




# Performance: Trust, efficacy, and job satisfaction as mediators



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**Orientation:** With the growing presence of Generation Z (Gen Z) in the workforce, understanding the leadership factors that drive their performance has become increasingly critical. Transformational leadership is often seen as a key driver in shaping employee attitudes and behaviours.

**Research purpose:** This study aims to examine the influence of transformational leadership on Gen Z employees' performance, by considering the mediating roles of trust in leadership, self-efficacy and job satisfaction.

**Motivation for the study:** While previous research has explored leadership impacts on employee outcomes, limited attention has been given to the psychological mechanisms underlying these relationships in Gen Z, especially within digital service roles.

**Research approach/design and method:** A quantitative, explanatory research design was employed using structural equation modelling–partial least squares (SEM-PLS). Data were collected from 192 Gen Z employees in a digital-based company.

**Main findings:** Transformational leadership significantly enhances trust in leaders, self-efficacy, job satisfaction and employee performance. Trust in leadership serves as a primary mediator, linking transformational leadership to self-efficacy, job satisfaction and performance. Self-efficacy influences job satisfaction, while job satisfaction strongly mediates the relationship between leadership and performance.

**Practical/managerial implications:** Organisations employing Gen Z workers should prioritise transformational leadership practices that build trust and foster psychological resources such as self-efficacy and job satisfaction to significantly boost performance in digital service roles.

**Contribution/value-add:** This study contributes by integrating social exchange theory, social cognitive theory and self-determination theory to explain the psychological mechanisms in the relationship between transformational leadership and Gen Z performance. The added value of this study is the finding that trust and job satisfaction are more dominant than self-efficacy in bridging the influence of leadership on performance, which confirms the importance of relational and affective factors in young generations in digital organisations.

**Keywords:** transformational leadership; trust in leadership; self-efficacy; job satisfaction; job performance.

## Introduction

The central role of human resource management (HRM) enables companies to produce valuable goods or services and achieve profits, thereby contributing to overall development (Junaidi et al., 2024; Qin & Lv, 2023). The HRM department of an organisation manages employee work behaviour to align with organisational goals (Colquitt et al., 2021; Yuan et al., 2023). Employee performance is an important indicator of organisational effectiveness, influenced by various factors such as leadership, trust in leaders and job satisfaction (Keefer & Vlaicu, 2024; Lee, 2024; Ludwikowska, 2022). Transformational leadership has been proven effective in enhancing work participation and individual performance (Peng et al., 2021; Tran & Hoang, 2024). Employees who have high trust in their leaders are more motivated and maintain better relationships with management (Farmanesh et al., 2023; Kuráth et al., 2023), as trust is the primary mechanism driving emotional engagement and commitment (Hendriks et al., 2020; Legood et al., 2021).

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Transformational leadership has become one of the most relevant approaches because it focuses on inspiration, individual attention and intellectual stimulation (Erdurmazlı, 2024; Sánchez-García et al., 2024). This leadership style enhances engagement, trust, job satisfaction and self-efficacy (Karimi et al., 2023). This style has proven effective in improving performance at various levels (Kebe et al., 2024).

However, there are still some gaps in the literature. Firstly, leadership models such as authentic, ethical and servant leadership have not shown empirical superiority over transformational leadership in predicting performance, trust or job satisfaction (Rosenbruch et al., 2023). Secondly, most previous studies have been correlational and focused on direct relationships without explaining psychological mechanisms such as self-efficacy, trust and job satisfaction that act as mediators (Karimi et al., 2023; Ren, 2024; Sánchez-García et al., 2024). Thirdly, few studies have simultaneously tested all three mediators. This study addresses this gap by examining the simultaneous influence of transformational leadership on job performance through the three mediators.

In addition, this study also broadens the context by examining Generation Z (hereafter, Gen Z) in the digital sector, a group that has been relatively overlooked in previous research. Gen Z has unique characteristics that require an inspirational and trust-based leadership approach (Stevanovski et al., 2024). This research integrates the three mediators into a structural model linking transformational leadership with job performance among Gen Z employees, contributing theoretically and practically to the understanding of leadership in the digital age.

Gen Z is known for being adaptive, digitally minded and valuing transparency and fairness in workplace relationships. They require authentic and inspirational leaders. Unfortunately, in some teams, transformational leadership has not been implemented optimally. The lack of transparency, inconsistent policies and assigning tasks outside job descriptions have reduced trust and job satisfaction. A lack of individual attention and inspirational motivation makes employees feel undervalued.

This study refers to transformational leadership theory (Bass & Avolio, 1994) and social cognitive theory (SCT) (Bandura, 1997). The first theory emphasises the influence of leaders through ideal influence, motivation, intellectual stimulation and individual attention, while the second theory explains the formation of self-efficacy through observation and social reinforcement. The integration of these two theories provides a strong conceptual foundation for explaining the influence of leadership on psychological processes that ultimately impact performance. This study enriches the literature by presenting empirical evidence on the effectiveness of transformational leadership in the context of the younger generation in Indonesia's digital sector.

## Literature review and theoretical framing

### Characteristics of Gen Z and implications for leadership

Gen Z, born between 1995 and 2010, has unique characteristics that distinguish them from previous generations. Recent studies show that Gen Z values transparent, fair and empowering leadership more than traditional hierarchical approaches (Burhan, 2023; Steffens et al., 2021). They are more responsive to leadership styles that support flexibility, work-life balance and the search for meaning in work (Li et al., 2024). Unlike Millennials or Gen X, Gen Z tends to be more critical of authority, desires two-way communication and relies more on relational psychological factors such as trust, competence and job satisfaction (Kuzior et al., 2022; Reinikainen et al., 2020; Stevanovski et al., 2024). Therefore, it is important to understand the psychological mechanisms that mediate between transformational leadership and Gen Z performance.

### Integrated theoretical framework

The conceptual framework of this study was developed by integrating three main theories. Firstly, social exchange theory (SET) (Blau, 1964) explains that transformational leadership encourages the formation of trust through reciprocal relationships based on integrity, support and transparency. Secondly, SCT (Bandura, 1997) emphasises the importance of self-efficacy as individuals' belief in their abilities, which is reinforced through modelling and support from leaders. Thirdly, self-determination theory (SDT) (Deci & Ryan, 2000) emphasises that job satisfaction arises when basic psychological needs – autonomy, competence and relatedness – are met, which can be influenced by trust and self-efficacy. Thus, trust, self-efficacy and job satisfaction do not stand alone but are interrelated as psychological mechanisms that mediate the relationship between transformational leadership and performance.

### Transformational leadership and psychological mediator

Transformational leadership has been consistently shown to enhance trust in leaders by creating a supportive and transparent work environment that fosters engagement and positive performance outcomes (Islam et al., 2021). Trust serves as a key mediating mechanism between leadership style and employee behaviours such as innovation and knowledge-sharing, with influence-based trust found to play a stronger role than cognition-based trust (Cao & Le, 2022; Naeem et al., 2021). Moreover, transformational leadership cultivates altruistic values and organisational commitment, which further reinforce trust as the foundation of effective leader-follower relationships (Kement et al., 2024).

Beyond trust, transformational leadership empowers employees by promoting a motivating work climate that strengthens self-efficacy – the belief in one's ability to perform

tasks effectively. This effect has been demonstrated across various contexts, including higher education and primary education (Hoang & Le, 2024; Lin et al., 2022), and has been associated with knowledge-sharing behaviours and innovative performance (Karimi et al., 2023; Sánchez-García et al., 2024). Self-efficacy, in turn, facilitates employees' willingness to take initiative and adapt in dynamic work environments.

Transformational leadership also contributes to job satisfaction by inspiring employees and enhancing their sense of connectedness and work meaningfulness. Studies in nursing and education have shown that such leadership fosters satisfaction through personalised leader–follower exchanges and contextual support (Dababneh et al., 2021), while other research highlights its role in improving autonomy, engagement and work design effectiveness across sectors (Hundie & Mannekulih Habtewold, 2024; Kebe et al., 2024; Saif et al., 2024; Vila-Vázquez et al., 2024).

Integrating these findings, SET, SCT and SDT collectively explain how transformational leadership shapes employee outcomes. Leaders who inspire trust (exchange-based), strengthen self-efficacy (cognitive) and fulfil psychological needs that underpin job satisfaction (autonomy, competence, relatedness) ultimately foster higher levels of job performance. Accordingly, the following hypotheses are proposed:

**H1:** Transformational leadership significantly influences trust in leadership.

**H2:** Transformational leadership significantly influences self-efficacy.

**H3:** Transformational leadership significantly influences job satisfaction.

**H4:** Transformational leadership significantly influences job performance.

## Trust in leadership, self-efficacy, job satisfaction and job performance

Trust in leadership has a significant influence on employee self-efficacy. Leaders who demonstrate support, humility and strong motivation are able to increase employees' confidence in their abilities (Castelnuovo et al., 2023). Behaviours such as delegation and recognition also serve as indicators of trust that positively impact self-efficacy and performance (Rosenbruch et al., 2023). From the perspective of SCT (Bandura, 1997), trust provides a supportive social environment that reinforces employees' belief in their capabilities, thereby strengthening self-efficacy. Empirical studies also highlight that trust mediates the relationship between leadership style and employee voice participation, with self-efficacy acting as a moderator (Dedahanov et al., 2022). In addition, trust indirectly contributes to self-efficacy through increased commitment, psychological well-being and autonomy (Mitson et al., 2024).

Trust also plays a crucial role in shaping job satisfaction. As a mediator between leadership style and work attitude, trust built through transformational, servant or inclusive leadership directly impacts higher job satisfaction (Rashid & Ilkhanizadeh, 2022). In educational and financial

organisations, trust in leaders enhances satisfaction through feelings of being valued and the meaningfulness of work (Ashfaq et al., 2023). According to SDT (Deci & Ryan, 2000), trust fulfils employees' basic psychological need for relatedness, which in turn fosters higher satisfaction. Trust is also considered an important prerequisite for successfully implementing sustainable HRM practices that support employee well-being and satisfaction (Farmanesh et al., 2023).

Consistently, trust in leadership has a significant impact on job performance. Trust-based leadership enhances adaptability, task performance and organisational stability (Perrier et al., 2024). Trust fosters a collaborative work environment that strengthens commitment and well-being (Kuráth et al., 2023). From the lens of SET (Blau, 1964), employees who trust their leaders are more likely to reciprocate with higher performance as part of a mutual exchange relationship. Meta-analyses also indicate that trust is the primary mechanism linking leadership style to performance (Legood et al., 2021), particularly in the healthcare sector with high psychological empowerment (Saleem et al., 2022). Based on the literature, the following hypotheses are proposed:

**H5:** Trust in leadership significantly influences self-efficacy.

**H6:** Trust in leadership significantly influences job satisfaction.

**H7:** Trust in leadership significantly influences job performance.

## Self-efficacy, job satisfaction and job performance

Social cognitive theory (Bandura, 1997) posits that self-efficacy reflects individuals' beliefs in their capabilities to organise and execute the actions required to achieve desired outcomes. Employees with high self-efficacy tend to feel more competent and confident, which directly enhances their job satisfaction because they perceive greater control and mastery over their work (Fang & Qi, 2023; García-Lázaro et al., 2022; Ghahremani et al., 2024).

In addition to shaping satisfaction, self-efficacy is also a critical predictor of job performance. Bandura (1997) emphasised that individuals with stronger efficacy beliefs demonstrate greater persistence, resilience and willingness to engage in innovative behaviour, which collectively contribute to higher performance outcomes (Li et al., 2022; Namono et al., 2024). Furthermore, self-efficacy has been found to mediate the link between supervisor support and performance (Zeb et al., 2024) and to amplify the influence of transformational leadership on performance (Kusumah et al., 2021). A meta-analysis by Judge and Bono (2001) further validates that generalised self-efficacy is a robust predictor of both job satisfaction and performance.

At the same time, SDT (Deci & Ryan, 2000) provides an additional explanatory lens for the role of job satisfaction as a determinant of performance. When employees' psychological needs for autonomy, competence and relatedness are fulfilled, they experience greater satisfaction, which subsequently fosters intrinsic motivation and enhances

performance (Alkandi et al., 2023; Egemen, 2024; Hu et al., 2024; Li & Ao, 2024). Thus, job satisfaction not only reflects employees' emotional well-being but also serves as a proximal driver of sustained performance across diverse organisational contexts. Accordingly, the following hypotheses are proposed:

**H8:** Self-efficacy significantly influences job satisfaction.

**H9:** Self-efficacy significantly influences job performance.

**H10:** Job satisfaction significantly influences job performance.

## Research design and methodology

This study uses a quantitative approach with an explanatory design to examine the effect of transformational leadership on the performance of Gen Z employees, with the mediating roles of trust in leaders, self-efficacy and job satisfaction. Data were obtained using a purposive sampling technique, which is appropriate when respondents are selected based on specific inclusion criteria relevant to the research objectives (Creswell & Creswell, 2018; Sekaran & Bougie, 2020). A total of 192 Gen Z employees working in technology-based digital companies in Yogyakarta and Central Java participated in this study. This context was chosen because the digital sector in Indonesia is dominated by Gen Z workers and represents a flexible work culture that is characteristic of a collectivist environment. The sample size was considered adequate based on the 10-times rule in structural equation model-partial least squares (SEM-PLS) (Hair et al., 2019), with a maximum number of indicators of 19, resulting in a minimum sample size of 190, and supported by power analysis showing a test power above 0.80. Respondent profiles included gender, education level and length of service, which were reported as control variables. Thus, even though all respondents belonged to Gen Z, this study still acknowledged the internal heterogeneity within this group.

## Measurement of variables

Transformational leadership is measured using four items developed by Robbins and Judge. For example, 'My boss pays personal attention to my needs and development as an employee' (individualised consideration), 'My boss encourages me to think creatively and find new solutions to work problems' (intellectual stimulation), 'My boss conveys a clear vision and motivates us to achieve it together' (inspirational motivation) and 'My supervisor serves as a role model whom I admire and aspire to emulate in my work' (idealised influence). Trust in leadership is measured using five items developed by Robbins and Judge (2016), which include: integrity, competence, consistency, loyalty and openness. Self-efficacy is measured based on previous research that includes the following items: motivation, cognitive resources and level of work difficulty (Steca et al., 2024). Job satisfaction is measured based on five items from Colquitt et al. (2021): salary satisfaction, promotion satisfaction, supervision satisfaction, coworker satisfaction and satisfaction with the job itself. Job performance is measured based on items from previous studies: work quality, work quantity, responsibility, cooperation and initiative (Green et al., 2024).

## Ethical considerations

Ethical approval to conduct this study was obtained from the Universitas Pembangunan Nasional "Veteran" Yogyakarta Ethics Committee (No. 23A/UN62.15/2025).

## Results

### Sample characteristics

Based on descriptive analysis, the majority of respondents in this study were women (80%). This indicates that the information technology (IT)-based startup company has been able to attract female job seekers and has been able to accommodate the discourse on gender equality in the workplace. Most respondents hold a bachelor's degree (42%), indicating that the employment rate for bachelor's degree holders is relatively high. The company accepts bachelor's degree holders from all academic programmes. These bachelor's degree graduates were hired after undergoing a rigorous recruitment and selection process. In addition, most respondents were in the age range of 25–26 years (39%). They were born between 1999 and 2000, which, in terms of generational classification, falls under Gen Z. This explanation is presented in Table 1.

### Factor loading, reliability and validity test

The validity and reliability of the construct were confirmed through loading factor, Cronbach's alpha, composite reliability (CR) and average variance extracted (AVE). The loading factor for each item exceeded the recommended threshold of 0.700. This indicates that the items accurately represent their respective constructs. For example, the items for transformational leadership have loadings between 0.733 and 0.871, while the items for trust in leadership range from 0.789 to 0.858, the items for self-efficacy range from 0.825 to 0.865 and the items for job satisfaction range from 0.773 to 0.890. Moreover, job performance items range from 0.755 to 0.843. All Cronbach's alpha values are above 0.700, indicating strong internal consistency for each construct. Similarly, the CR values exceeded the threshold of 0.700, and the AVE values were above 0.500, confirming adequate convergent validity.

**TABLE 1:** Respondent profile.

Characteristic	Frequency	%
<b>Gender</b>		
Male	38	20
Female	154	80
<b>Education</b>		
Senior high school	38	20
Diploma	73	38
Bachelor	81	42
<b>Age (year)</b>		
19–20	2	3
21–22	8	8
23–24	30	30
25–26	39	39
27–28	21	21
<b>Total</b>	<b>192</b>	<b>100</b>

These results indicate that the measurement model is reliable, and that constructs are well represented by their items. Table 2 presents the complete data.

## Hypothesis test results

The research hypothesis was evaluated by testing the significance of the relationship between constructs using *t*-statistics. Path coefficients were obtained using the PLS bootstrapping model. The results of the hypothesis testing are summarised in Table 3 and Figure 1.

The results of hypothesis testing are shown in Table 3. Of the 11 hypotheses proposed, most were significantly supported. Transformational leadership had a positive effect on trust in leaders, self-efficacy and job satisfaction (H1–H3), with a high level of significance ( $p < 0.01$ ). In addition, trust in leaders has a significant positive effect on self-efficacy, job satisfaction and performance (H5–H7). Job

satisfaction is also proven to have a positive effect on performance (H8). Conversely, some hypotheses show weaker support. The direct effect of transformational leadership on performance (H4) is only marginally significant ( $p$  close to 0.05), indicating that its effect is more limited than the mediation path. Furthermore, hypothesis H9, which tests the direct effect of self-efficacy on performance, is not supported ( $p > 0.05$ ). Thus, H9 is the weakest finding in this study.

## Discussion

This study examines the effect of transformational leadership on the performance of Gen Z employees, considering the mediating role of trust in leadership, self-efficacy and job satisfaction. The results of SEM-PLS analysis show that transformational leadership significantly affects all psychological mediators tested, but its direct influence on performance is relatively weak. This confirms that the performance of Gen Z employees is more determined by relational and affective factors than by instructions or direct leadership influence.

The strongest finding is the role of trust in leadership as a dominant mediator. Trust in leaders mediates the relationship between transformational leadership and two other psychological variables (self-efficacy and job satisfaction) and has a direct impact on performance. This is in line with the theory and findings of Islam et al. (2021), Castelnovo et al. (2023) and Legood et al. (2021), which show that credible, transparent and fair leaders can foster trust, which in turn increases employee commitment, engagement and productivity. In a collectivist culture such as Indonesia, trust plays a more significant role because employees pay close attention to interpersonal relationships and the integrity of leaders.

Job satisfaction has also been shown to be an important mediator linking psychological dimensions to performance. These findings reinforce previous views (Alkandi et al., 2023; Hu et al., 2024) that satisfied employees tend to perform better because they feel valued, emotionally fulfilled and intrinsically motivated. This is particularly relevant for Gen Z, who value work–life balance, flexibility and personal meaning in their jobs.

However, the finding that self-efficacy does not directly influence work performance (H9 not supported) is an interesting point of focus. Although SCT (Bandura, 1997) emphasises the importance of self-efficacy in shaping performance, the results of this study show that for Gen Z, who are still in the early stages of their careers, self-confidence is not yet strong enough to drive work performance without guidance, reward systems or managerial support (Kusumah et al., 2021; Zeb et al., 2024). This is also consistent with the argument that external factors, such as managerial support, dominate hierarchical and communal cultures more than internal motivational factors (Sumpter et al., 2023).

**TABLE 2:** Factor loading, reliability and validity test.

Construct	Item	Loading factor	Cronbach's alpha	Composite reliability	Average variance extracted
Transformational leadership	TL1	0.733	0.931	0.943	0.676
	TL2	0.866	-	-	-
	TL3	0.835	-	-	-
	TL4	0.871	-	-	-
Trust in leadership	TiL1	0.858	0.937	0.947	0.641
	TiL2	0.798	-	-	-
	TiL3	0.810	-	-	-
	TiL4	0.804	-	-	-
	TiL5	0.789	-	-	-
Self-efficacy	SE1	0.865	0.801	0.883	0.715
	SE2	0.825	-	-	-
	SE3	0.847	-	-	-
Job satisfaction	JS1	0.773	0.937	0.946	0.639
	JS2	0.797	-	-	-
	JS3	0.789	-	-	-
	JS4	0.819	-	-	-
	JS5	0.890	-	-	-
Job performance	JP1	0.755	0.922	0.937	0.650
	JP2	0.821	-	-	-
	JP3	0.843	-	-	-
	JP4	0.782	-	-	-
	JP5	0.833	-	-	-

**TABLE 3:** Hypothesis test results.

Hypothesis	Path	Original sample (O)	<i>T</i> -statistics (O/SD)	<i>p</i>	Result
H1	TL → TiL	0.780	5.229	0.000	Supported
H2	TL → SE	0.274	2.242	0.025	Supported
H3	TL → JS	0.209	2.442	0.015	Supported
H4	TL → JP	0.208	1.975	0.043	Supported
H5	TiL → SE	0.386	3.496	0.000	Supported
H6	TiL → JS	0.533	5.092	0.000	Supported
H7	TiL → JP	0.253	2.112	0.035	Supported
H8	SE → JS	0.197	2.329	0.020	Supported
H9	SE → JP	0.152	1.657	0.098	Not supported
H10	JS → JP	0.284	2.278	0.023	Supported

Note. Significance levels:  $p < 0.05$ .

TL, transformational leadership; TiL, trust in leadership; SE, self-efficacy; JS, job satisfaction; JP, job performance; SD, standard deviation.

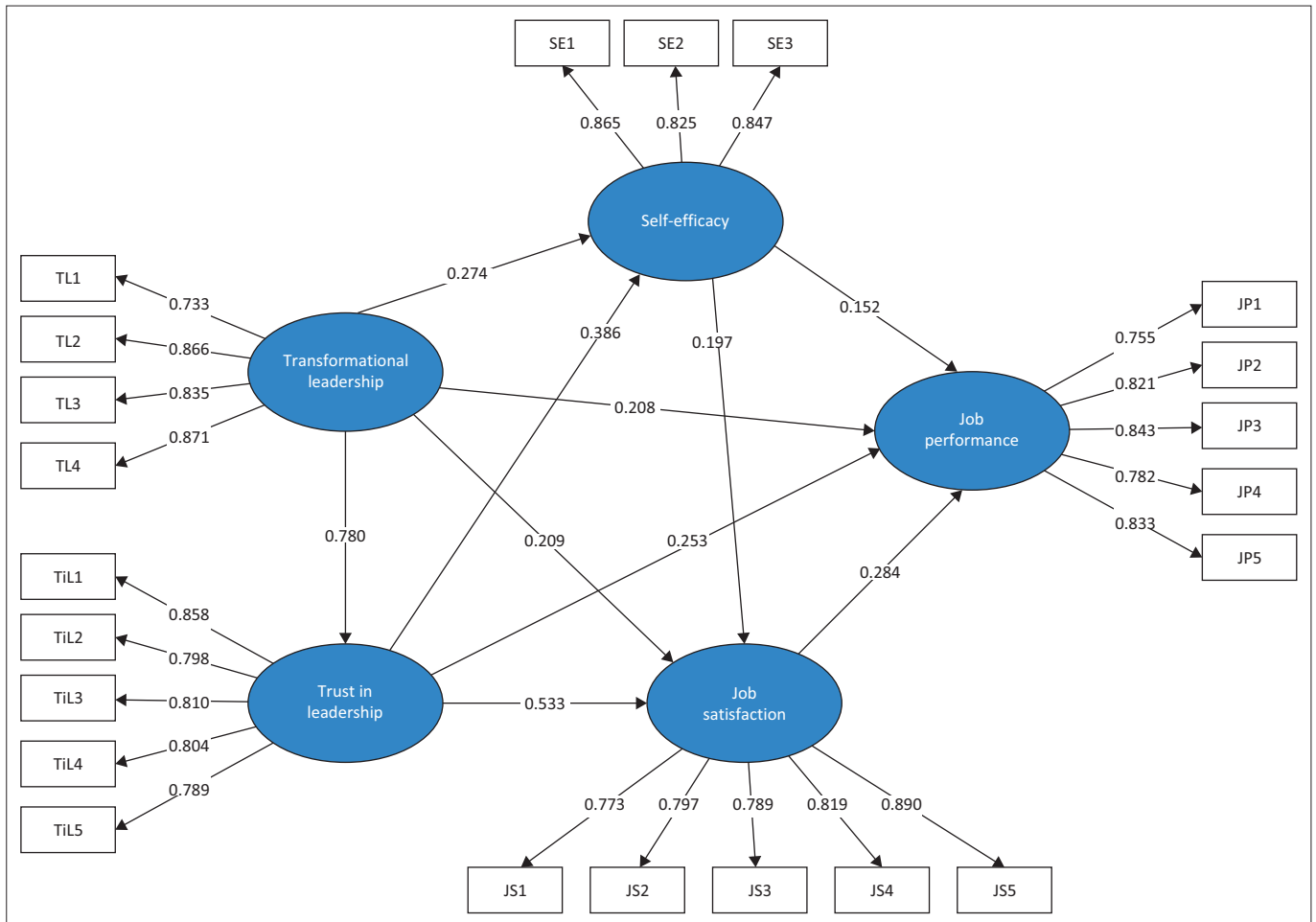


FIGURE 1: Measurement model (inner model).

Furthermore, the direct effect of transformational leadership on work performance (H4) is only slightly significant. These findings indicate that transformational leadership works more effectively through mediation than directly. In this context, trust and satisfaction act as catalysts that strengthen the influence of leadership on performance, as emphasised by psychological mediation models in recent literature (Karimi et al., 2023; Sánchez-García et al., 2024). Inspirational and supportive leaders are more successful when they create a work environment characterised by trust, empowerment and satisfaction.

Unlike Millennials, who are adaptable to technology but still value organisational stability, or Gen X, who tend to be loyal and more accepting of hierarchical leadership styles, Gen Z emphasises flexibility, digital engagement and personal meaning in work. These differences explain why the effectiveness of transformational leadership on Gen Z depends more on relational and psychological dimensions than on formal instructions. Thus, this study provides empirical evidence that cross-generational leadership approaches cannot be generalised but need to be tailored to generational characteristics.

Conceptually, the simultaneous mediation model used in this study enriches the literature, which typically only tests

partial relationships. This approach is in line with calls in the literature to adopt complex and contextually relevant structural models (Bao et al., 2024). In the dynamic digital sector, where young people are the main actors, leadership effectiveness depends heavily on the ability to build trust and empower employees psychologically, not just through formal instructions.

Overall, this discussion confirms that the success of transformational leadership in improving the performance of young employees is primarily determined by its ability to activate internal relational psychological processes, such as trust and satisfaction. Self-efficacy remains important but is more appropriately positioned as an indirect enhancer or part of a broader psychological construct. This study underscores the importance of integrating cross-disciplinary theoretical approaches with generational realities when examining leadership dynamics in the digital work era.

### Theoretical implications

The theoretical contribution of this study is to expand the literature on transformational leadership by showing that for Gen Z, the influence of leadership works more through trust and job satisfaction than through direct effects. This differs from findings on previous generations, where the

direct influence of leadership and self-efficacy on performance was relatively stronger. Thus, this study confirms the existence of boundary conditions in the application of transformational leadership theory. In addition, this study also enriches the integration between transformational leadership theory (Bass & Avolio, 1994) and SCT (Bandura, 1997), by showing that relational and social psychological processes are more determinative of Gen Z's work behaviour than individual cognitive factors alone.

### Managerial implications

From a practical perspective, these findings suggest that digital organisations, particularly in Indonesia, should develop leadership strategies that build trust and job satisfaction among Gen Z employees. Leadership training programmes should not only focus on technical skills but also on developing interpersonal skills, transparent communication, psychological empowerment and the ability to use digital media to reach young employees. In addition, organisations need to build real-time feedback systems, digital-based mentoring programmes and non-financial reward systems such as public recognition, learning opportunities and work flexibility.

The policy implications of this study are that organisations, industry associations and policymakers need to design leadership programmes tailored to the characteristics of the new generation. This can be achieved through employment policies that support hybrid working, regulations that promote work-life balance and sustainable investment in digital leadership training. Thus, this study not only provides guidance for human resource management development but also lays the foundation for modern employment policies that are more inclusive and adaptive to the needs of the younger generation.

### Limitations and future research

Several limitations should be noted to provide context for the findings of this study. Firstly, the cross-sectional design of the study limits the ability to draw strong causal conclusions. Secondly, data were collected through self-report questionnaires, so the potential for respondent perception bias could not be completely avoided. Thirdly, this study was conducted in a single cultural context, namely Indonesia with its collectivist characteristics, so the results may not be fully generalisable to other countries or cultures.

In line with these limitations, future research could use longitudinal designs to test causal relationships more convincingly, combine perceptual data with objective organisational data to reduce self-report bias and expand the research context to cross-cultural settings to compare Gen Z responses in different environments. In addition, subsequent research could also examine the role of moderator variables, such as leadership communication style, gender or job complexity, to provide a deeper

understanding of the dynamics of transformational leadership and the performance of the younger generation.

## Conclusion

This study shows that transformational leadership has a significant effect on the performance of Gen Z employees, particularly through psychological mechanisms such as trust in leaders and job satisfaction. Self-efficacy has been proven to play an indirect role, while the direct influence of leadership on performance is relatively weak. These findings confirm that the effectiveness of leadership on Gen Z is determined more by relational and affective factors than by formal instructions. Overall, this study enriches our understanding of the dynamics of transformational leadership in the context of the younger generation in the digital sector, particularly in work environments that emphasise interpersonal relationships, satisfaction and psychological empowerment.

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The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

### Authors' contributions

All the authors have contributed in writing according to the writing contribution statement. H.J.N.U. conducted conceptualisation, formal analysis, writing the original draft, project administration, data curation, writing (review and editing) and funding acquisition. M.M. conducted conceptualisation, methodology, visualisation, validation, resources, writing (review and editing) and supervision. D.K.I. conducted conceptualisation, investigation, writing the original draft, validation, data curation and funding acquisition.

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### Data availability

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

### Disclaimer

The views and opinions expressed in this article are those of the authors and are the product of professional research. The article does not necessarily reflect the official policy or position of any affiliated institution, funder, agency or that of the publisher. The authors are responsible for this article's results, findings and content.

## References

- Ahkandi, I.G., Khan, M.A., Fallatah, M.I., Alabdulhadi, A., AlAnizan, S., & Alharbi, J.A. (2023). The impact of incentive and reward systems on employee performance in the Saudi primary, secondary, and tertiary industrial sectors: A mediating influence of employee job satisfaction. *Sustainability*, 15(4), 3415. <https://doi.org/10.3390/su15043415>
- Ashfaq, F., Abid, G., & Ilyas, S. (2023). Transformational leadership and life satisfaction: The sequential mediation model of organizational trust and proactive behavior. *Scandinavian Journal of Management*, 39(4), 101298. <https://doi.org/10.1016/j.scaman.2023.101298>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W.H. Freeman.
- Bao, Y., Zhang, Z., & Yang, C.H. (2024). A meta-analytic review of transformational leadership research in public administration. *The American Review of Public Administration*, 55(2), 154–174. <https://doi.org/10.1177/02750740241290810>
- Bass, B.M., & Avolio, B.J. (1994). *Improving organizational effectiveness through transformational leadership*. Sage.
- Blau, P.M. (1964). *Exchange and power in social life*. John Wiley & Sons.
- Burhan, Q.-A. (2023). Empowering leadership ripple effect: Improving employee engagement, performance and knowledge sharing through relational energy and autonomy. *European Business Review*, 36(3), 392–409. <https://doi.org/10.1108/ebor-08-2023-0239>
- Cao, T.T., & Le, P.B. (2022). Impacts of transformational leadership on organizational change capability: A two-path mediating role of trust in leadership. *European Journal of Management and Business Economics*, 33(2), 157–173. <https://doi.org/10.1108/ejmb-06-2021-0180>
- Castelnovo, O., Popper, M., & Koren, D. (2023). The foundation of trust and its connection to leadership, charisma attributions, self-efficacy, and motivation. *International Journal of Leadership in Education*, 26, 1–20. <https://doi.org/10.1080/103603124.2023.2298206>
- Colquitt, J., LePine, J.A., & Wesson, M.J. (2021). *Organizational behavior: Improving performance and commitment in the workplace* (7th ed.). McGraw-Hill Education.
- Creswell, J.W., & Creswell, J.D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage.
- Dababneh, A.N., Arabyat, R., Suifan, T.S., & Wahbeh, N. (2021). The mediating effect of transformational leadership on the relationship between personality traits and job satisfaction in the educational sector in Jordan. *Journal of Human Behavior in the Social Environment*, 32(2), 1–23. <https://doi.org/10.1080/10911359.2021.1885553>
- Deci, E.L., & Ryan, R.M. (2000). The 'what' and 'why' of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.
- Dedahanov, A.T., Fayzullaev, A.K.U., Abdurazzakov, O., Rakhmonov, D.A., & Zakirova, O. (2022). Paternalistic leadership styles and employee voice: The roles of trust in supervisors and self-efficacy. *Sustainability*, 14(19), 12805. <https://doi.org/10.3390/su141912805>
- Egemen, M. (2024). Assessing the individual effects of different job satisfaction facets on the job performance of qualified employees in the unique conditions of the construction industry. *Ain Shams Engineering Journal*, 15(4), 102789. <https://doi.org/10.1016/j.asej.2024.102789>
- Erdurmazli, E. (2024). Transformational leadership and follower performance: Relational and motivational bases of leader behaviors. *Human Resource Development Quarterly*, 36(2), 129–154. <https://doi.org/10.1002/hrdq.21532>
- Fang, J., & Qi, Z. (2023). The influence of school climate on teachers' job satisfaction: The mediating role of teachers' self-efficacy. *PLoS One*, 18(10), e0287555. <https://doi.org/10.1371/journal.pone.0287555>
- Farmanesh, P., Mostepaniuk, A., Khoshkar, P.G., & Alhamdan, R. (2023). Fostering employees' job performance through sustainable human resources management and trust in leaders – A mediation analysis. *Sustainability*, 15(19), 14223. <https://doi.org/10.3390/su151914223>
- García-Lázaro, I., Colás Bravo, M.P., & Conde Jiménez, J. (2022). The impact of perceived self-efficacy and satisfaction on preservice teachers' well-being during the practicum experience. *Sustainability*, 14(16), 10185. <https://doi.org/10.3390/su141610185>
- Gahremani, L., Khoramaki, Z., Kaveh, M.H., Karimi, M., Nazari, M., & Orgambidez-Ramos, A. (2024). Communication self-efficacy and job satisfaction among nurses during the COVID-19 pandemic. *Journal of Nursing Management*, 2024, 1–8. <https://doi.org/10.1155/2024/8869949>
- Green, F., Lee, S., Zou, M., & Zhou, Y. (2024). Work and life: The relative importance of job quality for general well-being, and implications for social surveys. *Socio-Economic Review*, 22(2), 835–857. <https://doi.org/10.1093/ser/mwae002>
- Hair, J.F., Risher, J.J., Sarstedt, M., & Ringle, C.M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24.
- Hendriks, M., Burger, M., Rijsenbilt, A., Pleeging, E., & Commandeur, H. (2020). Virtuous leadership: A source of employee well-being and trust. *Management Research Review*, 43(8), 951–970. <https://doi.org/10.1108/MRR-07-2019-0326>
- Hoang, T.N., & Le, P.B. (2024). The influence of transformational leadership on self-efficacy and knowledge sharing of teachers: Moderating role of knowledge-oriented school culture. *VINE Journal of Information and Knowledge Management Systems*, 55(4), 828–845. <https://doi.org/10.1108/vjikms-05-2023-0126>
- Hu, X., Wei, X., & Bo, L. (2024). An empirical study on the influence of new generation employees' job satisfaction on contextual performance in the energy industry. *Heliyon*, 10(9), e30073. <https://doi.org/10.1016/j.heliyon.2024.e30073>
- Hundie, Z., & Mannekulih Habtewold, E. (2024). The effect of transformational, transactional, and laissez-faire leadership styles on employees' level of performance: The case of hospital in Oromia Region, Ethiopia. *Journal of Healthcare Leadership*, 16, 67–82. <https://doi.org/10.2147/jhl.s450077>
- Islam, M.N., Furuoka, F., & Idris, A. (2021). Mapping the relationship between transformational leadership, trust in leadership and employee championing behavior during organizational change. *Asia-Pacific Management Review*, 26(2), 95–102. <https://doi.org/10.1016/j.apmr.2020.09.002>
- Judge, T.A., & Bono, J.E. (2001). Relationship of core self-evaluations traits – Self-esteem, generalized self-efficacy, locus of control, and emotional stability – With job satisfaction and job performance: A meta-analysis. *Journal of applied Psychology*, 86(1), 80.
- Junaidi, M., Partayasa, K., & Sulaimawan, D. (2024). Analysis of human resource management strategies in improving organizational performance. *Target*, 6(1), 73–80. <https://doi.org/10.30812/target.v6i1.3983>
- Karimi, S., Ahmadi Malek, F., Yaghoubi Farani, A., & Liobikiene, G. (2023). The role of transformational leadership in developing innovative work behaviors: The mediating role of employees' psychological capital. *Sustainability*, 15(2), 1267. <https://doi.org/10.3390/su15021267>
- Kebe, I.A., Kahl, C., & Liu, Y. (2024). Charting success: The influence of leadership styles on driving sustainable employee performance in the Sierra Leonean banking sector. *Sustainability*, 16(21), 9600. <https://doi.org/10.3390/su16219600>
- Keefer, P., & Vlaicu, R. (2024). Employee trust and performance constraints in public sector organizations. *European Journal of Political Economy*, 81, 102503. <https://doi.org/10.1016/j.ejpoleco.2024.102503>
- Kement, Ü., Zeybek, B., Soylu, S., Bayram, G.E., & Raza, A. (2024). The effect of transformational leadership on restaurant employees on trust, altruistic intention and organizational commitment: The moderation effect of surface acting. *European Business Review*, 36(5), 613–638. <https://doi.org/10.1108/ebor-05-2023-0169>
- Kuráth, G., Bányaí, E., Sipos, N., Venczel-Szakó, T., & Konczos-Szombathelyi, M. (2023). Trust and communication in the context of leaders and employees. *Journal of International Students*, 16(3), 159–174. <https://doi.org/10.14254/2071-8330.2023/16-3/9>
- Kusumah, A.I., Indrayanto, A., & Setiawan, I. (2021). A mediating and moderating role on employee performance appraisal. *Management Research Review*, 44(2), 1639–1659. <https://doi.org/10.1108/MRR-11-2020-0701>
- Kuzior, A., Kettler, K., & Raß, Ł. (2022). Great Resignation – Ethical, cultural, relational, and personal dimensions of Generation Y and Z employees' engagement. *Sustainability*, 14(11), 6764. <https://doi.org/10.3390/su14116764>
- Lee, C. (2024). Artificial Neural Networks (ANNs) and Machine Learning (ML) Modeling Employee Behavior with Management Towards the Economic Advancement of Workers. *Sustainability*, 16(21), 9516. <https://doi.org/10.3390/su16219516>
- Legood, A., Van der Werff, L., Lee, A., & Den Hartog, D.N. (2021). A meta-analysis of the role of trust in the leadership-performance relationship. *European Journal of Work and Organizational Psychology*, 30(1), 1–22. <https://doi.org/10.1080/1359432X.2020.1819241>
- Li, F., Liu, S., Zhang, F., & Huang, H. (2022). Moderating effects of self-efficacy and time pressure on the relationship between employee aging and work performance. *Psychology Research and Behavior Management*, 15, 1043–1054. <https://doi.org/10.2147/PRBM.S359624>
- Li, J., & Ao, L. (2024). Satisfaction with clinical pathway implementation versus job performance of clinicians: Empirical evidence on the mediating role of work engagement from public hospitals in Sichuan, China. *BMC Health Services Research*, 24(1), 348. <https://doi.org/10.1186/s12913-024-10856-w>
- Lin, W.-C., Yin, H., & Liu, Z. (2022). The roles of transformational leadership and growth mindset in teacher professional development: The mediation of teacher self-efficacy. *Sustainability*, 14(11), 6489. <https://doi.org/10.3390/su14116489>
- Ludwikowska, K. (2022). Employee-oriented human resource policy as a factor shaping the influence of servant leadership on job performance. *International Journal of Productivity and Performance Management*, 72(8), 2335–2348. <https://doi.org/10.1108/ijppm-09-2021-0525>
- Mitson, R., Qin, S., & Men, R. (2024). The value of employee trust during turbulent times: Exploring vigilant leadership communication and employee psychological well-being. *International Journal of Strategic Communication*, 18(3), 228–248. <https://doi.org/10.1080/1553118x.2024.2331300>
- Naeem, A., Lodhi, R.N., & Ullah, A. (2021). How transformational leadership influences the knowledge-sharing process: Mediating the role of trust. *Journal of Knowledge Management*, 17(2), 50–71. <https://doi.org/10.4018/UKM.2021040103>
- Namono, R., Hojops, O.J.P., & Tanui, S. (2024). Self-efficacy: Implications for university employees' innovativeness. *International Journal of Innovation Science*. <https://doi.org/10.1108/ijis-05-2023-0106>
- Peng, J., Li, M., Wang, Z., & Lin, Y. (2021). Transformational leadership and employees' reactions to organizational change: Evidence from a meta-analysis. *The Journal of Applied Behavioral Science*, 57(3), 369–397. <https://doi.org/10.1177/002186320920366>
- Perrier, A., El Akreimi, A., Manville, C., & Molines, M. (2024). It's all about trust! A multilevel model of the effect of servant leadership on firefighters' group task performance, adaptivity and emotional exhaustion. *Public Administration Review*, 85(4), 1150–1172. <https://doi.org/10.1111/puar.13893>
- Qin, Y., & Lv, D. (2023). A study on the relationship between human resource management and firm performance based on VAR modeling. *Applied Mathematics and Nonlinear Sciences*, 9(1), 1–18. <https://doi.org/10.2478/amns.2023.2.01566>
- Rashid, A.M.M., & Ilkhanizadeh, S. (2022). The effect of servant leadership on job outcomes: The mediating role of trust in coworkers. *Frontiers in Communication*, 7, 928066. <https://doi.org/10.3389/fcomm.2022.928066>
- Reinikainen, H., Kari, J.T., & Luoma-aho, V. (2020). Generation Z and organizational listening on social media. *Media and Communication*, 8(2), 185–196. <https://doi.org/10.17645/MAC.V8I2.2772>
- Ren, L. (2024). The relationship between servant leadership and team innovation performance: Mediating effect of self-efficacy. *Heliyon*, 10(6), e27723. <https://doi.org/10.1016/j.heliyon.2024.e27723>

- Robbins, S.P., & Judge, T.A. (2016). *Essentials of organizational behavior* (13th ed.). Pearson Education.
- Rosenbruch, A., Nohe, C., Schwarz, I., & Hertel, G. (2023). Leader trusting behaviours: A mixed-method approach on follower's perceptions and reactions. *European Journal of Work and Organizational Psychology, 32*(6), 798–815. <https://doi.org/10.1080/1359432x.2023.2250087>
- Saif, N., Amelia, A., Goh, G.G.G., Rubin, A.M., Shaheen, I., & Murtaza, M. (2024). Influence of transformational leadership on innovative work behavior and task performance of individuals: The mediating role of knowledge sharing. *Heliyon, 10*(11), e32280. <https://doi.org/10.1016/j.heliyon.2024.e32280>
- Saleem, S., Tourigny, L., Raziq, M.M., Shaheen, S., & Goher, A. (2022). Servant leadership and performance of public hospitals: Trust in the leader and psychological empowerment of nurses. *Journal of Nursing Management, 30*(5), 1206–1214. <https://doi.org/10.1111/jonm.13622>
- Sánchez-García, C., Reigal, R.E., Hernández-Martos, J., Hernández Mendo, A., & Morales-Sánchez, V. (2024). Engagement in transformational leadership by teachers influences the levels of self-esteem, motor self-efficacy, enjoyment, and intention to be active in physical education students. *Sports, 12*(7), 191. <https://doi.org/10.3390/sports12070191>
- Sekaran, U., & Bougie, R. (2020). *Research methods for business: A skill-building approach* (8th ed.). Wiley.
- Steca, P., Adorni, R., Serino, S., & D'Addario, M. (2024). Self-efficacy beliefs as key ingredients to healthy and sustainable lifestyles: A five-year longitudinal study on diet and physical activity habits of newly diagnosed patients with acute coronary syndrome. *International Journal of Psychology, 59*(1), 1–15. <https://doi.org/10.1002/ijop.13151>
- Steffens, N.K., Wolyniec, N., Okimoto, T.G., Mols, F., Haslam, S.A., & Kay, A.A. (2021). Knowing me, knowing us: Personal and collective self-awareness enhances authentic leadership and leader endorsement. *Leadership Quarterly, 32*(6), 101498. <https://doi.org/10.1016/j.leaqua.2021.101498>
- Stevanovski, M., Zhan, L. (David), & Mustafa, M. (2024). Managing a Gen-Z workforce – What family firms need to know: A perspectives article. *Journal of Family Business Management, 14*(6), 1234–1239. <https://doi.org/10.1108/jfbm-10-2023-0231>
- Sumpter, D.M., Gibson, C.B., Phan, P.W.M.J., & Porath, C. (2023). Vicarious empowerment as a novel mechanism for empowering high power distance employees. *Journal of Cross-Cultural Psychology, 54*(8), 763–783. <https://doi.org/10.1177/00220221231202400>
- Tran, Y.T., & Hoang, T.C. (2024). Transformational leadership and public employee performance: The mediating roles of employee participation and public service motivation. *International Review of Administrative Sciences, 90*(4), 793–809. <https://doi.org/10.1177/00208523241230439>
- Vila-Vázquez, G., Castro Casal, C., García-Chas, R., & Álvarez-Pérez, D. (2024). How transformational leadership shapes employee task performance? A sequential mediation model. *Leadership & Organization Development Journal, 45*(7), 1122–1141. <https://doi.org/10.1108/loj-01-2023-0027>
- Yuan, Y., Ren, S., Tang, G., Cooke, F.L., & Wang, Z. (2023). How green human resource management affects employee voluntary workplace green behaviour: An integrated model. *Human Resource Management Journal, 34*(1), 91–121. <https://doi.org/10.1111/1748-8583.12510>
- Zeb, A., Gan, G.G.G., Wei, O.J., & Karim, R. (2024). Examining the nexus between situational factors and job performance through the mediating role of work engagement and self-efficacy. *Journal of Public Affairs, 24*(2), e2915. <https://doi.org/10.1002/pa.2915>