treatment, inclusion and psychological safety. Such working conditions are particularly important to sustain engagement in knowledge-intensive sectors like information technology, where employees work in collaborative, project-based and high-pressure environments.

Workplace experience quality also correlates strongly with Employee Engagement. Engaged employees are enthusiastic, dedicated, involved and willing to do more than what is required of them in their role. According to previous research on employee engagement, employees are more likely to commit themselves to work when they see it as meaningful and they feel safe and available in their roles (Kahn, 1990). Engagement has also been conceptualized in terms of vigour, dedication and absorption, reflecting the energetic and motivational connection employees develop with their work (Schaufeli et al., 2002). Recent DEI and engagement studies also suggest that diversity management, inclusion and psychological safety can reinforce employee involvement when employees experience trust, fairness and voice at work (Alshaabani et al., 2022; Razzak et al., 2022; Siyal, 2023).

2.1 Construct-Wise Literature Matrix

Table 1. Construct-Wise Literature Matrix

Construct / Relationship	Conceptual Focus	Key Supporting Studies	Relevance to the Present Study
Diversity	Representation of employees from varied socio-cultural, educational, professional and demographic backgrounds	Alshaabani et al. (2022); Dongrey and Rokade (2021); Jerónimo et al. (2022)	Diversity is examined as a workplace perception that may differ across demographic groups and may contribute to Employee Engagement.
Equity	Fairness in opportunity, recognition, treatment, rewards, resources and access to organizational support	Colquitt (2001); Dongrey and Rokade (2021); Razzak et al. (2022)	Equity is treated as a fairness-oriented workplace experience and a predictor of Employee Engagement.
Inclusion	Voice, belongingness, participation, interpersonal acceptance and recognition of employee contribution	Jerónimo et al. (2022); Razzak et al. (2022); Siyal (2023)	Inclusion is examined as a relational workplace condition that may vary across demographic groups, especially tenure.
Psychological Safety	Safety to speak, seek help, raise concerns and take interpersonal risks without fear of negative consequences	Edmondson (1999); Edmondson and Lei (2014); Newman et al. (2018); Li and Tang (2022); Hoekx et al. (2024)	Psychological Safety is examined both as a demographic-difference outcome and as a predictor of Employee Engagement.

Employee Engagement	Energy, enthusiasm, dedication, involvement and willingness to contribute at work	Kahn (1990); Schaufeli et al. (2002); Alshaabani et al. (2022); Hoekx et al. (2024)	Employee Engagement is the dependent variable explained by demographics, DEI and Psychological Safety.
Demographic Characteristics	Gender, age, education, tenure, job role and organization size	Dongrey and Rokade (2021); Ramasamy et al. (2025)	Demographic characteristics are used to assess whether DEI-related perceptions and engagement differ across employee groups.

2.2 Diversity, Equity and Inclusion as a Workplace Experience

DEI literature suggests that diversity, equity and inclusion are distinct yet interconnected aspects of employee experience. Diversity is representation of people from different backgrounds and perspectives. Equity is the fairness of organizational systems including opportunity, recognition, rewards, promotion, support and treatment. Inclusion is about whether employees feel they belong, have a voice, participate and are accepted in their day-to-day interactions at work. This distinction matters because representation does not equal fairness or inclusion.

Alshaabani et al. (2022) found that diversity management had a positive effect on employee engagement, particularly when employees perceive organizational trust and low insecurity. This lends support to the argument that diversity practices matter when employees experience them as authentic and supportive. In the Indian context, Dongrey and Rokade (2021) showed that perceived diversity practices are correlated with psychological safety and workplace outcomes. Their research is especially pertinent as it suggests that employees might perceive diversity-related practices differently, especially in the context of advancing gender diversity and providing equal opportunities for participation.

Jerónimo et al. (2022) also found that diversity practices increase employee engagement when employees are included. This points to diversity being more effective when employees feel their presence, identity and contribution are valued. Razzak et al. (2022) also found that inclusion is positively correlated with cognitive, social, and affective engagement. Their research shows that employees are more engaged when they feel included and treated fairly in the organization.

Equity is also important as the degree of engagement is highly dependent on the extent to which employees perceive organizational decisions as fair and transparent. Colquitt (2001) provides a strong foundation of organizational justice for understanding fairness at work. Employees are more likely to develop trust and engagement when they see that opportunities, rewards and treatment are unbiased. Moreover, Razzak et al. (2022) found that fairness-oriented practices enhance engagement-related outcomes. As a result, the present research treats Diversity, Equity and Inclusion as employee-experience factors that can differ by demographic group and can explain engagement above and beyond demographic identity.

The literature has led the study to propose the following:

H1: Perceptions of DEI vary significantly across demographic groups.

2.3 Employee engagement and psychological safety

Psychological Safety is the belief that you can speak up, participate, ask questions, seek support and voice concerns without fear of negative interpersonal consequences. Psychological Safety, a term coined by Edmondson (1999), refers to a condition that enables learning behaviour in teams. Later Edmondson and Lei (2014) highlighted the importance of Psychological Safety as an interpersonal construct to understand work behaviour, learning and performance. Newman et al. (2018) also highlighted the importance of connecting diversity climate to work attitudes and employee outcomes.

Psychological Safety is particularly relevant in DEI contexts. Employees in different workplaces may not engage fully unless they feel safe to express views and identities. Workplace DEI policies can be formal, but employees may prefer to keep silent if they're concerned about being excluded, embarrassed or treated unfairly. Li and Tang (2022) found that inclusive leadership improves psychological safety, which in turn leads to employee outcomes related to performance. Hoekx et al. (2024) also linked Psychological Safety to Employee Engagement, reinforcing the notion that safe work environments enable employees to be more engaged and committed.

Employee Engagement is the energetic, emotional and cognitive connection employees have to their work. Kahn (1990) stated that when employees are able to express themselves physically, cognitively and emotionally in their work roles, engagement is present. Schaufeli et al. (2002) defined engagement as vigor, dedication and absorption. In this sense, engagement depends not only on job-related resources, but also on whether employees feel psychologically safe and socially supported. Psychological safety is even more important in IT organizations where the work is collaborative and depends on open communication. But Psychological Safety may not be experienced equally across all employees. Gender, tenure, age, job role, and organization size may influence how comfortable employees are speaking up or participating fully. Dongrey and Rokade (2021) have shown that the perception of diversity practices and psychological safety may differ across organizational settings. So, the present study investigates the difference in Psychological Safety across the demographic groups.

H2: Demographics play a major role in determining the level of Psychological Safety.

The literature further suggests that Employee Engagement can vary among employee groups, though demographic identity may not be the sole explanation for engagement. Employees in the same demographic group may have different levels of engagement depending on their perceptions of fairness, inclusion and safety. Demographic comparison is thus useful, but should be combined with workplace-experience variables.

H3: Engagement of employees varies substantially by demographic groups.

2.4 Demographics, DEI & Employee engagement

Workplace practices can be interpreted differently by employees based on demographic characteristics such as gender, age, education, tenure, job role and organization size. For example, newer employees may experience inclusion and psychological safety differently than experienced employees. Employees in smaller organizations may experience DEI systems differently than employees in larger organizations where formal policies are more visible. Gender also can play a role in perceptions of fairness and psychological safety at work. Recent research suggests looking at demographic variation in DEI-related outcomes. Dongrey and Rokade (2021) studied perceived diversity practices and psychological safety in the Indian organizational context and found differences based on the characteristics of the employees. Ramasamy et al. (2025) further highlight the role of workforce diversity in explaining employee and organizational outcomes. These studies show that demographic characteristics could be useful in understanding the variations in employee perception, especially in terms of diversity and fairness.

Demographic identity, on the other hand, is unlikely to be the sole factor of engagement. Alshaabani et al. (2022) demonstrated the effect of diversity management on engagement taking into consideration organizational trust and job insecurity. Jerónimo et al. (2022) state that diversity practices are more effective when employees feel included. Siyal (2023) found that Psychological Safety mediates the relationship of inclusive leadership and engagement. Results suggest that work experience variables may explain Employee Engagement more than demographic characteristics.

Thus, demographics are not the sole explanation for engagement in this study. Instead, it examines whether DEI and Psychological Safety can account for Employee Engagement after controlling for demographic variables. This enables the study to move beyond simple group comparison and test whether employees lived workplace experience outweighs demographic identity for the purposes of explaining engagement.

H4: Demographic variables are a significant predictor of Employee Engagement.

H5: Controlling for demographic variables, DEI and Psychological Safety are significant predictors of Employee Engagement.

2.5 Conceptual Framework of the Study

The conceptual orientation of the study is based on two interrelated arguments. First, DEI and Psychological Safety may be experienced differently by employees from different demographic groups. Gender, age, education, tenure, job role and organization size could impact employee perceptions of diversity, fairness, inclusion and safety. Second, workplace experience variables may be better predictors of Employee Engagement than demographic characteristics alone. Accordingly, the study examines demographic variation in DEI-related perceptions and then tests whether Diversity, Equity, Inclusion and Psychological Safety predict Employee Engagement after controlling for demographic characteristics. This method allows the study to offer a more balanced explanation of engagement in the Indian IT sector. The report acknowledges that there may be demographic differences but it also argues that sustainable engagement is dependent on whether employees feel the work environment is fair, inclusive, diverse and psychologically safe.

3. Research Methodology

3.1 Design, Sample and Measures

This quantitative cross-sectional research design aimed to examine if employees' perceptions of Diversity, Equity, Inclusion, Psychological Safety and Employee Engagement differ by demographic groups and if DEI-related workplace experiences predict Employee Engagement above and beyond demographic characteristics. The study was conducted in the Indian IT sector where the employees work in collaborative, project-based and professionally diverse work settings.

Data were collected from 360 IT employees from different demographic and professional groups. The sample comprised of respondents of both genders, age, education, tenure, job role and organization size. The job-role categories were software developers, application developers (mobile), web developers, project/team leads, database administrators, cybersecurity analysts and other IT professionals. The demographic grouping was suitable as recent DEI research has focused on differences in perceived diversity practices and psychological safety across employee groups such as gender and tenure.

The questionnaire was in two parts. Part 1 collected demographic information and part 2 measured Diversity, Equity, Inclusion, Psychological Safety and Employee Engagement. All construct items were measured on a five-point Likert scale with 1 = strongly disagree and 5 = strongly agree. Each construct comprised five indicators, and scores at the construct level were calculated as the mean of their respective items. This approach was appropriate because the study sought to compare group-level perceptions and estimate regression models with construct-level variables.

Table 2 Construct Matrix and Measurement Structure

Construct / Variable	Code	Conceptual Domain Used in the Study	No. of Items / Categories	Recent Literature Support	Analytical Role
Diversity	DIV	Employees' perception of representation, respect for differences and organizational support for diverse backgrounds	5 items	Alshaabani et al. (2022); Dongrey and Rokade (2021); Jerónimo et al. (2022); Tjimuku (2024)	Workplace experience predictor; group-difference outcome

Equity	EQU	Employees' perception of fairness in opportunity, rewards, recognition, treatment and access to resources	5 items	Dongrey and Rokade (2021); Razzak et al. (2022); Ardian et al. (2023); Alshaabani et al. (2022)	Workplace experience predictor; group-difference outcome
Inclusion	INC	Employees' perception of belongingness, participation, voice, interpersonal acceptance and recognition of contribution	5 items	Razzak et al. (2022); Siyal (2023); Li et al. (2022); Jerónimo et al. (2022)	Workplace experience predictor; group-difference outcome
Psychological Safety	PSY	Employees' perceived safety to speak, seek support, express ideas and take interpersonal risks without fear of negative consequences	5 items	Dongrey and Rokade (2021); Siyal (2023); Hoekx et al. (2024); Jin et al. (2024)	Workplace experience predictor; group-difference outcome
Employee Engagement	EME	Employees' energy, enthusiasm, involvement, dedication, pride and motivation at work	5 items	Alshaabani et al. (2022); Razzak et al. (2022); Siyal (2023); Hoekx et al. (2024)	Dependent variable
Gender	—	Self-reported gender category	3 categories	Dongrey and Rokade (2021)	Grouping/control variable
Age	—	Respondent age group	4 categories	Used as demographic control	Grouping/control variable
Education	—	Highest educational qualification	4 categories	Used as demographic control	Grouping/control variable
Tenure	—	Length of work experience / organizational exposure	4 categories	Dongrey and Rokade (2021)	Grouping/control variable
Job Role	—	Professional role category within the IT sector	7 categories	Used as occupational control	Grouping/control variable
Organization Size	—	Size category of respondent's organization	3 categories	Used as organizational control	Grouping/control variable

The construct matrix presents recent empirical studies supporting the conceptualisation of the main variables. Alshaabani et al. studied diversity management and employee engagement. Dongrey and Rokade studied perceived diversity practices and psychological safety with specific Indian context with SPSS based analysis. Razzak et al. studied inclusion and employee engagement, Siyal studied work engagement through psychological safety in inclusive leadership settings. Recent research also supports the importance of psychological safety to explain employee engagement and workplace outcomes.

3.2 Econometric specification and analytical strategy

The analysis was conducted in three steps. First, descriptive statistics were run to describe respondent characteristics and distributions at the construct level. Central tendency and distributional behaviour were checked by mean, standard deviation, skewness and kurtosis. Reliability was assessed using Cronbach's alpha, with values above 0.70 considered as evidence of internal consistency.

Second, independent-sample t-tests and one-way ANOVA were conducted to examine demographic differences. t-test was used for gender-based comparison between male and female respondents. Differences in perceptions across age, education, tenure, job role and organization size were examined using one-way ANOVA. When ANOVA was significant, Tukey post hoc tests were used to determine the specific differences between groups. The effect-size for t-tests was Cohen's d and for ANOVA eta squared was used. Third, hierarchical regression was performed to examine if DEI and Psychological Safety predict Employee Engagement above and beyond demographic characteristics. Model 1 consisted of demographic variables only. Model 2 included Diversity, Equity, Inclusion and Psychological Safety as well as demographic controls. This two-model structure enabled the study to compare the explanatory power of demographic identity variables with workplace experience variables.

The demographic-only model was specified as:

$$EME_i = \beta_0 + \beta_1 Gender_i + \beta_2 Age_i + \beta_3 Education_i + \beta_4 Tenure_i + \beta_5 JobRole_i + \beta_6 OrgSize_i + \varepsilon_i$$

The extended workplace-experience model was specified as:

$$EME_i = \beta_0 + \beta_1 DIV_i + \beta_2 EQU_i + \beta_3 INC_i + \beta_4 PSY_i + \beta_5 Gender_i + \beta_6 Age_i + \beta_7 Education_i + \beta_8 Tenure_i + \beta_9 JobRole_i + \beta_{10} OrgSize_i + \mu_i$$

where *EME* represents Employee Engagement, *DIV* represents Diversity, *EQU* represents Equity, *INC* represents Inclusion and *PSY* represents Psychological Safety. Demographic variables were entered as categorical control variables.

3.3 Hypotheses of the Study

The study tested whether demographic groups differ in DEI-related workplace perceptions and whether workplace experience variables explain Employee Engagement after controlling for demographic characteristics. The hypotheses were therefore framed around both group-difference testing and regression-based explanatory analysis.

Table 3 Hypotheses and Analytical Tests

Hypothesis	Statement	Statistical Test
H1	DEI perceptions differ significantly across demographic groups.	t-test / ANOVA
H2	Psychological Safety differs significantly across demographic groups.	t-test / ANOVA
H3	Employee Engagement differs significantly across demographic groups.	t-test / ANOVA
H4	Demographic variables significantly predict Employee Engagement.	Hierarchical regression Model 1
H5	DEI and Psychological Safety significantly predict Employee	Hierarchical

	Engagement after controlling for demographic variables.	regression Model 2
--	---	--------------------

This methodology keeps the study focused on workforce heterogeneity and explanatory comparison. It first examines whether demographic variation exists in DEI-related perceptions and then tests whether workplace experience variables provide stronger explanatory power for Employee Engagement than demographic characteristics alone.

4. Data Analysis and Results

4.1 Analytical Approach

The study examined whether employees' perceptions of Diversity, Equity, Inclusion, Psychological Safety and Employee Engagement differ across demographic groups and whether DEI-related workplace experiences predict Employee Engagement above and beyond demographic characteristics. The analysis was performed in four phases. First, we examined the descriptive statistics at the level of respondent profile and constructs. Second, Cronbach's alpha was used to test reliability. Third, demographic differences were assessed using independent-sample t-tests and one-way ANOVA with Tukey post-hoc comparisons. Finally, hierarchical regression was used to test whether DEI and Psychological Safety predict Employee Engagement when controlling for the demographic variables.

The regression models were specified as follows:

$$EME_i = \beta_0 + \beta_1 Gender_i + \beta_2 Age_i + \beta_3 Education_i + \beta_4 Tenure_i + \beta_5 JobRole_i + \beta_6 OrgSize_i + \varepsilon_i$$

$$EME_i = \beta_0 + \beta_1 DIV_i + \beta_2 EQU_i + \beta_3 INC_i + \beta_4 PSY_i + \beta_5 Gender_i + \beta_6 Age_i + \beta_7 Education_i + \beta_8 Tenure_i + \beta_9 JobRole_i + \beta_{10} OrgSize_i + \mu_i$$

where *DIV*, *EQU*, *INC*, *PSY* and *EME* represent Diversity, Equity, Inclusion, Psychological Safety and Employee Engagement respectively.

4.2 Respondent Profile and Descriptive Overview

The sample comprised 360 IT employees. Then, 50.00% of the respondents were males, while 39.72% were females and 10.28% of them did not disclose their gender. Most of the respondents were in the age group of 25–34 years, which formed 48.06% of the sample. As for education, 45.56% held a bachelor's degree and 36.11% had a master's degree. The sample was also diverse in terms of profession, with the largest group being software developers, followed by mobile application developers, web developers, project/team leads, database administrators and cybersecurity analysts. Large organizations constituted 47.50% of the sample.

Table 4 Respondent Profile

Variable	Dominant Category	Frequency	Percentage
Gender	Male	180	50.00
Age	25–34 years	173	48.06
Education	Bachelor's Degree	164	45.56
Tenure	1–5 years	135	37.50
Job Role	Software Developer	115	31.94
Organization Size	Large	171	47.50

The construct-level descriptive statistics show that the mean values of all five constructs are close to the midpoint of the five-point scale. Diversity recorded a mean of 2.997, Equity 2.993, Inclusion 3.002, Psychological Safety 2.999 and Employee Engagement 2.987. The standard deviations ranged from 0.930 to 0.995, indicating reasonable variation in employee responses. Skewness and kurtosis values were within acceptable limits, suggesting no serious departure from normality.++

Table 5 Descriptive Statistics and Reliability

Construct	Mean	SD	Skewness	Kurtosis	Cronbach's Alpha	Interpretation
Diversity	2.997	0.971	0.075	-0.730	0.870	Acceptable
Equity	2.993	0.995	0.019	-0.780	0.878	Acceptable
Inclusion	3.002	0.930	-0.015	-0.489	0.859	Acceptable
Psychological Safety	2.999	0.973	-0.019	-0.621	0.869	Acceptable
Employee Engagement	2.987	0.944	0.137	-0.459	0.862	Acceptable

The reliability results indicate that all constructs have acceptable internal consistency, with Cronbach's alpha values ranging from 0.859 to 0.878. These values are adequate for behavioural research and do not suggest excessive item redundancy.

4.3 Demographic Differences in DEI, Psychological Safety and Employee Engagement

The independent-sample t-test was used to examine gender-based differences between male and female respondents. The results show that male respondents reported significantly higher perceptions of Equity and Psychological Safety than female respondents. The gender difference was significant for Equity, $t = 2.344, p = 0.0198$, and Psychological Safety, $t = 2.388, p = 0.0175$. However, gender differences were not significant for Diversity, Inclusion or Employee Engagement.

Table 6 Gender-Based Difference in Construct Perceptions

Construct	Male Mean	Female Mean	t-value	p-value	Cohen's d	Interpretation
Diversity	2.961	3.078	-1.068	0.286	-0.119	Not significant
Equity	3.138	2.874	2.344	0.020	0.267	Significant
Inclusion	3.056	2.902	1.489	0.138	0.167	Not significant
Psychological Safety	3.090	2.836	2.388	0.018	0.267	Significant
Employee Engagement	2.984	2.952	0.299	0.766	0.034	Not significant

Equity and Psychological Safety show small but meaningful effect sizes. This implies that gender does not create a general difference across all constructions, but does show a specific difference in perceived fairness and psychological safety.

One-way ANOVA was employed to analyze differences in age, education, tenure, job role and organization size. The results show significant group differences only for selected constructs. Perceptions of diversity were significantly affected by age. Tenure had a significant effect on Inclusion and Psychological Safety. Organization Size was a major factor in Diversity and Equity. Education and job role did not significantly differ among the five constructs.

Table 7 ANOVA Summary for Demographic Differences

Grouping Variable	Significant Construct(s)	F-value	p-value	Eta Squared	Interpretation
Age	Diversity	4.730	0.003	0.038	Small but meaningful difference
Education	None	—	—	—	No significant difference

Tenure	Inclusion	6.950	0.0001	0.055	Moderate practical relevance
Tenure	Psychological Safety	3.288	0.021	0.027	Small effect
Job Role	None	—	—	—	No significant difference
Organization Size	Diversity	4.747	0.009	0.026	Small effect
Organization Size	Equity	6.452	0.002	0.035	Small but meaningful effect

The ANOVA shows that the demographic variance is selective, not uniform. This is useful because it avoids a blanket statement that all demographic groups experience DEI in the same way. In fact, the evidence suggests that differences are more visible in specific areas; age for Diversity, tenure for Inclusion and Psychological Safety and size of the organization for Diversity and Equity.

Additional insight is provided by the Tukey post-hoc results. The diversity perceptions of employees over 45 years of age differed significantly from those of the younger age groups. Employees with less than 1 year of tenure reported lower levels of Inclusion and Psychological Safety than those with more tenure. Differences in organization size also show that employees at larger organizations reported higher Diversity and Equity perceptions than employees at smaller organizations.

4.4 Relationship among Study Constructs

The correlation matrix shows positive associations among the study constructs. Psychological Safety has the strongest correlation with Employee Engagement ($r = 0.417$), followed by Equity ($r = 0.298$), Inclusion ($r = 0.251$) and Diversity ($r = 0.228$). These correlations indicate that Employee Engagement is more strongly associated with employees' psychological experience of safety and fairness than with diversity alone.

Table 8 Correlation Matrix

Construct	DIV	EQU	INC	PSY	EME
Diversity	1.000	0.152	0.103	0.265	0.228
Equity	0.152	1.000	0.209	0.353	0.298
Inclusion	0.103	0.209	1.000	0.304	0.251
Psychological Safety	0.265	0.353	0.304	1.000	0.417
Employee Engagement	0.228	0.298	0.251	0.417	1.000

The correlation pattern is theoretically consistent. Equity and Psychological Safety are more closely linked with engagement, while Diversity shows a weaker but positive association. This supports the argument that diversity representation alone may be less influential than fairness, inclusion and psychological safety in shaping engagement.

4.5 Hierarchical Regression Analysis

Hierarchical regression was used to examine whether DEI and Psychological Safety explain Employee Engagement beyond demographic characteristics. Model 1 included only demographic variables. The model was not statistically significant, $F = 1.107$, $p = 0.342$, and explained only 5.8% of the variance in Employee Engagement. The adjusted R^2 was only 0.006, indicating that demographics alone provide negligible explanatory power.

Model 2 included Diversity, Equity, Inclusion and Psychological Safety along with the demographic variables. The model was statistically significant, $F = 4.874$, $p < 0.001$, and explained 25.0% of the variance in Employee Engagement. The adjusted R^2 increased to 0.199, indicating a meaningful improvement in explanatory power.

Table 9 Hierarchical Regression Predicting Employee Engagement

Predictor	Model 1 Coefficient	Model 1 p-value	Model 2 Coefficient	Model 2 p-value
Gender	Not significant	>0.05	Not significant	>0.05
Age	Not significant	>0.05	Not significant	>0.05
Education	Not significant	>0.05	Not significant	>0.05
Tenure	Not significant	>0.05	Not significant	>0.05
Job Role	Not significant	>0.05	Not significant	>0.05
Organization Size	Significant for Large Organization	0.023	Not significant after DEI/PSY controls	>0.05
Diversity	—	—	0.109	0.031
Equity	—	—	0.140	0.006
Inclusion	—	—	0.118	0.025
Psychological Safety	—	—	0.287	<0.001
R^2	0.058	—	0.250	—
Adjusted R^2	0.006	—	0.199	—
Model p-value	0.342	—	<0.001	—

The regression results provide the central finding of the study. Demographic characteristics alone do not significantly explain Employee Engagement. However, after adding workplace experience variables, the model becomes significant. Psychological Safety emerges as the strongest predictor of Employee Engagement, followed by Equity, Inclusion and Diversity. This indicates that engagement is shaped more by how employees experience the workplace than by who they are demographically.

The regression equation for the final model may be summarized as:

$$EME = 0.109DIV + 0.140EQU + 0.118INC + 0.287PSY + Controls + \varepsilon$$

This suggests that a one-unit increase in Psychological Safety is associated with the strongest increase in Employee Engagement, holding demographic variables and other predictors constant. Equity is the strongest DEI predictor, followed by Inclusion and Diversity.

4.6 Hypothesis Summary

Table 10 Summary of Hypothesis Testing

Hypothesis	Statement	Result
H1	DEI perceptions differ significantly across demographic groups.	Supported
H2	Psychological Safety differs significantly across demographic groups.	Supported
H3	Employee Engagement differs significantly across demographic groups.	Not supported

H4	Demographic variables significantly predict Employee Engagement.	Not supported
H5	DEI and Psychological Safety significantly predict Employee Engagement after controlling for demographic variables.	Supported

The results indicate that demographic differences exist for selected DEI-related perceptions, particularly Equity, Diversity, Inclusion and Psychological Safety. However, these demographic differences do not translate into significant differences in Employee Engagement. More importantly, demographic variables alone do not significantly predict Employee Engagement. DEI and Psychological Safety become significant predictors only when employees' workplace perceptions are included in the model.

4.7 Integrated Interpretation

The findings offer a balanced picture of demographic variations and workplace experience. The demographic characteristics do not affect the employee's perception in the same way, but some differences can be seen. Equity and Psychological Safety are gender sensitive, indicating a potential difference in perception of fairness and psychological security between female and male employees. Differences in Inclusion and Psychological Safety by tenure suggest that new employees may need stronger support, voice mechanisms and onboarding practices to feel included and safe. Diversity and Equity differences in organization size suggest that larger organizations may have more visible or structured DEI systems compared to smaller organizations. The regression results reveal that demographics are not sufficient to explain Employee Engagement. This is important because it moves the interpretation from demographic identity to workplace experience. The research shows that gender, age, education, tenure or job role does not make employees more or less engaged. Rather, engagement is more a function of whether they experience the workplace as fair, inclusive, diverse, and psychologically safe.

In the final model, Psychological Safety is the strongest predictor of Employee Engagement. This suggests that employees are more apt to stay engaged when they feel safe to speak, participate, ask questions and voice concerns without fear. Equity is a big part of it too, lending support to the idea that fairness in workplace systems is a big driver of engagement. Inclusion and Diversity also play a big role, but the effects are less pronounced. This pattern is theoretically meaningful in that it implies that representation and belongingness are important, but they become more potent when bolstered by fairness and safety. Overall, the results show that organizations should not only use demographic segmentation to understand engagement. Instead, they need to ask whether different groups of employees' experience fairness, inclusion and safety in the same way. The findings support a practical HR conclusion: that improving employee engagement is best achieved not by treating demographic groups as fixed categories, but rather by strengthening the workplace conditions that allow all employees to feel respected, included and psychologically secure.

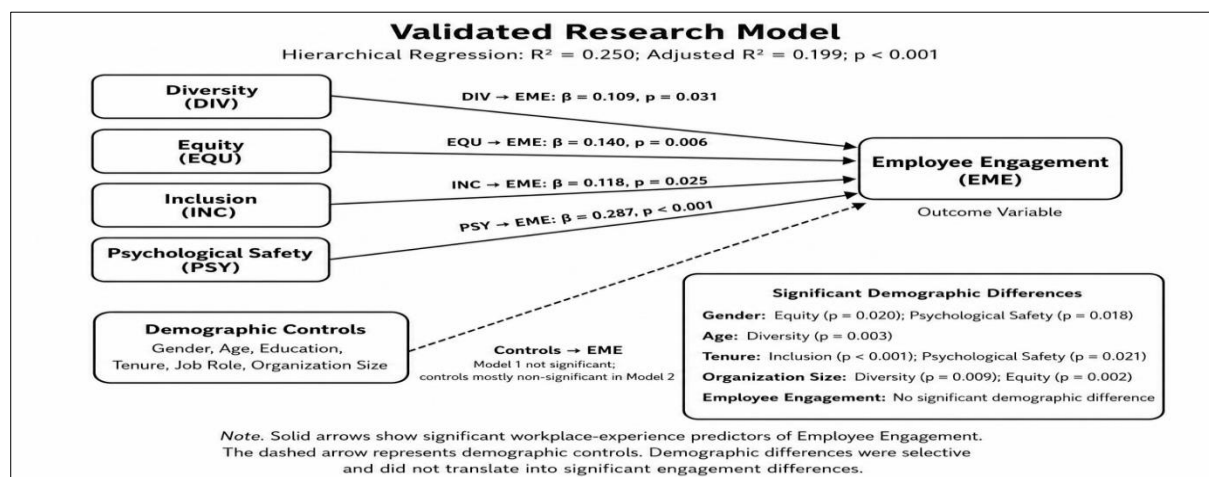


Figure-1: Validated Research Model

5. Conclusion

The present study examined whether employees' perceptions of Diversity, Equity, Inclusion, Psychological Safety, and Employee Engagement differ across demographic groups and whether workplace experience variables explain Employee Engagement beyond demographic characteristics. The results show that the demographic differences are not universal but selective. Diversity and Equity were found to have organization size-based differences, Inclusion and Psychological Safety were found to have tenure-based differences, and Equity and Psychological Safety were found to have gender-based differences. However, Employee Engagement was not significantly different by demographic groups.

The main conclusion of the study is derived from the results of the hierarchical regression. Demographic variables were not significant explanatory variables for employee engagement. When the model was expanded to include Diversity, Equity, Inclusion and Psychological Safety, the explanatory power increased dramatically. Psychological Safety was the strongest predictor of Employee Engagement, followed by Equity, Inclusion and Diversity. The findings indicate that engagement is more influenced by the lived experience of employees in the workplace than demographic identity alone.

This study adds to the DEI and engagement literatures by demonstrating that demographic membership does not always equate to engagement outcomes. Rather, employees are more likely to be engaged when they experience the workplace as being fair, inclusive, diverse and psychologically safe. This is even more significant for the Indian IT industry where employees work under diverse, collaborative and project-based environments. These findings indicate that organizations should not rely on broad demographic assumptions but should instead work to bolster the conditions that foster fairness, belongingness, voice, and psychological security among employees.

From a managerial perspective, the results suggest that HR interventions should be experience oriented rather than just demographic category oriented. Equity and Psychological Safety gender gaps signal the need for periodic fairness audits and safe employee voice channels. Tenure-based differences in Inclusion and Psychological Safety highlight the importance of onboarding, mentoring, and early-career support. Diversity and Equity vary by organization size, indicating that smaller firms might benefit from more formalized and visible DEI systems, while larger firms need to ensure that DEI efforts at the policy level translate into employee-level experiences.

There are some limitations of the study. Its cross-sectional nature limits causal inference and the use of self-reported survey responses may be subject to perceptual bias. Future research may utilize longitudinal designs, mixed-method approaches or objective HR indicators such as retention, promotion, absenteeism and performance records. Further studies may also explore intersectional demographic categories and test whether leadership style, remote work intensity or organizational culture strengthen or weaken the relationship between DEI-related workplace experience and Employee Engagement.

In conclusion, the study recommends that the sustainable Employee Engagement in Indian IT sector is less determined by demographic identity and more by the quality of workplace experience. Diversity, Equity and Inclusion matter but their impact is more meaningful when employees feel psychologically safe, fairly treated and genuinely included in the everyday organizational life.

References:

- [1] Ahmad, S., & Touseef, M. (2024). *The impact of diversity, equity and inclusion (DE&I) in the workforce: A case study of Company X*.
- [2] Alshaabani, A., Hamza, K. A., & Rudnák, I. (2022). Impact of diversity management on employees' engagement: The role of organizational trust and job insecurity. *Sustainability*, 14(1), Article 420.
- [3] Azizah, A. N., & Hidayah, N. (2025). Diversity, equity, and inclusion: Measuring its impact on organizational performance in global workforces. In *The Fourth International Conference on Government Education Management and Tourism* (Vol. 4, Article 024).
- [4] Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, 86(3), 386–400.

- [5] Dongrey, R., & Rokade, V. (2021). Assessing the effect of perceived diversity practices and psychological safety on contextual performance for a sustainable workplace. *Sustainability*, 13(21), Article 11653.
- [6] Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350–383.
- [7] Edmondson, A. C., & Lei, Z. (2014). Psychological safety: The history, renaissance, and future of an interpersonal construct. *Annual Review of Organizational Psychology and Organizational Behavior*, 1, 23–43.
- [8] Feitosa, J., Hagenbuch, S., Patel, B., & Davis, A. (2022). Performing in diverse settings: A diversity, equity, and inclusion approach to culture. *International Journal of Cross-Cultural Management*, 22(3), 433–457.
- [9] Gasnier, A., Jereczek-Fossa, B. A., Pepa, M., Bagnardi, V., Frassoni, S., Perryck, S., Spalek, M., Petit, S. F., Bertholet, J., Dubois, L. J., & Franco, P. (2022). Establishing a benchmark of diversity, equity, inclusion and workforce engagement in radiation oncology in Europe: An ESTRO collaborative project. *Radiotherapy and Oncology*, 171, 198–204.
- [10] Goswami, S., & Goswami, B. K. (2018). Exploring the relationship between workforce diversity, inclusion and employee engagement. *Drishtikon: A Management Journal*, 9(1), 65–89.
- [11] Hoekx, L., Lambrechts, F., & Vandekerckhof, P. (2024). The influence of family firm CEOs' transformational leadership on employee engagement: The mediating role of psychological safety. *Journal of Family Business Management*, 14(6), 1316–1335.
- [12] Jerónimo, H. M., Henriques, P. L., & Carvalho, S. I. (2022). Being inclusive boosts the impact of diversity practices on employee engagement. *Management Research: Journal of the Iberoamerican Academy of Management*, 20(2), 129–147.
- [13] Judd, K., & McKinnon, M. (2021). A systematic map of inclusion, equity and diversity in science communication research: Do we practice what we preach? *Frontiers in Communication*, 6, Article 744365.
- [14] Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692–724.
- [15] Li, T., & Tang, N. (2022). Inclusive leadership and innovative performance: A multi-level mediation model of psychological safety. *Frontiers in Psychology*, 13, Article 934831.
- [16] Miller Dyce, C., Hawthorne, K., & Wire, J. (2024). Culture of interculturality, diversity, equity, and inclusion assessment: Lessons from a social justice-based intercultural learning certificate program for preservice teachers. *Education Sciences*, 14(5), Article 482.
- [17] Newman, A., Nielsen, I., Smyth, R., Hirst, G., & Kennedy, S. (2018). The effects of diversity climate on the work attitudes of refugee employees: The mediating role of psychological capital and moderating role of ethnic identity. *Journal of Vocational Behavior*, 105, 147–158.
- [18] Nwachuku, I., Taylor, E., & Danisa, O. (2024). The impact of diversity, equity, and inclusion on spinal research: Asking different questions. *The Spine Journal*.
- [19] Panicker, T., & Balu, L. (2018). The impact of workforce diversity on employee engagement in Manasco Group. *International Journal of Engineering Technology Science and Research*, 5(3), 103–111.
- [20] Ramasamy, I., Natarajan, S., & Mittal, A. (2025). Impact of workforce diversity on employee retention and organizational outcomes. *SAGE Open*, 15(4).
- [21] Razzak, M. R., Khan, G. M., & AlAbri, S. (2022). Inclusion and employee engagement of nonfamily employees in family firms: Moderating influence of procedural justice. *Journal of Family Business Management*, 12(4), 708–728.
- [22] Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two-sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71–92.

- [23] Siyal, S. (2023). Inclusive leadership and work engagement: Exploring the role of psychological safety and trust in leaders in multiple organizational contexts. *Business Ethics, the Environment & Responsibility*, 32(4), 1170–1184.
- [24] Zallio, M., Chivăran, C., & Clarkson, P. J. (2024). Exploring inclusion, diversity, equity, and accessibility in the built environment: A case study. *Buildings*, 14(9), Article 3018.