




“An investigation of Adizes’ PAEI model for developing a citizen-oriented personnel management system in Kazakhstan’s civil service”

AUTHORS	Tansholpan Shaimerdenova  Mukhtarima Zhetpisbayeva 
ARTICLE INFO	Tansholpan Shaimerdenova and Mukhtarima Zhetpisbayeva (2025). An investigation of Adizes’ PAEI model for developing a citizen-oriented personnel management system in Kazakhstan’s civil service. <i>Problems and Perspectives in Management</i> , 23(4), 220-231. doi: 10.21511/ppm.23(4).2025.16
DOI	http://dx.doi.org/10.21511/ppm.23(4).2025.16
RELEASED ON	Thursday, 06 November 2025
RECEIVED ON	Wednesday, 30 April 2025
ACCEPTED ON	Friday, 19 September 2025
LICENSE	 This work is licensed under a Creative Commons Attribution 4.0 International License
JOURNAL	"Problems and Perspectives in Management"
ISSN PRINT	1727-7051
ISSN ONLINE	1810-5467
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

49



NUMBER OF FIGURES

1



NUMBER OF TABLES

4

© The author(s) 2025. This publication is an open access article.



BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine
www.businessperspectives.org

Type of the article: Research Article

Received on: 30th of April, 2025

Accepted on: 19th of September, 2025

Published on: 6th of November, 2025

© Tansholpan Shaimerdenova,
Mukhtarima Zhetpisbayeva, 2025

Tansholpan Shaimerdenova, Ph.D.
Student, Department of Economic
Theory and Public and Local
Government, Karaganda University of
Kazpotrebooyuz, Kazakhstan.

Mukhtarima Zhetpisbayeva,
Ph.D. in Economics, Associate
Professor, Department of Economic
Theory and Public and Local
Government, Karaganda University
of Kazpotrebooyuz, Kazakhstan.
(Corresponding author)



This is an Open Access article,
distributed under the terms of the
[Creative Commons Attribution 4.0
International license](https://creativecommons.org/licenses/by/4.0/), which permits
unrestricted re-use, distribution, and
reproduction in any medium, provided
the original work is properly cited.

Conflict of interest statement:

Author(s) reported no conflict of interest

Tansholpan Shaimerdenova (Kazakhstan), Mukhtarima Zhetpisbayeva (Kazakhstan)

AN INVESTIGATION OF ADIZES' PAEI MODEL FOR DEVELOPING A CITIZEN-ORIENTED PERSONNEL MANAGEMENT SYSTEM IN KAZAKHSTAN'S CIVIL SERVICE

Abstract

The effectiveness of Kazakhstan's civil service relies on strengthening personnel management systems that enhance leadership capacity, motivation, and organizational efficiency. Persistent challenges in managerial role alignment, low motivation, and rigid bureaucratic practices continue to limit institutional performance despite multiple waves of reform. This study examines the applicability of Adizes' PAEI model for developing a citizen-oriented personnel management system and explores how leadership and motivation influence efficiency in public service. A structured questionnaire was administered to 150 civil servants from Astana and Almaty between March and May 2024, covering managers and non-managers across career stages and educational levels. Results show that 63% of respondents relied primarily on Producer and Administrator roles, with mean indices of 0.71 and 0.65, respectively, while Entrepreneur and Integrator roles scored lower (0.52 and 0.59), indicating weak innovation and team integration. Motivation levels, measured on a 10-point Likert scale, were significantly higher in departments with balanced role distribution (mean = 7.8, $p < 0.01$). Job satisfaction improved for 69% of respondents working in units that implemented participatory governance and recognition-based incentives. Tenure and education were positively associated with leadership effectiveness, whereas gender differences were negligible. Life cycle analysis suggests Kazakhstan's civil service remains in a transitional growth phase, requiring stronger entrepreneurial and integrative leadership to sustain reforms. The findings highlight that balancing PAEI roles can strengthen motivation, leadership responsiveness, and overall efficiency, offering actionable guidance for public managers seeking to build a more citizen-oriented civil service.

Keywords

motivation, leadership, governance, bureaucracy, personnel, efficiency

JEL Classification

J45, M12, H83

INTRODUCTION

Sustainable socio-economic development cannot be achieved without effective civil service personnel management (Hariram et al., 2023). To realize national development and social objectives, governments must initiate strategic projects implemented by civil workers (Huque & Jongruck, 2020). Motivation systems are crucial in shaping government servants' commitment and performance toward these goals. However, public organizations often lack adequate mechanisms to monitor and enhance staff engagement. As public service responsibilities grow increasingly complex, managers are expected to be professionally competent, strategic thinkers, and collaborative leaders (Zada et al., 2023). The relevance of this study lies in the urgent need to strengthen personnel management systems in public administration, which directly impacts the effectiveness of strategic national programs and socio-economic progress (Chychun et al., 2023). Global trends stress citizen-focused management to boost service quality and trust (Smerichevskiy et al.,

2024; Hanan et al., 2024). Weak leadership competencies, insufficient motivation systems, and inadequate tools for assessing managerial performance undermine organizational capacity and hinder the delivery of essential public services. Strong management capacity drives socio-economic resilience, linking effective personnel systems to institutional stability (Holovnia et al., 2024). Addressing these issues is critical for achieving sustainable governance outcomes and maintaining public trust.

Despite extensive literature on leadership and public management, there is limited recognition of how specific management models can address civil servants' challenges. One underutilized approach is the PAEI paradigm, developed by management theorist Ichak Adizes (Emerick, 2022). This model defines four core managerial roles: Producer (P), Administrator (A), Entrepreneur (E), and Integrator (I). While the model has shown promise, its application in public service remains limited, particularly in enhancing leadership competencies, professional motivation, and overall organizational performance (Mowlanapour et al., 2021; Zykov, 2020).

This study addresses the lack of empirically validated frameworks for strengthening civil service personnel management. It evaluates how balanced PAEI role performance can improve leadership, motivation, and teamwork, and provides practical recommendations for optimizing human resource management in Kazakhstan's public administration.

1. LITERATURE REVIEW

The professional development of public officials is critical for effective public personnel management. A key challenge in this domain is low motivation among civil servants, significantly undermining their effectiveness. Motivation, the internal drive to complete goals or tasks, has enhanced performance and efficiency (Agusra et al., 2021; Wijaya, 2022). Internal and external motivational factors are influential – while strong motivation fosters efficiency, weak motivation tends to reduce performance (Hartnell et al., 2023). This reflects the complexity of public service motivation, where tangible and intangible rewards play vital roles in driving employee productivity.

Public service motivation (PSM) has been studied extensively for over three decades, primarily in Western contexts. PSM refers to a distinct set of motivational drivers that are more prevalent in public service roles. While early research originated mainly in the U.S. and Europe, recent studies have called for broader geographic and methodological diversity to reduce Western and quantitative biases in the literature (Chen et al., 2023; Kim, 2017). In non-Western countries, adopting the PSM framework has required adjustments to reflect local administrative cultures, governance institutions, and public expectations (Mussagulova et al., 2019). This indicates that motivational con-

structs are not universally applicable and must account for regional variation.

Global research into public sector motivation consistently emphasizes the importance of employer-employee relationships and organizational incentives. Studies from Asia and Europe demonstrate that financial compensation, career progression, recognition, and work-life balance contribute significantly to motivation among civil servants (Igbabee, 2024). Other motivational theories suggest that employee competence and confidence directly enhance productivity, underlining the importance of well-designed motivation strategies in public personnel systems.

Several studies have examined the direct link between motivation and job performance (Nuraisyiah & Haerani, 2022; Zhenjing et al., 2022). However, contradictions exist in the literature. Laras et al. (2021) found that in some cases, organizational interventions do not significantly influence performance through motivation alone. Such disparities highlight the need for more nuanced, context-sensitive approaches to studying public service motivation, especially across different institutional and cultural environments.

Motivation also plays a foundational role in shaping the performance capacity of public organizations. Effective motivation systems enhance both

organizational efficiency and individual work behavior. Highly motivated employees are more engaged and collaborative, generating innovation and improved service delivery (Abil, 2024). In this regard, both extrinsic and intrinsic motivational levers must be considered.

Technological advancements and modern governance tools further shape motivational strategies in public service. Alhosani and Alhashmi (2024) observed that motivation is surpassed by digitalization, AI, and governance models based on data to shape the continuity of motivation. These also cover real-time performance monitoring and a personalized growth roadmap (Zharov, 2024). Transparency and open performance evaluations can greatly enhance motivation, especially in low-trust environments that characterize emerging economies (Kaur & Sharma, 2022). The inner values of public service also influence motivation. Ojasalo and Kauppinen (2024) noted that intrinsic drivers such as civic duty and public value perception enhance engagement and commitment. Likewise, Khudhair (2024) and Mousa Alriyami et al. (2024) suggest that the organizational culture, career development opportunities, and job autonomy play a significant role in motivation and performance. Recognition and career development opportunities also have a positive motivational effect, according to Van Triest (2024); furthermore, Hussaini et al. (2024), Bijalwan et al. (2024), Berber and Gašić (2024) also supported the finding that non-financial incentives are essential for satisfied staff. This is supported by Venkatesh and Kachhi (2024), who relate job satisfaction to enhanced performance. Pattanatornchai et al. (2024) also emphasize the significance of team-based incentive schemes in driving cooperation and service quality. However, despite the increasing number of studies, several questions remain unanswered. Inconsistent findings concerning the relation between motivation and performance, particularly across cultural contexts, suggest further examination. Moreover, a well-developed framework, based on motivational insights, for systemwide use does not exist in public personnel systems. Therefore, this study aims to develop and test a personnel management model for civil servants based on I. Adizes' PAEI theory, with a focus on enhancing motivation and customer-oriented leadership. By bridging gaps in existing

motivation research and applying a context-sensitive leadership framework, the study seeks to offer practical strategies for improving civil service effectiveness in Kazakhstan.

2. METHODS

This study employed a mixed-method approach combining quantitative and qualitative methods to examine the influence of leadership and motivation on Kazakhstan's public service. The conceptual framework was based on the Adizes PAEI model, which distinguishes four managerial roles: Producer, Administrator, Entrepreneur, and Integrator (Zykov, 2020). Quantitative data were collected via structured questionnaires assessing leadership competencies, motivational factors, and task role distribution. Qualitative data were obtained through case studies and life cycle analysis, offering an in-depth perspective on managerial development in civil service (Hameduddin & Engbers, 2022).

The study used stratified random sampling to ensure respondent diversity and representation, in line with methodological guidance (Hossan et al., 2023). Participants were 150 civil servants from various departments of Kazakhstan's government, including both managerial and non-managerial staff. The sample covered individuals aged 25–65 across all career stages. Gender balance was considered to reflect occupational diversity in the public sector (Siemietycki, 2019). Participants were also stratified by tenure (5–10 years, 11–20 years, and over 20 years) and education level (high school, bachelor's, master's, and doctoral degrees) to evaluate the effects of experience and qualifications on leadership and motivation.

The survey instrument was designed following Jain's (2021) methodological framework. It utilized a Likert scale to assess the perceived strength of each PAEI role, alongside leadership and motivation levels (Semenets-Orlova et al., 2019). The questionnaire focused on respondents' self-perceived managerial roles, motivators, leadership behaviors, and collaborative tendencies. The questions were formulated to correspond to specific dimensions of the PAEI framework and reflect contemporary challenges in public service personnel management. The scope of the questions was intentionally limited to preserve focus and manage respondent burden.

The survey was conducted between March and May 2024 in civil service institutions located in Astana and Almaty. These locations were selected due to their administrative centrality and representativeness of Kazakhstan's bureaucratic structures. Concurrently, semi-structured interviews were conducted with department heads and mid-level managers. Interview themes included leadership style, role alignment with the PAEI model, and motivation strategies Žur (2021). All interviews were audio-recorded, transcribed, and coded thematically following to identify patterns in leadership practice and organizational dynamics.

Data were analyzed using both quantitative and qualitative techniques. An index-based approach was applied to the survey data to calculate individual scores for leadership and motivation and to examine correlations with demographic variables (Zykov, 2020). Additionally, life cycle analysis, based on Adizes' model, was employed to map the development stages of Kazakhstan's civil service institutions from 1991 to 2008 (Mosca et al., 2021). Qualitative evidence from interviews and case studies was used to interpret these stages and contextualize survey findings with examples of organizational change and executive leadership. This integrated methodology provided a comprehensive understanding of the factors influencing leadership and motivation in public administration.

The study also followed national and international ethical guidelines, namely Committee on Publication Ethics (COPE). All participants provided informed consent, including anonymity, voluntariness, and data storage security. The appropriate institutional committee on ethics approved the use of this protocol. Personal identifiers have been removed, and data will be securely stored and made accessible, on request, by confidentiality and open data guidelines.

3. RESULTS

Kazakhstan's public administration significantly changed regarding leader competence and motivation from 1991 to 2021, as internal reforms and socio-political changes had an impact. Leadership was compliance-based in the first years of independence (1991–1996), without much motivation

or structure. From 1997 to 2016, a process of institutional reforms professionalized public administration by integrating PAEI roles with civil service and including entrepreneurial and integrating dimensions of leadership. From 2017 to 2021, the focus moved toward performance-based incentives and strategic leadership consistent with innovation and national purposes. The “New Fair Kazakhstan” phase emphasized ethical governance, collaboration, and public trust, with motivation extending beyond monetary rewards to societal impact. Kazakhstan's civil service evolved toward a dynamic, transparent, and competency-driven model (Abdrakhmanova, 2021). In the last 12 years, the number of civil servants has fallen slightly, which aligns with Head of State mandates (Table 1) (Ji, 2023).

Table 1. Dynamics of civil service employment and turnover in Kazakhstan

Year	Staff numbers	Actual number	Net turnover rate, %
2013	97831	90220	14.1
2014	99318	90537	12.3
2015	98886	91330	11.2
2016	98705	92203	6.3
2017	98705	92203	6.3
2018	97784	91830	6.2
2019	97988	90932	6.2
2020	96910	88409	4.37
2021	87567	82793	5.7
2022	88321	82668	6.2
2023	90053	83963	2.7
2024	90583	83009	5.5

Civil servant motivation is intrinsically tied to a country's economic and administrative policies, as public administration mirrors national development objectives. Leadership competencies, particularly within Adizes' PAEI framework, are critical in fostering intrinsic motivation and productivity through teamwork, strategic planning, and systematic processes. Enhancing these competencies requires targeted training and employee engagement in reform processes. Material and non-material incentives, shaped by economic conditions, influence motivation. Stable economies allow for tangible rewards, while periods of constraint demand innovative, leadership-driven solutions. Ultimately, aligning motivation strategies with economic and policy shifts strengthens public sector performance and resilience.

Table 2. Survey results

No.	Question	Number of responses	No.	Question	Number of responses
1	a. involved	8	6	a. active	12
	b. doubting	3		b. observant	13
	c. bright	10		c. abstract	7
	d. responsive	17		d. interactive	6
2	a. direct	12	7	a. pragmatic	3
	b. analyzing	11		b. reflective	14
	c. charismatic	8		c. future-oriented	18
	d. feeling	7		d. warm	3
3	a. doing	12	8	a. winning	10
	b. contemplating	9		b. observant	12
	c. thinking	9		c. conceptual	12
	d. empathetic	8		d. consensus-seeking	4
4	a. aware	13	9	a. rational	10
	b. evaluating	4		b. reserved	14
	c. risk-taking	14		c. idea-generating	9
	d. benevolent	7		d. knowledgeable	5
5	a. effective	13	10	a. businesslike, serious	11
	b. logical	8		b. neat, precise	15
	c. questioning	7		c. bright, striking	6
	d. intuitive	10		d. pleasant	6

The State Institution “Firefighting and Rescue Service of the Emergency Situations Department of the Karaganda Region, Ministry of Emergency Situations of the Republic of Kazakhstan “ sent 38 government servants to our survey. Their responses are shown in Table 2.

Based on the survey data, a brief analysis was conducted to summarize the key trends observed across personnel traits and behavioral inclinations. In terms of personality type and approach to work, 17 respondents highlighted responsiveness as a key attribute, reflecting openness and a collaborative team orientation. Positive traits such as enthusiasm (10%) and engagement (8 respondents) were recognized as markers of active participation in work processes. Conversely, only three participants expressed reservations, suggesting that ambiguity or resistance within the team remains limited and isolated.

Regarding thinking style, most employees preferred task completion and logical analysis, with 12 favoring outspokenness and 11 favoring analytical thinking. Empathic (7) and charismatic (8) types were less prominent, which points to a potential need for strengthening people management and emotional support capacities. This aligns with the demands of increasingly complex public sec-

tor tasks, which require balanced analytical and interpersonal skills.

In terms of work approach, a majority of the 12 participants reported an active, results-driven orientation, focusing on task completion. Strategic planning benefited from the presence of nine reflective and nine contemplative individuals, whose tendencies support deeper analysis and informed decision-making. Empathy, reported by eight respondents, underscores recognition of emotional support and the value of cohesive team dynamics.

When evaluating risk-taking and self-assessment tendencies, 14 respondents indicated a willingness to take proactive risks, often linked to innovative project development. Additionally, 13 participants demonstrated strong professionalism and maturity, reflected in high self-reflection and thoughtful evaluation of their actions. However, the data also suggest a need for developing a more critical and structured team evaluation approach, indicating uneven distribution of evaluative competencies.

Concerning cognitive styles, 13 respondents demonstrated efficiency and eight reported strong logical thinking, while 10 highlighted intuitive flexibility in managing non-standard tasks. This mix suggests a team that is capable of combining

systematic reasoning with adaptive responses, a valuable combination in dynamic public service settings.

With respect to activity and collaboration, 13 participants were identified as quality observers focused on analytics and process monitoring, while 12 displayed high activity levels, indicating a dynamic operational culture. However, lower reported interaction (6) implies the need to enhance collaboration and strengthen team-based engagement mechanisms.

In strategic orientation, the majority of participants (18) demonstrated strong strategic thinking, an essential competency for effective personnel management and long-term planning. Reflective thinking, reported by 14 respondents, suggests readiness for deep analysis and considered decision-making. Meanwhile, behavioral tendencies split between observer (12) and winner (10) profiles reflect a team characterized by both careful observation and active goal pursuit.

Traits associated with rationality and restraint were also evident, with 14 participants demonstrating thoughtful decision-making and emotional control. Finally, in the dimension of business orientation versus precision, accuracy was the dominant trait

(15 respondents), indicating a widespread focus on detail and high-quality task execution.

Drawing on these findings, several strengths and weaknesses in personnel management and motivation strategies become clear. Civil servants require strong internal motivation to effectively fulfil their duties and implement state initiatives. The data indicate the presence of a highly active, rational, and forward-looking team with strong potential to achieve long-term goals. However, fostering critical thinking and collaboration remains crucial for improving team efficiency and objective performance evaluation.

The PAEI model, developed by Ichak Adizes, offers a useful framework for assessing these capacities and designing targeted managerial responsibilities. The current team shows strength in the roles of Producer (P) and Entrepreneur (E), demonstrating focus on action and planning. However, Administrator (A) and Integrator (I) roles are comparatively underdeveloped, indicating the need to improve organizational coordination and internal motivation through teamwork.

Adizes' approach promotes the development of motivational strategies that align with managerial responsibilities to support civil service ob-

Table 3. Summary of total responses and percentage distribution by PAEI categories

No.	Question category	Number of responses	%	No.	Question category	Number of responses	%
1	Personality type and approach to work	8	21.05	6	Activity and interaction	12	31.58
		3	7.89			13	34.21
		10	26.32			7	18.42
		17	44.74			10	15.79
2	Thinking style	12	31.58	7	Strategic thinking	3	7.89
		11	28.95			14	36.84
		8	21.05			18	47.37
		7	18.42			3	7.89
3	Work method	12	31.58	8	Winner or observer	10	26.32
		9	23.68			12	31.58
		9	23.68			12	31.58
		8	21.05			4	10.53
4	Risk-taking and self-esteem	13	34.21	9	Rational or reserved	10	26.32
		4	10.53			14	36.84
		14	36.84			9	23.80
		7	18.42			5	13.16
5	Logic and intuition	13	34.21	10	Businesslike or neat	11	28.95
		8	21.05			15	39.47
		7	18.42			6	15.79
		10	26.32			6	15.79

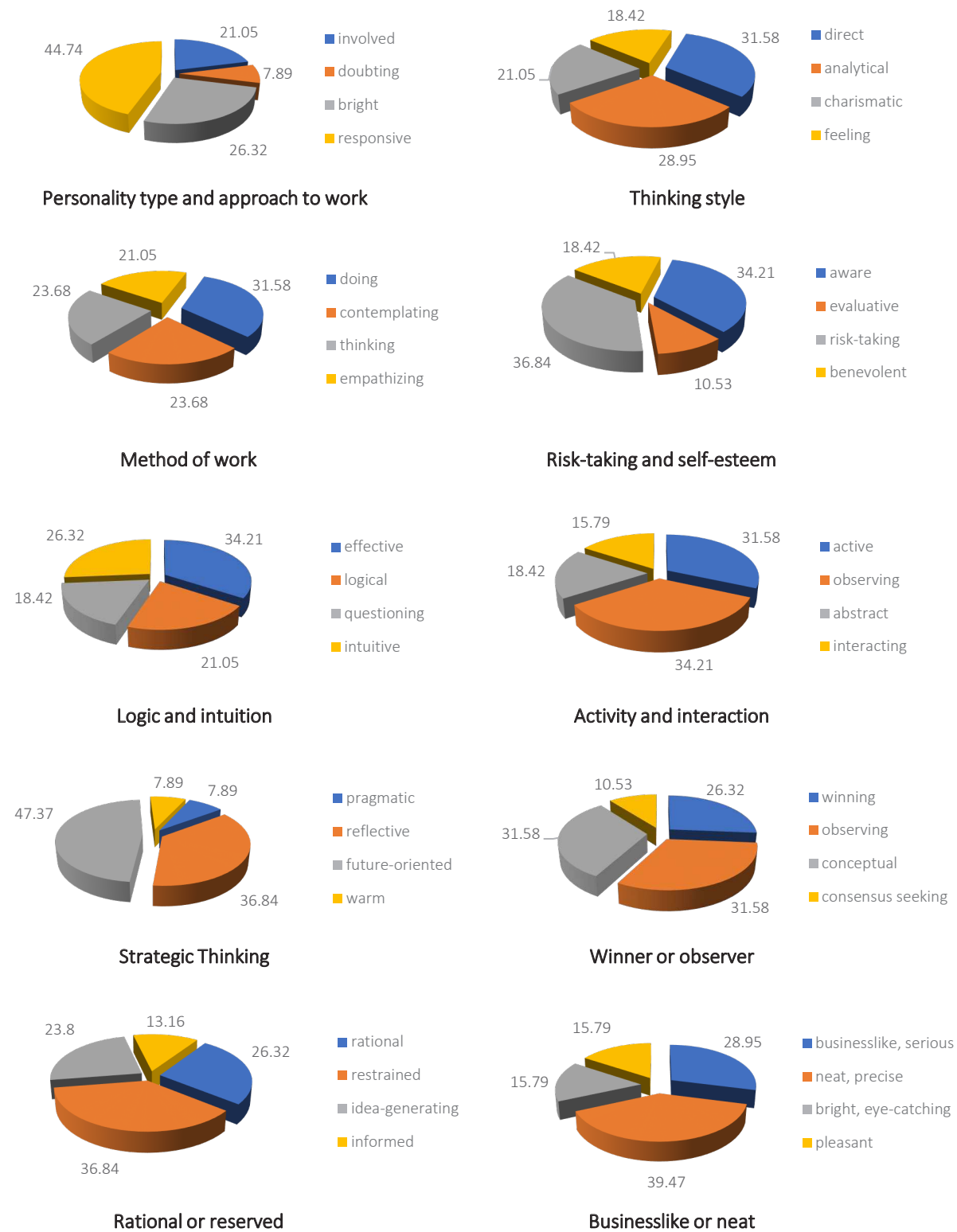


Figure 1. Results of the questionnaire according to the I. Adizes code (PAEI), %

jectives. By encouraging structured collaboration, critical thinking, rigorous evaluation, and consistent interaction, this method not only improves task execution but also fosters professional growth. Recognizing and reinforcing existing achievements

while nurturing future capacity building is essential for the development of an effective, engaged public workforce. Table 3 presents the number of replies and their percentage distribution for each category informed by Adizes' PAEI framework.

Table 4. Strengths and weaknesses of public service employees in the studied organization

Category	Indicator	%	Interpretation
Strengths	Responsiveness	44.74%	Most employees are open, supportive, and maintain active communication. This contributes to a healthy organizational climate and efficient coordination within government bodies.
	Future Orientation	47.37%	Employees show a focus on long-term results and strategic thinking, essential for sustainable policy implementation.
	Analytical Thinking	31.58%	Staff demonstrate sound analytical ability, vital for policy compliance and evidence-based decision-making.
	Accuracy and Precision	39.47%	Indicates strong attention to detail, which is critical for administrative reliability and service quality.
	Efficiency	34.21%	Reflects a high standard of task execution, promoting trust and consistency in public service.
Weaknesses	Low Interaction Level	15.79%	Suggests insufficient teamwork and interdepartmental coordination, which may reduce efficiency.
	Insufficient Emotional Support	18.42%	Low empathy levels hinder citizen interaction and service quality.
	Low Critical Approach	10.53%	Limits reflective thinking and self-improvement potential.
	Tendency to Restrain	36.84%	Excessive formality limits open dialogue and collective decision-making.
Opportunities	Leadership Training Programs	—	Introducing teamwork, emotional intelligence, and communication training can enhance motivation and collaboration across departments.
	Data-Driven Management	—	Integrating performance analytics will support more objective evaluation and leadership development in the civil service.
Threats	Resistance to Change	—	A strong adherence to hierarchy and rigid procedures may slow adaptation to innovative reforms.
	Burnout Risk	—	High workload and low emotional support may lead to stress and reduced productivity.

The survey results can be seen graphically in Figure 1, where the study's most frequent and common responses are highlighted.

This percentage ratio visualizes the distribution of qualities within the team and assesses its strengths and weaknesses.

The distribution of qualities in a team engaged in public service activities can significantly influence the efficiency and effectiveness of accomplishing governmental tasks. Based on the analysis conducted, the team's strengths and weaknesses can be evaluated (Table 4).

Table 4 represents a comprehensive SWOT analysis of civil servants' behavioral and professional traits. The percentages were calculated from survey responses of 38 participants, representing the proportion of respondents selecting each attribute in self-assessment and peer evaluation questionnaires. These indicators highlight both the internal strengths and weaknesses and the external opportunities and threats relevant to improving personnel management in Kazakhstan's civil service. Strengthening teamwork and emotional intelligence will help

align leadership roles, sustain motivation, and enhance overall efficiency in Kazakhstan's civil service.

4. DISCUSSION

This study set out to examine how Kazakhstan's public administration has developed leadership competencies and work motivation in the context of state modernization since 1991. Using Adizes' PAEI model, the study explored how managerial roles of Producer, Administrator, Entrepreneur, and Integrator have evolved across the stages of public sector development, and how these roles relate to leadership effectiveness, motivation, and institutional performance.

Findings indicate that leadership development has been strongly shaped by Kazakhstan's socio-political transitions. In the early years of independence (1991–1996), public administration was dominated by administrative control and hierarchical decision-making, consistent with findings from other post-Soviet states. However, beginning in the late 1990s, there was a gradual shift toward strategic thinking and entrepreneurial functions, aligning with global reform

trends that call for greater flexibility, creativity, and participatory governance (Kosherbayeva & Bokayev, 2024).

Motivational systems also evolved significantly. The 1990s relied largely on administrative supervision and compliance enforcement, but by 2017–2021, Kazakhstan had introduced performance-based mechanisms such as KPIs, enhanced compensation systems, and recognition programs, reflecting a shift to results-oriented management (Karini, 2024). Notably, Kazakhstan places greater emphasis on transparency, ethical governance, and citizen trust as motivational levers compared to other transitional economies (Khamitov et al., 2023). Incentive systems drive productivity and efficiency gains (Dykha et al., 2017).

The study also highlights that Entrepreneur and Integrator roles remain underdeveloped. Strengthening these competencies is essential to

foster innovation, improve teamwork, and sustain reform efforts. These findings are consistent with other research suggesting that leadership development and motivation reinforce one another, generating a virtuous cycle of engagement and organizational learning (Peretz, 2023; Lee et al., 2021).

Nevertheless, certain limitations must be acknowledged. The study sample, while diverse across gender, tenure, and education, remains too small to generalize to the entire civil service. Additionally, reliance on self-reported data introduces the possibility of social desirability bias. Future research should incorporate objective performance indicators and longitudinal designs to better capture causal relationships between leadership, motivation, and organizational performance. Comparative studies with other Central Asian countries would also illuminate regional similarities and differences in civil service transformation.

CONCLUSION

This study aimed to assess the applicability of Adizes' PAEI model for strengthening leadership capacity and motivation in Kazakhstan's civil service. Integrating data analytics into HR enhances leadership development and supports evidence-based public sector reforms (Kobets et al., 2025). Empirical results show that leadership development in Kazakhstan has shifted from administrative dominance in the early 1990s toward more strategic and entrepreneurial approaches, with growing emphasis on integrative leadership. Motivation mechanisms have evolved from simple administrative oversight to performance-based incentives, professional development, and recognition programs. The results also demonstrate that Entrepreneur and Integrator roles remain comparatively weak, suggesting a need for targeted capacity-building in these areas.

These findings imply that adopting the PAEI model can guide the design of more balanced personnel management systems, aligning leadership roles with institutional needs and citizen expectations. Strengthening entrepreneurial and integrative competencies, while sustaining performance-based motivation, can help create a more agile, innovative, and citizen-oriented public administration. Future research should validate these findings through larger and longitudinal samples and examine how PAEI-based leadership development affects service delivery quality, citizen satisfaction, and employee retention across different governance contexts.

AUTHOR CONTRIBUTIONS

Conceptualization: Tansholpan Shaimerdenova, Mukhtarima Zhetpisbayeva.

Data curation: Tansholpan Shaimerdenova, Mukhtarima Zhetpisbayeva.

Formal analysis: Tansholpan Shaimerdenova, Mukhtarima Zhetpisbayeva.

Methodology: Tansholpan Shaimerdenova, Mukhtarima Zhetpisbayeva.

Resources: Tansholpan Shaimerdenova, Mukhtarima Zhetpisbayeva.

Validation: Tansholpan Shaimerdenova, Mukhtarima Zhetpisbayeva.

Visualization: Tansholpan Shaimerdenova, Mukhtarima Zhetpisbayeva.

Writing – original draft: Tansholpan Shaimerdenova, Mukhtarima Zhetpisbayeva.

Writing – review & editing: Tansholpan Shaimerdenova, Mukhtarima Zhetpisbayeva.

REFERENCES

- Abdrakhmanova, A. (2021). *Management of the organizational culture of the public service of the Republic of Kazakhstan* (Unpublished Master's Thesis). M. Narikbayev KAZGUU University. Retrieved from <https://repository.kazguu.kz/handle/123456789/987>
- Abil, E. K. (2024). Assessment of the competence approach in the training of civil servants: The experience of the Academy of Public Administration of Kazakhstan. *Central Asian Economic Review*, (5), 72-83. <https://doi.org/10.52821/2789-4401-2023-5-72-83>
- Agusra, D., Febrina, L., Lussianda, E. O., & Susanti, A. R. (2021). The effect of compensation and motivation on employee performance. *Husnayain Business Review*, 1(1), 43-50. <https://doi.org/10.54099/hbr.v1i1.13>
- Alhosani, K., & Alhashmi, S. M. (2024). Opportunities, challenges, and benefits of AI innovation in government services: A review. *Discover Artificial Intelligence*, 4(1), Article 18. <https://doi.org/10.1007/s44163-024-00111-w>
- Berber, N., & Gašić, D. (2024). The mediating role of employee commitment in the relationship between compensation system and turnover intentions. *Employee Relations: The International Journal*, 46(4), 721-755. <https://doi.org/10.1108/ER-05-2023-0270>
- Bijalwan, P., Gupta, A., Johri, A., & Asif, M. (2024). The mediating role of workplace incivility on the relationship between organizational culture and employee productivity: A systematic review. *Cogent Social Sciences*, 10(1), Article 2382894. <https://doi.org/10.1080/23311886.2024.2382894>
- Chen, C.-A., Kim, S., & Ma, L. (2023). Special issue introduction: Integrating Asia Pacific influences and public management research. *Asia Pacific Journal of Public Administration*, 45(2), 115-117. <https://doi.org/10.1080/23276665.2023.2172438>
- Chychun, V., Chaplynska, N., Shpatakova, O., Pankova, A., & Saienko, V. (2023). Effective management in the remote work environment. *Journal of System and Management Sciences*, 13(3), 244-257. <https://doi.org/10.33168/JSMS.2023.0317>
- Dykha, M. V., Tanasiienko, N. P., & Kolisnyk, G. M. (2017). Ensuring of labor productivity growth in the context of investment and innovation activity intensification. *Problems and Perspectives in Management*, 15(4), 197-208. [http://dx.doi.org/10.21511/ppm.15\(4-1\).2017.04](http://dx.doi.org/10.21511/ppm.15(4-1).2017.04)
- Emerick, T. (2022). *Extreme entrepreneurs: Steve Jobs and Jesus Christ*. Page Publishing, Inc. Retrieved from <https://books.google.com.pk/books?id=RS5xEAAAQBAJ>
- Hameduddin, T., & Engbers, T. (2022). Leadership and public service motivation: A systematic synthesis. *International Public Management Journal*, 25(1), 86-119. <https://doi.org/10.1080/10967494.2021.1884150>
- Hanan, M. S., Saleem, S. F., Awan, A. M., & Khan, S. (2024). Official Development Assistance and Economic Growth In Pakistan: A Time Series Analysis. *Pakistan Economic and Social Review*, 62(1), 55. Retrieved from https://pu.edu.pk/images/journal/pesr/PDF-FILES/3-v62_1_24.pdf
- Hariram, N. P., Mekha, K. B., Suganthan, V., & Sudhakar, K. (2023). Sustainalism: An integrated socio-economic-environmental model to address sustainable development and sustainability. *Sustainability*, 15(13), Article 10682. <https://doi.org/10.3390/su151310682>
- Hartnell, C. A., Christensen-Salem, A., Walumbwa, F. O., Stotler, D. J., Chiang, F. F. T., & Birtch, T. A. (2023). Manufacturing motivation in the mundane: Servant leadership's influence on employees' intrinsic motivation and performance. *Journal of Business Ethics*, 188(3), 533-552. <https://doi.org/10.1007/s10551-023-05330-2>
- Holovnia, Y., Mykhailiv, H., Paniusiuk, O., Saienko, V., & Vlasenko, T. (2024). Management as a factor of socio-economic development of small and medium-sized businesses of Ukraine in conditions of instability. *International Journal for Housing Science and Its Applications*, 45(3), 36-47. <https://doi.org/10.70517/ijhsa4534>
- Hossan, D., Mansor, Z. D., & Jaharuddin, N. S. (2023). Research population and sampling in quantitative study. *International Journal of Business and Technopreneurship*, 13(3), 209-222. <https://doi.org/10.58915/ijbt.v13i3.263>
- Huque, A. S., & Jongruck, P. (2020). Civil service reforms in Hong Kong and Thailand: Similar goals, different paths. *Public Administration and Policy*, 23(2), 111-123. <https://doi.org/10.1108/PAP-03-2020-0015>
- Hussaini, A., Shehu, M., & Dagawa, B. G. (2024). Role of organizational culture on relationship between knowledge management and teacher's performance for national security. *Edukasiana: Jurnal Inovasi Pendidikan*, 3(1), 46-56. <https://doi.org/10.56916/ejip.v3i1.493>
- Igbabee, U. S. (2024). Effect of employees' relationship management and managerial effectiveness in Agatu Local Government

- Educational Authority. *Wukari International Studies Journal*, 8(1), 74-89. Retrieved from <https://wissjournals.com.ng/index.php/wiss/article/view/287>
20. Jain, N. (2021). Survey versus interviews: Comparing data collection tools for exploratory research. *The Qualitative Report*, 26(2), 541-553. <https://doi.org/10.46743/2160-3715/2021.4492>
 21. Ji, Y. (2023). *Interpreting Belt and Road Initiative dynamics in China and Kazakhstan* (Unpublished Doctoral Dissertation). University of Cambridge. <https://doi.org/10.17863/CAM.108798>
 22. Karini, A. (2024). Politico-administrative culture and public service reform in post-independence Kazakhstan. *Administrative Sciences*, 14(10), Article 268. <https://doi.org/10.3390/admsci14100268>
 23. Kaur, S., & Sharma, A. (2022). Systematic review of public sector motivation strategies of developed nations: Lessons for the developing nations. *Asian Journal of Multidimensional Research*, 11(4), 25-41. <https://doi.org/10.5958/2278-4853.2022.00054.4>
 24. Khamitov, Z., Knox, C., & Junusbekova, G. (2023). Corruption, public procurement and political instability in Kazakhstan. *Central Asian Survey*, 42(1), 89-108. <https://doi.org/10.1080/02634937.2022.2072811>
 25. Khudhair, F. S. (2024). *The mediating effect of organizational justice on the relationship between compensation strategy and employee performance among academic staff in Iraqi universities* (Unpublished Doctoral Dissertation). Universiti Pendidikan Sultan Idris. Retrieved from <https://ir.upsi.edu.my/detailsg.php?det=10497>
 26. Kim, S. (2017). National culture and public service motivation: Investigating the relationship using Hofstede's five cultural dimensions. *International Review of Administrative Sciences*, 83(1_suppl), 23-40. <https://doi.org/10.1177/0020852315596214>
 27. Kobets, D., Kovalska, K., Zozulia, N., Lozynska, T., & Zaslavska, M. (2025). The effectiveness of data analytics tools in the implementation of human resource management strategies. *International Review of Management and Marketing*, 15(2), 310-316. <https://doi.org/10.32479/irmm.17925>
 28. Kosherbayeva, A., & Bokayev, B. (2024). Leadership and capabilities of the civil service of the Republic of Kazakhstan. *Public Administration and Civil Service*, 88(1), 64-74. Retrieved from <https://cifn.kz/docs/1kokhbo.pdf>
 29. Laras, T., Jatmiko, B., Susanti, F. E., & Susiati, S. (2021). The effect of work environment and compensation on work motivation and performance: A case study in Indonesia. *The Journal of Asian Finance, Economics and Business*, 8(5), 1065-1077. <https://doi.org/10.13106/JAFEB.2021.VOL8.NO5.1065>
 30. Lee, J. T., Lo, W. Y. W., & Abdrasheva, D. (2021). Institutional logic meets global imagining: Kazakhstan's engagement with China's Belt and Road Initiative. *Higher Education*, 82(2), 237-253. <https://doi.org/10.1007/s10734-020-00634-y>
 31. Mosca, L., Gianecchini, M., & Campagnolo, D. (2021). Organizational life cycle models: A design perspective. *Journal of Organization Design*, 10(1), 3-18. <https://doi.org/10.1186/s41469-021-00090-7>
 32. Mousa Alriyami, H., Alneyadi, K., Alnuaimi, H., & Kampouris, I. (2024). Employees trust, perceived justice, on task performance: Mediating and moderating role of autonomy and organizational culture. *International Journal of Industrial Ergonomics*, 104, Article 103647. <https://doi.org/10.1016/j.ergon.2024.103647>
 33. Mowlanapour, R., Farjami, Y., & Saghafi, F. (2021). Investigating organizational characteristics during the first three lifecycle stages using the PAEI framework and the system dynamics approach. *Computational and Mathematical Organization Theory*, 27(1), 35-60. <https://doi.org/10.1007/s10588-020-09319-4>
 34. Mussagulova, A., Van Der Wal, Z., & Chen, C.-A. (2019). What is wrong with job security? *Public Administration and Development*, 39(3), 121-132. <https://doi.org/10.1002/pad.1863>
 35. Nuraisyiah, R., & Haerani, A. (2022). The influence of incentives on employee performance to motivate and increase profitability (Case study at PT. Bentara Sinergies Multi Finance). *Jurnal Manajemen Dan Bisnis*, 4(01), 102-115. <https://doi.org/10.47080/jmb.v4i01.1909>
 36. Ojasalo, J., & Kauppinen, S. (2024). Public value in public service ecosystems. *Journal of Nonprofit & Public Sector Marketing*, 36(2), 179-207. <https://doi.org/10.1080/10495142.2022.2133063>
 37. Pattanatornchai, J., Kohda, Y., Javed, A., Udomvitid, K., & Yerradee, P. (2024). Effects of public service motivation on R&D project-based team learning where psychological safety is a mediator and project management style is a moderator. *Administrative Sciences*, 14(5), Article 93. <https://doi.org/10.3390/admsci14050093>
 38. Peretz, H. V. (2023). A view into managers' subjective experiences of public service motivation and work engagement: A qualitative study. In N. M. Boyd (Ed.), *Public service motivation* (pp. 142-170). Routledge. <https://doi.org/10.4324/9781032617701-7>
 39. Semenets-Orlova, I., Klochko, A., Nestulya, S., Mykhailych, O., & Omelyanenko, V. (2019). Readiness of the education manager to provide the organizational development of institutions (Based on the sociological research). *Problems and Perspectives in Management*, 17(3), 132-142. [https://doi.org/10.21511/ppm.17\(3\).2019.11](https://doi.org/10.21511/ppm.17(3).2019.11)
 40. Siemiatycki, M. (2019). The diversity gap in the public-private partnership industry: An examination of women and visible minorities in senior leadership positions. *Annals of Public and Cooperative Economics*, 90(2), 393-414. <https://doi.org/10.1111/apce.12240>
 41. Smerichevskyi, S., Poberezhna, Z., Kryvovyazyuk, I., Ivanenko,

- L., & Malnov, D. (2024). Formation of principles of a customer-oriented approach by transport enterprises in conditions of sustainable development. *E3S Web Conference*, 534, Article 01022. <https://doi.org/10.1051/e3sconf/202453401022>
42. Van Triest, S. (2024). Incentives and effort in the public and private sector. *Public Administration Review*, 84(2), 233-247. <https://doi.org/10.1111/puar.13691>
43. Venkatesh, L., & Kachhi, Z. (2024). Remote work and job satisfaction: Navigating the complex landscape of modern employment. In H. C. Chandan (Ed.), *Impact of Teleworking and Remote Work on Business: Productivity, Retention, Advancement, and Bottom Line* (pp. 57-80). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-1314-5.ch003>
44. Wijaya, L. F. (2022). Sistem reward dan punishment sebagai pemicu dalam meningkatkan kinerja karyawan [The reward and punishment system as a motivator for improving employee performance]. *Journal MISSY (Management and Business Strategy)*, 2(2), 25-28. (In Indonesian). <https://doi.org/10.24929/missy.v2i2.1681>
45. Zada, M., Khan, J., Saeed, I., Zada, S., & Jun, Z. Y. (2023). Linking public leadership with project management effectiveness: Mediating role of goal clarity and moderating role of top management support. *Heliyon*, 9(5), Article e15543. <https://doi.org/10.1016/j.heliyon.2023.e15543>
46. Zharov, E. K. (2024). *Career and professional development strategies in the civil service: A guide for young people: A methodological handbook*. Center for Research, Analysis and Evaluation. Retrieved from <https://repository.apa.kz/handle/123456789/1516>
47. Zhenjing, G., Chupradit, S., Ku, K. Y., Nassani, A. A., & Haffar, M. (2022). Impact of employees' workplace environment on employees' performance: A multi-mediation model. *Frontiers in Public Health*, 10, Article 890400. <https://doi.org/10.3389/fpubh.2022.890400>
48. Žur, A. (2021). Entrepreneurial identity and social-business tensions – The experience of social entrepreneurs. *Journal of Social Entrepreneurship*, 12(3), 438-461. <https://doi.org/10.1080/19420676.2020.1740297>
49. Zykov, S. V. (2020). Models and methods of crisis management. In S. V. Zykov (Ed.), *IT crisisology: Smart crisis management in software engineering* (pp. 17-58). Springer Singapore. https://doi.org/10.1007/978-981-33-4435-8_2