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Improving Audit Procedures in Identifying Financial Risks Related to Revenue Recognition

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Abstract: This article examines financial risks associated with revenue recognition and proposes improved audit procedures for detecting them. The theoretical framework synthesizes risk-oriented auditing, the relationship between materiality and audit risk, the selection of audit evidence, the classification of financial risks, and the construction of a risk profile. The analysis shows that the growth of trade receivables, a high share of customer advances, declining gross margin, pressure from current liabilities, and reliance on short-term financing increase the risk of premature or weakly supported revenue recognition. Based on this, an improved system of audit procedures was developed, including cut-off testing, external confirmation, functional contract analysis, targeted journal-entry testing, and in-depth counterparty review.

Keywords: revenue recognition, financial risk, audit risk, risk-oriented audit, trade receivables, customer advances, cut-off testing, external confirmation, audit procedures, risk indicator.

1. Introduction

Revenue recognition is considered one of the most sensitive areas of financial reporting. It is precisely this section that shapes perceptions about a company's profit level, profitability, tax base, dividend potential, and investment attractiveness. Therefore, errors or misstatements in revenue recognition can significantly influence users' decisions. The reviewed scientific sources emphasize that risk assessment in auditing is not a separate stage, but rather an integral part of the entire audit process, and consistent risk identification allows the auditor to focus attention on areas with a high probability of material misstatement [1, 2].

Financial risks related to revenue recognition typically manifest in several forms: premature recognition of revenue, recording income without actual delivery of goods or provision of services, converting customer advances into final revenue, misinterpretation of contract terms, retaining doubtful receivables as full revenue, and attempts to manage profit through end-of-period journal entries. Such situations require revising the scope and structure of audit procedures in accordance with the level of risk [3, 4].

The purpose of this article is to improve audit procedures in identifying financial risks associated with revenue recognition, to develop risk indicators based on practical data, and to propose their integrated application within the audit program [5].

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2. Literature Review

In audit theory, the study of risks related to revenue recognition begins with understanding the general nature of audit risk. E.A. Klinova interprets audit risk not as a technical element limited to the planning stage, but as a methodological category present throughout all stages of the audit. The author emphasizes that only when risk identification and assessment procedures are carried out consistently and documented properly can auditors accurately determine areas with the highest concentration of risk. This approach is especially important in revenue recognition audits, as revenue is often one of the areas most closely associated with management's intention to influence financial performance [6].

O.V. Strelnikova, from the perspective of improving audit quality, develops the concept of risk-based auditing and emphasizes that risk management should form the methodological foundation of modern auditing [7]. According to her research, reducing audit risk is associated with internal standards, early identification of risk factors, and the development of audit programs tailored to risk levels. Applied to revenue recognition, this implies that the auditor's primary task is not to examine all transactions equally, but to identify in advance which types of revenue transactions are most likely to contain material misstatements [8].

Materiality and audit evidence play a crucial role in strengthening audit procedures related to revenue recognition. A.V. Petukh analyzes the relationship between materiality and audit risk, showing that as risk increases, audit procedures must become more thorough, and both the quantity and quality of evidence must be enhanced. M.Yu. Neustroev further argues that risk assessment should be the central criterion in selecting audit evidence [9]. From this perspective, a single document or source of evidence is insufficient in revenue recognition audits; instead, contracts, invoices, shipping documents, acceptance certificates, bank receipts, external confirmations, and subsequent collections must be examined in an integrated manner. Thus, the quality of a revenue audit is determined not by the number of evidences, but by their relevance to risk [10].

Studies on the classification of financial risks allow revenue recognition risks to be viewed within a broader financial context. V.M. Shumilova defines financial risk as the threat of loss of income and capital, identifying it as an independent category within the system of economic risks. E.A. Gulyaev and E.V. Broilo analyze financial risk management as an integral part of corporate governance, emphasizing the necessity of identifying, grouping, and managing risks. Based on these approaches, it can be concluded that revenue recognition risks should be considered not only at the level of accounting entries, but also in relation to liquidity pressure, debt burden, counterparty quality, pricing policy, and profit pressure.

D.K. Fedotov introduces the concept of a risk profile, linking it to a company's financial and economic activities, and highlights the need to integrate individual risk indicators into a unified profile. This approach is highly relevant for revenue recognition audits, as revenue alone often does not provide a complete signal. Only by analyzing indicators such as growth in accounts receivable, the share of customer advances, declining gross margins, pressure from current liabilities, and end-of-period journal entries together can the risk of premature or unjustified revenue recognition be more clearly identified. Therefore, a risk-profile approach requires a deeper analytical basis than simple document verification.

M.R. Gudova emphasizes the need to improve tools for detecting and controlling financial misstatements, focusing on strengthening practical mechanisms of control and identification. Her approach aligns with detecting fraud indicators, artificial revenue, inconsistencies with counterparties, and manipulative entries at the end of reporting periods in revenue recognition audits. Such an approach transforms audit procedures from simple verification methods into targeted inspection mechanisms. In other words,

the auditor not only searches for misstatements but also evaluates in advance which indicators increase the likelihood of such misstatements [11].

Thus, existing literature sufficiently covers audit risk, materiality, audit evidence, risk profiling, and financial misstatement detection in separate directions. However, an integrated approach that links financial risks in revenue recognition directly with the structure of audit procedures through signal indicators, evidence sources, and depth of audit testing is less commonly addressed. This article aims to fill that research gap.

3. Methodology

The research was conducted based on theoretical synthesis, comparative analysis, coefficient analysis, the risk-indicator method, and functional audit modeling. In the first stage, audit risk assessment, materiality, audit evidence, risk profiling, and classifications of financial risks were systematized based on the reviewed dissertation and abstract materials. In the second stage, indicators directly influencing revenue recognition risks were identified, including net revenue dynamics, trade receivables, total receivables, advances received from customers, gross margin, pressure from operating expenses, current liabilities, and the share of short-term financing.

The following indicators were used in the calculations: revenue growth rate, trade receivables growth rate, trade receivables-to-revenue ratio, advances from customers-to-revenue ratio, gross margin, operating expenses-to-gross profit ratio, short-term debt burden-to-revenue ratio, and current liabilities-to-revenue ratio. These indicators were interpreted as signal indicators for assessing the likelihood of premature revenue recognition, fictitious revenue, recognition of revenue before contractual obligations are fulfilled, and manipulation of accounting records under profit pressure.

4. Analysis and Results

Initially, the indicators directly related to revenue recognition risk were processed, and the following table was constructed.

Table 1.

Key indicators for revenue recognition risk

Company	Net revenue, mln UZS	Previous period revenue, mln UZS	Revenue change, %	Trade receivables, mln UZS	Growth of receivables, %	Receivables / revenue, %	Advances received from customers, mln UZS	Advances / revenue, %
Qizilqum Cement JSC	1,536,770.8	1,796,934.3	-14.5	89,427.4	+145.5	5.8	260,523.5	17.0
Bekobod Cement JSC	376,039.7	636,875.4	-41.0	23,047.5	+41.9	6.1	8,195.1	2.2
Kvarts JSC	521,909.9	530,695.4	-1.7	12,372.9	+49.5	2.4	86,721.3	16.6

Table 1 demonstrates that the risk associated with revenue recognition is not determined solely by the volume of revenue, but is more strongly reflected in the discrepancy between the dynamics of revenue and trade receivables.

At Qizilqum Cement JSC, although revenue decreased by 14.5%, trade receivables increased by 145.5%. This situation necessitates enhanced audit procedures, including detailed examination of discrepancies between shipment records, invoices, and payment documents at the end of the reporting period, obtaining external confirmations from counterparties, and strengthening cut-off testing of sales transactions [12].

At Bekobod Cement JSC, despite a 41.0% decline in revenue, trade receivables increased by 41.9%. This indicates a potential mismatch between recognized revenue and the actual realization and collectability of receivables, thereby increasing the risk of misstatement in revenue recognition.

At Kvarts JSC, revenue remained relatively stable; however, trade receivables increased by 49.5%, and the proportion of advances remained high. Such a combination suggests the need for in-depth verification of whether the stages of contract performance have been adequately supported by sufficient and appropriate audit evidence in the process of revenue recognition. In the next stage, profitability and financial pressure indicators were analyzed, as profit pressure is one of the key drivers that may incentivize aggressive revenue recognition practices.

Table 2.

Financial pressure indicators that intensify the risk of aggressive revenue recognition

Company	Current gross margin, %	Previous period gross margin, %	Margin change, p.p.	Period expenses / gross profit, %	Short-term debt burden / revenue, %	Current liabilities / revenue, %	Auditor's opinion
Qizilqum Cement JSC	28.4	45.1	-16.7	94.3	46.6	52.8	Profit significantly compressed, very high short-term debt pressure
Bekobod Cement JSC	12.5	35.6	-23.1	221.6	3.3	28.4	Gross margin and operating profit sharply declined
Kvarts JSC	3.7	29.7	-26.0	759.7	24.3	55.9	Profitability extremely low, strong pressure from current liabilities

At Qizilqum Cement JSC, the gross margin declined from 45.1% to 28.4%, while period expenses almost fully absorbed the gross profit. Additionally, the short-term debt burden reached 46.6% of revenue. Under such conditions, it becomes essential for the auditor to perform additional procedures, particularly focusing on large end-of-period sales transactions, credit sales, and partially fulfilled contracts.

At Bekobod Cement JSC, period expenses exceed gross profit by more than two times, which significantly intensifies the incentive for aggressive revenue recognition under profit pressure [13].

At Kvarts JSC, the sharp decline in gross margin to 3.7% and the increase in current liabilities to 55.9% of revenue indicate a high level of financial pressure. This situation elevates the risk of premature revenue recognition, misclassification of advances, or overly optimistic estimation of revenues that may not ultimately be realized.

Based on the synthesis of theoretical sources and empirical signal indicators, audit procedures for identifying revenue recognition risks have been further improved as follows:

Table 3.

Risks associated with revenue recognition and improved audit procedures for their identification

Risk type	Key signal indicators	Improved audit procedures	Expected audit evidence
Premature revenue recognition	Rapid growth of trade receivables at the end of the period; high proportion of customer advances	Cut-off testing; comparison of shipment and acceptance dates with contract terms; review of post-reporting period revenues	Delivery notes, acceptance certificates, transport documents, subsequent period cash receipts
Fictitious sales	Increase in trade receivables despite declining revenue	External confirmations from counterparties; receivables inventory; targeted selection of journal entries for large transactions	Confirmation letters, counterparty responses, invoices, bank receipts
Misclassification of advances as revenue	High advances-to-revenue ratio, especially under profit pressure	Development of a contract obligation matrix for customer advances; separate verification of work performed	Advance agreements, work completion certificates, product delivery documents
Recognition of doubtful sales as full revenue	Receivables growing faster than revenue; low collection quality	Examination of subsequent collections; aging analysis of receivables; reassessment of allowance for doubtful debts	Bank statements, receivables register, allowance calculations
Revenue manipulation	Declining gross margin;	IT-assisted analysis of end-	Journal registers, user

through period-end entries under profit pressure	sharp increase in period expenses to gross profit ratio	of-period journal entries; identification of manual entries; separate review of management-approved postings	logs, manually entered accounting records
Misinterpretation of performance obligations in complex contracts	High advances with seemingly stable revenue but weak cash flows	Functional analysis of contracts; separate identification of performance obligations and timing of control transfer	Contract terms, supplementary agreements, evidence of delivery and acceptance

As shown in Table 3, identifying risks associated with revenue recognition cannot be effectively achieved merely by intensifying audit procedures through “increased document inspection.” Instead, audit procedures should be purposefully tailored depending on the specific source of risk. For instance, when customer advances are high, the auditor’s focus should shift from the timing of revenue recognition to determining when performance obligations have actually been fulfilled. If trade receivables grow disproportionately relative to revenue, priority should be given to external confirmations and the examination of subsequent collections. Under strong profit pressure, period-end journal entries become a critical object of audit attention.

5. Discussion

The findings indicate that revenue recognition risk often manifests not within the revenue line alone, but through imbalances among revenue, trade receivables, advances, gross margin, and current liabilities. This observation aligns with theoretical frameworks on risk profiling and risk-based auditing approaches. If auditors fail to link their focus on revenue to the broader financial pressure of the entity, the probability of material misstatement cannot be fully assessed.

The analysis particularly highlighted that Qizilqum Cement JSC and Kvarts JSC exhibit high proportions of customer advances and significant short-term financial pressure. In contrast, Bekobod Cement JSC demonstrates a sharp decline in revenue while maintaining pressure from receivables and operating expenses. These cases collectively show that a uniform audit sampling approach is insufficient; instead, a differentiated audit program based on risk indicators is required [14].

The study further confirms that financial risks related to revenue recognition are not merely technical accounting issues tied to a single line item. Rather, they represent a complex phenomenon closely linked to the entity’s overall financial condition, operational pressure, contractual discipline, and the effectiveness of internal controls. Since revenue is one of the most critical indicators for investors, creditors, and management, it is particularly susceptible to subjective judgment, intentional interpretation of accounting policies, and inter-period manipulation. Consequently, limiting audit procedures to traditional techniques may fail to uncover deeper layers of risk.

The analysis demonstrates that revenue recognition risk is often more strongly reflected in inconsistencies between revenue and related financial indicators than in

revenue changes alone. For example, rapid growth in trade receivables during declining revenue periods, a high proportion of customer advances, shrinking gross margins, and increasing pressure from current liabilities may signal internal incentives for premature revenue recognition. In such situations, auditors should focus not only on the amount of revenue but also on its economic substance, legal basis, and the degree of completion of the underlying transaction.

It is important to note that the growth of trade receivables is not inherently negative. In certain cases, it may result from business expansion, the onboarding of new counterparties, or industry-specific settlement practices. However, when receivables growth becomes disconnected from revenue dynamics particularly under conditions of profit pressure and declining margins auditors must evaluate this indicator in conjunction with revenue recognition risk. Thus, the critical factor is not the growth of receivables itself, but its relationship with revenue, cash inflows, contractual performance, and subsequent collections [15].

Customer advances also play a significant role in the discussion. While advances are a common financing source, their misclassification can materially distort reported revenue. If advances relate to unfulfilled obligations, recognizing them as revenue not only inflates profits but also conceals liabilities. Therefore, in entities with high advance proportions, auditors should reassess revenue recognition criteria based on contract terms, delivery and acceptance documentation, actual performance stages, and the economic substance of transactions. This approach shifts the audit focus from formal documentation to substantive evaluation.

A sharp decline in gross margin is another important contextual factor. Under declining profitability, management may face increased pressure to inflate revenue through premature recognition, shifting transactions across periods, or recognizing uncertain sales as completed. This pressure is particularly strong in entities with high operating expenses, constrained liquidity, and significant short-term debt burdens. In this regard, gross margin should not be viewed solely as a profitability indicator, but also as an indirect signal of management incentives.

The proposed system of improved audit procedures is specifically designed to capture these complex interrelationships. For example, cut-off testing should not be limited to verifying document dates; it must also incorporate shipment, acceptance, transfer of ownership, transfer of risks and rewards, and subsequent cash flows. Similarly, external confirmations should extend beyond verifying balances to assessing whether transactions actually occurred and whether contractual terms were accurately reflected. In this way, audit procedures become substantively deeper rather than merely formal.

The targeted selection of journal entries represents another key contribution. Misstatements in revenue recognition typically arise not from routine transactions, but from end-of-period adjustments, manually entered postings, unusual account combinations, or concentrated transactions with specific counterparties. Therefore, journal entry testing should evolve from a supplementary procedure into a central component of revenue audit programs particularly in environments characterized by strong profit pressure, declining margins, or high liability burdens.

Additionally, the study highlights the importance of industry-specific characteristics. In sectors such as cement production and industrial manufacturing, advance payments, deferred settlements, timing gaps between shipment and acceptance, inventory dynamics, and logistics-related factors complicate revenue recognition. Accordingly, audit procedures must be adapted not only to general standards but also to industry-specific contractual practices and operational processes.

The scientific contribution of this research lies in conceptualizing revenue recognition risk across three interconnected levels: Signal discrepancies among financial indicators, Contractual and documentary substantiation, Management behavior under

financial pressure. By integrating these dimensions, auditors can interpret revenue not merely as a numerical figure, but as a convergence point of economic, legal, and managerial factors. This enhances analytical depth and enables earlier detection of risk.

In conclusion, an effective audit approach to revenue recognition is not based on increasing the volume of procedures, but on precisely directing them. If auditors correctly interpret the relationships among receivables, advances, margins, liabilities, and period-end entries, they can more efficiently identify areas with the highest risk of misstatement. The proposed system of audit procedures thus represents a methodologically consistent, practically robust, and scientifically grounded framework for detecting financial risks associated with revenue recognition.

6. Conclusion and Recommendations

The study provides the following conclusions aimed at improving audit procedures for identifying financial risks associated with revenue recognition. The first conclusion is that revenue recognition risk should not be treated as an isolated line-item misstatement, but rather as a multi-indicator financial signal. A more accurate assessment of risk can be achieved through the integrated analysis of revenue dynamics, trade receivables, customer advances, gross margin, period expenses, and current liabilities.

The second conclusion is that audit programs for revenue recognition should not be based on a predetermined standard scope, but instead designed in a differentiated manner, guided by signal indicators. For example, if the growth of trade receivables outpaces revenue growth, external confirmations and the examination of subsequent collections should be expanded. If the proportion of customer advances is high, auditors should place particular emphasis on analyzing contractual performance obligations and the timing of transfer of control.

The third conclusion is that the risk of premature revenue recognition increases significantly in entities experiencing strong profit pressure. Therefore, in companies where gross margin has sharply declined, period expenses absorb a substantial portion of gross profit, or short-term debt burdens are high, period-end journal entries, manually recorded transactions, and large one-off sales should be treated as a separate focus area of audit procedures. As a practical recommendation, it is proposed to introduce a "Revenue Recognition Risk Passport" for audit organizations. This tool should include preliminary calculation of key indicators such as trade receivables-to-revenue ratio, customer advances-to-revenue ratio, gross margin, period expenses-to-gross profit ratio, current liabilities-to-revenue ratio, and short-term debt burden. Such a passport would facilitate the alignment of audit planning with the level of assessed risk. Another recommendation is the systematic use of publicly available corporate information portals as a pre-audit risk screening tool. Preliminary processing of data on revenue, receivables, advances, and liabilities from annual reports enables audit teams to allocate their time more effectively toward high-risk areas.

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