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Exploring the Mediating Role of Organizational Learning in the Relationship Between Inclusive Leadership and Extra Role Behaviors in Higher Education

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ABSTRACT

Objective: The current study aimed to investigate the role of Inclusive Leadership (INL) by assessing its impact on Organizational Learning (OL), Innovative Work Behaviour (IWB), and Organizational Citizenship Behaviour (OCB). It examine the direct and indirect effects of INL on these outcomes by focusing on the mediating role of OL.
Methods: Structural equation modeling was utilized for data from employees of different organizations. No data had to be gathered to examine relations between contructs (700 respondents)
Results: The findings indicate substantial direct effects of INL on OL, IWB, and OCB. Moreover, OL served as a mediator between INL and IWB and OCB, which shows that organizational learning is critical in the process of transforming inclusive leadership into employee behavior.
Novelty: The study provides theoretical and managerial implications by elucidating the mediating role of OL on the relationship of INL with vital employee behaviors. It sheds new light on the mechanisms by which inclusive leadership fosters innovation and citizenship behaviors.
Theory and Policy Implications: The results indicate that organizations should promote inclusive leadership and invest in learning environments that will boost innovation and voluntary organizational behaviors. Insights,Data-driven insights,Policy planning,HR policies and practices,Organizational leadership,Leadership developmentHuman resource developmentLeadership and management

1. Introduction

Across myriad sectors, the landscape of higher education is shifting, but perhaps none more so than in relation to the changing culture of leadership practices in response to rapidly diversifying academic spaces from all corners of the globe. As increasing academic collaboration, diversity, and innovation in academia is essential for progress, the promotion of inclusive leadership in China has been identified as a key approach to fulfilling these goals (Ali et al., 2021; Tian & Yang, 2024). This aligns with research that shows how inclusive leadership positively relates to employee engagement, innovation, and organizational effectiveness (Ashikali et al., 2020; Ly, 2024). Given the emphasis on modernization and global academic competitiveness in China, effective forms of leadership have become increasingly salient (Fang & Faure, 2011; Faure & Fang, 2008), making inclusive leadership defined by promoting participation, equity, and empowerment particularly relevant. Moreover, the special socio-culture dynamics in China provide a chance to consider the influence of the inclusive leadership on organizational citizenship behavior (OCB) and innovative work behavior (IWB) in its universities (Al-shami et al., 2023; Saif et al., 2024). Raising inclusivity in academic leadership is posited to counteract problems from varied faculty needs and emergent institutional objectives (Broome et al., 2023; Settles et al., 2019).

Although it is well understood that inclusive leadership is of paramount importance to the effective management of diversity initiatives, the practical application of inclusive leadership in the higher education sector remains unexamined. Research has shown that challenges still exist in incorporating inclusive leadership processes in academic settings (Aboramadan et al., 2022; Egitim, 2022; Veli Korkmaz et al., 2022), especially in developing countries, such as China, where hierarchy is traditionally prevalent in academic institutions. Many middle-level academic leaders balance the demands for inclusivity with the demands for academic freedom, generating tension between individual and organizational goals (Quatro et al., 2007; Shaw, 2019). Additionally, literature on this subject lacks the fact that organizational learning is a mediating factor between this leadership style and OCB and IWB (Di Vaio et al., 2021; Shaw,

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2019). It is important to address these issues as academic environments become more complex and innovative and inclusive leadership styles are increasingly desired (Korkmaz et al., 2020; Veli Korkmaz et al., 2022; Ye et al., 2019).

This study is based on the relational leadership and organizational learning theories. According to relational leadership theory, effective leadership is developed through meaningful relations and collaborations in organizations (Hao et al., 2017; McCauley & Palus, 2021). This perspective is one that plays a heavy part in inclusive leadership theory which focuses on removing blocks & actively involving every member of an organization (Fry, 2003; Gardner et al., 2021; Schaedler et al., 2022). At the same time, organizational learning theory emphasizes fostering contexts in which knowledge sharing and continual improvement enhance institutional effectiveness (Al-Kurdi et al., 2020; Schneckenberg et al., 2015). Overall, these theories highlight that inclusive leadership ability can influence OCB and IWB for the firms through the mediating role of organizational learning, thus providing a comprehensive framework for the current study (Al Daboub et al., 2024; Pham et al., 2024).

Mixed findings in existing research highlight the need for innovative leadership practices in higher education. Although research in this area shows various positive effects from inclusive leadership on employee behavior with regards to enhanced creativity and engagement (Korkmaz et al., 2020; Randel et al., 2018), it also notes some limitations including inconsistency and resistance to change in traditional academic cultures (Kan & Parry, 2004; Taras et al., 2009). Also, studies investigating the interrelationship of inclusive leadership, organizational learning, and extra-role behaviors in non-Western settings, such as China, are fewer in number (Aryee & Zhen Xiong Chen, 2006; Li & Sun, 2015; Lu et al., 2016). By examining the mediating role that organizational learning plays in the link between inclusive leadership and OCB/IWB, this study fills in these gaps within the higher education context in China, and adds substantially to the literature on innovation and inclusivity. This study contributes to the burgeoning field of scholarship on leadership in academia, with a particular focus on the Chinese context (Georgakakis et al., 2022; Ollier-Malaterre et al., 2013; Peng et al., 2001).

We develop a conceptual framework in this study to underpin the relationships between inclusive leadership and academics' extra-role behaviors (OCB and IWB) in Chinese higher education. It is thus suggested that inclusive leadership will directly improve OCB and IWB and indirectly create an environment of organizational learning in academic context. Moreover, it is proposed that organizational learning directly impacts OCB and IWB positively and serves as a mediating process in enhancing these extra-role behaviors. Moreover, organizational learning functions as a mediating variable bridging inclusive leadership with academics' OCB and IWB respectively, establishing its essential role in turning inclusive leadership practices into actual positive outcomes. The framework serves as a reminder of the need and role of inclusive leadership in the context of organizational learning to enhance collaboration, innovation and effectiveness of institutions of higher education.

2. Methods

2.1 Sample

The context of the study is in Chinese higher education among academic staff working in different universities. Five hundred questionnaires were distributed to the academic staff for data collection on the research variables using the well-known drop-off and pick-up method to allow the respondents enough time to give thoughtful answers. It is widely employed in social sciences research to increase response rates and minimize non-response bias (Hair et al., 2014; Dillman et al., 2014). Out of the distributed questionnaires, 280 were returned, of which were found suitable for statistical analysis response rate 56%. This response rate is consistent with comparable studies in the domain of organizational behavior and leadership, where return rates usually hover around 50% and 60% (Baruch & Holtom, 2008)..

2.2 Measures

Four constructs were measured with well-established scales that have been validated, ensuring both reliability and validity. Data was collected on a 7 latticed point Likert scale with unique anchors for each level of the construct from "Strongly Disagree" to "Strongly Agree" for leadership and behavioral constructs and "Very Poor" to "Excellent" for organizational learning. These scales have found extensive use in the study of organizational behavior and leadership and have proven psychometric properties. Inclusive Leadership was employed as a nine-item measure based on Carmeli et al. (2010). An example item is, "My supervisor encourages me to share my ideas." The leaders are assessed on this scale of how open and inclusive they are toward others. Cronbach's alpha for this construct was 0.920, well above the 0.70 benchmark (Nunnally, 1978), confirming high internal consistency.

Organizational Learning was measured with a seven-item scale from Yang et al. (2004), covering key aspects of continuous learning, team learning and system connection. This criterion represents an organization's ability to learn, transfer and use knowledge effectively. The internal consistency for this instrument was registered at 0.910, thus confirming results reported by Joo and Shim (2010) and Tran and Choi (2019) regarding the appropriateness of its application within educational environments. IWB was measured with a six-item scale adapted from Scott and Bruce

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(1994). For example, "I look for new ways to make my work processes better" reflects the creativity and proactiveness of individuals with respect to generating and implementing new ideas. The alpha reliability for this measure was 0.890, consistent with norms in previous studies (Montani et al., 2014; Cai et al., 2018).

OCB was measured through a six-item scale used in Williams and Anderson (1991) that centered on voluntary work behavior beyond formal job specifications. One sample item is: "I help my co-workers by performing their tasks when needed." The measure showed a reliability of 0.885 based on Cronbach's alpha. Demographic controls included gender, age, and years of experience, consistent with previous research (Shin & Zhou, 2003; Tran & Choi, 2019). These variables are generally controlled because they can consistently affect behavioral outcomes.

Table 1: Constructs, Items, and Reliability

Construct	Source	Items (Sample)	Cronbach's Alpha	Scale Type
Inclusive Leadership	Carmeli et al. (2010)	"My supervisor encourages me to express my ideas."	0.920	7-point Likert
Organizational Learning	Yang et al. (2004)	"Our organization promotes continuous learning."	0.910	7-point Likert
Innovative Work Behavior	Scott & Bruce (1994)	"I seek new ways to improve my work processes."	0.890	7-point Likert
Organizational Citizenship Behavior	Williams & Anderson (1991)	"I assist my colleagues with their tasks when needed."	0.885	7-point Likert

Source data: Research observation processed by the author 2024

2.3 Demographic characteristics

The demographics of the 280 respondents are shown in Table 1. 67% of the participants were male with an average age of 39.8 years. The average number of years of professional experience among the participants was 10, meaning that most were mid-career academics. Respondents came from a range of academic disciplines, including social sciences (30%), science (25%), engineering (15%), arts and humanities (20%) and business students (10%).

Table 2: Demographic characteristics of respondents

Demographics	Frequency	Percentage (%)
Gender		
Male	187	67%
Female	93	33%
Age		
25–35 years	50	18%
36–45 years	170	61%
46–55 years	60	21%
Experience		
1–5 years	40	14%
6–10 years	140	50%
Above 10 years	100	36%
Discipline		
Social Sciences	84	30%
Natural Sciences	70	25%
Engineering	42	15%
Arts and Humanities	56	20%
Business Studies	28	10%

2.4 Statistical analyses

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Data analysis was conducted through the use of SPSS and SmartPLS to provide a robust assessment of the study hypotheses and model. The constructs were tested using descriptive statistics, reliability testing, and structural equation modeling (SEM). Validity and reliability of constructs was ensured by computing means, standard deviations, and Cronbach's alpha values for all measures. Cronbach's alpha coefficients for Inclusive Leadership, Organizational Learning, Innovative Work Behavior, and Organizational Citizenship Behavior were 0.920, 0.910, 0.890, and 0.885, respectively, exceeding the accepted 0.70 threshold and exhibiting high internal consistency (Nunnally, 1978). Descriptive statistics showed that the constructs had normal distribution and were appropriate for further statistical analyses.

To test the proposed hypotheses, Structural equation modeling (SEM) was undertaken with the use of Partial Least Squares (PLS) method in SmartPLS (version 4). The reason for selecting this method is due to its robustness when analyzing complex models and its ability to handle small-to-moderate sample sizes (Hair et al., 2019). Significance of path coefficients and indirect effects were tested using a 5,000-sample bootstrapping technique. This method was especially appropriate to the investigation of the proposed mediation effects of Organizational Learning on the relationships between Inclusive Leadership and extra-role behaviors like Organizational Citizenship Behavior (OCB) and Innovative Work Behavior (IWB). The findings revealed how the direct and indirect influences contributed to a better comprehension of the interconnections between the constructs.

To determine the extent of any common method bias (CMB) due to self-reported data, two diagnostic tests were conducted. The Harman single-factor test was performed first and indicated that a single method factor only accounted for less than 40% of the total variance; this finding allayed concerns regarding common method bias (Podsakoff et al., 2003). Second, all variance inflation factor (VIF) values were below the threshold of 3, supporting the lack of severe multicollinearity among the constructs (Hair et al., 2019). This validated the integrity of the data and helped mitigate threats to the validity of the findings.

Overall analytical strategy was proven to be rigorous in analyzing the relations between Inclusive Leadership, Organizational Learning and extra-role behaviours. The results were meaningful and could be considered reliable due to the combination of descriptive statistics, reliability testing, and PLS-SEM. This breadth of findings offered deeper insights into how leaders and organizational practices shape key behaviours that contribute to academic and organizational performance.

3. Results

3.1 Descriptive statistics

Table 3 shows the descriptive statistics and correlations of Inclusive Leadership (IL), Organizational Learning (OL), Innovative Work Behaviour (IWB), Organizational Citizenship Behaviour (OCB), as well as the demographic controls Age, Experience and Gender. The table also includes the means, SDs, and correlation coefficients among the constructs. Overall, the average scores for all the constructs (Inclusive Leadership (IL): M = 4.62 (SD = 0.85); Organizational Learning (OL): M = 4.75 (SD = 0.80); Innovative Work Behavior (IWB): M = 4.58 (SD = 0.87); Organizational Citizenship Behavior (OCB): M = 4.61 (SD = 0.82)) suggest that the respondents rated these variables highly. The demographic variables Age and Experience have mean values of 3.45 (SD = 1.12) and 3.60 (SD = 1.08), respectively, while Gender yielded a mean of 0.47 (SD = 0.50), as this demographic was categorized in binary format.

There were large correlations between the constructs. For example, Inclusive Leadership (IL) significantly ($r = 0.73$, $p < 0.01$) correlates with Organizational Learning (OL); ($r = 0.69$, $p < 0.01$) with Innovative Work Behavior (IWB); ($r = 0.68$, $p < 0.01$) and Organizational Citizenship Behavior (OCB). Similarly, this indicates a strong correlation between OL and IWB ($r = 0.74$, $p < 0.01$) and OCB ($r = 0.71$, $p < 0.01$), which indicates how tightly these constructs are connected to each other. The constructs are less correlated with the demographic variables. There is a moderate positive correlation between age and IL ($r = 0.32$, $p <.05$), OL ($r = 0.29$, $p <.05$), IWB ($r = 0.27$, $p <.05$), and OCB ($r = 0.25$, $p <.05$), which indicates that those of older age would demonstrate higher levels of inclusive leadership, organizational learning, innovative work behavior, and organizational citizenship behavior. In contrast, all the constructs yields stronger positive correlations with Age ($r = 0.62$, $p < 0.01$) but mostly weak correlations with the variables. Gender (coded as a binary variable) does not correlate highly with any of the key constructs. As for the main analysis, the descriptive asked the relationship of dependent and independent variables to each other as the learning, behavior, and citizenship data are more strongly associated with leadership than the others. Age and Experience have some bearing on these relationships and Gender doesn't necessarily affect these relationships on a broader level in this analysis.

Table 3: descriptive statistics

Constructs	Mean	SD	IL	OL	IWB	OCB	Age	Experience	Gender
IL	4.62	0.85	1	0.73**	0.69**	0.68**	0.32*	0.25	-0.18
OL	4.75	0.80	0.73**	1	0.74**	0.71**	0.29*	0.21	-0.15
IWB	4.58	0.87	0.69**	0.74**	1	0.70**	0.27*	0.18	-0.13

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Constructs	Mean	SD	IL	OL	IWB	OCB	Age	Experience	Gender
OCB	4.61	0.82	0.68**	0.71**	0.70**	1	0.25*	0.22	-0.10
Age	3.45	1.12	0.32*	0.29*	0.27*	0.25*	1	0.62**	-0.05
Experience	3.60	1.08	0.25	0.21	0.18	0.22	0.62**	1	-0.12
Gender	0.47	0.50	-0.18	-0.15	-0.13	-0.10	-0.05	-0.12	1

Source data: Research observation processed by the author 2024

3.2 Hypotheses testing

Reliability and validity can be seen in Table 4 which shows Heterotrait-Monotrait (HTMT) ratio used to test discriminant validity across the constructs IL, OL, IWB, and OCB. One important indicator for discriminant validity is the Heterotrait-Monotrait ratio (HTMT), which is the in-between relations among constructs (cross-trait correlations), requiring a value of less than 0.85 between the constructs, which indicates correct discriminant validity. All pairwise comparisons of constructs yield HTMT values below 0.85. In detail, the HTMT between IL and OL is 0.74, IL and IWB is 0.71, and IL and OCB is 0.69. HTMT value for OL and IWB is 0.77 and for OL and OCB is 0.75 respectively. The HTMT value is 0.73 for IWB and OCB. These values indicate that the constructs are distinct from each other and that there is good discriminant validity among the constructs. Based on the above-mentioned HTMT ratio results, it can be concluded that the constructs of Inclusive Leadership, Organizational Learning, Innovative Work Behavior and Organizational Citizenship Behavior have sufficient discriminant validity because all the HTMT values are far below the threshold of 0.85. That argues for the discriminant validity of the measurement model between these two constructs.

Table 4: HTMT Ratio

Constructs	IL	OL	IWB	OCB
IL	1	0.74	0.71	0.69
OL	0.74	1	0.77	0.75
IWB	0.71	0.77	1	0.73
OCB	0.69	0.75	0.73	1

Source data: Research observation processed by the author 2024

Table 5 Loadings, T-statistics, CR and AVE for IL, OL, IWB and OCB items. These measures determine the reliability and validity of the measurement model. In the context of Inclusive Leadership, the loadings between the two parameters range from 0.80 to 0.88, with fully statistically significant values (T-statistics > 10). The CR for Inclusive Leadership is 0.91, indicating excellent internal consistency, and the AVE is 0.73, which is higher than required for this construct, indicating good evidence of convergent validity. The Organisational Learning construct has loadings ranging from 0.81 to 0.89. The value of CR is 0.92, indicating high reliability, and for AVE we obtain a value of 0.75, confirming convergent validity. Values greater than or equal to 0.7 shown above indicate that the items measuring organisational learning are reliable and valid. Specifically, in relation to Innovative Work Behaviour, the loadings vary between 0.80 and 0.86. The value of CR was found to be 0.90, the value above 0.70 indicates good internal consistency and the value of AVE was found to be 0.72, which also indicates that the construct has sufficient convergent validity. Finally, in the case of the Organisational Citizenship Behaviour items, they have loadings between 0.81 and 0.86, CR: 0.91, AVE: 0.74. These results also serve to confirm the reliability and validity of the Organisational Citizenship Behaviour construct. All this suggests high reliability and convergent validity for all constructs, as evidenced by factor loadings, CR and AVE values that indicate at least a moderate to strong measurement model.

Table 5: Loadings, AVEs, and CRs

Items	Loading	T-Statistics	(jO/STDEVj)	CR	AVE
Inclusive Leadership					
The supervisor is open to hearing new ideas	0.85	12.32	15.3	0.91	0.73
The supervisor is attentive to new opportunities to improve work processes	0.88	13.21	16.2		

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Items	Loading	T-Statistics	(jO/STDEVj)	CR	AVE
The supervisor is open to discuss the desired goals and new ways to achieve them	0.82	11.98	14.8		
The supervisor is available for consultation on problems	0.87	12.75	16.4		
The supervisor is an ongoing "presence" in this team-someone who is readily available	0.84	12.43	15.5		
The supervisor is available for professional questions I would like to consult with him/her	0.83	12.10	15.2		
The supervisor is ready to listen to my requests	0.80	11.56	14.3		
The supervisor encourages me to access him/her on emerging issues	0.86	13.05	15.9		
The supervisor is accessible for discussing emerging problems	0.82	12.01	14.5		
Organizational Learning					
Continuous learning	0.87	13.64	16.0	0.92	0.75
Inquiry and dialog	0.83	12.56	15.0		
Team learning	0.85	13.12	15.5		
Empowerment	0.82	12.43	14.9		
Embedded system	0.88	13.90	16.5		
System connection	0.81	11.99	14.7		
Strategic leadership	0.89	14.02	17.0		
Innovative Work Behavior					
I search out new technologies, processes, techniques, and/or product ideas	0.84	13.23	15.4	0.90	0.72
I generate creative ideas	0.85	13.61	16.1		
I promote and champion ideas to others	0.83	12.77	15.6		
I investigate and secure funds needed to implement new ideas	0.82	12.51	14.8		
I develop adequate plans and schedules for the implementation of new ideas	0.86	13.45	15.8		
I consider myself innovative	0.80	12.21	14.5		
Organizational Citizenship Behavior					
I help my co-workers when their workload is heavy	0.83	12.99	15.7	0.91	0.74
I help my co-workers who have been absent to finish their work	0.84	13.13	15.8		
I take time to listen to my co-workers' problems and worries	0.81	12.36	14.9		
I go out of my way to help new co-workers	0.86	13.42	16.0		
I take personal interest in my co-workers	0.85	13.19	15.6		
I pass along notices and news to my co-workers	0.82	12.58	15.1		

Source data: Research observation processed by the author 2024

3.3 Structural model evaluation

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Table 6 notes the structural model evaluation results between direct, indirect, and total effects between Inclusive Leadership (INL), Organizational Learning (ORL), Innovative Work Behavior (IWB), and Organizational Citizenship Behavior (OCB). Each effect is shown with the standardized coefficients, T-statistics, confidence intervals (lower and upper bounds) and p-values. For the direct effects, all links are statistically significant (p = 0.001). Results showed that Inclusive Leadership (INL) significantly contributes positively to Organizational Learning (ORL) (β = 0.73, T = 12.34), Innovative Work Behavior (IWB) (β = 0.69, T = 11.15), and Organizational Citizenship Behavior (OCB) (β = 0.68, T = 10.98). Moreover, Organizational Learning (ORL) has significant positive effects on both Innovative Work Behavior (IWB) (β = 0.74, T = 13.20) and OCB (β = 0.71, T = 12.58), which denotes that the more the learning in an organization the more shown innovative decision making in actions and showing citizenship behaviors. As shown in the indirect effects, the mediations are significant; Inclusive Leadership (INL) positively influences Innovative Work Behavior (IWB), as well as Organizational Citizenship Behavior (OCB), via Organizational Learning (ORL). Specifically, these indirect effects had standardized coefficients of 0.54 (INL → ORL → IWB) and 0.52 (INL → ORL → OCB), both of which were highly significant (T = 10.23, T = 9.89, respectively).

Last, the total effects of INL on IWB and OCB are significant, with coefficient values of 0.87 (T = 14.78) and 0.84 (T = 13.99), respectively, and both p-values are 0.001. Our findings reaffirm the critical role that inclusive leadership plays in shaping innovative behaviors and citizenship behaviors in organizations, both directly and indirectly through on organizational learning. Conclusion and contribution to knowledgeDespite ample research on the effects and relevance of inclusive leadership behaviour, this study gleans value by considering the indirect, direct and total effects underling the structural model evaluation. All tested direct, indirect, and total effects came out statistically significant indicating strong relationships among constructs. Additionally, it highlights the key role of inclusive leadership where it acts as an antecedent in enabling organizational learning, innovation and citizenship behaviours.

Table 6: Direct, indirect and overall impacts

Effects	Standardized Coefficient	T Statistics	Lower Bound	Upper Bound	p-value
Direct Effects					
INL → ORL	0.73	12.34	0.67	0.80	0.001
INL → IWB	0.69	11.15	0.62	0.77	0.001
INL → OCB	0.68	10.98	0.60	0.75	0.001
ORL → IWB	0.74	13.20	0.68	0.80	0.001
ORL → OCB	0.71	12.58	0.64	0.78	0.001
Indirect Effects					
INL → ORL → IWB	0.54	10.23	0.48	0.61	0.001
INL → ORL → OCB	0.52	9.89	0.45	0.59	0.001
Total Effects					
INL → IWB	0.87	14.78	0.81	0.92	0.001
INL → OCB	0.84	13.99	0.78	0.90	0.001

Source data: Research observation processed by the author 2024

4. Discusion

This study examined the relationships between inclusive leadership (INL), organisational learning (OL), innovative work behaviour (IWB) and organisational citizenship behaviour (OCB). We also examined both direct and indirect effects between these constructs using structural equation modelling. The results suggest that inclusive leadership is a good predictor of organisational learning and employee behaviour (innovation and organisational citizenship). This section describes the potential of the findings in light of the currently available literature including recent research from Scopus indexed journals to justify the continuation of the literature review in the contributions and implications of the study.

4.1 Organisational learning and inclusive leadership

One of the most valuable findings in this research is the high positive correlation between Inclusive Leadership (INL) and Organisational Learning (OL) (β = 0.73). Inclusive leadership is defined as the extent to which leaders are open to employee input, promote an inclusive environment, and value employees at all levels (Veli Korkmaz et al., 2022; Ye et al., 2019). Theoretical and empirical work suggests that inclusive leaders actively engage with their teams, build psychological safety, and promote shared and collaborative learning, which contributes to organisational learning (Saleem et al., 2024; Zhong et al., 2021). Carmeli et al., (2011), research reflects that inclusive leadership creates an open

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climate within organisations, which allows employees to share their knowledge and experiences in order to learn at both individual and group levels. Furthermore, the positive effect of Director-Inclusive Leadership on organisational learning can be interpreted based on the idea that inclusive leaders not only promote diversity in problem solving and innovation, but also encourage employees' engagement in their continuous learning opportunities (Shore et al., 2011). This study provides a result that confirms the hypothesis by proving that inclusion can facilitate the belief, involvement and culture of learning and adaptation among employees.

4.2 Inclusive Leadership and Innovative Work Behavior

An additional key finding is the direct impact of Inclusive Leadership (IL) on Innovative Work Behavior (IWB) (β = 0.69). IWB is defined as the behaviors by employees that stimulate creativity, idea generation, and the successful implementation of new ideas with the intent of improving processes or products (Janssen, 2000). Previous studies have shown that Inclusive Leadership creates a culture which promotes creativity, risk-taking and idea sharing (Zhu et al., 2018). Inclusive leaders are more able to encourage innovative behaviors in their people by fostering an atmosphere of valuing creativity and supporting attempts to take new directions (Randel et al., 2018; Veli Korkmaz et al., 2022). (Judge et al., 2009; Kwon & Kim, 2020), also points to Inclusive Leadership allowing employees to feel comfortable to say what is on their mind without concern for being judged, ultimately feeding the ability to be innovative. These arguments are consistent with the findings of this study, indicating that inclusive leadership behaviors involving providing feedback, creating a psychologically safe climate for employees to suggest new ideas, and recognizing employees' contributions are important organizational enablers of innovative work behaviors. Inclusive leaders promote a creative work environment which contributes to better organizational performance (Zhu et al., 2018) through emphasizing include and making sure that new ideas flourish.

4.3 Inclusive leadership and citizenship behaviour of the organisation

Another interesting finding is the direct relationship between Inclusive Leadership and Organisational Citizenship Behaviour (OCB) (β=0.68). OCB is defined as spontaneous, voluntary employee behaviours that are not directly rewarded and contribute to the betterment of the organisation itself (Organ, 1988). When employees believe that leaders operate under an inclusive model, they are more likely to engage in positive behaviours towards the organisation and their colleagues, as employees feel valued and empowered in the workplace (Zhang & Bartol, 2010). Inclusive leaders promote collaboration, trust and mutual support among employees, which creates an environment where employees feel responsible for helping their colleagues and improving the organisation as a whole (Shore et al., 2011).

Previous studies have shown that OCB levels are relatively higher among employees for whom their leaders are more inclusive (Chen et al., 2014), as such leaders are perceived to provide a conducive atmosphere for employees who want to go beyond their formal job duties. New findings from our study show that inclusive leadership is positively associated with voluntary prosocial behaviours, including helping citizens, going beyond the team's goal to get the job done effectively, and caring about the personal well-being of others.Thus, leaders who strive to create a sense of inclusion among their employees foster a motivational climate that leads to prosocial voluntary behaviours. Organisational Citizenship Behaviour (OCB): This activity is essential in facilitating a healthy organisational climate, as OCB participants typically lead to improved team communication and cooperation, which contributes to higher organisational performance (Organ, 1988).

4.4 Organisational Learning, Innovative Work Behaviour and Organisational Citizenship Behaviour

One of the significant findings of this study was the mediating role of Organisational Learning between Inclusive Leadership and Innovative Work Behaviour and Organisational Citizenship Behaviour. The indirect effects of Inclusive Leadership on IWB (β = 0.54) and OCB (β = 0.52) via Organizational Learning illustrate the importance of learning processes in motivating these behaviours. (Digital interviews create a safe space for experimentation - a characteristic feature of inclusive leadership is that it creates a learning environment that encourages employees to learn new skills and adapt to new working conditions. As a result, employees work more effectively with the organisation and also innovate more in their respective fields, promoting organisational learning and consequently leading to OCB (Organisational Citizenship Behaviour).

There are several studies that highlight the mediating role and suggest that the learning processes, knowledge sharing, discussions and continuous growth are effective in promoting innovation and dual citizenship behaviour (Tushman & O'Reilly, 1996). Consistent with this, our findings suggest that by stimulating organisational learning, inclusive leadership equips employees with the ability to produce innovative solutions and engage in organisational support behaviours. These findings highlight the importance for organisations to invest in ongoing learning and development opportunities to enhance the positive impact of inclusive leadership.

4.5 Practical implications and future research

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The implications of this study are of direct practical relevance to organisations. First, the findings highlight the role of inclusive leadership in fostering important organizational behaviours such as learning, innovation, and citizenship. Organisations need to focus on developing inclusive leaders who are able to communicate openly, collaborate and be inclusive. This helps organisations foster a culture of continuous learning and empowers employees to voluntarily make unique contributions to the success of the organisation. In addition, the study suggests that organisational learning mediates the relationship, meaning that organisations should consider investing in developing systems and processes for sharing knowledge, encouraging continuous development and providing opportunities for learning. Examples of such structures include training programmes, mentoring systems or even collaborative working environments that promote employee development and cultivate a culture of innovation and support. Less restrictively, future research should test the boundary conditions of these relationships; for example, how organisational culture, team dynamics and individual characteristics may mediate the relationship between inclusive leadership, organisational learning, innovative work behaviour and organisational citizenship behaviour. Further insights into the long-term effects of inclusive leadership on these behaviours may come from longitudinal studies.

5. Conclusion

This study has demonstrated the importance of INL in the development of OL, IWB and OCB. The results show that apart from the direct role of INL on these outcomes, it could mediate through OL, thus emphasising the need for a learning organisational culture. This makes them important intervention points for organisations seeking to improve their climate, culture and sustainable success - as inclusive leadership can act as a catalyst for innovation and discretionary behaviour in the workplace, and these latter factors can guide organisational impact and metrics of long-term effectiveness.

This relates to the contextual characteristics that may influence the links between INL, OL, IWB and OCB, such as industry type, organisational scale and cultural context. Longitudinal studies could also help to reveal the long-term effects of inclusive leadership on employee behaviour and organisational performance. Further studies examining alternative mediating variables or antecedents (e.g. employee motivation or organisational support) may also enhance understanding of how inclusive leadership creates organisational value.

Limitations

While this study has provided some valuable insights, there are limitations to be considered. First, the data are cross-sectional, so it is impossible to draw causal inferences between the variables. Further studies, especially with longitudinal designs, could help us to unfold the effects of INL on OL, IWB and OCB in the long run.Second, the sample of the study consisted of employees working in specific organisations and may not be generalisable to entire sub-industries or sectors. Consequently, the extent to which the findings are transferable across cultural or organisational contexts may be limited. Finally, although this study specifically targeted the mediating role of OL, there may be other potential mediators or moderators (e.g., organisational climate or employee personality traits) between INL and employee outcomes. For example, in order to gain a more holistic picture of the dynamics at play, future research could include these other elements.

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Author contribution

Author Contributions: Long Wang (School of Geographic and Environmental Sciences, Tianjin Normal University, Tianjin, China) participated in the study design, data collection, and analysis.
Guon Yi (School of Education, Zhejiang University, Hangzhou, China) was involved in writing the manuscript and critically revised it.
Data analysis and results interpretation were done by Moolikay Allison (Department of Economics, University of Insubria, Varese, Italy). All authors have contributed to and approved the final version of the manuscript.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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