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¹***Amirbekova D.**,

Associate Professor, ORCID ID: 0000-0002-7801-1629,

*e-mail: d.amirbekova@kbtu.kz

¹**Yeerjiang S.**,

Master's student, ORCID ID: 0009-0005-7798-2238,

e-mail: shuhayerj@gmail.com

¹**Imbergin Zh.**,

Master's student, ORCID ID: 0009-0007-5479-102X,

e-mail: zhangir.imbergin@gmail.com

²**Rebuglio M.**,

Researcher, ORCID ID: 0000-0002-2636-4537,

e-mail: massimo.rebuglio@polito.it

¹Kazakh-British Technical University, Almaty, Kazakhstan

²Politecnico di Torino, Department of Management and Production Engineering,
Turin, Italy

LEADERSHIP MODELS AND PROJECT SUCCESS: A CASE STUDY OF A PETROCHEMICAL MANUFACTURING PLANT IN KAZAKHSTAN

Abstract

This study examines leadership styles and project dynamics within Kazakhstan's petrochemical industry, specifically in the context of the "Nurly Zhol" policy and China's "Belt and Road Initiative." Using a sequential mixed-methods approach and a "Macro-Meso-Micro" framework, the research analyzes how stakeholders overcame systemic financial, technical, and pandemic-related disruptions encountered throughout the project's fourteen-year lifecycle. The research adopts data triangulation, including documentary analysis, 12 stakeholder interviews, and a survey of 68 experts, which reveals a "dual-track" governance mechanism. Findings indicate that informal relational governance and political leadership were essential to compensating for limitations in formal engineering and construction contracts. Furthermore, the study highlights the critical role of cross-cultural communication in navigating these complex partnerships in the environment that exists. Ultimately, project success required aligning transactional discipline with facilitative adaptability, offering a new framework for managing institutional complexity in transitional economies and providing practical insights for future international infrastructure development projects and initiatives.

Keywords: mega-project management, leadership dynamics, EPC contract, relational governance, cross-cultural management.

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Introduction

Industrialization in modern Kazakhstan exhibits distinct resource dependence. The legacy of the old planning system of the late 1900s left an industrial structure dominated by raw material extraction and high-value-added processing, concentrated in Russia's European regions [1]. Kazakhstan's strategy to diversify from single-resource exports by developing downstream petrochemical industries represents a critical national priority. The polypropylene manufacturing plant in Atyrau, owned by Kazakhstan Petrochemical Industries Inc. (KPI), with \$2.6 billion investment and 500,000 tons annual capacity, exemplifies this strategic vision of the country. In addition to formal project

management (PM) structures used to manage large-scale projects in the country, leadership dynamics and decision-making practices within companies play a significant role.

The efficacy of leadership in complex megaprojects in transitional economies is a critical area of study. Traditional management literature acknowledges leadership as a key success factor in organizations. Still, the PM discipline offers structured frameworks and competencies that specifically enhance leadership models, directly contributing to project success by providing clarity, mitigating risks, and ensuring strategic alignment [2]. The integration of PM best practices with adaptive leadership styles is essential for navigating the unique challenges of large-scale, multi-stakeholder ventures [3, 4].

Previous studies suggest that PM principles and models enhance the application and effectiveness of various leadership styles [5]. The first is transactional leadership, and the second is formal PM. Transactional leadership thrives in structured environments with clear procedures. The PM discipline, with its focus on contracts, performance monitoring, and process compliance, provides the ideal context for this style to achieve schedule control and procedural adherence [6]. The second is the facilitative leadership and conflict resolution. PM requires extensive stakeholder management and communication plans to coordinate diverse participants. These structured communication channels, when combined with a facilitative leadership approach that mediates conflicts and builds consensus, significantly improve stakeholder satisfaction and can reduce potential cost overruns from disputes [4]. The third is situational/adaptive leadership. The dynamic nature of megaprojects demands leaders who can adapt their style to specific contexts [7]. The PM methodologies, such as the macro-meso-micro framework used in the case study, encourage leaders to analyze the situation at different levels (national policy, organizational structure, project action) and dynamically apply the appropriate leadership style (e.g., transformational during planning, transactional during construction, and facilitative during commissioning).

The current research on megaprojects tends to analyze failure cases or rely on secondary data, lacking direct perspectives from project participants [8]. The 14-year KPI development cycle reflects deep structural contradictions between post-Soviet institutional environments and international engineering standards. Understanding which specific leadership models and decision-making practices contributed to the final project delivery is key to analyzing industrial modernization paths in transitional regions. The nature of leadership and management in this context requires specific, targeted actions to deliver strategic outcomes that align with the agenda.

The research gap in the study is that research on megaprojects in transitional economies faces unique systemic challenges, including institutional voids, financial crises, and conflicting technical standards, which often lead to extended development cycles and failures. Traditional reliance solely on formal PM structures, such as engineering, procurement, and construction (EPC) contracts, is often insufficient to navigate the deep structural contradictions within these environments. However, existing PM practices are aimed at delivering positive results for the project. This study addresses the research gap in understanding which leadership models and practices enabled the successful completion of the 14-year-long KPI plant project despite significant hurdles.

The main objective of the study is to investigate the leadership dynamics and decision-making practices that contributed to the KPI project's completion amid multiple execution challenges. To achieve this, the research applied a "Macro-Meso-Micro" analytical framework to explore how political will, inter-organizational negotiations, and leadership behaviors resolved post-Soviet institutional rigidities. The study aimed to contribute validated frameworks for policymakers and international contractors managing institutional complexity in future Eurasian infrastructure ventures. The study also addresses the following research question: What leadership models and practices contributed to the KPI's plant completion despite a 14-year development cycle and multiple execution challenges?

The study makes three primary theoretical contributions to PM theory. First, it introduces and validates a "dual-track" governance mechanism in which informal relational governance and political leadership compensate for formal contract limitations in institutionally weak contexts. Second, it contextualizes leadership contingency theory by demonstrating that transformational, transactional,

and facilitative leadership must dynamically reconfigure across a project's lifecycle to ensure success. Finally, it establishes "political leadership" as a distinct, macro-level factor essential for resolving deadlocks that standard contractual mechanisms cannot address in state-led development models. Also, it contributes theoretically by contextualizing leadership models within transitional economies and practically by offering validated frameworks for policymakers and international contractors managing institutional complexity and cross-cultural partnerships in future Eurasian infrastructure ventures.

Materials and methods

A case study

From preliminary planning in 2008 to commissioning in November 2022, the project's 14-year cycle reveals the complexity of multinational petrochemical megaprojects in transitional economies (Figure 1). The equity and execution framework interwove KazMunayGas (KMG), United Chemical Company, and China National Chemical Engineering Company (CNCEC) as the sole EPC contractor, with core process technology licensed from Lummus Technology. This diversity of participants required coordination across organizational boundaries, technical domains, and cultural contexts [9]. Despite structural and execution challenges—including contractor termination in 2014, financing restructuring, and COVID-19 disruptions—the plant achieved commercial operation, offering rich empirical material for analyzing leadership dynamics in post-Soviet industrial projects.

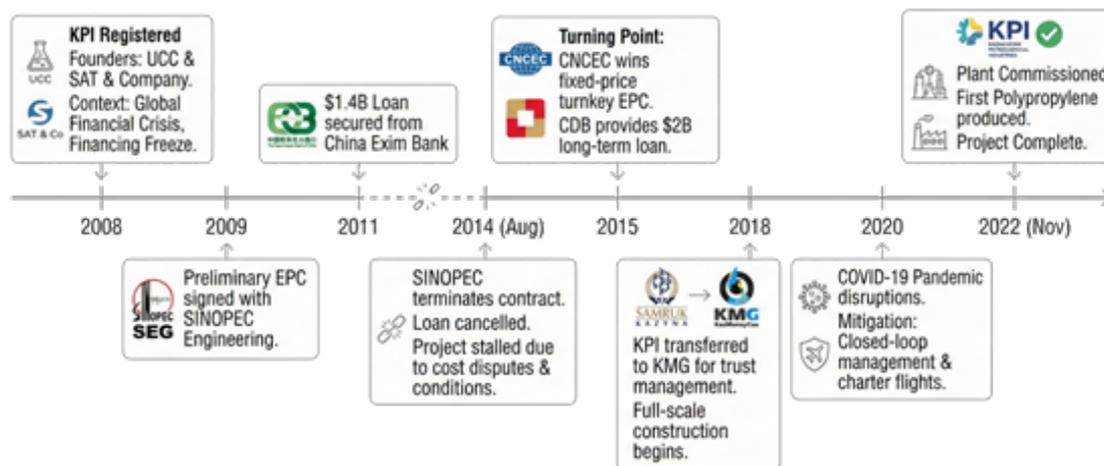


Figure 1 – Development Roadmap

Research Design

The study employs a sequential explanatory mixed-methods case-study design, drawing on a pragmatic philosophical stance. The qualitative phase explores leadership dynamics through documentary analysis and interviews, identifying emerging patterns. The quantitative phase validates and measures the relative importance of identified leadership practices through an expert survey. The KPI project serves as an instrumental single case, selected for theoretical relevance to understanding leadership in post-Soviet megaprojects and practical accessibility to comprehensive archival data and key informants.

The analysis framework (Figure 2) applies a "Macro-Meso-Micro" lens to the project's fourteen-year development cycle. At the macro level, national industrial policies and geopolitical alignments (Kazakhstan's "Nurly Zhol" and China's "Belt and Road Initiative") shape the strategic context. At the meso level, inter-organizational governance structures (EPC contracts, relational governance, knowledge transfer mechanisms) mediate between national will and project execution. At the micro level, leadership behaviors and decision-making practices directly influence project outcomes. The

framework posits that project success in transitional economies requires dynamic alignment across all three levels, with informal mechanisms compensating for institutional voids in formal contractual arrangements.

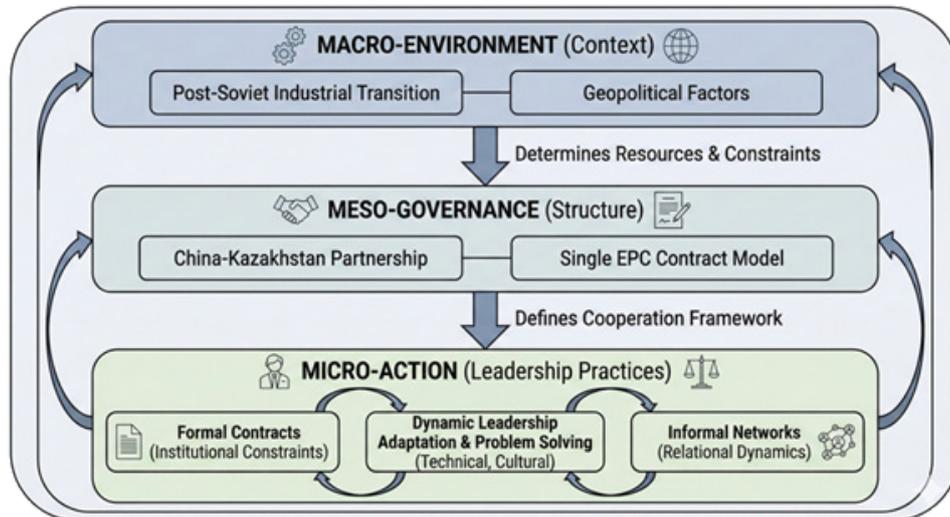


Figure 2 – Analysis framework

Data Collection

Documentary Analysis: Archival records spanning 2008–2022 include governance documents (board resolutions, shareholder agreements, EPC contract amendments), engineering/compliance documents (Environmental and Social Impact Assessments, operating review reports, monthly progress briefings), and multi-party narratives (contractor publications, regional media reports, litigation records). All documents underwent standardized digital processing using ABBYY FineReader OCR software with multilingual terminology glossaries established for English, Russian, and Chinese materials.

Semi-structured Interviews: Twelve core respondents constructed a multi-dimensional perspective network through purposive and snowball sampling. Sample screening required direct project involvement for at least 3 years, mid-level management positions or senior technical titles, and experience with at least one major project crisis. Respondents comprised strategic decision-makers (3): former KMG and United Chemical Company executives; execution/technical specialists (4): CNCEC project director, Lummus process leaders, engineering and procurement heads; and regulatory/frontline personnel (5): government energy ministry officials, compliance managers, senior site engineers, HSSE manager, and community liaison officer.

The interview protocol integrated critical incident technique and retrospective narrative across seven modules: participant background, project overview, leadership models and practices, cross-cultural collaboration, decision-making and coordination, critical success factors, and personal reflections. Interviews were conducted in the second half of 2024, averaging 58 minutes, with full audio recording and verbatim transcription. All materials underwent member checking to ensure accuracy.

Questionnaire Survey: The survey instrument contained eight sections measuring demographic information, leadership behaviors and effectiveness, decision-making and coordination patterns, cross-cultural collaboration mechanisms, crisis response strategies, and critical success factors. Distributed to 68 industry experts with direct or indirect KPI project involvement, the survey achieved 100% effective response rate. Respondents comprised 41.2% from client organizations (KMG/UCC), 35.3% from EPC contractors (CNCEC), 14.7% from technology licensors, and 8.8% from government agencies.

Data Analysis

Qualitative data underwent thematic analysis using NVivo 12 Plus, following Braun and Clarke's six-phase approach: familiarization, initial coding, theme development, theme review, definition, and reporting [10]. Documentary evidence established the objective project chronology, while interview transcripts revealed the micro-level logic of decision-making. Initial coding generated 127 open codes, subsequently organized into 23 focused codes through axial coding, and finally consolidated into five core themes: (1) evolution of decision-making structures, (2) managing Sino-Kazakh partnership, (3) crisis management and adaptability, (4) role of informal governance mechanisms, and (5) political leadership intervention.

Quantitative data were analyzed using SPSS 28.0, employing descriptive statistics (means, standard deviations, frequency distributions), Pearson correlation analysis to examine relationships between leadership practices and project outcomes, and comparative analysis across respondent categories (role, organizational affiliation, experience level). Joint display techniques juxtaposed qualitative narratives with quantitative trends to achieve deep causal explanation, seeking points of convergence or paradoxes between data sources.

Research quality assurance relied on data triangulation (documentary, interview, and survey sources mutually calibrating), a complete audit trail containing raw data, coding logs, and analysis memos to ensure traceability, and member checking of interview transcripts. Ethical protection measures included informed consent for all participants, anonymization using codes (STR-01, EXE-01, REG-01 format), and AES-256 encrypted storage of sensitive data.

Results and discussion

Project Context and Development Chronology

The KPI project's development history reflects a complex evolution from vision establishment to final delivery, deeply influenced by global macroeconomic fluctuations and the reshaping of the geopolitical landscape. When the project company was officially registered in 2008, the global financial crisis led to a sharp contraction in credit markets, forcing the original financing plan based on Western capital markets to be shelved. To break the funding bottleneck, Kazakhstan turned to the east. In 2009, KPI signed a preliminary EPC contract with Sinopec Engineering, and in 2011, secured \$1.4 billion loan support from China Export-Import Bank. However, the project fell into a deadlock due to cost-estimation differences regarding the Atyrau region's harsh winter climate, a skilled-labor shortage, and strict local-content requirements. In August 2014, Sinopec Engineering terminated the contract.

The project reached a critical turning point in 2015. CNCEC won the new tender, promising to undertake the project under a fixed-price turnkey model, greatly reducing the owner's cost-overrun risk. China Development Bank (CDB) replaced Export-Import Bank as the main lender, providing a \$2 billion long-term loan with a fixed interest rate and a 20-year repayment period. In 2018, the Samruk-Kazyna Fund transferred KPI to KMG for "trust management," marking the entry into the comprehensive construction phase. Despite COVID-19-related disruptions in 2020, the project maintained construction continuity through closed-loop management and chartered flights for key technical personnel. In November 2022, the plant was officially commissioned, marking the end of the 14-year construction marathon.

Key challenges included the complexity of technical integration, infrastructure/logistics constraints, and financial pressure. The plant involves deep integration of Lummus Technology's Catofin® dehydrogenation process and Novolen® gas-phase polymerization process, requiring extremely high raw material purity standards. Converting Lummus's basic design into CNCEC's detailed engineering design while strictly enforcing Western standards (ASME) during construction placed exceptional demands on collaborative capabilities. As a landlocked country, Kazakhstan faced severe challenges transporting the 1,000-ton propane-propylene splitter through the Volga-Don

Canal, then 40 kilometers over a soft saline-alkali foundation that required dedicated roads. Financial indicators show that, as the plant transitioned to operation in 2022, massive depreciation provisions and financial costs resulted in a net loss of approximately 10.7 billion tenge. In 2023, revenue grew to 110 billion tenge, but net profit still took time to turn positive due to debt repayment pressures.

Evolution of Leadership Dynamics

Interview data reveal three distinct phases in the evolution of the decision-making structure. During the planning phase (2008–2014), decision-making was characterized by centralized strategic vision but fragmented operational authority. Multiple ownership restructurings created inconsistent directives. Senior executive STR-01 described this institutional deadlock: “At that stage, almost no one was willing to bear the risk of signing off. All decisions were passed back and forth...eventually being kicked back for ‘additional clarification.’ Everyone was afraid of who would take the blame if the project failed. The ‘safest’ strategy was to do nothing.”

The construction phase (2015–2020) saw the emergence of a dual-track governance structure. Formal EPC contract mechanisms operated alongside informal coordination channels. CNCEC’s project director EXE-01 observed: “The contract defined what we must do, but personal relationships determined how fast it got done.” The turning point began with the 2015 restructuring and peaked with KMG’s 2018 “trust management” intervention. To cope with the pressures of large-scale construction, KMG established a command center with “quasi-independent adjudication power” at the Atyrau site. The new governance logic forcibly shifted focus from “compliance” to “delivery.” EXE-01 described: “After 2018, the wind changed completely...The commander sent by KMG told us directly: ‘Execute first. As long as the direction is right, the paperwork can be sorted out later.’”

The commissioning phase (2020–2022) demonstrated adaptive crisis management. During COVID-19, leadership rapidly pivoted to closed-loop protocols, maintaining 70% of the planned construction pace. The legitimacy of these adaptive strategies stemmed from high-level leaders’ precise grasp of the urgency of national industrialization. STR-02 noted: “Our promise to site managers was: ‘As long as it is for the project’s progress, go ahead and do it. If the audit department investigates, we will take the heat in Astana.’”

Managing the Sino-Kazakh Partnership

Cross-cultural collaboration faced significant friction points. The sharpest conflict centered on the applicability of technical standards — Chinese contractors were accustomed to using GB or international ASTM standards, while Kazakh representatives and local regulatory authorities, deeply influenced by the Soviet GOST system, insisted on compliance with local Kazakh SNiP regulations. Technical lead EXE-02 reviewed this battle of standards: “The repeated negotiations over technical standards consumed almost two years. Every time we thought we had reached a consensus, local regulatory authorities would raise new questions, claiming that our solution didn’t comply with a certain SNiP clause.”

Beyond technical standards, deeper cultural cognitive differences manifested in a divergence in labor management philosophy. Chinese management emphasized hierarchical decision-making and rapid execution, while Kazakh stakeholders prioritized consensus-building and regulatory compliance. HSSE manager REG-04 noted: “In the Chinese team’s cognitive framework, ‘being late one day means one day’s loss,’ so workers were expected to work overtime to catch up. But according to Kazakh labor law, we had to control overtime hours strictly.”

Successful resolution relied on establishing mixed working committees with equal representation and instituting mandatory cultural orientation for all expatriate personnel. The practice of “dual project managers” (one Chinese, one Kazakh) for each major subsystem proved particularly effective. Cultural training programs covered language basics, professional ethics norms, religious customs, and crisis communication protocols. The establishment of informal communication networks outside formal contract frameworks facilitated rapid problem resolution. EXE-01 explained: “Many problems that would take weeks to resolve through formal channels were settled in an hour over tea.”

Leadership Effectiveness: Quantitative Evidence

Survey respondent demographics show that 33.8% had 3-5 years of project involvement, 44.1% had 6-10 years, and 22.1% had more than 10 years. Position distribution comprised 29.4% senior management, 45.6% middle management, and 25.0% technical specialists (Table 1).

Table 1 – Demographic Profile of Respondents

Category	Sub-category	Frequency (N)	Percentage (%)
Primary Role	Project Manager / Senior Executive	14	20.6
	Engineering Lead / Technical Specialist	28	41.2
	Construction / Site Manager	15	22.1
	Government / Regulatory Official	6	8.8
	Contractor Representative / Other	5	7.3
Organizational Affiliation	KazMunayGas or Subsidiary (Client)	22	32.4
	CNCEC / Partner Organization (Contractor)	25	36.8
	International Technology Provider (Licensor)	10	14.7
	Government / Consulting / Other	11	16.1
Years of Experience	Less than 5 years	5	7.4
	5 –10 years	14	20.6
	11 – 15 years	22	32.4
	16 – 20 years	18	26.5
	More than 20 years	9	13.2
Project Phase Involvement (Multiple selections allowed)	Initial Planning (2008–2014)	12	17.6
	Construction Phase (2015–2021)	58	85.3
	Commissioning / Start-up (2021–2022)	45	66.2

Ranking of leadership behaviors reveals specific preferences during KPI project execution (Table 2). Descriptive statistical analysis shows transactional leadership ranks first (mean 4.12, SD 0.68), directly reflecting rigid demand for contract fulfillment, performance monitoring, and process compliance under the EPC model. Facilitative leadership follows closely (mean 3.95, SD 0.72), corroborating qualitative interviews regarding importance of cross-cultural coordination and conflict mediation. Technical competencies scored 3.75 (SD 0.81), indicating that while technical expertise is necessary, it often needs to be subordinate to comprehensive management authority in megaproject governance. Transformational leadership scored slightly lower (mean 3.68, SD 0.95), with greatest dispersion suggesting significant differences in vision motivation perception among respondents of different levels or phases.

Respondents rated “maintaining strong government relations” (mean 4.62/5.00, SD 0.58) as the most critical leadership behavior, followed by “crisis response capability” (mean 4.53, SD 0.64) and “cross-cultural communication skills” (mean 4.47, SD 0.69). “Visionary strategic thinking” ranked lower (mean 3.89, SD 0.82), suggesting that in the post-Soviet context, operational adaptability outweighed inspirational leadership.

Pearson correlation analysis reveals distinct structural characteristics between leadership practices and project outcomes (Table 3). Transactional leadership shows a highly significant positive correlation with schedule control ($r = 0.72$, $p < 0.01$), confirming that during rush phases, directive management based on rewards and punishments, along with monitoring, most effectively guarantees physical progress. However, the correlation with stakeholder satisfaction is weaker ($r = 0.35$), indicating that pure high-pressure management doesn't resolve deep-seated trust issues. Conversely, facilitative leadership shows a significant and strong correlation with stakeholder satisfaction ($r =$

0.68, $p < 0.01$) and a moderate positive correlation with cost management ($r = 0.55$). This pattern supports the theoretical hypothesis that “relational governance reduces transaction costs”–by coordinating cross-cultural issues and resolving conflicts, leadership effectively reduced potential cost overruns from contract disputes. Although transformational leadership’s direct contribution to schedule and cost is not significant, it positively correlates with stakeholder satisfaction ($r = 0.58$), indicating that vision building played an irreplaceable role in maintaining team cohesion and long-term morale, especially during the 2015 and 2020 external crises.

Table 2 – Descriptive Statistics and Ranking of Leadership Styles

Rank	Leadership Style / Dimension	Mean (M)	Standard Deviation (SD)	Key High-Scoring Item (within dimension)
1	Transactional Leadership	4.12	0.68	B2.4 Strict adherence to contracts and procedures (M = 4.35)
2	Facilitative Leadership	3.95	0.72	B3.5 Conflict mediation skills helped resolve disputes (M = 4.18)
3	Technical Competencies	3.75	0.81	B4.4 Ability to evaluate technology options critically (M = 3.88)
4	Transformational Leadership	3.68	0.95	B1.3 Encouraged innovative problem-solving (M = 3.92)
5	Cross-Cultural Adaptation	3.55	0.88	D1.4 Trust-building took considerable time and effort (M = 4.25)

Note: Scale 1–5 (1 = Strongly Disagree, 5 = Strongly Agree).

Table 3 – Correlation Matrix: Leadership Styles vs. Project Outcomes

Variable	1	2	3	4	5	6	7
1. Transformational	1						
2. Transactional	.42**	1					
3. Facilitative	.65**	.38*	1				
4. Technical	.35*	.45**	.40**	1			
5. Schedule Control	.31*	0.72	.48**	.52**	1		
6. Cost Management	0.28	.55**	0.55	.41**	.62**	1	
7. Stakeholder Satisfaction	0.58	.35*	0.68	.33*	.45**	.39*	1

Note: * $p < 0.05$, ** $p < 0.01$ (2-tailed). Bold values indicate strong correlations of theoretical interest.

Informal relationship-building” showed the strongest positive correlation with “schedule adherence” ($\rho=0.687$, $p<0.001$) and “stakeholder satisfaction” ($\rho=0.723$, $p<0.001$). “Strict contract enforcement” demonstrated moderate positive correlation with “quality standards compliance” ($\rho=0.542$, $p<0.01$) but weak correlation with “innovation outcomes” ($\rho=0.234$, $p>0.05$). “Government intervention at critical junctures” showed a strong correlation with “crisis resolution speed” ($\rho = 0.758$, $p < 0.001$).

Theoretical Integration and Interpretation

The KPI case demonstrates that successful megaproject leadership in transitional economies requires dynamic configuration rather than static adherence to a single model. Evidence supports the core premise of contingency theory: leadership effectiveness depends on alignment between leadership styles and situational demands [11]. However, data reveal an additional layer in post-Soviet contexts, formal leadership models must be augmented by informal governance mechanisms to compensate for institutional voids.

Quantitative evidence of a strong correlation between informal relationship-building and project outcomes validates the theoretical importance of relational governance in contexts with uncertain contract enforcement [12]. The dual-track governance structure—formal EPC contracts operating alongside informal political and personal relationships—represents an institutional adaptation to the post-Soviet environment. This finding extends existing work on social networks in megaprojects by demonstrating how informal mechanisms can systematically compensate for formal institutional weaknesses.

The correlation between government intervention and crisis resolution ($\rho = 0.758$) reveals a distinctive feature of state-led development models. Unlike Western public-private partnerships, where the government acts as regulator and partial financier, in the KPI case, the government functioned as an active mediator and guarantor. The 2014 contractor termination was resolved not through contractual arbitration but through bilateral state pressure during official visits. This “political leadership” layer operating above the project management level proved decisive during critical junctures, extending traditional project management frameworks to incorporate macro-level political dynamics in state-capitalist contexts [13].

The project’s ability to maintain 70% construction pace during COVID-19 demonstrates the value of adaptive leadership. The rapid pivot to closed-loop management and chartered flights reflected facilitative leadership’s capacity to remove organizational barriers [10]. Leadership style preferences evolved across phases: transformational leadership dominated the planning phase (68% agreement), transactional leadership prevailed during construction (74% agreement), and facilitative leadership became critical during commissioning (71% agreement), confirming that leadership configurations must adapt dynamically to project lifecycle demands.

The KPI case suggests successful megaprojects in transitional economies require: (1) hybrid governance combining formal contracts with informal relationship management; (2) dynamic leadership configurations adapting across project phases; (3) government as active mediator, not merely regulator; (4) cultural integration mechanisms beyond simple translation; and (5) fixed-price contracts with flexible implementation paths to manage cost uncertainty while maintaining contractor commitment. These findings contribute to project management theory by contextualizing leadership models within post-Soviet institutional environments and offer validated frameworks for managing institutional complexity in state-led development models.

Conclusion

This research deconstructed the leadership dynamics that enabled the KPI Polypropylene Plant’s completion despite a 14-year development cycle and multiple systemic challenges. The findings reveal that project success in post-Soviet transitional economies depends on a unique “dual-track” governance mechanism where informal relational governance and political leadership compensate for formal EPC contract limitations.

The study contributed to the field of project management both theoretically and practically. The provided contributions describe the nature of leadership in post-Soviet countries and projects and provide a deeper understanding of leadership in this environment. At the same time, managerial implications offer guidance for policymakers and international contractors.

The study makes three primary theoretical contributions. First, it extends contingency theory by demonstrating that, in institutional voids, leadership effectiveness requires not just alignment with project-phase demands but also the strategic deployment of informal mechanisms to bypass institutional constraints. Second, it contextualizes leadership models within post-Soviet petrochemical projects, showing how transformational, transactional, and facilitative leadership must dynamically reconfigure across the project lifecycle. Third, it introduces “political leadership” as a distinct macro-level factor in state-led megaprojects, operating above traditional project management hierarchies to resolve deadlocks unreachable by contractual mechanisms.

Practical implications for policymakers include: (1) designing hybrid governance frameworks that institutionalize informal coordination channels rather than attempting to eliminate them; (2) establishing government mediation protocols for transnational infrastructure projects; (3) mandating cultural integration programs with measurable outcomes beyond simple language training; and (4) structuring financing packages that balance fixed-price contractor commitments with implementation flexibility.

For international contractors, findings suggest: (1) investing in senior personnel with proven relational governance capabilities in target regions; (2) establishing dual management structures with equal-status local and expatriate co-leaders; (3) designing contracts that acknowledge institutional uncertainty through flexible implementation clauses while maintaining cost discipline; and (4) developing crisis response protocols emphasizing rapid adaptation rather than contractual escalation.

Limitations include a single-case design that limits generalizability, recall bias in retrospective interviews, and access limitations that prevent direct observation of ongoing leadership practices. Future research should pursue comparative case studies across multiple post-Soviet megaprojects, longitudinal studies tracking leadership evolution in real-time, quantitative modeling of mechanisms by which informal governance compensates for institutional voids, and investigation of how Belt and Road Initiative standardization efforts interact with the dual-track governance model, potentially revealing tensions between Chinese project management norms and recipient country institutional environments. Additional investigation is warranted to determine whether reliance on informal mechanisms constitutes a temporary adaptation to transitional institutional weakness or a permanent feature of state-led development models.

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^{1*}Амирбекова Д.,

қауымдастырылған профессор, ORCID ID: 0000-0002-7801-1629,

*e-mail: d.amirbekova@kbtu.kz

¹Ержан Ш.,

магистрант, ORCID ID: 0009-0005-7798-2238,

e-mail: shuhayerj@gmail.com

¹Имбергін Ж.,

магистрант, ORCID ID: 0009-0007-5479-102X,

e-mail: zhangir.imbergin@gmail.com

²Ребульо М.,

зерттеуші, ORCID ID: 0000-0002-2636-4537,

e-mail: massimo.rebuglio@polito.it

¹Қазақстан-Британ техникалық университеті,

Алматы қ., Қазақстан

²Турин политехникалық университеті,

Менеджмент және өндірістік инженерия факультеті,

Турин қ., Италия

КӨШБАСШЫЛЫҚ МОДЕЛЬДЕРІ ЖӘНЕ ЖОБАНЫҢ СӘТТІЛІГІ: ҚАЗАҚСТАНДАҒЫ МҰНАЙ-ХИМИЯ ЗАУЫТЫНЫҢ ЖАҒДАЙЫН ЗЕРТТЕУ

Аңдатпа

Бұл зерттеуде Қазақстанның мұнай-химия саласындағы, атап айтқанда, «Нұрлы жол» саясаты және Қытайдың «Бір белдеу, бір жол» бастамасы контекстіндегі жобалардың көшбасшылық стильдері мен динамикасы қарастырылады. Аралас әдістермен және «макро-мезо-микро» құрылымымен дәйекті тәсілді қолдана отырып, зерттеу мүдделі тараптардың жобаның он төрт жылдық өмірлік циклінде орын алған жүйелі қаржылық, техникалық және пандемияға байланысты ақауларды қалай жеңгенін талдайды. Зерттеу деректердің триангуляциясын, соның ішінде құжаттаманы талдауды, мүдделі тараптармен жүргізілген 12 сұхбатты және «екі жақты» басқару механизмін анықтаған 68 сарапшының сауалнамасын қамтиды. Нәтижелер ресми жобалау және құрылыс келісімшарттарында қойылған шектеулерді өтеу үшін бейресми қарым-қатынасты басқару және саяси көшбасшылық қажет екенін көрсетеді. Сонымен қатар, зерттеу қазіргі жағдайда осы күрделі серіктестіктерді құрудағы мәдениетаралық қарым-қатынастың маңызды рөліне баса назар аударады. Қорытындылай келе, жобаның сәтті болуы үшін өтпелі экономикасы бар елдердегі институционалдық қиындықтарды басқарудың жаңа негізін ұсына отырып, операциялық тәртіпті бейімделу мүмкіндігімен үйлестіру қажет болды және бұл болашақ жобалар мен халықаралық инфрақұрылымды дамыту бастамалары үшін практикалық ақпарат береді.

Тірек сөздер: мега-жобаларды басқару, көшбасшылық динамикасы, ЕРС келісімшарты, реляциялық басқару, мәдениетаралық басқару.

^{1*}Амирбекова Д.,
ассоциированный профессор, ORCID ID: 0000-0002-7801-1629,
*e-mail: d.amirbekova@kbtu.kz

¹Ерцзян Ш.,
магистрант, ORCID ID: 0009-0005-7798-2238,
e-mail: shuhayerj@gmail.com

¹Имбергин Ж.,
магистрант, ORCID ID: 0009-0007-5479-102X,
e-mail: zhangir.imbergin@gmail.com

²Ребульо М.,
исследователь, ORCID ID: 0000-0002-2636-4537,
e-mail: massimo.rebuglio@polito.it
¹Казахстанско-Британский технический университет,
г. Алматы Казахстан
²Туринский политехнический университет,
факультет менеджмента и технологии производства,
г. Турин, Италия

МОДЕЛИ ЛИДЕРСТВА И УСПЕШНОСТЬ ПРОЕКТА: НА ПРИМЕРЕ НЕФТЕХИМИЧЕСКОГО ЗАВОДА В КАЗАХСТАНЕ

Аннотация

В данном исследовании рассматриваются стили руководства и динамика проектов в нефтехимической отрасли Казахстана, в частности, в контексте политики «Нұрлы жол» и китайской инициативы «Один пояс, один путь». Используя последовательный подход со смешанными методами и структуру «Макро-мезо-микро», в исследовании анализируется, как заинтересованные стороны преодолевали системные финансовые, технические и связанные с пандемией сбои, возникавшие на протяжении четырнадцатилетнего жизненного цикла проекта. В ходе исследования была проведена триангуляция данных, включая анализ документации, 12 интервью с заинтересованными сторонами и опрос 68 экспертов, который выявил «двусторонний» механизм управления. Результаты показывают, что неформальное управление отношениями и политическое лидерство были необходимы для компенсации ограничений, налагаемых официальными контрактами на проектирование и строительство. Кроме того, в исследовании подчеркивается важнейшая роль межкультурной коммуникации в выстраивании этих сложных партнерских отношений в существующих условиях. В конечном счете для успеха проекта требовалось согласовать операционную дисциплину с возможностью адаптации, предлагая новую основу для управления институциональными сложностями в странах с переходной экономикой и предоставляя практическую информацию для будущих проектов и инициатив по развитию международной инфраструктуры.

Ключевые слова: управление мегапроектами, динамика лидерства, EPC-контракт, реляционное управление, кросс-культурный менеджмент.