

## Refining Employer Branding to Attract Generation Z Talent: A Case Study in an Indonesian Infrastructure SOE

Muhammad Indrahanif, Gallang Perdhana Dalimunthe, Jacob Silas Mussry

Institut Teknologi Bandung, Indonesia

Email: muhammadindrahanif@gmail.com, gallang.dalimunthe@sbm-itb.ac.id,  
jacob.silas@sbm-itb.ac.id

---

### ABSTRACT

*This study aims to develop a data-driven employer branding strategy to enhance the attractiveness of a state-owned infrastructure enterprise to Generation Z (Gen Z) talent in Indonesia. Despite the company's national significance and stable reputation, recent declines in applicant interest—particularly within the national joint SOE recruitment program—indicate a misalignment between its employer value proposition and the expectations of emerging job seekers. Using a quantitative approach, this research surveyed 205 external Gen Z respondents and 62 internal Gen Z employees. Exploratory Factor Analysis (EFA) identified five key employer branding dimensions: Organizational Attributes, Job Attributes, Workplace Attributes, Compensation & Rewards, and Social & Altruistic Value. Partial Least Squares Structural Equation Modeling (PLS-SEM) revealed that external Gen Z candidates are primarily influenced by Compensation & Rewards. The Importance-Performance Matrix Analysis (IPMA) indicated underperformance on several critical indicators valued by Gen Z, including autonomy, inclusive culture, value alignment, and transparent evaluation. These findings suggest that the company's current branding lacks differentiation and fails to resonate with Gen Z's aspirations. The study contributes to the limited empirical research on employer branding within state-owned enterprises by combining external and internal perspectives and applying advanced analytical tools. Practical implications include reevaluating communication strategies, enhancing employee experience programs, and refining social value initiatives to attract and retain Gen Z talent. The proposed framework also serves as a reference for other public-sector organizations seeking to modernize their employer branding in an increasingly competitive labor market.*

**KEYWORDS** Employer Branding, Generation Z, SOE, PLS-SEM, IPMA



*This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International*

---

### INTRODUCTION

In today's hypercompetitive talent landscape, employer branding has emerged as a strategic imperative for organizations seeking to attract and retain Generation Z (Gen Z) talent—individuals born between 1997 and 2012 who are rapidly becoming the dominant demographic in the global workforce. Unlike previous generations, Gen Z job seekers are drawn not only to economic incentives but also to organizations that promote autonomy, inclusivity, and meaningful societal impact (Gabrielova & Buchko, 2021; Lestari & Perdhana, 2023). As digital natives, they also expect consistent employer engagement across online platforms and value propositions that reflect ethical, purposeful work environments (Erika et al., 2023; Rani et al., 2022).

In the Indonesian context, this generational shift poses unique challenges for state-owned enterprises (SOEs), particularly those in traditional sectors such as infrastructure (Anguelov, 2024; Apriliyanti & Kristiansen, 2019; Milhaupt & Pargendler, 2018; Trihatmoko & Susilo, 2023). While SOEs have historically been viewed as stable and prestigious employers offering job security and national pride, many now face declining interest from younger cohorts as

private-sector competitors intensify their employer branding strategies through social media engagement, flexible work arrangements, and socially conscious messaging (Hakam et al., 2024; Yeo et al., 2022). The challenges facing Indonesian SOEs are compounded by several structural factors: bureaucratic organizational cultures that may limit innovation and agility, hierarchical decision-making processes that conflict with Gen Z's preference for autonomy, limited digital visibility compared to tech-savvy private firms, and perceived gaps in addressing contemporary workplace values such as diversity, equity, and inclusion (Hendriana et al., 2023). These institutional characteristics create significant barriers to attracting Gen Z talent who prioritize organizational culture fit alongside traditional employment benefits (Nana Amma Acheampong, 2019; Nana Amma A. Acheampong, 2021; Graczyk-Kucharska & Erickson, 2020; Pandita, 2022).

One infrastructure-focused SOE in Indonesia, despite its long-standing reputation and national significance, has recently reported a significant decline in job applicants during the 2025 national SOE joint recruitment program. Internal recruitment data reveals a 35% decrease in applications from candidates aged 18–28 compared to the previous recruitment cycle, with exit interview data from recent Gen Z hires indicating misalignment between expectations and workplace reality. This decline is particularly concerning given that Gen Z constitutes over 28% of Indonesia's population and will represent most of the workforce by 2030 (IDN Research Institute, 2024). The phenomenon observed at this SOE reflects broader trends across Indonesia's public sector, where traditional employer value propositions are increasingly failing to resonate with younger generations seeking meaningful, flexible, and purpose-driven career opportunities.

While prior research has identified key dimensions that shape employer attractiveness, such as economic, social, and developmental value (Berthon et al., 2005; Ronda et al., 2018), most studies have focused on either private-sector firms or multinational corporations. A gap remains in the literature regarding how employer branding should be adapted to the distinct context of state-owned enterprises (SOEs) in developing countries, where bureaucratic culture and limited digital visibility can hinder Gen Z engagement (Bou Hatoum & Nassereddine, 2025). Furthermore, few studies combine both external applicant and internal employee perspectives to holistically assess brand perception and performance, particularly using empirical tools that can guide actionable strategies.

To address these gaps, this study makes several novel contributions to the employer branding literature. First, it focuses specifically on the underexplored context of SOEs in developing countries, examining how traditional public-sector employers must adapt their value propositions to attract digitally native, purpose-driven Gen Z talent. Second, it employs a dual-perspective approach by surveying both external candidates (to understand attraction factors) and internal Gen Z employees (to understand retention factors), providing a comprehensive view of employer brand effectiveness across the employment lifecycle. Third, it utilizes advanced analytical techniques—combining PLS-SEM with Importance-Performance Matrix Analysis (IPMA)—to not only identify significant relationships but also prioritize strategic interventions based on performance gaps in high-importance attributes. This methodological innovation enables practitioners to move beyond general insights toward actionable, evidence-based recommendations.

This research proposes an integrated employer branding strategy tailored to Gen Z preferences, focusing on an Indonesian infrastructure SOE that has experienced a notable decline in applicant interest. The study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) to identify which employer branding attributes significantly influence the intention to apply (external Gen Z) and intention to stay (internal Gen Z), and utilizes Importance-Performance Matrix Analysis (IPMA) to evaluate how well the SOE performs on those attributes. Garcia-Fernandez et al. (2020) demonstrated the utility of IPMA in evaluating service attributes by customer age group in fitness center contexts, while Morrison et al. (2024) conducted IPMA after PLS-SEM on destination performance, finding that accessibility, activities, and awareness were highly important for driving revisit intentions despite exhibiting performance gaps. This dual-lens analytical approach provides a more comprehensive diagnosis of employer brand effectiveness than is commonly found in prior literature, enabling identification of specific high-impact improvement areas.

The findings of this study offer three key contributions to both theory and practice. First, it validates and refines the employer branding constructs most relevant to Gen Z within the SOE context, extending Western-developed frameworks to an Asian emerging market setting. Second, it operationalizes IPMA to prioritize branding dimensions that require strategic improvement, providing a replicable analytical framework that bridges research and practice. Third, it generates practical recommendations for Indonesian SOEs and similar public-sector organizations aiming to compete for young talent in increasingly digital, competitive, and purpose-driven labor markets. By addressing the intersection of generational workforce shifts, public-sector employment challenges, and employer branding strategy, this research contributes valuable insights to human resource management scholarship and organizational practice in emerging economies.

## METHOD

This study employed a quantitative, cross-sectional research design to investigate employer branding attributes influencing Generation Z's intention to apply and stay within an Indonesian infrastructure SOE. A structured survey captured external perceptions from potential applicants and internal perceptions from current Gen Z employees, enabling comparative analysis of branding effectiveness across the attraction-retention spectrum.

The survey instrument was developed based on validated constructs from prior employer branding literature (Berthon et al., 2005; Ronda et al., 2018) and adapted to the Indonesian context. External data were collected from 205 Gen Z respondents using Populix, a third-party online survey platform with access to a nationally representative panel. Internal data were obtained from 62 Gen Z employees through a Google Form distributed via the company's internal communication channels. Respondents were informed of the study's confidentiality and their voluntary participation.

The questionnaire included 5-point Likert-scale items measuring key employer branding dimensions (independent variables): Organizational Attributes (OA), Job Attributes (JA), Workplace Attributes (WA), Compensation & Rewards (CR), and Social & Altruistic Value (SV). Behavioral intention outcomes (dependent variable)—intention to apply (external group) and intention to stay (internal group)—were measured using established scales.

Exploratory Factor Analysis (EFA) with Promax rotation was performed to validate the underlying structure and ensure construct validity. Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed using SmartPLS 4 to estimate relationships between employer branding dimensions and behavioral intention outcomes. Importance-Performance Matrix Analysis (IPMA) complemented the structural model by contrasting total effects (importance) with rescaled mean scores (performance), identifying areas for strategic improvement (Yapp & Yeap, 2023).

This study hypothesize that each employer branding dimension positively influences Gen Z's intention to join or remain.

H1a. Organizational Attributes positively influence Intention to Apply

H1b. Organizational Attributes positively influence Intention to Stay

H2a. Job Attributes positively influence Intention to Apply

H2b. Job Attributes positively influence Intention to Stay

H3a. Workplace Attributes positively influence Intention to Apply

H3b. Workplace Attributes positively influence Intention to Stay

H4a. Compensation and Rewards positively influence Intention to Apply

H4b. Compensation and Rewards positively influence Intention to Stay

H5a. Social & Altruistic Value positively influence Intention to Apply

H5b. Social & Altruistic Value positively influence Intention to Stay

## **RESULT AND DISCUSSION**

### **Measurement Model Evaluation**

Prior to hypothesis testing, comprehensive assessments of data reliability and validity were conducted to ensure the robustness and credibility of the measurement model. Internal consistency reliability was confirmed using Composite Reliability (CR), with all constructs exceeding the recommended threshold of 0.70 (Hair et al., 2017). Specifically, for external respondents, CR values ranged from 0.839 to 0.909, while for internal respondents, values ranged from 0.818 to 0.917, indicating strong internal consistency across all employer branding dimensions and behavioral intention constructs. These values substantially exceed minimum requirements, demonstrating that the measurement items reliably capture their respective constructs.

Convergent validity was established through Average Variance Extracted (AVE), with all values exceeding the minimum requirement of 0.50. As shown in Table 1, external group AVE values reached 0.833, and internal group AVE values reached 0.846, indicating that the latent constructs explain substantial variance in their indicators—well above the threshold suggesting adequate convergent validity. Individual indicator loadings were also examined, with all items demonstrating loadings above 0.70, further confirming that indicators adequately represent their latent constructs. Discriminant validity was verified using both the Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratio assessment. The Fornell-Larcker criterion confirmed that each construct shared more variance with its own indicators than with other constructs, while HTMT ratios remained below the conservative threshold of 0.85, ensuring that constructs are empirically distinct and not redundant. These comprehensive validity and reliability assessments provide strong psychometric evidence supporting the measurement model's quality.

**Table 1 Composite Reliability & AVE**

	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
<b>External</b>	0.839	0.909	0.833
<b>Internal</b>	0.818	0.917	0.846

### Structural Model and Hypothesis Testing

The results of Partial Least Squares Structural Equation Modeling (PLS-SEM) revealed distinct patterns of influence between external and internal Gen Z respondents, highlighting fundamental differences in what attracts candidates versus what retains employees. Table 2 presents the standardized path coefficients ( $\beta$ ), significance levels, and effect sizes ( $f^2$ ) for both external and internal samples, providing comprehensive insights into the relative importance of each employer branding dimension.

For external Gen Z job seekers, Compensation & Rewards emerged as the only dimension with a statistically significant influence on intention to apply ( $\beta = 0.32$ ,  $p < 0.05$ ,  $f^2 = 0.10$ ), indicating a small-to-medium effect size according to Cohen's guidelines. This finding suggests that tangible benefits such as competitive salary, comprehensive benefits packages, job security, and clear incentive structures remain key motivators in initial employer selection. The emphasis on financial factors aligns with the transactional nature of pre-employment relationships, where candidates lack direct experience with organizational culture and values, thus relying more heavily on observable and quantifiable attributes. Other constructs—including Organizational Attributes ( $\beta = 0.14$ , non-significant), Job Attributes ( $\beta = 0.13$ , non-significant), Workplace Attributes ( $\beta = 0.19$ , non-significant), and Social & Altruistic Value ( $\beta = 0.08$ , non-significant)—showed weak and statistically non-significant relationships with application intention. This pattern suggests that external perceptions are predominantly transactional, with Gen Z candidates prioritizing economic value and stability over intangible organizational characteristics during initial employer evaluation.

In stark contrast, internal Gen Z employees demonstrated significantly different priority patterns, emphasizing intrinsic and purpose-driven factors over financial considerations. Three dimensions emerged as significant predictors of intention to stay: Organizational Attributes ( $\beta = 0.34$ ,  $p < 0.01$ ,  $f^2 = 0.22$ ), Workplace Attributes ( $\beta = 0.28$ ,  $p < 0.01$ ,  $f^2 = 0.17$ ), and Social & Altruistic Value ( $\beta = 0.38$ ,  $p < 0.01$ ,  $f^2 = 0.29$ ). The strongest predictor was Social & Altruistic Value, indicating that internal employees' retention decisions are substantially influenced by their perception that the organization contributes meaningfully to society, demonstrates corporate social responsibility, supports environmental sustainability, and provides opportunities for community engagement and volunteering. Organizational Attributes also exerted strong influence, suggesting that clarity in vision and mission, organizational reputation, innovation orientation, and value alignment between personal and organizational values are critical for long-term commitment. Workplace Attributes, including inclusive culture, collaborative environment, work-life balance, and supportive management, also significantly predicted retention intention. Notably, Compensation & Rewards showed no significant effect on intention to stay ( $\beta = 0.05$ , non-significant), and Job Attributes paradoxically showed a slight negative relationship ( $\beta = -0.02$ , non-significant), suggesting that once employed, financial factors become less salient while experiential and purpose-driven



elements gain prominence. These findings align with psychological contract theory, which posits that employee-employer relationships evolve from transactional to relational as tenure and organizational socialization deepen.

**Table 2 PLS-SEM Result (IV)**

Construct IV	$\beta$ (Ext)	Sig. (Ext)	$f^2$ (Ext)	$\beta$ (Int)	Sig. (Int)	$f^2$ (Int)
OA	0.14	No	0.02	0.34	Yes	0.22
JA	0.13	No	0.02	-0.02	No	0.00
WA	0.19	No	0.03	0.28	Yes	0.17
CR	0.32	Yes	0.10	0.05	No	0.01
SV	0.08	No	0.01	0.38	Yes	0.29

The structural model demonstrated strong explanatory power, as shown in Table 3. For external respondents, the five employer branding dimensions collectively explained 52% of variance in intention to apply ( $R^2 = 0.52$ ), indicating moderate-to-substantial predictive relevance. For internal respondents, the model explained 77% of variance in intention to stay ( $R^2 = 0.77$ ), representing strong explanatory power and suggesting that the employer branding framework captures the primary drivers of retention decisions among Gen Z employees. The  $Q^2$  values (predictive relevance) ranging from 0.252 to 0.572 confirmed that the model possesses adequate predictive capability beyond the sample data, supporting generalizability of findings.

**Table 3 PLS-SEM Result (DV)**

Construct DV	$R^2$	$Q^2_{\text{predict}}$
IN	0.52 (Ext) / 0.77 (Int)	0.252–0.572

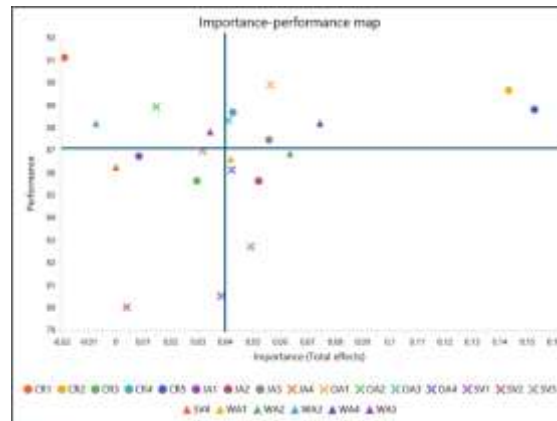
Table 4 summarizes the hypothesis testing results, revealing a clear divergence in supported hypotheses between external and internal groups. For external Gen Z, only H4a (Compensation & Rewards → Intention to Apply) received empirical support, while H1a, H2a, H3a, and H5a were rejected due to non-significant path coefficients. For internal Gen Z, H1b (Organizational Attributes → Intention to Stay), H3b (Workplace Attributes → Intention to Stay), and H5b (Social & Altruistic Value → Intention to Stay) were supported, while H2b and H4b were rejected. These differential results underscore the necessity of segmented employer branding strategies that address distinct priorities at different stages of the employment relationship.

**Table 4 Hypothesis Testing**

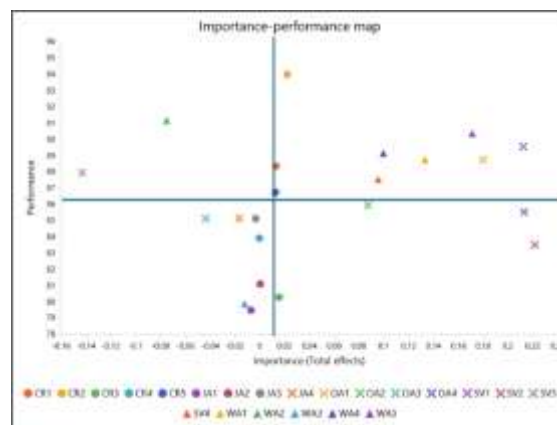
Hypothesis	Ext(a)	Int(b)
H1 (OA)	Rejected	Supported
H2 (JA)	Rejected	Rejected
H3 (WA)	Rejected	Supported
H4 (CR)	Supported	Rejected
H5 (SV)	Rejected	Supported

Figure 1 and 2 visualizes the distribution of these indicators within the IPMA matrix. Indicators in the below-right quadrant—high importance but low performance—represent strategic priorities. For external respondents, Value Alignment (OA4), Friendly & Collaborative Culture (WA1), Inclusivity (WA2), Autonomy (JA2), and Shared Purpose (SV3) emerged as top focus areas for branding enhancement. While internal respondents show that

Clear Vision (OA2), Value Alignment (OA4), Transparent Evaluation (CR3), and Employee Volunteering (SV2) become the top focus areas.



**Figure 1 IPMA (Indicators) External**



**Figure 2 IPMA (Indicators) Internal**

These results demonstrate a perceptual divide between external attraction and internal retention. While salary and financial incentives dominate initial job considerations for Gen Z, long-term retention is significantly shaped by non-financial factors such as organizational clarity, cultural alignment, and societal contribution. This finding is consistent with prior literature, which asserts that Gen Z seeks both purpose and progression in their work environments (Gabrielova & Buchko, 2021; Hendriana et al., 2022).

The IPMA results align with Gen Z's expectations as highlighted in prior literature: they seek environments where they can be autonomous, feel included, and connect their work to a meaningful purpose (Lestari & Perdhana, 2023; Bou Hatoum & Nassereddine, 2025). Despite the SOE's strong reputation for stability and national contribution, these insights suggest that internal initiatives related to social value and workplace inclusivity are under-communicated or under-delivered.

This analysis underscores the need to move beyond traditional employer branding elements focused on compensation and job structure. Employer branding strategies must evolve to emphasize psychological contracts—such as authenticity, emotional purpose, and community—which are increasingly important to Gen Z. By targeting the underperforming but

high-impact indicators, the SOE can create a more compelling and differentiated brand that resonates both internally and externally.

## CONCLUSION

This study examined the employer branding attributes that influence Generation Z's intention to apply to and remain with a state-owned enterprise (SOE) in Indonesia's infrastructure sector. Using a combination of PLS-SEM and Importance-Performance Matrix Analysis (IPMA), the research revealed distinct perceptions between external and internal Gen Z stakeholders. For external respondents, Compensation & Rewards emerged as the most influential factor in application intention, highlighting the continued importance of financial incentives and stability in the initial decision-making process. In contrast, internal Gen Z employees were more strongly influenced by Organizational Attributes, Workplace Attributes, and Social & Altruistic Value, indicating that long-term engagement depends on alignment with company values, work culture, and purpose. The IPMA results further identified several high-importance but low-performance indicators—such as autonomy, inclusivity, value alignment, and transparent evaluation—that must be prioritized to enhance employer attractiveness and retention. These findings underscore the need for a differentiated employer branding strategy that communicates transactional benefits externally while reinforcing purpose-driven and inclusive workplace experiences internally. This study contributes to the limited empirical literature on employer branding within public sector and SOE contexts by integrating dual perspectives and employing robust analytical tools. Future research could expand the generalizability of findings by comparing multiple SOEs or sectors, incorporating longitudinal data to capture changes over time, or exploring the role of digital employer branding campaigns in shaping Gen Z perceptions across recruitment touchpoints.

## REFERENCES

- Acheampong, N. A. (2019). *Recruiting and retaining Generation Z into public sector organizations: A systematic review* (Master's thesis). University of Maryland University College.
- Acheampong, N. A. A. (2021). Reward preferences of the youngest generation: Attracting, recruiting, and retaining Generation Z into public sector organizations. *Compensation & Benefits Review*, 53(2), 75–97. <https://doi.org/10.1177/0886368720972030>
- Anguelov, D. (2024). State-owned enterprises and the politics of financializing infrastructure development in Indonesia: De-risking at the limit? *Development and Change*, 55(3), 493–529. <https://doi.org/10.1111/dech.12842>
- Apriliyanti, I. D., & Kristiansen, S. O. (2019). The logics of political business in state-owned enterprises: The case of Indonesia. *International Journal of Emerging Markets*, 14(5), 709–730. <https://doi.org/10.1108/IJOEM-07-2018-0375>
- Bou Hatoum, M., & Nassereddine, H. (2025). Becoming an employer of choice for Generation Z in the construction industry. *Buildings*, 15(2), Article 263. <https://doi.org/10.3390/buildings15020263>
- Erika, Djoenarko, R. H., Laurensia, K., Sun, P., & Laiman, B. (2023). Factors affecting employee engagement of Generation Z during the transition from the COVID-19 pandemic to endemic. *TIJAB (The International Journal of Applied Business)*, 7(2),



- 196–216. <https://e-journal.unair.ac.id/TIJAB/article/view/41703>
- Gabrielova, K., & Buchko, A. (2021). *Here comes Generation Z: Millennials as managers*. <https://www.researchgate.net/publication/349012870>
- Graczyk-Kucharska, M., & Erickson, G. S. (2020). A person–organization fit model of Generation Z: Preliminary studies. *Journal of Entrepreneurship, Management and Innovation*, 16(4), 149–176. <https://doi.org/10.7341/20201646>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). SAGE Publications.
- Hakam, D. F., Haryadi, F. N., Indrawan, H., Hanri, M., Hakam, L. I., Kurniawan, O., & Purnomoadi, A. P. (2024). Analyzing current trends in career choices and employer branding from the perspective of millennials within the Indonesian energy sector. *Energies*, 17, Article 2570. <https://doi.org/10.3390/en17102570>
- Hendriana, E., Christoper, A., Zain, H. O. A., & Pricilia, N. (2023). The role of employer branding in work-life balance and employee retention relationship among Generation Z workers: Mediation or moderation? *Jurnal Manajemen Teori dan Terapan*, 16(1), 125–140. <https://doi.org/10.20473/jmtt.v16i1.41703>
- IDN Research Institute, & Advisia. (2024). *Indonesia Gen Z report 2024: Understanding and uncovering the behavior, challenges, and opportunities*. <https://www.idn.media>
- Lestari, D. P., & Perdhana, M. S. (2023). Generation Z work motivation in Indonesia. *RETURN: Study of Management, Economic and Business*, 2(4), 409–422. <https://return.publikasikupublisher.com/index.php/RETURN/article/view/95>
- Milhaupt, C. J., & Pargendler, M. (2018). Governance challenges of listed state-owned enterprises around the world: National experiences and a framework for reform. *Cornell International Law Journal*. <https://doi.org/10.31228/OSF.IO/ZRXMN>
- Morrison, A. M., Cheah, J. H., & Kumar, R. (2024). A destination performance measurement framework. *Current Issues in Tourism*. <https://doi.org/10.1080/13683500.2024.2309149>
- Pandita, D. (2022). Innovation in talent management practices: Creating an innovative employer branding strategy to attract Generation Z. *International Journal of Innovation Science*, 14(3–4), 556–569. <https://doi.org/10.1108/IJIS-10-2021-0183>
- Rani, I. H., Jali, H., & Widyowati, L. A. (2022). Indonesian Generation Z work expectation and intention to apply for job: Role of social media. *Quantitative Economics and Management Studies*, 3(2), 193–206. <https://doi.org/10.35877/454RI.gems831>
- Ronda, L., Valor, C., & Abril, C. (2018). Are they willing to work for you? An employee-centric view to employer brand attractiveness. *Journal of Product & Brand Management*, 27(5), 573–596.
- Trihatmoko, R. A., & Susilo, Y. S. (2023). Conditions, challenges and prospects of state-owned enterprises in Indonesia: The governance perspective based on economic constitution. *Applied Research in Quality of Life*, 18(5), 2459–2484. <https://doi.org/10.1007/s11482-023-10154-6>
- Yapp, E. H. T., & Yeap, J. A. L. (2023). Assessing the determinants of customer-perceived value and customer satisfaction in e-hailing services: An importance–performance matrix analysis (IPMA) approach. *Cogent Business & Management*, 10(1), Article 2191808. <https://doi.org/10.1080/23311975.2023.2191808>

Yeo, S. F., Tan, C. L., Kumar, A., Tan, K. H., & Wong, J. K. (2022). Investigating the impact of AI-powered technologies on Instagrammers' purchase decisions in the digitalization era: A study of the fashion and apparel industry. *Technological Forecasting & Social Change*, 177, Article 121551. <https://doi.org/10.1016/j.techfore.2022.121551>