Strategic Risk Management for Belt and Road Transport Corridors
Стратегическое управление рисками для транспортных коридоров инициативы «Пояс и путь»

DOI: 10.12737/2587-9111-2025-13-5-61-68 Получено: 16 августа 2025 г. / Одобрено: 05 сентября 2025 г. / Опубликовано: 25 октября 2025 г.

Ning Yulin

Postgraduate Student, Department of Management, Faculty of Management Technologies and Humanitarianization, Belarusian National Technical University
65, Prospect Nezavisimosti, Minsk, Republic of Belarus,
34, Financial Square, Nanchong City, Sichuan Province, Chine

Нин Юйлинь

Аспирант, кафедра менеджмента факультета управленческих технологий и гуманитаризации,
Белорусский национальный технический университет
Республика Беларусь, г. Минск, пр-т Независимости, д. 65,
Китай, провинция Сычуань, г. Наньчун, Финансовая площадь, 34
e–mail: ningyulin98@outlook.com

Scientific supervisor:
Grintsevich L.V.

Candidate of Economic Sciences, Associate Professor, Department of Economics and Management of Innovative Projects in Industry, Belarusian National Technical University,
65, Prospect Nezavisimosti, Minsk, Republic of Belarus

Научный руководитель:
Гринцевич Л.В.

Канд. экон. наук, доцент кафедры экономики и управления инновационными проектами в промышленности, Белорусский национальный технический университет,
Республика Беларусь, г. Минск, пр-т Независимости, д. 65

Abstract

The Belt and Road Initiative (BRI) represents one of the most ambitious global infrastructure projects, with its transport corridors serving as critical arteries for trade and economic integration. However, their cross-border nature, long timelines, and complex geopolitical exposure render them uniquely vulnerable to a multifaceted spectrum of risks. This article argues that a proactive, systematic approach to risk management is essential for their viability and sustainability. We propose a holistic strategic risk management framework comprising five cyclical stages: identification, analysis, mitigation, implementation, and review. The article develops a comprehensive taxonomy to categorize risks—geopolitical, financial, legal, operational, and environmental—and emphasizes their interconnectedness. Furthermore, it demonstrates the critical application of quantitative analytical techniques, utilizing MATLAB for Multi-Criteria Decision Analysis (MCDA) and Monte Carlo simulation to transition from qualitative assessment to data-driven prioritization and financial modeling. A case study of the China-Pakistan Economic Corridor (CPEC) illustrates the practical application of the framework, highlighting how high-priority risks can be identified and mitigated. The findings underscore the necessity of integrated risk governance and offer concrete policy implications for enterprises, host nations, and international institutions to enhance resilience, ensure debt sustainability, and safeguard these monumental investments against an uncertain future.

Keywords: belt and road initiative, strategic risk management, transport corridors, geopolitical risk, MATLAB analysis; Monte Carlo Simulation, China-Pakistan Economic Corridor, infrastructure finance.

Аннотация

Инициатива «Один пояс — один путь» (ОПОП) представляет собой один из самых амбициозных глобальных инфраструктурных проектов, транспортные коридоры которого служат важнейшими артериями торговли и экономической интеграции. Однако их трансграничный характер, длительные сроки реализации и сложная геополитическая обстановка делают их исключительно уязвимыми к многогранному спектру рисков. В данной статье утверждается, что проактивный, системный подход к управлению рисками необходим для их жизнеспособности и устойчивости. Мы предлагаем целостную систему стратегического управления рисками, включающую пять циклических этапов: идентификацию, анализ, смягчение, реализацию и обзор. В статье разрабатывается комплексная таксономия для классификации рисков (геополитических, финансовых, правовых, операционных и экологических) и подчеркивается их взаимосвязь. Кроме того, демонстрируется критическое применение количественных аналитических методов с использованием *MATLAB* для многокритериального анализа решений (*MCDA*) и моделирования Монте-Карло для перехода от качественной оценки к приоритезации на основе данных и финансовому моделированию. Пример Китайско-пакистанского экономического коридора (КПЭК) иллюстрирует практическое применение данной концепции, показывая, как можно выявлять и снижать высокоприоритетные риски. Результаты подчеркивают необходимость комплексного управления рисками и предлагают конкретные политические рекомендации для предприятий, принимающих стран и международных институтов для повышения устойчивости, обеспечения приемлемого уровня задолженности и защиты этих монументальных инвестиций от неопределенного будущего.

Ключевые слова: инициатива «Один пояс — один путь», стратегическое управление рисками, транспортные коридоры, геополитический риск, анализ в *MATLAB*, моделирование Монте-Карло, китайско-пакистанский экономический коридор, финансирование инфраструктуры.

1. Introduction

A key component of modern global infrastructure development, the Belt and Road Initiative (BRI) aims to link Asia, Europe, and Africa with an extensive network of trade and transportation routes [1]. The transport corridors—complex arteries made up of ports, roadways, railroads, and logistical hubs—are at the center of this massive project and are meant to support hitherto unheard-of levels of economic integration and development. These initiatives are unquestionably large and strategically significant, offering member countries more connectivity and economic growth [2].

However, the very attributes that define the BRI's transport corridors—their cross-border nature, long gestation periods, immense capital requirements, and traversal of diverse geopolitical landscapes—also constitute their greatest vulnerability. These projects are inherently exposed to a multifaceted spectrum of risks that transcend traditional project management concerns. Geopolitical tensions, regulatory volatility, sovereign debt dilemmas, and acute operational vulnerabilities can jeopardize not only the financial viability of individual projects but also the broader strategic objectives and diplomatic relations underpinning the entire initiative [3].

Consequently, a reactive approach to these challenges is insufficient. The successful implementation and sustainable operation of these corridors demand a proactive, systematic, and analytical framework for strategic risk

management [4]. Moving beyond mere identification, this requires a holistic process capable of quantifying, prioritizing, and mitigating risks throughout the project lifecycle. This article argues for the critical adoption of such an integrated framework.

The objective of this work is, therefore, to develop and propose a robust strategic risk management methodology tailored specifically for the unique challenges of BRI transport corridors. This article will articulate a comprehensive taxonomy of risks, present a structured management cycle, and demonstrate the application of quantitative analytical techniques. Utilizing conceptual mapping for clarity and advanced computational tools for empirical analysis, this study aims to provide stakeholders with a practical and sophisticated approach to safeguarding these critical infrastructural investments against an uncertain future. The subsequent sections will elaborate on the risk landscape, detail the proposed framework, and validate its application through quantitative modeling and a focused case study.

2. Literature Review & Theoretical Framework

The success of the Belt and Road Initiative's transport corridors is contingent upon effectively navigating a complex web of uncertainties. To build a foundational understanding, this section reviews existing scholarly work on the risks associated with large-scale international infrastructure and synthesizes key theoretical concepts that underpin our proposed risk management framework.

The academic discourse on BRI-related risks has expanded significantly, highlighting several critical areas of concern. Scholars have extensively documented the geopolitical and geoeconomic challenges inherent in the initiative. For instance, researchers like Rolland [5] and Hurley et al. [6] have analyzed how the BRI can create dependencies and fuel tensions, both among global powers and within host nations, leading to potential project delays or cancellations. Concurrently, a substantial body of literature, including from the World Bank and IMF, focuses on debt sustainability and financial risks. This research cautions against the potential for debt distress in recipient countries, exacerbated by non-concessional loans and projects with uncertain economic returns [7].

Furthermore, the operational and governance risks have been a focal point. Studies have examined issues such as corruption, weak regulatory frameworks, and contractual enforcement problems that can plague projects in emerging economies [8,9]. The literature on supply chain risk management is also highly relevant, providing models for understanding vulnerabilities related to logistics, chokepoints, and disruptions in elongated supply chains—a defining feature of the BRI corridors [10].

However, there is a noticeable lack of an integrated, holistic perspective that highlights the interconnection of different risk domains, even though the literature currently in publication is excellent at classifying and characterizing hazards separately. A political dispute (geopolitical risk) can lead to regulatory changes (legal risk), which can cause construction delays (project risk), ultimately disrupting supply chains (operational risk) [11]. It is this synergistic nature of risks that a robust framework must address.

To conceptualize this interconnectivity, we develop a theoretical framework built upon several pillars:

1) Geopolitical Risk Theory: This involves assessing how international relations, power dynamics, and domestic politics in host nations can impact project viability.
2) Sovereign Risk: This pertains to the risk that a national government will default on its obligations or change its policies in a way that harms investors.
3) Public-Private Partnership (PPP) Governance: This theory explores the alignment of incentives, contractual structures, and oversight mechanisms between public entities and private corporations.
4) Resilience Theory: Moving beyond mere mitigation, this concept involves building systems that can anticipate, absorb, adapt to, and recover from disruptive events.

To visualize the synthesis of these theoretical concepts and the interconnected risk landscape described in the literature, we propose a conceptual map that categorizes core risks and illustrates their potential interactions.

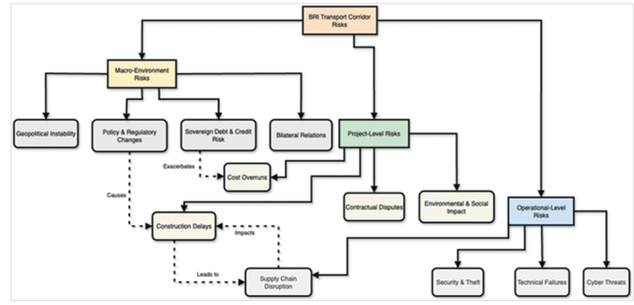

Figure 1: Interconnected risk domains in BRI transport corridors

As illustrated in **Fig. 1**, the risks facing BRI corridors are not siloed but exist in a dynamic and interactive system. This framework provides a structured yet flexible taxonomy for risk identification and sets the stage for the analytical and mitigation strategies developed in the subsequent sections of this article. It allows for the application of the theoretical concepts by placing them into a practical, interconnected model that reflects the real-world complexity of the BRI.

3. A Taxonomy of Risks for BRI Transport Corridors

The foundation of successful risk management is a thorough awareness of the danger landscape. The transport routes of the Belt and Road Initiative are vulnerable in many ways, from the most intricate operational aspects to the highest levels of international diplomacy [12]. To systematically analyze these challenges, we propose a taxonomy that categorizes risks into five primary domains: geopolitical and sovereign, financial and economic, legal and regulatory, operational and construction, and force majeure and environmental risks. This structured classification provides a necessary framework for stakeholders to identify, assess, and prioritize the complex web of potential disruptions.

Geopolitical and Sovereign Risks form the most pervasive and unpredictable category, emanating from the political dynamics within and between nations. These risks include the instability of host governments, where a change in administration can lead to the renegotiation or outright cancellation of projects, as witnessed in several BRI-participating countries. Furthermore, the corridors often traverse regions fraught with international tensions and territorial disputes, exposing infrastructure and personnel to the fallout from diplomatic crises or even conflict. The strategic nature of these assets also makes them potential targets for sanctions or trade wars between major powers, adding a layer of exogenous geopolitical volatility [13]. Closely related is sovereign risk, which encompasses the possibility that a host nation might default on its financial obligations, alter its regulatory environment to the detriment of the project, or fail to uphold its contractual commitments due to political pressure or internal incapacity.

Financial and Economic Risks directly impact the viability and profitability of transport corridors. Currency exchange rate volatility presents a significant threat, as revenue is often generated in local currencies while loans and construction costs are denominated in US dollars or Chinese yuan, creating a mismatch that can devastate project economics [14]. Inflation can erode projected returns and escalate construction and operational costs beyond initial forecasts. Moreover, the reliance on debt financing raises concerns about interest rate fluctuations and the overall debt sustainability of the project entities and host nations. A critical financial challenge is ensuring the projected traffic volumes and revenue streams materialize as planned, as over-optimistic forecasts can lead to projects becoming stranded assets, unable to service their debts.

Legal and Regulatory Risks stem from the complex jurisdictional landscape of cross-border projects. Inconsistencies in legal frameworks between countries can create enforcement nightmares, particularly concerning contracts, dispute resolution, and liability standards [15]. Corruption and a lack of transparency can distort procurement processes, inflate costs, and create reputational damage. Permitting and approval processes may be opaque, slow, or subject to arbitrary change, leading to significant project delays. The risk of regulatory changes is ever-present, as new environmental, safety, or customs regulations enacted after investments are made can impose unforeseen compliance costs and operational constraints on the corridor.

Operational and Construction Risks encompass the on-the-ground challenges of building and maintaining complex infrastructure. The physical construction phase is prone to severe cost overruns and delays due to unforeseen site conditions, such as difficult terrain or archaeological discoveries, challenges in sourcing materials and skilled labor, and weaknesses in project management and execution [16]. Once operational, the corridors face persistent threats including logistical bottlenecks at key nodes like ports and border crossings, labor disputes, and the maintenance of technical standards across different national systems. Security risks such as theft, vandalism, and terrorism also pose a direct threat to the safe and continuous operation of the transport network.

Force Majeure and Environmental Risks represent the category of unforeseen events that are beyond human control but must be accounted for. This includes natural disasters such as earthquakes, floods, and landslides, which can severely damage infrastructure and halt operations for extended periods [17]. The increasing frequency and severity of climate-related events due to climate change amplify this threat, particularly for coastal ports and routes through arid or mountainous regions. Pandemics and global health crises, as demonstrated recently, can disrupt labor supplies, shut down borders, and cripple global supply chains, directly impacting the utility of a transport corridor. Finally, growing environmental and social governance (ESG concerns can lead to community opposition, protests, and reputational damage if projects are perceived to have negative ecological or social impacts.

4. The Strategic Risk Management Framework

Having established a comprehensive taxonomy of risks, the imperative becomes the development of a robust methodology to manage them. A reactive, ad-hoc approach is insufficient for challenges of this scale and complexity [18]. Instead, we propose a cyclical and iterative Strategic Risk Management Framework, designed to be integrated throughout the entire lifecycle of a transport corridor, from initial planning through to long-term operation. This framework transforms risk from an un-

predictable threat into a measurable and manageable variable, enabling proactive decision-making and enhancing the project's overall resilience.

The framework, visualized in **Fig. 2**, is not a linear checklist but a continuous feedback loop, emphasizing adaptation and learning. It begins with the foundational stage of Risk Identification and Categorization. This involves a systematic and collaborative process to pinpoint potential threats using the taxonomy outlined in Section 3 as a guiding schema. Techniques such as Delphi studies, stakeholder workshops, and scenario analysis are employed to create a comprehensive risk register. This register meticulously documents each risk, its nature, and its potential triggers, ensuring no significant threat is overlooked from the outset.

Once identified, risks must be rigorously evaluated through Risk Analysis and Assessment. This critical phase moves beyond listing to quantification, aiming to understand the potential impact and likelihood of each risk event. Impact is measured in terms of financial cost, project delay, reputational damage, and strategic consequence. Likelihood is assessed based on historical data, expert judgment, and geopolitical forecasting. The output of this stage is often a risk matrix that prioritizes risks, highlighting those with high impact and high probability that require immediate attention. This prioritization is crucial for the efficient allocation of limited managerial and financial resources.

The subsequent stage, Risk Mitigation and Strategy Formulation, involves developing actionable plans to address the prioritized risks. Strategies typically fall into four categories: avoidance, transfer, mitigation, or acceptance. For instance, a geopolitical risk might be mitigated through investment insurance from multilateral agencies, while a construction risk could be transferred to a contractor via fixed-price, penalty-clause contracts. This stage results in a detailed risk response plan, assigning clear ownership for each risk and outlining specific steps, timelines, and budgets for implementation.

The devised strategies are then enacted in the Implementation and Monitoring phase. This is where plans are operationalized, and continuous vigilance is established. Key Risk Indicators (KRIs) such as political stability indices, currency volatility rates, or construction milestone delays are defined and monitored in real-time. This establishes an early warning system that allows managers to detect emerging threats before they escalate into full-blown crises, ensuring the project remains on track.

Finally, the framework closes the loop with Continuous Review and Feedback. The risk landscape is dynamic, especially for long-term projects spanning decades. Therefore, the entire process must be regularly revisited and audited. New risks emerge, the probability of known risks changes, and the effectiveness of mitigation strategies must be evaluated. This learning mechanism ensures the risk management system itself remains adaptive and resilient, evolving alongside the project and its external environment. This cyclical process, as depicted in the framework, ensures that risk management is not a one-time exercise but a deeply embedded discipline central to the strategic governance of BRI transport corridors.

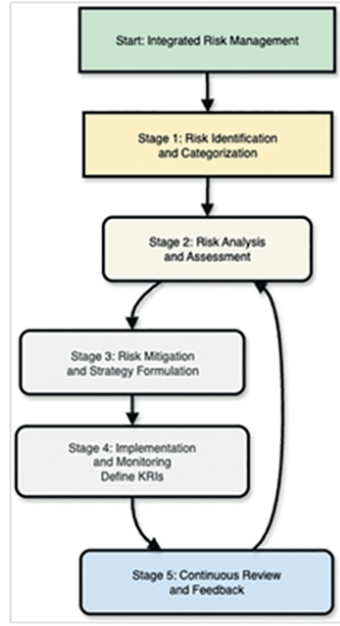

Figure 2: The strategic risk management cycle

5. Quantitative Risk Analysis

A qualitative framework, while essential for structuring thought, is insufficient for robust decision-making on projects of this magnitude. To move from conceptual understanding to precise prioritization and resource allocation, a quantitative approach is paramount. This section demonstrates how computational tools like MATLAB can be leveraged to transform qualitative risk descriptors into empirical, data-driven insights, enabling stakeholders to model vulnerabilities and simulate scenarios with a higher degree of confidence.

The transition from a risk register to a quantitative model requires a structured methodology. We propose a Multi-Criteria Decision Analysis (MCDA) model, enhanced by Fuzzy Logic principles, to handle the inherent uncertainty and subjectivity in risk scoring. Expert-derived scores for impact and likelihood, which are often imprecise, can be modeled as fuzzy numbers rather than crisp values, allowing for a more nuanced calculation of overall risk priority that reflects real-world judgment.

The core of this analysis often begins with the synthesis of expert input. Imagine data collected from a panel of experts, each assigning scores for the likelihood and

impact of various risks. This data can be aggregated and analyzed statistically to establish a consensus view and to understand the degree of divergence in opinions, which is itself a valuable risk indicator. MATLAB is exceptionally adept at this kind of data manipulation, visualization, and statistical analysis, providing a clear picture of the perceived risk landscape.

Following this, the calculated risk scores can be visually prioritized using a Risk Assessment Matrix. This matrix, a fundamental tool in risk management, plots impact against likelihood, creating a clear visual hierarchy of risks. Those falling in the high-likelihood, high-impact quadrant demand immediate and decisive mitigation plans. Generating this matrix programmatically in MATLAB, as shown in **Fig. 3**, allows for dynamic updating. As new data or expert opinions are incorporated, the chart automatically refreshes, providing an always-current view of the project's risk profile.

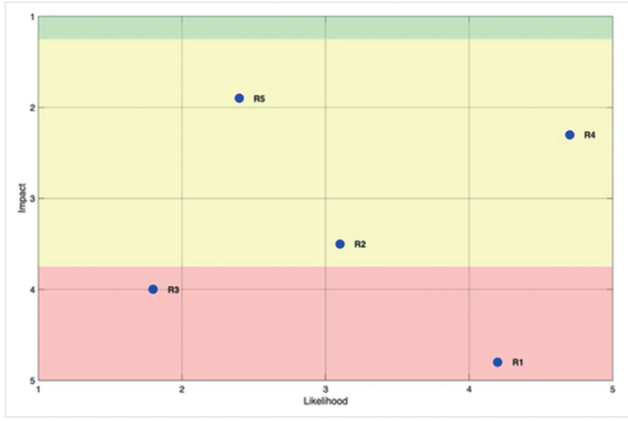

Figure 3: Risk assessment matrix

For deeper financial analysis, Monte Carlo simulation is an indispensable technique. It is used to model the profound uncertainty in key project variables, such as construction costs, timelines, and future revenue streams. Instead of relying on single-point estimates, a Monte Carlo simulation allows analysts to define probability distributions for these inputs—for example, construction cost might follow a triangular distribution with optimistic, most likely, and pessimistic values. MATLAB's computational engine can then run thousands of simulations, each time randomly sampling from these input distributions to calculate a range of possible outcomes for a key metric like Total Project Cost. The result, as visualized in **Fig. 4**, is not a single figure but a probability distribution, providing a stark and honest portrayal of potential financial exposure. This allows project financiers to understand the probability of cost overruns and to ensure contingencies are adequate.

The interpretation of these MATLAB outputs moves risk management from the abstract to the concrete. The

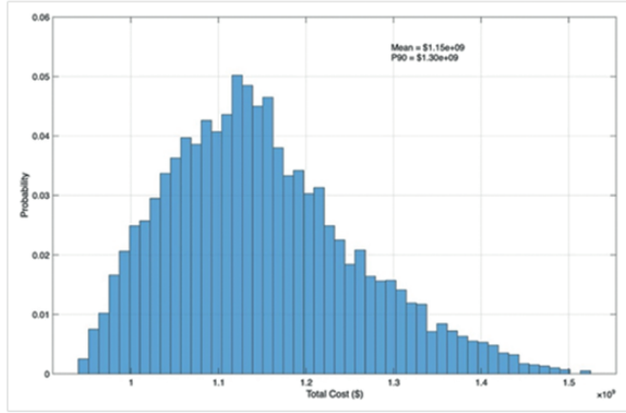

Figure 4: Monte Carlo simulation: distribution of total project cost

Risk Matrix provides a clear, visual prioritization agenda for management meetings. The histogram from the Monte Carlo simulation offers a powerful tool for stress-testing financial models, allowing stakeholders to answer critical questions: What is the probability the project will exceed its budget? What level of financial contingency is required to be 90% confident? By integrating these quantitative techniques into the strategic framework, decision-makers can replace gut feeling with empirical analysis, ultimately fostering more resilient and financially sound infrastructure investments.

6. Case Study: Applying the Framework to the China-Pakistan Economic Corridor (CPEC)

To demonstrate the practical application of the proposed strategic risk management framework, we focus on the China-Pakistan Economic Corridor (CPEC), a flagship BRI program comprising a network of roads, railways, pipelines, and the deep-water port of Gwadar [19]. The corridor's strategic importance is matched by its exposure to a confluence of high-level risks, making it an ideal candidate for our analysis. Applying the framework begins with Risk Identification and Categorization, drawing on the established taxonomy. For CPEC, the most salient risks include severe geopolitical instability stemming from regional tensions and internal security challenges, significant sovereign risk linked to Pakistan's debt dynamics, formidable logistical and security obstacles in the construction phase through mountainous terrain, and persistent operational threats to the port's viability and connectivity.

Proceeding to Risk Analysis and Assessment, these identified risks are quantified. A MATLAB-driven Multi-Criteria Decision Analysis (MCDA) model, incorporating fuzzy logic to handle expert judgment, would assign high likelihood and high-impact scores to geopolitical and sovereign risks. A Monte Carlo simulation, modeling

variables like security-induced delays and cost overruns, would generate a probability distribution for the total project cost, likely revealing a long right tail indicating a significant chance of substantial budget excess. This quantitative output prioritizes geopolitical and financial risks as the most critical to address.

The Risk Mitigation and Strategy Formulation stage then devises targeted responses. To mitigate geopolitical and sovereign risk, the framework would recommend diversifying investment through multilateral partnerships (e.g., with the Asian Infrastructure Investment Bank) to dilute exposure and enhance political legitimacy. Procurement of comprehensive political risk insurance is another key strategy. For financial risk, the model would advocate for currency swap agreements between central banks to hedge forex volatility and stress-testing debt sustainability under multiple scenarios. To address construction and security risks, the prescribed mitigation would include employing local private security firms in tandem with state forces, investing in advanced monitoring technology for remote sections, and structuring contracts with clear force majeure and penalty clauses. This structured approach moves beyond generic concerns to provide a prioritized, actionable plan for safeguarding the corridor's investment.

7. Discussion and Policy Implications

The integration of a structured framework with quantitative analysis reveals a central finding: the most critical risks to BRI transport corridors are macro-environmental—geopolitical, sovereign, and financial—rather than purely technical or operational. These risks are deeply interconnected; a geopolitical event can trigger a sovereign credit downgrade, which in turn increases financing costs and jeopardizes project viability. This interconnectivity means siloed risk management is ineffective. A holistic, systems-oriented approach is not merely beneficial but essential.

The policy implications of this analysis are significant for all stakeholders. For Chinese enterprises and policy banks, the imperative is to enhance due diligence far beyond traditional financial metrics. This must include rigorous, scenario-based political risk forecasting and a shift towards transparent, international bidding processes to improve project quality and mitigate reputational risk. For host nations, the findings underscore the necessity of strengthening institutional governance, ensuring regulatory clarity, and proactively conducting debt sustainability analyses to negotiate from a position of knowledge and avoid unfavorable terms. For international institutions, there is a critical role to play as neutral arbiters and providers of risk-mitigating financial products. Multilateral development banks can offer insurance, co-financing, and technical expertise that improve project governance and embed international environmental and social standards, ultimately de-risking corridors for all parties involved.

8. Conclusion

This article has argued that the immense promise of the Belt and Road Initiative's transport corridors is inextricably linked to a complex and interconnected landscape of risk. To navigate this landscape, we have proposed a comprehensive strategic risk management framework, moving from a qualitative taxonomy to a quantitative, analytical methodology. The application of this framework, demonstrated through a CPEC case study, provides a blueprint for transforming risk management from a reactive, defensive exercise into a proactive, strategic discipline.

The core contribution of this work is the integration of conceptual mapping which clarifies the relationships between risk domains with computational analysis in MATLAB which quantifies their probable impact and prioritizes responses. This combination provides decision-makers with a powerful toolkit for anticipating vulnerabilities, simulating scenarios, and allocating resources efficiently. The ultimate goal is to build not just infrastructure, but resilient and sustainable economic corridors that can withstand political shifts, economic volatility, and environmental challenges. By embedding this rigorous approach into the project lifecycle, stakeholders can safeguard investments, foster greater trust, and secure the long-term viability of the ambitions that underpin the Belt and Road Initiative. Future research should focus on developing AI-powered early warning systems that integrate real-time data feeds to dynamically update the risk models presented here, further enhancing the resilience of these critical global networks.

Литература

1. *Мухаммад А.* Инициатива «Пояс и путь»: последствия для развития инфраструктуры и экономической интеграции в Евразии [Текст] / Мухаммад А., Майк Мика Эзекиэль Элтон, Идрис Мохаммед Белло, Ишак Аиша Ахмад, Абдулла Аувал Кабир // Journal of Environmental Science and Economics. — 2023. — Т. 2. — С. 50–63.
2. *Бейли Дж.* Достижения в видах транспорта — паровозы, велосипедные шины, океанские лайнеры и реактивные самолеты. Транспортная инфраструктура — каналы, дороги и коммерческие железные дороги [Текст] / Дж. Бейли // Гениальные изобретатели, которые изменили мир. Cham: Springer International Publishing, 2022. — С. 37–105.
3. *Ифраиму М.Г., Одигье Делит Чибузор, Нвеке Э.Д., Оби Р.Э., Окикиолува О.П., Адамс О.М.* [и др.]. Управление

геополитическими рисками в международном бизнесе: стратегии смягчения последствий санкций и дипломатических осложнений [Электронный ресурс] // Int. j. adv. multidisc. res. stud. 2024. — URL: www.multiresearchjournal.com
4. *Алмашхур Р.* От традиционного к устойчивому управлению рисками в строительной отрасли: систематический обзор литературы [Текст] / Алмашхур Р., Аль-Мхдави М.К.С., Дагфус А., Кази А., Оджиако У. // International Journal of Managing Projects in Business, 2025.
5. *Тудоройу Т.* Геополитика инициативы «Пояс и путь» Китая [Текст] / Т. Тудоройу. — Лондон: Routledge, 2023.
6. *Ван Л.* Устойчивость и власть в транснациональной инфраструктуре: экологическая политика инициативы «Пояс и путь» [Текст] / Л. Ван, Ф. Заман // JEEPO [Интернет]. — 2025. — Т. 8. — С. 37–49. — URL: https://doi.org/10.5281/zenodo.15769963
7. *Нгунду М.* Факторы успеха проектов энергетической инфраструктуры в Африке, финансируемых китайскими займами: акцент на практике кредитования Китая [Текст] / М. Нгунду // The Journal of Developing Areas. — 2025. — Т. 59. — С. 35–69.
8. Яп Дж.Б.Х. Анализ причин коррупции в строительной отрасли Малайзии [Текст] / Дж.Б.Х. Яп, К.Й. Ли, М. Скитмор // Journal of Engineering, Design and Technology. — 2020. — Т. 18. — С. 1823–1847.
9. *Фосу С.* Обмен кредитной информацией и дефолт по кредитам в развивающихся странах: сдерживающий эффект концентрации банковского рынка и качества государственного управления [Текст] / С. Фосу, А. Дансо, Х. Агей-Боапеа, К.Г. Нтим, Э. Адегбит // Review of Quantitative Finance and Accounting. — 2020. — Т. 55. — С. 55–103.
10. *Чжоу М.* Соответствие уязвимостей рисков потенциалу для создания устойчивости цепочки поставок — теоретические основы для рисков с низкой вероятностью и высокимімрастом [Текст] / М. Чжоу, С. Чжоу, Т. Ши, Т. Парк // International Journal of Supply Chain and Operations Resilience. — 2022. — Т. 5. — С. 185.
11. *Зуонг А.Т.Б.* Оценка рисков цепочки поставок в disruptive-времена: возможности и challenges [Текст] / А.Т.Б. Зуонг, Т.Х. Хоанг, Т.Т.Б. Нгуен, М. Акбари, Т.Г. Хоанг, Х.К. Чыонг // Journal of Enterprise Information Management. — 2023. — Т. 36. — С. 1372–1401.
12. *Ван Ю.* Как справляться с рисками инициативы «Пояс и путь» [Текст] / Ю. Ван // Глобальная ребалансировка Китая и Новый шелковый путь. — Сингапур: Springer Singapore, 2018. — С. 207–225.
13. *Сарфраз У.С.* Геополитическая напряженность, торговая война и санкции [Текст] / У.С. Сарфраз // Сбои в цепях поставок и их влияние на глобальную инфляцию. IGI Global Scientific Publishing, 2025. — С. 29–58.
14. *Молнар А.* Влияние Китая на обменный курс доллара США [Текст] / А. Молнар, П. Виктор // The Eurasia Proceedings of Educational and Social Sciences. — 2023. — Т. 32. — С. 71–79.
15. *Увамуси Дж.А.* Составление сложных коммерческих контрактов с акцентом на механизмы разрешения споров, ограничение ответственности и юрисдикционные аспекты для малого бизнеса [Электронный ресурс] // International Journal of Engineering Technology Research & Management. — 2025. — URL: https://www.ijetrm.com/IJETRM
16. *О'Брайен П.* Финансиализация и управление инфраструктурой [Текст] / П. О'Брайен, А. Пайк // Справочник по географии денег и финансов. Edward Elgar Publishing, 2017.
17. *Саул Р.* Является ли изменение климата непредвиденным, непреодолимым и внешним фактором — форс-мажором в морском экологическом праве? [Текст] / Р. Саул, Р. Барнс, М. Эллиотт // Mar Pollut Bull. — 2016. — Т. 113. — С. 25–35.
18. *Уббати О.С.* Маршрутизация в летающих ad hoc сетях: обзор, ограничения и перспективы будущих challenges [Текст] / О.С. Уббати, М. Атикваззаман, П. Лоренц, Мд.Х. Тарек, Мд.С. Хоссайн // IEEE Access. — 2019. — Т. 7. — С. 81057–8105.
19. *Маллик С.* Инициатива Китая «Пояс и путь» и ее влияние на Пакистан и Индию: на примере порта Гвадар [Текст] / С. Маллик, Н. Кишор // Journal of Polity and Society. — 2024.

References

1. Muhammad A, Micah Ezekiel Elton Mike, Mohammed Bello Idris, Aisha Ahmad Ishaq, Auwal Kabir Abdullah. The Belt and Road Initiative: Implications for Infrastructure Development and Economic Integration in Eurasia. Journal of Environmental Science and Economics. 2023;2:50–63.
2. Bailey J. Advances in Forms of Transport—Steam Locomotives, Cycle Tyres, Oceanic Liners, and Jet Aircraft. Transport Infrastructure—Canals, Roads, and Commercial Railways. Inventive Geniuses Who Changed the World. Cham: Springer International Publishing; 2022. p. 37–105.
3. Ifraimu MG, Delight Chibuzor O, Nweke ED, Obi RE, Okikioluwa OP, Adams OM, et al. Geopolitical Risk Management in International Business: Strategies for Mitigating Sanctions and Diplomatic Fallout [Internet]. Int. j. adv. multidisc. res. stud. 2024. Available from: www.multiresearchjournal.com
4. Almashhour R, Al-Mhdawi MKS, Daghfous A, Qazi A, Ojiako U. Traditional to sustainable risk management in the construction industry: a systematic literature review. International Journal of Managing Projects in Business. 2025;
5. Tudoroiu T. The Geopolitics of China's Belt and Road Initiative. London: Routledge; 2023.
6. Wang L, Zaman F. Sustainability and Power in Transnational Infrastructure: The Environmental Politics of the Belt and Road Initiative. JEEPO [Internet]. 2025;8:37–49. Available from: https://doi.org/10.5281/zenodo.15769963
7. Ngundu M. Success Factors for Chinese-Loan Financed Energy Infrastructure Projects in Africa: A Focus On China's Lending Practices. The Journal of Developing Areas. 2025;59:35–69.
8. Yap JBH, Lee KY, Skitmore M. Analysing the causes of corruption in the Malaysian construction industry. Journal of Engineering, Design and Technology. 2020;18:1823–47.
9. Fosu S, Danso A, Agyei-Boapeah H, Ntim CG, Adegbite E. Credit information sharing and loan default in developing countries: the moderating effect of banking market concentration and national governance quality. Review of Quantitative Finance and Accounting. 2020;55:55–103.
10. Zhou M, Zhou S, Shi T, Park T. Matching risk vulnerabilities with capacities for building supply chain resilience – a theoretical framework for low-probability, high-impact risks. International Journal of Supply Chain and Operations Resilience. 2022;5:185.
11. Duong ATB, Hoang T-H, Nguyen TTB, Akbari M, Hoang TG, Truong HQ. Supply chain risk assessment in disruptive times: opportunities and challenges. Journal of Enterprise Information Management. 2023;36:1372–401.
12. Wang Y. Dealing with the Risks of the Belt and Road Initiative. China's Global Rebalancing and the New Silk Road. Singapore: Springer Singapore; 2018, pp. 207–25.
13. Sarfraz US. Geopolitical Tensions, Trade War, and Sanctions. Supply Chain Disruptions and Impact on Global Inflation. IGI Global Scientific Publishing; 2025, pp. 29–58.
14. Molnar A, Viktor P. China's Impact on the US Dollar Exchange Rate. The Eurasia Proceedings of Educational and Social Sciences. 2023;32:71–9.

15. Uwamusi JA. Crafting sophisticated commercial contracts focusing on dispute resolution mechanisms, liability limitations and jurisdictional considerations for small businesses. International Journal of Engineering Technology Research & Management [Internet]. 2025. Available from: https://www.ijetrm.com/IJETRM
16. O'Brien P, Pike A. The financialization and governance of infrastructure. Handbook on the Geographies of Money and Finance. Edward Elgar Publishing, 2017.
17. Saul R, Barnes R, Elliott M. Is climate change an unforeseen, irresistible and external factor – A force majeure in marine environmental law? Mar Pollut Bull. 2016;113:25–35.
18. Oubbati OS, Atiquzzaman M, Lorenz P, Tareque MdH, Hossain MdS. Routing in Flying Ad Hoc Networks: Survey, Constraints, and Future Challenge Perspectives. IEEE Access. 2019;7:81057–105.
19. Mallick S, Kishor N. China's Belt and Road Initiative and its Impact on Pakistan and India: With Special Reference to Gwadar Port. Journal of Polity and Society, 2024.