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ASSESSING THREATS TO THE ECONOMIC SECURITY OF CONSTRUCTION ENTERPRISES IN UZBEKISTAN BY FREQUENCY AND IMPACT

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Abstract. Construction is one of the fastest-growing sectors of Uzbekistan's economy, yet its enterprises remain highly exposed to external and internal shocks. This paper identifies and prioritises threats to the economic security of construction enterprises using primary data from a survey of 30 construction firms in Tashkent, Samarkand, Andijan and Khorezm. Respondents rated how often they had faced seven types of threat in 2021–2023 on a five-point Likert scale, and impact was measured through changes in net profit margin, cash-flow disruptions and project delays. The threats were then mapped onto a frequency–impact matrix with explicit classification thresholds. Delayed payments under public contracts (mean score 4.3), construction material price volatility (4.0) and exchange rate fluctuations (3.7) fall within the critical zone, while legal and regulatory uncertainty is a low-frequency, high-impact threat. More than 60% of the surveyed firms use no formal financial or risk planning tools, which amplifies the effect of external shocks. Recommendations are proposed at the enterprise level and for the public procurement system.

Keywords: economic security; construction enterprise; threat assessment; risk matrix; Likert scale; public procurement; late payment; Uzbekistan.

JEL Classification: L74, G32, H57.

Introduction. Over the past few years, construction has become one of the main drivers of economic growth in Uzbekistan. In 2023 the sector generated UZS 62.6 trillion of gross value added, a real increase of 6.4%, while the volume of construction work rose from UZS 222.9 trillion in 2023 to UZS 313.9 trillion in 2025 (preliminary data) [1]. At the same time, high capital intensity, long production cycles and the direct dependence of working capital on client payments make construction enterprises particularly vulnerable to external and internal shocks. Growth at the sector level therefore does not automatically translate into stronger economic security for individual firms.

In the theory of economic security, the security of an enterprise is understood as a state in which its resources, capabilities and economic interests are protected against internal and external threats [2, 3]. In the national literature, however, threats are mostly described in the form of classifications and lists, and their relative importance is rarely quantified. International studies, by contrast, prioritise construction risks by jointly assessing their likelihood of occurrence and the magnitude of their consequences [4]. The aim of this study is to identify the economic threats faced by construction enterprises in Uzbekistan on the basis of primary data, to rank them by frequency and impact, and to justify appropriate management responses.

Methodology. The empirical basis consists of a questionnaire survey and semi-structured interviews conducted by the author with managers and finance staff of 30 construction enterprises in four regions: Tashkent (10), Samarkand (7), Andijan (7) and Khorezm (6). All firms had at least three years of operating history. The regions were selected to capture differences in urbanisation, investment inflows and regulatory practice, and most of the firms specialise in residential and social

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infrastructure construction. Respondents rated how frequently they had encountered seven types of threat in 2021–2023 on a five-point Likert scale (1 = "never", 5 = "very often"). The impact of each threat was determined by comparing net profit margins before and after the risk event and by examining cash-flow disruptions and project delays.

The results were summarised using the likelihood–consequence matrix described in IEC 31010, in line with the risk management principles of ISO 31000 [5, 6]. A mean score of 3.5 or above was classified as "high" frequency and a score below 3.5 as "medium or low"; a reduction in net profit margin of more than 10 percentage points, or a liquidity disruption, was classified as "high" impact. This yields four management zones: the critical zone (high frequency, high impact), the contingency zone (low frequency, high impact), the monitoring zone (high frequency, medium impact) and the control zone (low frequency, medium impact).

Results and discussion. Table 1 presents the frequency ranking of the threats and their position in the matrix.

Table 1

Distribution of threats to the economic security of construction enterprises by frequency and impact

No.	Type of threat	Mean score (1–5)	Impact	Management zone
1	Delayed payments under public contracts	4.3	High	Critical
2	Construction material price volatility	4.0	High	Critical
3	Exchange rate fluctuations	3.7	High	Critical
4	Informal payments and corruption risks	3.2	Medium	Control
5	Legal and regulatory uncertainty	3.1	High	Contingency
6	Shortage of skilled labour	2.9	Medium	Control
7	Digital system failures and data loss	2.4	Medium	Control

Source: compiled by the author from survey data (n = 30).

First, the three most frequently encountered threats are external and financial in nature and together form the critical zone. The highest score (4.3) was recorded for delayed payments under public contracts. Most respondents reported having to cover cash shortfalls with short-term bank loans, which means that an external threat is converted into a higher debt burden inside the firm. Shocks related to material prices and the exchange rate reduced the net profit margin of some firms by 10–11 percentage points. Seventy per cent of the surveyed firms experienced a delay of more than one month on at least one major project in 2022–2023 and named late payments, price volatility and labour shortages as the main causes. A study of the Malaysian construction industry likewise ranked inadequate client finance and late payment for completed work among the ten most important causes of delay [7], which suggests that the problem is not unique to Uzbekistan.

Second, a comparison of public and private projects reveals an important paradox. Although public contracts provide guaranteed demand, they carry high payment risk and frequent bureaucratic delays, and their profitability remains at around 5–8%. In private projects, payments are received faster and profitability reaches 10–15%. Thus, the client that appears to be the most reliable can become the largest source of threat from a liquidity perspective.

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Third, the contingency zone, which contains threats that are rare but severe, is occupied by legal and regulatory uncertainty: when a project was suspended pending a regulatory inspection, the firm's net profit margin fell from 19% to 5%. For such threats, a prepared response plan and legal protection instruments are more effective than continuous monitoring. In this sample the monitoring zone remained empty, meaning that every frequently occurring threat also has a high impact.

Fourth, the damage caused by external threats is amplified by weak internal management. More than 60% of the surveyed firms do not use any formal financial planning or risk assessment tools, and decisions rely mainly on the personal experience of the manager. A similar reliance on intuition and experience instead of formal risk analysis techniques has been documented in UK construction practice [8]. Regionally, pressure related to informal payments was strongest among small firms in Andijan, the shortage of skilled personnel was most acute in Samarkand and Andijan, and currency risk mainly affected firms that import materials. This indicates that threat management requires an approach that takes regional characteristics into account rather than a single standard template.

Conclusion and recommendations. The findings show that the economic security of construction enterprises in Uzbekistan is shaped at the intersection of external financial and market threats and a weak internal risk management culture. The proposed frequency–impact matrix makes it possible to direct limited managerial resources towards the threats in the critical zone. On this basis, the following recommendations are put forward:

1) at the enterprise level, maintain a threat register, update the matrix every quarter and assign a responsible officer or committee to it; for threats in the critical zone, build a liquidity reserve equal to 5–10% of the project value;

2) diversify the client portfolio to reduce excessive dependence on public contracts;

3) within the public procurement system [9], publish payment schedules together with the contract, introduce a daily penalty for late payment by the client that mirrors the contractor's liability, and provide advance payment guarantees for small contractors;

4) for threats in the contingency zone, include legal review and pre-trial dispute resolution procedures in contracts.

Future research will extend the sample and estimate the determinants of firm vulnerability using econometric techniques such as ordered logit models.

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