

## Research Article

# PSYCHOLOGICAL DETERMINANTS OF LEADERSHIP POTENTIAL IN PUBLIC ADMINISTRATION: EMPIRICAL ANALYSIS AND DEVELOPMENTAL PROFILING OF CIVIL SERVANTS IN UKRAINE

\* Stepan Kulyniak

PhD Student at the Department of Psychology at Drohobych Ivan Franko State Pedagogical University, Ukraine.

Received 09<sup>th</sup> August 2025; Accepted 10<sup>th</sup> September 2025; Published online 18<sup>th</sup> October 2025

### ABSTRACT

This study investigates the psychological determinants of leadership potential among civil servants in Ukraine and evaluates the effectiveness of a tailored leadership development programme. Drawing from contemporary theories in organisational psychology and behavioural public administration, the research identifies thirteen key psychological and managerial variables critical to public sector leadership, including emotional intelligence, cognitive flexibility, stress resilience, and decision-making autonomy. The study employed a quasi-experimental design with an experimental group (n = 31) undergoing a multi-module training programme, and a control group (n = 32) not receiving the intervention. Pre- and post-assessment phases included standardised psychometric tools and statistical analyses (Wilcoxon signed-rank tests, t-tests, ANOVA), supported by qualitative data from reflective questionnaires, checklists, and focus group interviews. The findings demonstrate significant improvements in all measured competencies among the experimental group, with no comparable changes observed in the control group. Correlation analysis also revealed strengthened interrelations among leadership variables after the training, indicating the development of a more integrated leadership profile. Qualitative data further confirmed positive subjective experiences, including enhanced confidence, emotional regulation, and public engagement. This research contributes to the growing evidence that leadership competencies in the public sector can be developed through structured, psychologically grounded interventions. It offers a replicable model for leadership capacity-building within civil service systems undergoing transformation, particularly in post-crisis or reform-oriented contexts.

**Keywords:** Leadership development, civil servants, psychological competencies, public administration, training effectiveness.

### INTRODUCTION

Leadership in public administration has emerged as a pivotal factor in shaping the effectiveness, responsiveness, and integrity of state institutions. As public sector challenges grow increasingly complex and unpredictable – exacerbated by geopolitical uncertainty, digital transformation, and societal expectations – the psychological makeup of civil servants is taking center stage in leadership research (Brik & Hussein, 2025). Beyond structural and institutional frameworks, leadership potential now hinges on individual-level competencies such as emotional intelligence, cognitive flexibility, motivational orientation, and resilience. In recent years, the empirical focus has shifted toward the psychological determinants that underpin leadership efficacy in the public sector. Studies indicate that these determinants are multi-level constructs involving intrapersonal regulation, interpersonal collaboration, and contextual adaptability (Albalá-Genol *et al.*, 2023). For instance, inclusive leadership is found to be ineffective without psychological safety, which underscores the need for emotional intelligence and open communication in leadership dynamics (Mohase *et al.*, 2025). Similarly, civil servant performance has been positively linked to intrinsic motivation and job satisfaction, mediated by leadership quality and organisational support (Anace Kambu *et al.*, 2025; Ding & Wang, 2023). In the Ukrainian public administration context, understanding these psychological determinants is particularly urgent. Amidst ongoing reforms, decentralisation, and external pressures, the civil service must not only be technically competent but also psychologically agile and motivated to serve public interests. However, systematic studies exploring the predictive role of psychological factors in leadership development among Ukrainian civil servants remain limited.

This study aims to evaluate the effectiveness of a tailored leadership development programme for civil servants by comparing outcomes between an experimental group (who completed the training) and a control group (who did not). The research specifically investigates whether participation in the program leads to significant improvements across thirteen core psychological and managerial competencies essential for public leadership.

### LITERATURE REVIEW

Leadership in public administration is a multidimensional phenomenon shaped by organisational structure, institutional culture, and, crucially, individual psychological attributes. Contemporary research increasingly highlights the psychological determinants of leadership potential – those internal competencies and traits that influence decision-making, motivation, emotional regulation, and interpersonal effectiveness within the public sector context.

#### Emotional Intelligence and Public Leadership

Emotional intelligence (EI) is widely regarded as a cornerstone of effective leadership, particularly in complex and dynamic environments such as public administration. EI encompasses the ability to perceive, regulate, and utilize emotions to facilitate thinking and behavior (Goleman, 1995). Recent studies confirm that civil servants with higher emotional intelligence exhibit superior capacity for conflict resolution, motivation of teams, and adaptive leadership behaviour (Asieieva *et al.*, 2021; Mohase *et al.*, 2025). Furthermore, emotional intelligence contributes directly to psychological safety – an essential condition for open communication and innovation in government settings.

\*Corresponding Author: Stepan Kulyniak,

PhD Student at the Department of Psychology at Drohobych Ivan Franko State Pedagogical University, Ukraine.

## Cognitive Flexibility and Adaptability

Cognitive flexibility – the capacity to shift thinking strategies and adapt to changing conditions – is another key psychological trait associated with leadership effectiveness. In uncertain or crisis-prone public environments, cognitively flexible leaders are better able to navigate ambiguity, analyse alternatives, and guide institutional transformation (Barbieri *et al.*, 2024; Brik & Hussein, 2025). Ukrainian public service, in particular, demands such adaptability due to its exposure to rapid policy reforms and administrative decentralisation.

## Motivation to Serve and Job Satisfaction

Motivation in civil service is not merely about performance – it reflects commitment to public values and ethical responsibility. Public Service Motivation (PSM) theory (Vandenabeele & Schott, 2020) postulates that individuals who are intrinsically driven to serve society are more likely to demonstrate leadership behaviors aligned with integrity and civic responsibility. Studies have confirmed the predictive value of PSM in fostering job satisfaction and overall performance in civil servants (Misriyani *et al.*, 2025; Shahda *et al.*, 2024). Moreover, job satisfaction mediates the relationship between inspirational leadership and organisational performance, suggesting an interlinked system of psychological and organisational variables.

## Leadership Empowerment and Developmental Conditions

Empowerment mechanisms – including training, mentoring, and fair appraisal systems – enhance psychological readiness for leadership. For example, in the case of civil servants in Papua, empowerment strategies increased motivation, inclusivity, and performance, highlighting the importance of supportive structures in cultivating leadership traits (Anace Kambu *et al.*, 2025; Monje-Amor *et al.*, 2021). These findings resonate with the Ukrainian context, where strategic capacity-building initiatives must account for both individual psychological resources and institutional constraints.

## METHODOLOGY

This study utilised a quasi-experimental design involving a comparison between an experimental group (EG) and a control group (CG). The objective was to evaluate the effectiveness of a targeted training program aimed at developing psychological and managerial competencies among civil servants. The EG participated in the training intervention, while the CG did not receive any additional training during the study period. Thirteen psychological and managerial competencies were selected based on a synthesis of contemporary leadership theories and empirical findings in public administration and organisational psychology. These include: emotional intelligence, cognitive flexibility, motivation for public service, stress resilience, decision-making autonomy, communicative competence, cooperation skills, public engagement, leadership influence, readiness for change, decision-making validity, managerial flexibility, and involvement in public processes. The choice of these variables reflects the multi-component nature of leadership potential in the public sector, encompassing intrapersonal traits (stress resilience, emotional intelligence), interpersonal competencies (communication, cooperation, interaction with the public), and organisational-level behaviours (readiness for change, leadership influence, engagement in state processes). The selection was informed by models such as Goleman's (1995) emotional intelligence framework, Deci and Ryan's (2012) self-determination theory, and Boyatzis' (2011) leadership competency model. To assess leadership potential and psychological competencies, the study employed a validated set of psycho diagnostic tools: 1) EQ-i 2.0 – assessed emotional intelligence across key subdomains, 2) PMSI – measured

motivation for public service, 3) CFI – evaluated cognitive flexibility, 4) CD-RISC – assessed stress resilience and adaptability, 5) MLQ – measured transformational and transactional leadership styles, 6) GSE (adapted by V. Romek) – evaluated general self-efficacy, 7) SOCOMP – assessed social competence, 8) communicative Competence Scale (Spitzberg & Cupach) – measured communication effectiveness, 9) Managerial Flexibility Indicator – assessed adaptability in leadership roles, and 10) Leadership Influence Questionnaire – evaluated perceived leadership impact. All instruments demonstrated high internal consistency (Cronbach's  $\alpha > .80$ ) and were either standardised internationally or adapted for the Ukrainian public administration context.

## Sample

The intervention involved two comparable samples: an experimental group (EG,  $n = 31$ ) and a control group (CG,  $n = 32$ ). Group assignment followed the matching method (Rubin, 2006), recommended approach in between-group comparative research (Creswell, 2014; Shadish *et al.*, 2002). This procedure accounted for key demographic (age, gender) and professional (position, managerial experience, education) parameters to ensure a high degree of equivalence between groups, thereby supporting internal validity. The experimental group was formed from civil servants of the Drohobych City Territorial Community, where the training program was directly implemented. The control group consisted of public administration employees from the Truskavets community, who did not participate in the intervention. Participants included structural unit managers, local government employees, representatives of military administrations, and individuals with experience in public sector leadership roles. Inclusion criteria were: at least two years of professional experience in public administration, active performance of managerial duties, no contraindications to intensive training, and voluntary informed consent. Pre- and post-intervention assessments were conducted using a standardised psychodiagnostic protocol for both groups. This mirrored best practices in competency research (Boyatzis, 2011), allowing reliable comparisons of leadership and motivational dynamics. The groups were found statistically equivalent across all key characteristics, including crisis-related administrative experience ( $\chi^2(1, N = 63) = 0.13, p = .71$ ), supporting the internal validity of the intervention evaluation. Thus, observed differences in outcomes can be reasonably attributed to the effects of the training programme. All participants retained the right to withdraw at any point and were assured confidentiality in accordance with ethical research standards involving human subjects (APA, 2017).

## Training Programme Outline

The leadership development intervention was implemented as a comprehensive training course totaling 76 academic hours, specifically designed to enhance the psychological readiness and managerial capacity of civil servants in Ukraine. The programme, outlined in Table 1, included six structured modules, each targeting key personal, interpersonal, and systemic competencies relevant to public sector leadership.

**Table 1. Structure of the Integrated Programme for the Development of Psychological Readiness for Leadership in Public Service Conditions**

Module No.	Module Title	Trainings Included	Hours
1	Self-Awareness and Personal Development	Emotions in Power: The Intelligence That Leads; Motivational Compass of a Civil Servant	16

2	Thinking and Decision-Making in Times of Change	Thinking Anew: Adaptability Beyond Templates; Your Own Boss: Decisions That Matter	12
3	Load and Resource Management	Calm in the Storm: Civil Servant Resilience; Change Is Not the Enemy	12
4	Communication and Public Interaction	The Art of Public Speech; Together Is Better: Mastering Team Action; Countering Fakes and Influence: Information Resilience	12
5	Partnership and Civic Engagement	Government Transparency: Dialogue with Society; The State as Ours: Being Part of the Change	12
6	Leadership and Managerial Effectiveness	Lead from the Front: Leadership in Action; Flexible Leadership: Adaptation Without Chaos	12

The training was facilitated by experts in psychology, public administration, and adult learning, using a blended method of lectures, group activities, simulations, and reflective exercises. This holistic approach was intended to foster both immediate skill acquisition and long-term behavioural change supportive of modern leadership demands in the Ukrainian civil service.

**Data Collection and Analysis Procedure**

The study was conducted in three phases: pre-assessment, intervention, and post-assessment. Descriptive analysis was employed to identify observable improvements in the leadership characteristics of participants in the experimental group (EG) and to illustrate the percentage of EG and control group (CG) participants at basic, intermediate, and high levels of development across both stages. Due to deviations from normal distribution in several variables (as indicated by the Shapiro–Wilk test), non-parametric Wilcoxon signed-rank tests were applied for within-group comparisons to assess changes across 13 leadership development indicators. These indicators included emotional intelligence, cognitive flexibility, public service motivation, stress resilience, decision-making autonomy, communicative competence, cooperation ability, public interaction, leadership influence, readiness for change, decision-making validity, managerial flexibility, and engagement in public processes. To verify and strengthen the results, paired-sample t-tests were also conducted, enhancing the reliability of interpretation. Additionally, one-way ANOVA was used to assess between-group differences, confirming that improvements in the EG were attributable to the intervention rather than random variation. Correlational analysis with heatmap visualisation was performed to explore changes in the interrelations among leadership variables before and after the program. Furthermore, qualitative data from reflective questionnaires completed by civil servants ( $n = 174$ , 27–31 per module), evaluation check lists from heads of structural units ( $n = 18$ ), and materials from four focus group discussions were analysed to provide a comprehensive understanding of the programme’s impact. All statistical analyses were conducted using *Jamovi* software (v2.6.44).

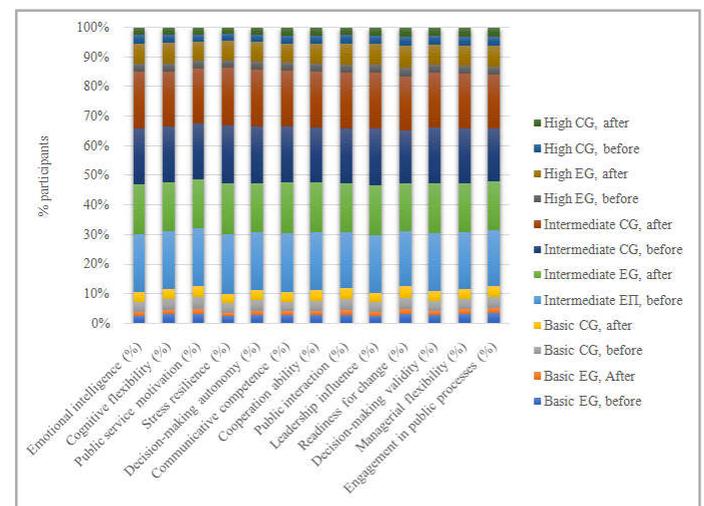
**RESULTS**

This section presents the results of the empirical investigation into the effectiveness of a structured leadership development programme for civil servants. The study aimed to determine whether participation in the programme would lead to measurable improvements across thirteen core psychological and managerial competencies essential for leadership in the public sector. To guide the analysis, several

research questions were posed: To what extent does participation in the leadership development programme improve civil servants’ leadership competencies? Are there statistically significant differences between the experimental group (EG), who completed the training, and the control group (CG), who did not? Which specific competencies show the most pronounced changes as a result of the intervention? How do interrelations between different leadership variables shift after the training? And finally, what subjective experiences and personal insights do participants report in relation to their development? The findings that follow address these questions through both quantitative and qualitative analysis, supported by statistical data and visual evidence.

**RQ1. Impact of the Leadership Development Programme on Civil Servants’ Leadership Competency Growth**

The results presented in Figure 1 demonstrate a clearly expressed positive dynamic in the experimental group (EG) compared to the control group (CG) following participation in the leadership development programme. Notably, the proportion of EG participants with a high level of leadership competencies increased on average by 17–21%, whereas in the CG similar changes were statistically negligible (mostly within 1–2%). The most prominent improvements were observed in emotional intelligence (+16.6%), cognitive flexibility (+17.2%), public service motivation (+16.0%), decision-making autonomy (+17.5%), readiness for change (+17.4%), and leadership influence (+17.9%). Furthermore, a marked reduction in the share of EG participants at the basic competency level (by 5–8%) confirms the effectiveness of the intervention. This pattern was either absent or minimal in the CG, indicating a stable baseline in the absence of programmatic influence. These findings provide descriptive support for the effectiveness of the leadership development programme in enhancing key managerial and psychological competencies among civil servants, thereby addressing the first research question.



**Figure 1. Levels of Leadership Competency Development Among Civil Servants Before and After the Intervention Stage (%)**

**RQ 2. Comparative Gains in Leadership Development Between Trained and Untrained Civil Servants**

To assess the measurable effects of the training programme, we conducted a statistical comparison of changes in leadership competencies across both the experimental group (EG) and the control group (CG), before and after the intervention. The results of within-group comparisons, performed using the Wilcoxon signed-rank test (supplemented by paired-sample t-tests), are presented in Table 1.

**Table 1. Dynamics of change in civil servants' leadership characteristics (EG and CG, before and after the intervention)**

Variable	Group	Z	p	Statistical Significance	Cohen's d	Effect Interpretation
Emotional intelligence	EG	-5.013	<.001	Significant	0.91	Large
	CG	-0.684	.496	Not significant	0.06	Negligible
Cognitive flexibility	EG	-4.972	<.001	Significant	0.87	Moderate to Large
	CG	-0.643	.520	Not significant	0.05	Negligible
Motivation for public service	EG	-5.001	<.001	Significant	0.89	Moderate to Large
	CG	-0.668	.503	Not significant	0.04	Negligible
Stress resilience	EG	-4.932	<.001	Significant	0.85	Moderate
	CG	-0.601	.548	Not significant	0.03	Negligible
Decision-making autonomy	EG	-4.984	<.001	Significant	0.88	Moderate to Large
	CG	-0.659	.510	Not significant	0.05	Negligible
Communicative competence	EG	-5.025	<.001	Significant	0.9	Moderate to Large
	CG	-0.623	.533	Not significant	0.06	Negligible
Cooperation skills	EG	-4.897	<.001	Significant	0.84	Moderate
	CG	-0.588	.560	Not significant	0.04	Negligible
Public engagement	EG	-5.034	<.001	Significant	0.92	Large
	CG	-0.617	.538	Not significant	0.05	Negligible
Leadership influence	EG	-4.966	<.001	Significant	0.86	Moderate to Large
	CG	-0.629	.528	Not significant	0.04	Negligible
Readiness for change	EG	-5.044	<.001	Significant	0.89	Moderate to Large
	CG	-0.612	.542	Not significant	0.05	Negligible
Decision-making validity	EG	-4.998	<.001	Significant	0.87	Moderate to Large
	CG	-0.632	.530	Not significant	0.03	Negligible
Managerial flexibility	EG	-5.071	<.001	Significant	0.93	Large
	CG	-0.603	.551	Not significant	0.05	Negligible
Involvement in public processes	EG	-5.058	<.001	Significant	0.91	Large
	CG	-0.611	.544	Not significant	0.04	Negligible

The data show that participants in the EG demonstrated statistically significant improvements across all thirteen measured variables ( $p < .001$ ), with effect sizes (Cohen's  $d$ ) ranging from moderate to large. In contrast, the CG showed no significant changes, confirming that the observed improvements were not due to random variation or external factors but were associated with participation in the programme.

To further validate these findings and examine the between-group differences in development dynamics, a one-way ANOVA was conducted. The results are summarised in Table 2.

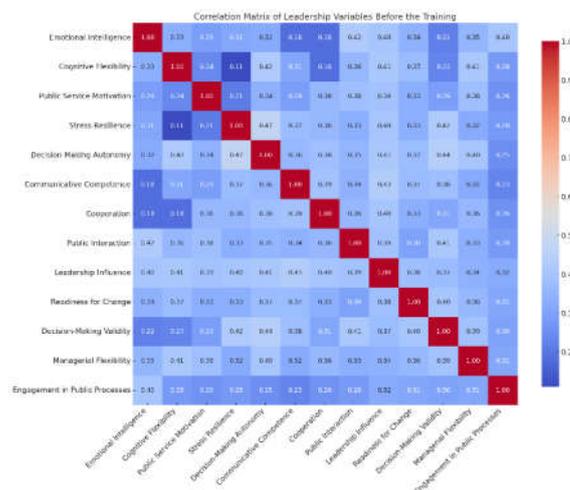
**Table 2. ANOVA results for changes in leadership characteristics between EG and CG**

Variable	$F(1, 61)$	$p$	$\eta^2$	Effect Interpretation
Emotional intelligence	23.87	<.001	0.16	Considerable effect
Cognitive flexibility	21.45	<.001	0.15	Considerable effect
Motivation for public service	22.31	<.001	0.15	Considerable effect
Stress resilience	20.72	<.001	0.14	Moderate to Large
Decision-making autonomy	19.86	<.001	0.14	Moderate to Large
Communicative competence	24.56	<.001	0.17	Considerable effect
Cooperation skills	20.89	<.001	0.14	Moderate to Large
Public engagement	22.65	<.001	0.15	Considerable effect
Leadership influence	25.17	<.001	0.18	Considerable effect
Readiness for change	21.93	<.001	0.15	Considerable effect
Decision-making validity	23.04	<.001	0.16	Considerable effect
Managerial flexibility	24.01	<.001	0.17	Considerable effect
Involvement in public processes	22.78	<.001	0.16	Considerable effect

The ANOVA confirmed statistically significant differences between the two groups across all leadership variables, with large effect sizes ( $\eta^2 \geq .14$ ). These findings provide strong evidence that the leadership development programme had a meaningful and targeted impact on the improvement of civil servants' leadership capacities. Notably, the greatest observed effects were in areas such as leadership influence, managerial flexibility, emotional intelligence, and communicative competence.

**RQ 3. Changes in the Interrelations Between Leadership Variables Following the Training**

To explore how the relationships among key leadership-related variables evolved as a result of the training intervention, a correlational analysis was conducted, and the results were visualised using a heatmap (Figure 2). This method enabled a comparative view of the strength and direction of pairwise correlations before and after the programme's implementation in the experimental group.



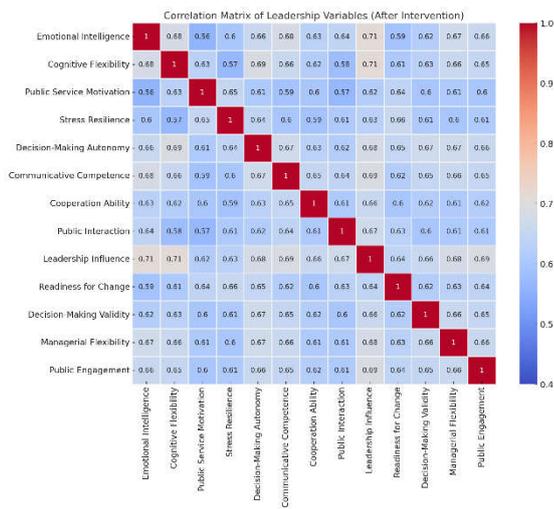


Figure 2. Correlation Matrix of Leadership Variables (before and after intervention)

The analysis, presented in Figure 2, revealed a marked intensification in the interconnections between core psychological and managerial competencies following the training. In particular, the correlation between emotional intelligence and communicative competence increased from  $r = .42$  to  $r = .68$ , while the relationship between public service motivation and readiness for change strengthened from  $r = .38$  to  $r = .64$ . Similarly, leadership influence and cognitive flexibility showed an increase in correlation from  $r = .45$  to  $r = .71$ . Additional notable shifts included a stronger link between decision-making autonomy and managerial flexibility ( $r = .40$  to  $r = .67$ ), and between decision-making validity and public interaction ( $r = .36$  to  $r = .62$ ). These enhancements in correlation coefficients indicate not only statistically significant changes but also a qualitative restructuring of the internal leadership framework. Taken together, the observed results point to a more integrated and synchronised leadership profile among participants of the training programme. The enhanced coherence among cognitive, emotional, and behavioural dimensions of leadership suggests that the intervention was successful in promoting deeper psychological alignment and functional synergy in public leadership development.

**RQ 4. Participants' Subjective Experiences and Insights**

To complement the quantitative findings and gain a deeper understanding of the leadership development programme's impact, a qualitative analysis of participants' subjective experiences was conducted. This included a series of four post-intervention focus group interviews involving 31 civil servants from both central and local government institutions. Each session included between 5 and 7 participants, allowing for both thematic variety and individual depth in perspectives shared. Through content analysis of the discussions, several key areas of perceived growth and transformation were identified. Participants commonly reported increased confidence in decision-making, enhanced emotional self-regulation, deeper awareness of their leadership role, and improved readiness for public interaction. Many also described an elevated motivation for continuous professional development. Table 3 presents the main thematic categories of change supported by representative quotations from the participants. These excerpts were stylistically adapted to maintain academic clarity without altering the intended meaning.

Table 3. Thematic Categories of Change and Representative Participant Quotes

Thematic Category	Participant Quote
Awareness of Leadership Role	"For the first time, I felt that I could actually influence change – not just follow instructions from above."
Increased Confidence in Decision-Making	"Now I take responsibility for tough decisions more boldly and confidently – I have a clear vision and team support."
Emotional Self-Regulation	"After the training, I've become better at managing my emotions, even during conflicts with subordinates."
Improved Communication Skills	"We learned not just to speak, but to really listen to each other... it's transformed how our department works."
Readiness for Public Engagement	"I used to avoid direct contact with citizens... now I see it as my responsibility."
Motivation for Self-Development	"This programme sparked my professional growth... I've started reading more and exploring new development tools."

These narratives offer compelling evidence of the programme's psychological and behavioural impact, highlighting not only skill acquisition but also a shift in mindset, responsibility, and self-efficacy among civil servants. The subjective feedback thus reinforces the quantitative findings, pointing to the programme's multidimensional effectiveness in fostering leadership capacity in public administration.

**DISCUSSION**

The findings of this study provide strong evidence that a well-designed, psychologically grounded leadership programme can reliably enhance a broad set of managerial and intrapersonal competencies among civil servants. Below, I discuss how these results align with and extend existing research in psychology and public administration, what novel contributions our work offers, possible mechanisms, limitations, and directions for future inquiry.

The findings of our study align with and expand upon several key strands of contemporary research in psychology and public administration. Firstly, the observed improvements in emotional intelligence, cognitive flexibility, stress resilience, and decision-making autonomy reflect the growing body of psychological literature that underscores the importance of non-technical, intrapersonal competencies in effective leadership. These results support calls within organisational psychology for multi-component interventions rather than isolated, skill-specific approaches. Our leadership programme, by addressing a comprehensive set of psychological and managerial variables, follows this emerging model of holistic leadership development (Pousette *et al.*, 2025). Secondly, the significant increase in public service motivation (PSM) among participants challenges the notion that this construct is static. Instead, our data contribute to the view – supported by recent syntheses such as that by Hameduddin and Engbers (2022) – that PSM can be developed through targeted leadership experiences. This finding is particularly valuable for public administration systems seeking to foster intrinsic motivation and commitment in civil servants. Thirdly, the enhanced interconnections between leadership-related variables observed after the intervention correspond to the theoretical framework of behavioural public administration, which promotes deeper psychological grounding in the study and practice of governance. Our application of psychological constructs – combined with rigorous empirical testing – demonstrates how interdisciplinary

integration can enhance both understanding and practical outcomes in civil service leadership development (Grimmelikhuisen *et al.*, 2016). Finally, the robustness of our results, confirmed through the use of both nonparametric (Wilcoxon) and parametric (*t*-test, ANOVA) statistical procedures, reflects methodological best practices in leadership training evaluation. As emphasised by Pousette *et al.*, (2025), reliable assessments of leadership programme outcomes require a combination of design rigour, longitudinal tracking, and multi-level data. Our study contributes to this methodological standard by integrating statistical and qualitative evidence to assess the effectiveness of training over time.

This study makes several novel contributions to the literature on psychological determinants of leadership in public administration. First, it offers a uniquely comprehensive profile of leadership growth by assessing thirteen interconnected variables spanning intrapersonal, interpersonal, and organisational domains. Unlike prior research that typically focuses on isolated traits such as emotional intelligence or communication, our multi-dimensional approach enables a more integrated understanding of leadership development. The observed interplay between variables – such as the positive reinforcement between emotional regulation and decision-making validity – suggests that improvements in one domain may scaffold or amplify changes in others. Second, our study provides robust qualitative evidence of internal transformation. Participant reflections and focus group discussions revealed not only behavioural adjustments but also deeper shifts in self-perception and role identity. Statements like “*I now truly feel I can influence change*” or “*I learned to really listen*” reflect psychological readiness, confidence, and a renewed sense of agency – elements often overlooked in purely quantitative training evaluations. This depth of insight adds a valuable layer of meaning to the numerical data and supports the idea that leadership growth is as much about mindset as it is about measurable skill acquisition. Third, the correlation matrix comparing inter-variable relationships before and after the intervention demonstrates a structural reorganization in the participants’ leadership profiles. The stronger, more coherent post-training correlations between key variables indicate that the programme not only enhanced individual traits but also fostered synergy among cognitive, emotional, and behavioural dimensions. This shift in internal leadership architecture represents a deeper, systemic transformation that is rarely captured in conventional training studies. Finally, the study provides contextual validation for the efficacy of psychological leadership interventions in complex and high-pressure public service environments. Implemented within the Ukrainian public administration system during a period of reform and crisis, the programme proved to be effective despite contextual challenges. This reinforces the relevance and adaptability of psychological development models in real-world governance settings and underscores their value for strengthening institutional capacity under uncertainty.

Despite its promising findings, this study is subject to several limitations that should be acknowledged. First, the quasi-experimental design with matched samples, while methodologically rigorous, does not eliminate all potential biases associated with non-random group assignment. Although demographic and professional equivalence between the experimental and control groups was carefully maintained, unmeasured variables may have influenced the outcomes. Second, the relatively modest sample size – particularly within the experimental group ( $n = 31$ ) – may limit the generalisability of the findings. While the results are statistically robust, future research should aim to replicate the study with larger and more diverse populations to enhance external validity and ensure applicability across different administrative settings. Third, the assessment of outcomes was conducted shortly after the intervention,

capturing only immediate effects. This short follow-up window precludes conclusions about the long-term sustainability of the observed changes. Longitudinal studies are necessary to determine whether improvements in leadership competencies translate into enduring behaviour changes and actual job performance enhancements over time. Finally, much of the data, including psychometric scales and focus group feedback, rely on self-report measures. Although triangulated with multiple instruments and qualitative data, self-perception is inherently vulnerable to biases such as social desirability or recall inaccuracy. Future studies could strengthen the evidence base by incorporating additional data sources such as peer, subordinate, or supervisor assessments, as well as observable behavioural metrics.

## CONCLUSION AND FUTURE WORK

This study provides compelling evidence that a structured, evidence-based leadership development programme can significantly enhance core psychological and managerial competencies among civil servants. Through a rigorous quasi-experimental design, incorporating both quantitative and qualitative data, the findings reveal statistically significant improvements across thirteen critical leadership-related variables in the experimental group, compared to no meaningful change in the control group. These improvements included increased emotional intelligence, cognitive flexibility, stress resilience, communicative competence, and public service motivation, among others. Moreover, the intervention not only strengthened individual leadership capacities but also fostered greater coherence between these competencies, as demonstrated by a more integrated post-training leadership profile. Qualitative insights from reflective interviews and focus groups further underscore the programme’s impact on participants’ self-awareness, decision-making confidence, emotional regulation, and motivation for continued development. Taken together, the findings highlight the effectiveness and practical relevance of targeted psychological training in public administration and contribute valuable empirical data to the growing body of leadership science. This study affirms that leadership potential in public service is not only measurable but also highly responsive to intentional developmental efforts. Further research is needed to explore the long-term sustainability of the leadership development outcomes observed in this study. While the results demonstrate clear improvements across key psychological and managerial competencies among civil servants, future investigations should incorporate longitudinal follow-ups, multi-source assessments such as peer or supervisor evaluations, and analysis of moderating factors such as organisational culture or prior experience. Expanding the scope to include different administrative levels and international contexts would enhance the generalisability of the findings and support the continued refinement of targeted leadership interventions in the public sector.

## REFERENCES

- Albalá-Genol, J., Díaz-Fúnez, P. A., & Mañas-Rodríguez, M. Á. (2023). Resilience and Job Satisfaction: Effect of Moderated Mediation on the Influence of Interpersonal Justice on the Performance of Public Servants. *International Journal of Environmental Research and Public Health*, 20(4), Article 2957. <https://doi.org/10.3390/ijerph20042957>
- Anace Kambu, Dian Ferriswara, & Sarwani. (2025). Empowerment of civil servants in improving the quality of public services in Southwest Papua Province. *Jembatan Hukum : Kajian Ilmu Hukum, Sosial Dan Administrasi Negara*, 2(3), 60–73. <https://doi.org/10.62383/jembatan.v2i3.2246>

- American Psychological Association. (2017). Ethical principles of psychologists and code of conduct. APA. <https://www.apa.org/ethics/code/>
- Asieieva, Y., Trynchuk, O., Furman, A., Melnichuk, I., & Koval, K. (2021). Emotional intelligence peculiarities of civil servants of Ukraine. *Amazonia Investiga*, 10(48), 129-137. <https://doi.org/10.34069/AI/2021.48.12.14>
- Barbieri, B., Bellini, D., Batzella, F., Mondo, M., Pinna, R., Galletta, M., & De Simone, S. (2024). Flexible Work in the Public Sector: A Dual Perspective on Cognitive Benefits and Costs in Remote Work Environments. *Public Personnel Management*, 54(1), 99-129. <https://doi.org/10.1177/00910260241275241>
- Boyatzis, R. E. (2011). Managerial and Leadership Competencies: A Behavioral Approach to Emotional, Social and Cognitive Intelligence. *Vision*, 15(2), 91-100. <https://doi.org/10.1177/097226291101500202>
- Brik, A. B., & Hussein, M. (2025). Organisational determinants of evaluation maturity in the public sector: A resource-based perspective. *Evaluation*, 0(0). <https://doi.org/10.1177/13563890251347270>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Deci, E. L., & Ryan, R. M. (2012). Motivation, personality, and development within embedded social contexts: An overview of self-determination theory. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (pp. 85–107). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780195399820.013.0006>
- Ding, M., & Wang, C. (2023). Can public service motivation increase work engagement?—A meta-analysis across cultures. *Frontiers in Psychology*, 13, Article 1060941. <https://doi.org/10.3389/fpsyg.2022.1060941>
- Grimmelikhuijsen, S., Jilke, S., Olsen, A. L., & Tummers, L. (2016). Behavioral Public Administration: Combining Insights from Public Administration and Psychology. *Public Administration Review*, 77(1), 45-56. <https://doi.org/10.1111/puar.12609>
- Goleman, D. (1995). *Emotional Intelligence: Why It Can Matter More Than IQ*. Bantam Books. <https://positiveimpact.ie/wp-content/uploads/2025/05/daniel-goleman-emotional-intelligence.pdf>
- Hameduddin, T., & Engbers, T. (2022). Leadership and public service motivation: A systematic synthesis. *International Journal of Public Administration*, 24(1), 86–119. <https://doi.org/10.1080/10967494.2021.1884150>
- Mohase, K., Donald, F., & Israel, N. (2025). Inclusive leadership, psychological safety, and employee voice in remote and hybrid work employees. *South African Journal of Psychology*, 55(3), 432-446. <https://doi.org/10.1177/00812463251365484>
- Monje-Amor, A., Xanthopoulou, D., Calvo, N., Vázquez, J. P. A. (2021). Structural empowerment, psychological empowerment, and work engagement: A cross-country study. *European Management Journal*, 39(6), 779-789. <https://doi.org/10.1016/j.emj.2021.01.005>
- Pousette, A., & Grill, M. (2025). What Makes Leadership Training Work? – A Process Evaluation. *Scandinavian Journal of Work and Organizational Psychology*, 10(1), 1–15. <https://doi.org/10.16993/sjwop.268>
- Rubin, D. B. (2006). *Matched sampling for causal effects*. Cambridge University Press. <https://archive.org/details/matchedsamplingf0000rubi>
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Houghton Mifflin. <https://iaes.cgiar.org/sites/default/files/pdf/147.pdf>
- Shahda, E., Hamid, A.A., & Battour, M. (2024). The Effects of Public Service Motivation on Employees' Intention to Stay. In: Alareeni, B., Hamdan, A. (eds), *Technology: Toward Business Sustainability*. ICBT 2023. Lecture Notes in Networks and Systems (vol 927, pp. 240-2470). Springer, Cham. [https://doi.org/10.1007/978-3-031-54009-7\\_22](https://doi.org/10.1007/978-3-031-54009-7_22)
- Vandenabeele, W., & Schott, C. (2020). Public Service Motivation in Public Administration. *Oxford Research Encyclopedia of Politics*. Retrieved 6 Sept. 2025, from <https://oxfordre.com/politics/view/10.1093/acrefore/9780190228637.001.0001/acrefore-9780190228637-e-1401>.

\*\*\*\*\*