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Authentic Leadership and Innovative Work Behaviour: Exploring the Role of Trust, Power Distance Orientation, and Job Satisfaction

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ABSTRACT

Objective: In today's rapidly evolving business landscape, the role of authentic leadership in fostering innovative work behaviour among employees has gained significant attention. This paper explores and analyses authentic leadership's influence on innovative work behaviour. Furthermore, it examines the mediation role of trust in leaders and the moderation role of power distance orientation and job satisfaction within this relationship.

Research Design & Methods: A systematic literature review was conducted to identify relevant studies on authentic leadership, innovative work behaviour, trust, power distance orientation, job satisfaction, and their interrelationships. The selected studies were critically analysed to identify common themes, methodologies, and findings. We employed the PRISMA method to choose the papers and bibliometric analysis was performed through VOS viewer software.

Findings: We provide insights into how authentic leadership influences employees' innovative work behaviour by examining relevant literature. This paper also provides research gaps based on

existing literature and empirical research. The review integrates and analyses existing literature to provide insights into the relationships between the variables.

Implications/Recommendations: Organisations should prioritise developing authentic leaders who build trust and create a supportive environment for innovation. Fostering a culture of low power distance and employee involvement enhances the positive impact of authentic leadership on innovation. Additionally, improving job satisfaction through various strategies promotes an innovative work environment.

Contribution: As far as we know, prior studies have not investigated how job satisfaction and power distance orientation influence the connection between authentic leadership and innovative work behaviour. This paper contributes to the literature by providing insights into the intervening roles of job satisfaction and power distance orientation in the unique context of Pakistani start-ups.

Article type: original article.

Keywords: authentic leadership, innovative work behaviour, trust in leaders, power distance orientation, job satisfaction, Pakistani start-ups.

JEL Classification: M1, M10.

1. Introduction

As the business landscape evolves at an accelerating pace, innovation is becoming a key source of organisational success and competitiveness (Škerlavaj *et al.*, 2019). Start-ups, with their entrepreneurial spirit and flexibility, are particularly well-positioned to foster innovative work behaviour among their employees (Sengupta, Sharma & Singh, 2021). However, fostering innovation requires effective leadership that inspires and motivates employees to think creatively, take risks, and implement novel ideas (Hughes *et al.*, 2018). One leadership style that has attracted attention in recent years for its potential impact on innovative work behaviour is authentic leadership (Hu *et al.*, 2018).

In light of fraudulent activities and unethical behaviour within corporations, there has been a shift in research focus towards examining how authentic leadership affects the outcomes experienced by employees (Semedo, Coelho & Ribeiro, 2017; Ribeiro, Duarte & Filipe, 2018). The concept of authentic leadership (AL) is a recent development within the realm of leadership research. It emphasises leaders' ability to be genuine, self-aware, and transparent in the way they interact with employees (Walumbwa *et al.*, 2008). Authentic leaders create an environment that inspires employees to express their true selves, take ownership of their work, and engage in innovative behaviours. By fostering a climate of trust and openness, authentic leaders empower employees to challenge the status quo, think outside the box, and explore new possibilities (Avolio *et al.*, 2004; Zhou & Verburg, 2020).

Although previous studies have expanded our understanding of the aspects that contribute to innovative work behaviour (IWB), there remain several areas that require attention. The research on IWB specifically within the realm of start-ups is notably lacking (Munir & Beh, 2019; Li, Makhdoom & Asim, 2020; Zhou & Verburg, 2020). Numerous research investigations have focused on leadership styles as a significant factor influencing innovative work behaviour. However, these studies have mainly focused on transformational leadership styles, overlooking newer leadership approaches (Al-Husseini & Elbeltagi, 2016). While both types of leadership, transformational and authentic, are significant factors in stimulating employees' IWB, authentic leadership has a greater influence than transformational leadership (Korku & Kaya, 2023). Azinga et al. (2023) asserted that further investigation is required to confirm the correlation between AL on IWB, as well as identify the possible variables that may mediate or moderate this relationship. Furthermore, Kafeel, Khan and Ahmed (2024) stated that power distance can be used as a contextual variable affecting the association between AL and IWB. As far as we know, prior studies have not investigated how job satisfaction and power distance orientation (PDO) influence the connection between AL and IWB.

The main focus of this study is to address the above-mentioned gaps by examining how AL influences the IWB of employees in start-ups located in Pakistan. The study also takes into account the mediating influence of trust in leaders, as well as the moderating impacts of power distance orientation and job satisfaction.

This research will contribute to the existing knowledge base in various ways. Firstly, it will provide valuable insights into the association between AL and IWB in the unique setting of Pakistani start-ups. Understanding how AL influences employees' propensity to engage in innovative behaviours can help start-up leaders and managers in fostering a culture of innovation and enhancing overall organisational performance. Secondly, by exploring the mediation role of trust in leaders, this study will shed light on the underlying mechanisms through which AL influences IWB. This knowledge can help leaders understand the importance of building trust with their employees and the impact it has on fostering a conducive environment for innovation. Thirdly, the study will explore the moderating role of PDO. By examining how cultural factors influence the association between AL and IWB, the research will provide insights into how leaders can navigate cultural nuances and tailor their leadership approaches to encourage innovation in start-ups operating in high power distance cultures like Pakistan. Lastly, the study will investigate the moderating role of job satisfaction, which has been recognised as a crucial factor in impacting employee attitudes and behaviours. Understanding the interplay between authentic leadership, job satisfaction, and IWB will have practical implications for start-up leaders to enhance employee satisfaction, motivation, and engagement in innovative activities.

2. Methodology

2.1. Overview of Methodology

The purpose of conducting a literature review is to pinpoint areas of research that have not been adequately addressed. We employed the PRISMA method to choose the papers, illustrated in Figure 1. The PRISMA method comprises identification, screening, eligibility, and inclusion. Furthermore, bibliometric analysis was carried out to comprehend the knowledge domain pertaining to authentic leadership and innovative work behaviour.

2.2. PRISMA Method

Identification

In the process of identification, we conducted a systematic literature review by searching electronic databases, including Google Scholar, Web of Science, PsycINFO, Scopus, Emerald Insight, Sage, Wiley, Science Direct, Springers, and Taylor and Francis databases using the keywords "authentic leadership", "innovative work behaviour", and "mediation" or "moderation". After searching electronic databases, we identified 315 papers and removed 90 papers due to duplication.

Screening

The studies had to comply with the following criteria for inclusion: (a) they had to be published in peer-reviewed journals and (b) they had to be written in English, (c) investigating the connection between AL and IWB, and (d) reporting the mediation or moderation effects of other variables on this relationship. After screening the abstracts against the criteria, 60 papers were excluded, and 26 more were excluded after screening the full text of the abstracts.

Eligibility

During this stage, we manually checked the articles to verify that all those remaining (following the screening process) fulfilled the necessary criteria. The full text of the papers was assessed for eligibility, and after assessing the full text, 23 papers were excluded.

Inclusion

After screening the titles, abstracts, and full texts of the identified articles, we selected 76 studies that met the inclusion criteria for this systematic literature review (Fig. 1).

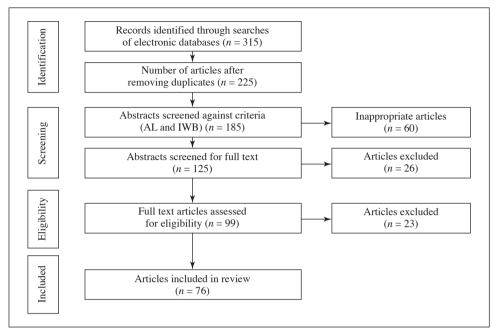


Fig. 1. A Prisma Flow Chart Illustrating the Selection Process for Articles Source: the authors.

2.3. Bibliometric Analysis

Bibliometric analysis offers a means to efficiently map extensive scientific literature (González-Torres *et al.*, 2020). It employs methods akin to systematic literature reviews, ensuring the quality of information and resulting outputs (Tang *et al.*, 2018). Utilising VOS viewer software, we established and visualised connections among bibliometric sources, top authors, and refined data from various publications, scholars, and journals (Hallinger & Nguyen, 2020). This software is widely used for conducting bibliometric research (Costa *et al.*, 2017). Researchers commonly utilise it to visualise and build bibliometric networks.

We commenced the analysis with the authors' keywords as shown in Figure 2. Frequency of occurrence indicates how often a keyword appears in the dataset. Total link strength measures the strength of association between keywords based on co-occurrence. Authentic leadership is the most frequently occurring keyword and has the highest total link strength as indicated in Table 1, indicating its significance and centrality in the dataset. Performance and Impact also occur frequently and are strongly linked keywords, suggesting their importance in the literature. Organisational citizenship behaviour has the lowest link strength among the top 10 keywords, indicating it may have fewer connections with other keywords in the dataset.

S. No.	Keyword	Occurrences	Total Link Strength
1	Authentic leadership	141	281
2	Performance	113	261
3	Impact	105	240
4	Model	96	150
5	Innovative work behaviour	91	90
6	Employee creativity	85	113
7	Member exchange	79	120
8	Creative self-efficacy	76	109
9	Work behaviour	71	126
10	Organisational citizenship behaviour	64	84

Table 1. Analysis of Keywords

Source: the authors.

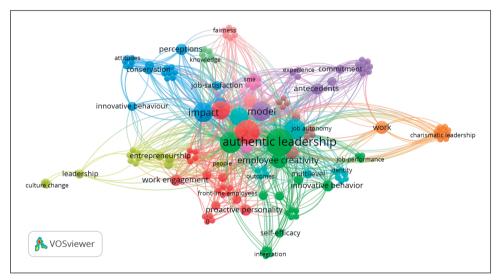


Fig. 2. Network Visualisation Map of the Author Keywords Source: the authors.

Matej Cerne has the highest number of citations (182) among the authors as shown in Table 2, indicating significant impact and recognition in the field. Marko Jaklic and Miha Skerlavaj share the second-highest number of citations (128 each), suggesting comparable contributions. The total link strength varies among authors, indicating their level of collaboration within the academic community. Authors like Alon Lisak, Yang Sui, and Miriam Erez have notable link strengths despite not having the highest citation counts as demonstrated in Figure 3.

S. No.	Author	Citations	Total Link Strength
1	Cerne, Matej	182	54
2	Jaklic, Marko	128	39
3	Skerlavaj, Miha	128	39
4	Lee, Cythia	55	12
5	Lisak, Alon	55	26
6	Sui, Yang	55	19
7	Erez, Miriam	55	8
8	Grah, Barbara	54	13
9	Groselj, Matej	54	17
10	Penger, Sandra	44	9

Table 2. Citations per Author

Source: the authors.

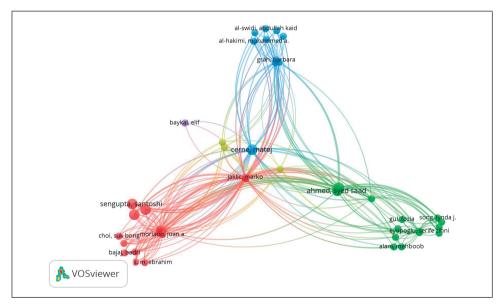


Fig. 3. Network Map of the Most Cited Authors in Research Source: the authors.

The country with the highest number of total citations is Slovenia (182), followed by Norway (137) and the People's Republic of China (103) as shown in Table 3. The People's Republic of China has the highest total link strength (51), followed

by Norway (25) and Slovenia (24) as shown in Figure 4. The analysis indicates that while Slovenia has the highest total citations, the People's Republic of China stands out in terms of both average citations per author and total link strength. This suggests that while Slovenia may have fewer authors, they receive a higher number of citations on average, whereas the People's Republic of China has a larger number of authors with significant link strength.

S. No.	Country	Citations	Total Link Strength
1	Slovenia	182	24
2	Norway	137	25
3	People's Republic of China	103	51
4	USA	58	17
5	Israel	55	9
6	Spain	31	19
7	Netherlands	30	25
8	Poland	21	21
9	India	19	24
10	Australia	16	8

Source: the authors.

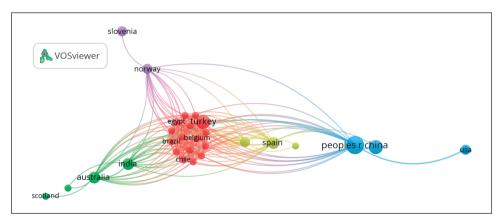


Fig. 4. Co-authorship at the Country Level Source: the authors.

The visualisation shows the citations and link strength for each document in the dataset (Fig. 5). It helps to identify influential documents and understand the network of citations. From the analysis, we can see that "Cerne (2012)" has the

highest number of citations and considerable link strength as shown in Table 4, indicating its significance in the network of citations. "Lisak (2016)" and "Groselj (2021)" also have numerous citations, while "Lisak (2016)" lacks link strength compared to others.

S. No.	Document	Citations	Total Link Strength
1	Cerne (2012)	128	12
2	Lisak (2016)	55	0
3	Groselj (2021)	54	6
4	Zhang (2018)	31	2
5	Laguna (2019)	21	6
6	Yamak (2021)	14	4
7	Bracht (2023)	9	0
8	Sengupta (2023)	7	2
9	Khan (2021)	6	5
10	Gelaidan (2023)	6	2

Table 4. Citations per Document

Source: the authors.

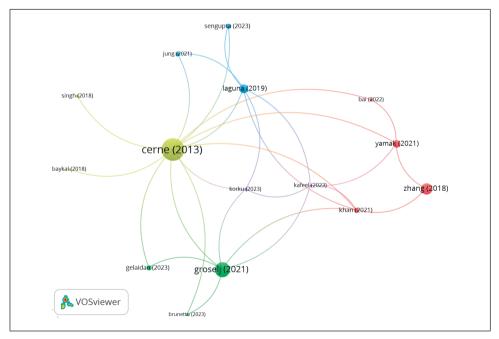


Fig. 5. Citations Concerning Each Document Source: the authors.

S. No.	Organisation	Document	Total Link Strength
1	University of Ljubljana	2	34
2	Bahria University	2	15
3	Jaypee Institute of Information Technology	2	9
4	BI Norwegian Business School	1	25
5	Centre of Excellence for Biosensors, Instrumentation and Process Control	1	25
6	Erasmus University Rotterdam	1	14
7	John Paul II Catholic University of Lublin	1	14
8	National Distance Education University	1	14
9	Near East University	1	9
10	Hacettepe University	1	8

Table 5. Top 10 Universities in the Dataset by Number of Affiliated Documents Published

Source: the authors.

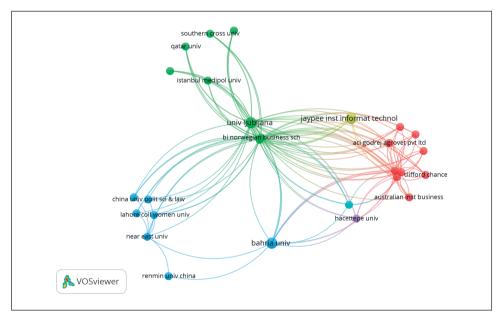


Fig. 6. Affiliations of Universities by Documents Published Source: the authors.

The University of Ljubljana has the highest total link strength (34) as shown in Table 5 and Figure 6, indicating strong collaboration or influence in academic publi-

cations. BI Norwegian Business School and Centre of Excellence for Biosensors, Instrumentation and Process Control have the same link strength (25), suggesting a similar level of collaboration. Near East University and Hacettepe University have relatively lower link strengths (9 and 8 respectively), indicating lesser involvement or influence in the analysed publications.

3. Literature Review and Hypotheses Development

3.1. Authentic Leadership and Innovative Work Behaviour

TL promotes an organisational culture that motivates individuals to transition from a self-oriented perspective to one that centres around a shared goal. Studies indicate that the creation and implementation of employee-generated ideas, fostered and facilitated by leaders, significantly contribute to the innovation process (Echebiri & Amundsen, 2021). Prior research findings reveal that AL has a favourable effect on the employees' IWB (Černe, Jaklič & Škerlavaj, 2013; Niu et al., 2018); because authentic leaders play a vital role in fostering employee voice behaviour by offering psychological support and creating an environment of psychological safety. This is accomplished by being transparent, engaging in open communication, and providing support to their employees. In the realm of start-ups, it is crucial for the founder-leader to foster a culture of innovative work behaviour among their staff, as it greatly contributes to the long-term viability of the start-up and enhances its competitive advantage (Sengupta, Sharma & Singh, 2021). Moreover, empirical evidence indicating a connection between AL and IWB exists (Grošelj et al., 2021; Yamak & Eyupoglu, 2021). Given the reasoning provided above, we put forward the hypothesis that:

H1: Authentic leadership is positively associated with employees' IWB.

3.2. Authentic Leadership, Trust, and Innovative Work Behaviour

Gardner *et al.* (2005, p. 363) argued that AL "focuses on the formation of authentic relationships between the leader and followers that are characterised by trust and integrity". Authentic leaders possess self-awareness regarding their strengths and limitations, and they openly display their true selves, genuine thoughts, and emotions to their followers in order to foster trust and create a sense of mutual trust within the work environment (Wei *et al.*, 2018). By using such characteristics and behaviours, authentic leaders have the ability to build trust with their subordinates (Agote, Aramburu & Lines, 2016). Trust in leaders plays a crucial role in the association between AL and IWB. When employees view their leaders as trustworthy, they are more likely to get involved in risk-taking behaviour and share their innovative ideas (Lei, Nguyen & Le, 2019). Authentic

leaders, by displaying transparency, honesty, and ethical behaviour, build trust with their employees, which, in turn, promotes the exchange of innovative ideas and experimentation (Avolio *et al.*, 2004; Gardner *et al.*, 2021). In order to foster a culture of trust within the organisation and create a suitable working atmosphere, it is imperative for leaders to show respect toward their colleagues and followers (Lis, Glińska-Neweś & Kalińska, 2014). For instance, when leaders demonstrate comprehension and respect towards their employees, it often results in enhanced innovative work behaviour and involvement in organisational affairs. This is due to employees perceiving themselves as valuable to the organisation, fostering greater trust and collaboration within the workplace (Meng, 2015). Furthermore, it is believed that trust strengthens commitment to the organisation (Lewicka *et al.*, 2023), as authentic leadership fosters a transparent work environment that enhances employee trust, thereby encouraging innovative work behaviour. Drawing from the above-mentioned rationale, we hypothesise that:

H2: Authentic leadership is positively associated with trust in leaders.

H3: Trust in leaders is positively associated with IWB.

H4: Trust in leaders mediates the positive association between AL and IWB.

3.3. Authentic Leadership, Power Distance Orientation, and Innovative Work Behaviour

Power distance orientation (PDO) pertains to how individuals in a society or organisation acknowledge and anticipate disparities in power (Hofstede, 1980). Asian countries, specifically the subcontinent consisting of Bangladesh, Pakistan, and India, exhibit a cultural inclination towards high power distance and collectivism, where hierarchy plays a significant role in defining boundaries. Within this context, disparities exist between managers and employees (Robert et al., 2000; Mujtaba, Afza & Habib, 2011). This kind of culture affirms a leader's connection with their subordinates in a way that the subordinates find valuable (Chen & Farh, 1999). In line with this perspective, AL could potentially be the most suitable option. We contend that in a culture characterised by a significant power distance, where managers possess most of the power and have high expectations for performance, authentic leaders exert their influence on team members by exemplifying positive behaviours, fostering a sense of autonomy, and promoting a process of identification to achieve beneficial outcomes. Among these outcomes, innovative work behaviour is particularly significant (Amabile et al., 2004; Mujtaba, Afza & Habib, 2011). In a high-power distance culture like Pakistan, where hierarchical relationships are valued and respected, employees may be less likely to challenge their superiors' ideas or take the initiative (Hofstede, Hofstede & Minkov, 2005; Hofstede, 2011).

Thus, the impact of AL on employees' IWB may be weakened in high power distance cultures. Based on the given rationale, we state the hypothesis that:

H5: PDO moderates the positive association between AL and followers' IWB in such a way that the association is weaker when the PDO is high and stronger when the PDO is low.

3.4. Authentic Leadership, Job Satisfaction, and Innovative Work Behaviour

Job satisfaction refers to "the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values" (Locke, 1976, p. 1300). In scientific literature, there is a substantial correlation between AL and job satisfaction, considering the various measurable results associated with leadership (Walumbwa *et al.*, 2008; Giallonardo, Wong & Iwasiw, 2010; Wong & Laschinger, 2013; Lindsay & Mathieson, 2022). Job satisfaction is an important factor that may moderate the connection between AL and IWB. Satisfied employees are more inclined to feel motivated, committed to their work, and engaged, leading to higher levels of innovation. Authentic leaders, by creating a favourable work environment and fostering supportive relationships, can enhance employees' job satisfaction. Consequently, job satisfaction may strengthen the association between AL and employees' IWB. In the realm of AL and IWB, Azinga *et al.* (2023) emphasised the importance of including job satisfaction in future research endeavours. Based on the reasoning stated above, we put forward the hypothesis:

H6: Job satisfaction moderates the positive association between AL and followers' IWB in such a way that the association is weaker when job satisfaction is low and stronger when job satisfaction is high.

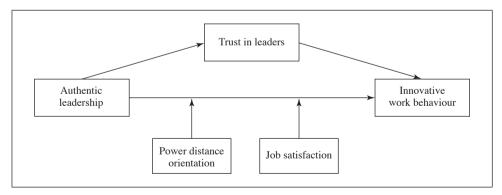


Fig. 7. Proposed Research Model Source: the authors.

4. Measurement Scales

The details of the scales to be utilised in the study are illustrated in Table 6. The measurement of all the items will be conducted using a Likert scale consisting of five points, where a rating of 1 indicates "strongly disagree" and a rating of 5 indicates "strongly agree".

Variable	Numbers of Items	Developed by	Reason to Choose	Adapted by Studies
Authentic leadership	16	Walumbwa et al. (2008)	The scale has been extensively utilised in various settings, such as China, India, Pakistan, Cyprus, and Portugal, and has demonstrated a high level of reliability	Semedo, Coelho & Ribeiro (2017, 2018), Khan, Ahmed & Khan (2021), Lei <i>et al.</i> (2021), Yamak & Eyupoglu (2021), Bai <i>et al.</i> (2022), Sengupta <i>et al.</i> (2023), Kafeel, Khan & Ahmed (2024)
Innovative work behaviour	10	De Jong & Den Hartog (2010)	Hughes <i>et al.</i> (2018) recently recommended the utilisation of this scale, which has demonstrated strong reliability in previous research studies	Javed, Khan & Quratulain (2018), Grošelj <i>et al.</i> (2021), Khan, Ahmed & Khan (2021), Gelaidan, Al-Swidi & Al-Hakimi (2023), Sengupta <i>et al.</i> (2023), Kafeel, Khan & Ahmed (2024)
Trust	12	Nyhan & Marlowe (1997)	The Organizational Trust Inventory (OTI) is a reliable and accurate tool consisting of 12 items, created with the purpose of evaluating an individual's trust level towards their supervisor and the organisation as a whole. Trust in the supervisor was assessed through items 1–8, while trust in the overall organisation was evaluated using items 9–12. The instrument exhibited high reliability, with coefficient alphas ranging from 0.95 to 0.96 (Nyhan & Marlowe, 1997)	Joseph & Winston (2005), Vigoda-Gadot & Talmud (2010), Cho & Song (2017), Ilyas, Abid & Ashfaq (2020), Berraies, Hamza & Chtioui (2021)

Table 6. Measurement of the Variables

Variable	Numbers of Items	Developed by	Reason to Choose	Adapted by Studies
Job satisfaction	5	Brayfield & Rothe (1951)	This scale has been confirmed and validated by Abbas <i>et al.</i> (2014) and recently recommended by Ekmekcioglu and Nabawanuka (2023)	Judge & Ilies (2004), Rahman <i>et al.</i> (2020), Aboramadan, Dahleez & Hamad (2021), Chanana (2021), Aruldoss <i>et al.</i> (2022)
Power distance orientation	6	Dorfman & Howell (1988)	The effectiveness of this scale has been proven in various studies and has recently been recommended by Zhang <i>et al.</i> (2022)	Ahmad & Gao (2018), Peltokorpi (2019), Siddique, Siddique & Siddique (2020), Han & Jiang (2022), Wu <i>et al.</i> (2022)

Table 6 cnt'd

Source: the authors.

5. Discussion

This study focuses on the influence of authentic leadership on innovative work behaviour in the context of start-ups in Pakistan. The literature review highlighted the gaps in existing research, emphasising the need for a deeper understanding of AL's impact on IWB, especially in the unique setting of start-ups, and the mediating and moderating factors involved.

The literature review and hypotheses development section established a foundation for the study. Hypotheses were formulated based on existing knowledge, filling gaps in the literature, and addressing specific contextual factors such as trust in leaders, power distance orientation, and job satisfaction. The proposed research model, illustrated in Figure 7, provides a comprehensive framework for investigating the relationships between AL, trust, PDO, job satisfaction, and IWB.

The methodology section outlined the systematic literature review process, employing the PRISMA method for article selection and conducting bibliometric analysis. The use of VOS viewer software facilitated the identification of influential authors, countries, documents, and affiliations in the field of AL and IWB. This rigorous approach enhances the reliability and validity of the study's findings.

The findings of this systematic literature review have several theoretical and practical implications. Theoretical implications include advancing our understanding of the nuanced relationships between AL, trust, PDO, job satisfaction, and IWB. Theoretical frameworks such as cultural dimensions theory provide valuable insights into these dynamics. Moreover, the identification of mediation and moderation effects contributes to the refinement of existing theoretical models in leadership and IWB research.

In practical terms, the findings underscore the significance of fostering authentic leadership practices in organisations, particularly in start-up contexts. Leaders and managers can leverage AL principles to cultivate trust, empower employees, and create an environment conducive to innovation. Understanding cultural nuances, such as PDO, enables leaders to tailor their approaches and effectively promote innovation across diverse contexts. Moreover, prioritising employee satisfaction enhances organisational resilience and fosters a culture of continuous innovation.

This study has several limitations. The systematic literature review is based on the papers available in selected databases. There may be relevant studies that were not included in the analysis due to publication bias or limitations in database coverage. The omission of certain studies could influence the comprehensiveness and representativeness of the literature review. While bibliometric analysis provides insights into the scholarly landscape, it has limitations. It relies on the availability of indexed literature and may not capture all relevant studies. Additionally, citation counts may not fully reflect the impact or quality of a publication. The study primarily focuses on English-language literature, potentially excluding valuable contributions in other languages. This limitation may introduce language bias, and relevant research in local languages may offer additional perspectives. The study design is based on a systematic literature review, and the proposed research model is conceptual. The lack of empirical data and the cross-sectional nature of the study limit the ability to establish causal relationships. The study relies on existing measurement scales for variables such as authentic leadership, trust, power distance orientation, job satisfaction, and innovative work behaviour. The appropriateness of these scales may vary across different cultural and organisational contexts. Further validation and customisation of measurement tools for the specific context of Pakistani start-ups are essential.

While this study aims to address critical gaps in the literature, it also opens avenues for future research. The proposed research model could be further validated through empirical studies, considering the dynamic nature of start-up environments. Consider a multilevel analysis approach to understand the impact of AL on IWB at both individual and team levels within start-ups. Explore how team dynamics and interpersonal relationships influence the relationship between authentic leadership and IWB. Additionally, exploring the influence of other contextual factors on the relationships identified in this study could contribute to a more comprehensive understanding of AL and IWB in start-ups.

6. Conclusion

Overall, this paper underscores the importance of AL in Pakistani start-ups for fostering employees' IWB. It highlights the mediation role of trust in leaders and the moderation roles of PDO and job satisfaction. It is crucial to take into account the contextual factors of PDO and job satisfaction to maximise the effectiveness of AL

practices. By understanding these dynamics, organisations can cultivate authentic leadership practices, build trust, create a supportive work environment, and enhance job satisfaction, ultimately promoting a culture of innovation and propelling the success of start-ups in Pakistan. Organisations should invest in developing authentic leaders who demonstrate integrity, transparency, and ethical behaviours. They should also strive to create an environment that nurtures trust, reduces power distance, and enhances job satisfaction. By doing so, start-ups can unlock the full potential of their employees, encourage innovative thinking, and gain a competitive edge in today's dynamic business landscape. Further research in this area is warranted to explore additional factors and contexts that may influence the association between AL and IWB in start-up settings.

Authors' Contribution

The authors' individual contribution is as follows: Dagmara Lewicka 30%, Hafeez Ur Rehman 70%.

Conflict of Interest

The authors declare no conflict of interest.

References

Abbas, M., Raja, U., Darr, W., & Bouckenooghe, D. (2014). Combined Effects of Perceived Politics and Psychological Capital on Job Satisfaction, Turnover Intentions, and Performance. *Journal of Management*, *40*(7), 1813–1830. https://doi.org/10.1177/0149206312455243

Aboramadan, M., Dahleez, K., & Hamad, M. H. (2021). Servant Leadership and Academics Outcomes in Higher Education: The Role of Job Satisfaction. *International Journal of Organizational Analysis*, 29(3), 562–584. https://doi.org/10.1108/IJOA-11-2019-1923

Agote, L., Aramburu, N., & Lines, R. (2016). Authentic Leadership Perception, Trust in the Leader, and Followers' Emotions in Organizational Change Processes. *Journal of Applied Behavioral Science*, *52*(1), 35–63. https://doi.org/10.1177/0021886315617531

Ahmad, I., & Gao, Y. (2018). Ethical Leadership and Work Engagement: The Roles of Psychological Empowerment and Power Distance Orientation. *Management Decision*, *56*(9), 1991–2005. https://doi.org/10.1108/MD-02-2017-0107

Al-Husseini, S., & Elbeltagi, I. (2016). Transformational Leadership and Innovation: A Comparison Study between Iraq's Public and Private Higher Education. *Studies in Higher Education*, *41*(1), 159–181. https://doi.org/10.1080/03075079.2014.927848

Amabile, T. M., Schatzel, E. A., Moneta, G. B., & Kramer, S. J. (2004). Leader Behaviors and the Work Environment for Creativity: Perceived Leader Support. *The Leadership Quarterly*, *15*(1), 5–32. https://doi.org/10.1016/J.LEAQUA.2003.12.003

Aruldoss, A., Berube Kowalski, K., Travis, M. L., & Parayitam, S. (2022). The Relationship between Work–life Balance and Job Satisfaction: Moderating Role of Training and Devel-

opment and Work Environment. Journal of Advances in Management Research, 19(2), 240–271. https://doi.org/10.1108/JAMR-01-2021-0002

Avolio, B. J., Gardner, W. L., Walumbwa, F. O., Luthans, F., & May, D. R. (2004). Unlocking the Mask: A Look at the Process by Which Authentic Leaders Impact Follower Attitudes and Behaviors. *The Leadership Quarterly*, *15*(6), 801–823. https://doi.org/10.1016/J.LEAQUA. 2004.09.003

Azinga, S. A., Obeng, A. F., Ellis, F. Y. A., & Ansah, M. O. (2023). Assessing the Effects of Transformational Leadership on Innovative Behavior: The Role of Affective Commitment and Psychological Capital. *Evidence-based HRM*, *11*(4), 725–745. https://doi.org/10.1108/ EBHRM-05-2022-0119

Bai, Y., Wang, Z., Alam, M., Gul, F., & Wang, Y. (2022). The Impact of Authentic Leadership on Innovative Work Behavior: Mediating Roles of Proactive Personality and Employee Engagement. *Frontiers in Psychology*, *13*, 879176. https://doi.org/10.3389/ fpsyg.2022.879176

Berraies, S., Hamza, K. A., & Chtioui, R. (2021). Distributed Leadership and Exploratory and Exploitative Innovations: Mediating Roles of Tacit and Explicit Knowledge Sharing and Organizational Trust. *Journal of Knowledge Management*, 25(5), 1287–1318. https://doi.org/10.1108/JKM-04-2020-0311

Brayfield, A. H., & Rothe, H. F. (1951). An Index of Job Satisfaction. *Journal of Applied Psychology*, *35*(5), 307–311. https://doi.org/10.1037/h0055617

Černe, M., Jaklič, M., & Škerlavaj, M. (2013). Authentic Leadership, Creativity, and Innovation: A Multilevel Perspective. *Leadership*, 9(1), 63–85. https://doi.org/10.1177/1742715012455130

Chanana, N. (2021). The Impact of COVID-19 Pandemic on Employees Organizational Commitment and Job Satisfaction in Reference to Gender Differences. *Journal of Public Affairs*, 21(4), e2695. https://doi.org/10.1002/pa.2695

Chen, X. P., & Farh, J. L. (1999). The Effectiveness of Transactional and Transformational Leader Behaviors in Chinese Organizations: Evidence from Taiwan. *Annual Meeting of the Academy of Management, Chicago, 14*.

Cho, Y. J., & Song, H. J. (2017). Determinants of Turnover Intention of Social Workers: Effects of Emotional Labor and Organizational Trust. *Public Personnel Management*, *46*(1), 41–65. https://doi.org/10.1177/0091026017696395

Costa, D. F., de Melo Carvalho, F., de Melo Moreira, B. C., & do Prado, J. W. (2017). Bibliometric Analysis on the Association between Behavioral Finance and Decision Making with Cognitive Biases Such as Overconfidence, Anchoring Effect and Confirmation Bias. *Scientometrics*, *111*, 1775–1799. https://doi.org/10.1007/s11192-017-2371-5

De Jong, J., & Den Hartog, D. (2010). Measuring Innovative Work Behaviour. *Creativity and Innovation Management*, 19(1), 23–36. https://doi.org/10.1111/j.1467-8691.2010.00547.x

Dorfman, P. W., & Howell, J. P. (1988). Dimensions of National Culture and Effective Leadership Patterns: Hofstede Revisited. In: R. N. Farmer, R. B. Peterson, E. G. McGoun, P. Marer (Eds), Advances in International Comparative Management, Vol. 3 (1st ed.) (pp. 127–150). JAI Press. Echebiri, C. K., & Amundsen, S. (2021). The Relationship between Leadership Styles and Employee-driven Innovation: The Mediating Role of Leader–member Exchange. *Evidence-based HRM*, 9(1), 63–77. https://doi.org/10.1108/EBHRM-10-2019-0091

Ekmekcioglu, E. B., & Nabawanuka, H. (2023). How Discretionary HR Practices Influence Employee Job Satisfaction: The Mediating Role of Job Crafting. *Employee Relations*, 45(3), 776–793. https://doi.org/10.1108/ER-07-2022-0326

Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. (2005). "Can You See the Real Me?" A Self-based Model of Authentic Leader and Follower Development. *The Leadership Quarterly*, *16*(3), 343–372. https://doi.org/10.1016/J.LEAQUA.2005.03.003

Gardner, W. L., Karam, E. P., Alvesson, M., & Einola, K. (2021). Authentic Leadership Theory: The Case for and against. *The Leadership Quarterly*, *32*(6), 101495. https://doi.org/ 10.1016/J.LEAQUA.2021.101495

Gelaidan, H. M., Al-Swidi, A. K., & Al-Hakimi, M. A. (2023). Servant and Authentic Leadership as Drivers of Innovative Work Behaviour: The Moderating Role of Creative Self-efficacy. *European Journal of Innovation Management*. Advance online publication. https://doi.org/10.1108/EJIM-07-2022-0382

Giallonardo, L. M., Wong, C. A., & Iwasiw, C. L. (2010). Authentic Leadership of Preceptors: Predictor of New Graduate Nurses' Work Engagement and Job Satisfaction. *Journal of Nursing Management*, *18*(8), 993–1003. https://doi.org/10.1111/J.1365-2834.2010.01126.X

González-Torres, T., Rodríguez-Sánchez, J.-L., Pelechano-Barahona, E., & García-Muiña, F. E. (2020). A Systematic Review of Research on Sustainability in Mergers and Acquisitions. *Sustainability*, *12*(2), 513. https://doi.org/10.3390/su12020513

Grošelj, M., Černe, M., Penger, S., & Grah, B. (2021). Authentic and Transformational Leadership and Innovative Work Behaviour: The Moderating Role of Psychological Empowerment. *European Journal of Innovation Management*, 24(3), 677–706. https://doi.org/10.1108/EJIM-10-2019-0294

Hallinger, P., & Nguyen, V.-T. (2020). Mapping the Landscape And Structure of Research on Education for Sustainable Development: A Bibliometric Review. *Sustainability*, *12*(5), 1947. https://doi.org/10.3390/su12051947

Han, C., & Jiang, P. (2022). Motivating Nurses' Coworker-directed Helping Behaviour during the COVID-19 Pandemic: Role of Managerial Humour and Nurses' Power Distance Orientation. *Journal of Advanced Nursing*, 79(6), 2293–2304. https://doi.org/10.1111/jan.15558

Hofstede, G. (1980). Motivation, Leadership, and Organization: Do American Theories Apply Abroad? *Organizational Dynamics*, 9(1), 42–63. https://doi.org/10.1016/0090-2616(80)90013-3

Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model in Context. *Online Readings in Psychology and Culture*, 2(1), 8. https://doi.org/10.9707/2307-0919.1014

Hofstede, G., Hofstede, G. J., & Minkov, M. (2005). *Cultures and Organizations: Software of the Mind* (Vol. 2). McGraw-Hill.

Hu, Y., Wu, X., Zong, Z., Xiao, Y., Maguire, P., Qu, F., Wei, J., & Wang, D. (2018). Authentic Leadership and Proactive Behavior: The Role of Psychological Capital and Compassion at Work. *Frontiers in Psychology*, *9*, 2470. https://doi.org/10.3389/FPSYG.2018.02470

Hughes, D. J., Lee, A., Tian, A. W., Newman, A., & Legood, A. (2018). Leadership, Creativity, and Innovation: A Critical Review and Practical Recommendations. *The Leadership Quarterly*, 29(5), 549–569. https://doi.org/10.1016/J.LEAQUA.2018.03.001

Ilyas, S., Abid, G., & Ashfaq, F. (2020). Ethical Leadership in Sustainable Organizations: The Moderating Role of General Self-efficacy and the Mediating Role of Organizational Trust. *Sustainable Production and Consumption*, 22, 195–204. https://doi.org/10.1016/j.spc.2020.03.003

Javed, B., Khan, A. K., & Quratulain, S. (2018). Inclusive Leadership and Innovative Work Behavior: Examination of LMX Perspective in Small Capitalized Textile Firms. *The Journal of Psychology*, *152*(8), 594–612. https://doi.org/10.1080/00223980.2018.1489767

Joseph, E. E., & Winston, B. E. (2005). A Correlation of Servant Leadership, Leader Trust, and Organizational Trust. *Leadership & Organization Development Journal*, 26(1), 6–22. https://doi.org/10.1108/01437730510575552

Judge, T. A., & Ilies, R. (2004). Affect and Job Satisfaction: A Study of Their Relationship at Work and at Home. *Journal of Applied Psychology*, 89(4), 661–673. https://doi.org/ 10.1037/0021-9010.89.4.661

Kafeel, L., Khan, M. M., & Ahmed, S. S. (2024). Authentically Flown to Innovation: Authentically Triggered Innovative Work Behavior through Flow at Work with Moderating Role of Creative Self-efficacy. *International Journal of Innovation Science*, *16*(3), 463–481. https://doi.org/10.1108/IJIS-05-2022-0099

Khan, M. M., Ahmed, S. S., & Khan, E. (2021). The Emerging Paradigm of Leadership for Future: The Use of Authentic Leadership to Lead Innovation in VUCA Environment. *Frontiers in Psychology*, *12*, 759241. https://doi.org/10.3389/fpsyg.2021.759241

Korku, C., & Kaya, S. (2023). Relationship between Authentic Leadership, Transformational Leadership and Innovative Work Behavior: Mediating Role of Innovation Climate. *International Journal of Occupational Safety and Ergonomics*, 29(3), 1128–1134. https://doi.org/10.1080/10803548.2022.2112445

Lei, H., Nguyen, T. T., & Le, P. B. (2019). How Knowledge Sharing Connects Interpersonal Trust and Innovation Capability: The Moderating Effect of Leadership Support. *Chinese Management Studies*, *13*(2), 276–298. https://doi.org/10.1108/CMS-06-2018-0554

Lei, S., Qin, C., Ali, M., Freeman, S., & Shi-Jie, Z. (2021). The Impact of Authentic Leadership on Individual and Team Creativity: A Multilevel Perspective. *Leadership & Organization Development Journal*, 42(4), 644–662. https://doi.org/10.1108/LODJ-12-2019-0519

Lewicka, D., Krot, K., Petryshyn, L., & Rehmann, H. U. (2023). Relationship between Institutional Trust, Intraorganisational Collaboration and Commitment to Strategic Business Development. *Scientific Papers of Silesian University of Technology. Organization and Management Series*, 186, 317–328. https://doi.org/10.29119/1641-3466.2023.186.23 Li, C., Makhdoom, H. U. R., & Asim, S. (2020). Impact of Entrepreneurial Leadership on Innovative Work Behavior: Examining Mediation and Moderation Mechanisms. *Psychology Research and Behavior Management*, *13*, 105–118. https://doi.org/10.2147/PRBM.S236876

Lindsay, S. L., & Mathieson, K. M. (2022). Authentic Leadership: Does It Relate to Job Satisfaction and Engagement? *Nursing Management*, *53*(6), 24–30. https://doi.org/10.1097/01. numa.0000831416.21965.e2

Lis, A., Glińska-Neweś, A., & Kalińska, M. (2014). The Role of Leadership in Shaping Interpersonal Relationships in the Context of Positive Organizational Potential. *Journal of Positive Management*, 5(4), 28–49. https://doi.org/10.12775/JPM.2014.022

Locke, E. A. (1976). The Nature and Causes of Job Satisfaction. In: M. D. Dunnette (Ed.), *Handbook of Industrial and Organizational Psychology*. Rand McNally College Publishing Company.

Meng, X. (2015). The Role of Trust in Relationship Development and Performance Improvement. *Journal of Civil Engineering and Management*, 21(7), 845–853. https://doi.org/10.3846/ 13923730.2014.893923

Mujtaba, B. G., Afza, T., & Habib, N. (2011). Leadership Tendencies of Pakistanis: Exploring Similarities and Differences Based on Age and Gender. *Journal of Economics and Behavioral Studies*, 2(5), 199–212. https://doi.org/10.22610/jebs.v2i5.238

Munir, R., & Beh, L. S. (2019). Measuring and Enhancing Organisational Creative Climate, Knowledge Sharing, and Innovative Work Behavior in Startups Development. *The Bottom Line*, *32*(4), 269–289. https://doi.org/10.1108/BL-03-2019-0076

Niu, W., Yuan, Q., Qian, S., & Liu, Z. (2018). Authentic Leadership and Employee Job Behaviors: The Mediating Role of Relational and Organizational Identification and the Moderating Role of LMX. *Current Psychology*, *37*(4), 982–994. https://doi.org/10.1007/S12144-018-9937-0

Nyhan, R. C., & Marlowe, H. A. (1997). Development and Psychometric Properties of the Organizational Trust Inventory. *Evaluation Review*, 21(5), 614–635. https://doi.org/ 10.1177/0193841X9702100505

Peltokorpi, V. (2019). Abusive Supervision and Emotional Exhaustion: The Moderating Role of Power Distance Orientation and the Mediating Role of Interaction Avoidance. *Asia Pacific Journal of Human Resources*, *57*(3), 251–275. https://doi.org/10.1111/1744-7941.12188

Rahman, M. M., Ali, N. A., Jantan, A. H., Mansor, Z. D., & Rahaman, M. S. (2020). Work to Family, Family to Work Conflicts and Work Family Balance as Predictors of Job Satisfaction of Malaysian Academic Community. *Journal of Enterprising Communities: People and Places in the Global Economy*, 14(4), 621–642. https://doi.org/10.1108/JEC-05-2020-0098

Ribeiro, N., Duarte, A. P., & Filipe, R. (2018). How Authentic Leadership Promotes Individual Performance: Mediating Role of Organizational Citizenship Behavior and Creativity. *International Journal of Productivity and Performance Management*, 67(9), 1585–1607. https://doi.org/10.1108/IJPPM-11-2017-0318 Robert, C., Probst, T. M., Martocchio, J. J., Drasgow, F., & Lawler, J. J. (2000). Empowerment and Continuous Improvement in the United States, Mexico, Poland, and India: Predicting Fit on the Basis of the Dimensions of Power Distance and Individualism. *Journal of Applied Psychology*, 85(5), 643–658. https://doi.org/10.1037/0021-9010.85.5.643

Semedo, A. S., Coelho, A., & Ribeiro, N. (2018). The Relationship between Authentic Leaders and Employees' Creativity: What Are the Roles of Affective Commitment and Job Resourcefulness? *International Journal of Workplace Health Management*, *11*(2), 58–73. https://doi.org/10.1108/IJWHM-06-2017-0048

Semedo, A. S. D., Coelho, A. F. M., & Ribeiro, N. M. P. (2017). Authentic Leadership and Creativity: The Mediating Role of Happiness. *International Journal of Organizational Analysis*, 25(3), 395–412. https://doi.org/10.1108/IJOA-03-2016-0994

Sengupta, S., Bajaj, B., Singh, A., Sharma, S., Patel, P., & Prikshat, V. (2023). Innovative Work Behavior Driving Indian Startups Go Global – the Role of Authentic Leadership and Readiness for Change. *Journal of Organizational Change Management*, *36*(1), 162–179. https://doi.org/10.1108/JOCM-05-2022-0156

Sengupta, S., Sharma, S., & Singh, A. (2021). Authentic Leadership Fostering Creativity in Start-ups: Mediating Role of Work Engagement and Employee Task Proactivity. *Business Perspectives and Research*, 9(2), 235–251. https://doi.org/10.1177/2278533720964298

Siddique, C. M., Siddique, H. F., & Siddique, S. U. (2020). Linking Authoritarian Leadership to Employee Organizational Embeddedness, LMX and Performance in a High-power Distance Culture: A Mediation-moderated Analysis. *Journal of Strategy and Management*, *13*(3), 393–411. https://doi.org/10.1108/JSMA-10-2019-0185

Škerlavaj, M., Černe, M., Dysvik, A., Nerstad, C. G. L., & Su, C. (2019). Riding Two Horses at Once: The Combined Roles of Mastery and Performance Climates in Implementing Creative Ideas. *European Management Review*, *16*(2), 285–302. https://doi.org/10.1111/emre.12151

Tang, M., Liao, H., Wan, Z., Herrera-Viedma, E., & Rosen, M. A. (2018). Ten Years of Sustainability (2009 to 2018): A Bibliometric Overview. *Sustainability*, *10*(5), 1655. https://doi.org/10.3390/su10051655

Vigoda-Gadot, E., & Talmud, I. (2010). Organizational Politics and Job Outcomes: The Moderating Effect of Trust and Social Support. *Journal of Applied Social Psychology*, 40(11), 2829–2861. https://doi.org/10.1111/j.1559-1816.2010.00683.x

Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic Leadership: Development and Validation of a Theory-based Measure. *Journal of Management*, *34*(1), 89–126. https://doi.org/10.1177/0149206307308913

Wei, F., Li, Y., Zhang, Y., & Liu, S. (2018). The Interactive Effect of Authentic Leadership and Leader Competency on Followers' Job Performance: The Mediating Role of Work Engagement. *Journal of Business Ethics*, *153*(3), 763–773. https://doi.org/10.1007/S10551-016-3379-0

Wong, C. A., & Laschinger, H. K. S. (2013). Authentic Leadership, Performance, and Job Satisfaction: The Mediating Role of Empowerment. *Journal of Advanced Nursing*, 69(4), 947–959. https://doi.org/10.1111/J.1365-2648.2012.06089.X

Wu, M., Wang, R., Estay, C., & Shen, W. (2022). Curvilinear Relationship between Ambidextrous Leadership and Employee Silence: Mediating Effects of Role Stress and Relational Energy. *Journal of Managerial Psychology*, *37*(8), 746–764. https://doi.org/10.1108/ JMP-07-2021-0418

Yamak, O. U., & Eyupoglu, S. Z. (2021). Authentic Leadership and Service Innovative Behavior: Mediating Role of Proactive Personality. *SAGE Open*, *11*(1), 1–15. https://doi.org/ 10.1177/2158244021989629

Zhang, Y., Wang, J., Akhtar, M. N., & Wang, Y. (2022). Authoritarian Leadership and Cyberloafing: A Moderated Mediation Model of Emotional Exhaustion and Power Distance Orientation. *Frontiers in Psychology*, *13*, 6199–6210. https://doi.org/10.3389/fpsyg.2022.1010845

Zhou, Z., & Verburg, R. (2020). Open for Business: The Impact of Creative Team Environment and Innovative Behaviour in Technology-based Start-ups. *International Small Business Journal*, *38*(4), 318–336. https://doi.org/10.1177/0266242619892793