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THE ABUSE OF CORPORATE VEHICLES IN VAT REFUND FRAUD AND MONEY LAUNDERING: A FORENSIC CASE STUDY

Zloupotreba privrednih društava u šemama
prevara sa povraćajem PDV-a i pranjem novca:
forenzička studija slučaja

Abstract

The forensic analysis of complex tax fraud and money laundering schemes requires moving beyond the formal presentation of business relationships and focusing on their underlying economic substance. Using a forensic case study approach, this research examines the mechanisms through which interconnected corporate entities were used to generate fraudulent VAT refunds, conceal the origin of illicit proceeds, and facilitate their circulation through coordinated financial flows. The study draws upon evidence obtained from tax audits, customs documentation, banking records, expert examinations, digital forensic evidence, and investigative procedures.

The investigation of the Serbian case established fraudulent VAT refunds amounting to approximately RSD 396 million, while the value of financial flows associated with the concealment of illicit proceeds was estimated at approximately RSD 1.5 billion. The evidence obtained through the forensic investigation formed the basis for criminal proceedings against fourteen individuals. The findings indicate that forensic reconstruction was essential for identifying the economic substance of the analysed business arrangements and revealing the functional links between formally separate corporate entities. The analysis further demonstrates that the distinction between predicate tax offences and subsequent money laundering activities often requires more than the examination of individual transactions and depends on an integrated assessment of business relationships, the economic rationale of transactions, and patterns of operational control.

The study contributes to the literature on VAT fraud, money laundering, and forensic accounting by identifying forensic indicators relevant for the detection of complex financial crime schemes and highlighting the importance of forensic reconstruction in revealing concealed economic relationships underlying formally legitimate business structures.

Keywords: *corporate vehicles; fraudulent VAT refunds; money laundering; forensic reconstruction; simulated business arrangements; forensic indicators.*

Sažetak

Forenzička analiza složenih šema poreskih prevara i pranja novca zahteva prevazilaženje formalnog prikaza poslovnih odnosa i usmeravanje pažnje na njihovu stvarnu ekonomsku suštinu. U radu se, primenom forenzičke studije slučaja, analiziraju mehanizmi putem kojih su međusobno povezana privredna društva korišćena za ostvarivanje neosnovanih povraćaja PDV-a, prikrivanje porekla protivpravno stečenih sredstava i njihovo uključivanje u koordinisane finansijske tokove. Istraživanje je zasnovano na dokazima prikupljenim tokom poreskih kontrola, analize carinske dokumentacije, bankarskih evidencija, stručnih veštačenja, digitalne forenzike i istražnih postupaka.

Rezultati istrage slučaja u Republici Srbiji potvrdili su iznos od približno 396 miliona dinara neosnovano ostvarenih povraćaja PDV-a, dok je vrednost finansijskih tokova povezanih sa prikrivanjem protivpravno stečenih sredstava procenjena na približno 1,5 milijardi dinara. Dokazi prikupljeni tokom forenzičke istrage predstavljali su osnov za pokretanje krivičnog postupka protiv četrnaest lica. Nalazi istraživanja ukazuju da je forenzička rekonstrukcija bila od ključnog značaja za utvrđivanje ekonomske suštine analiziranih poslovnih aranžmana i identifikovanje funkcionalnih veza između formalno odvojenih privrednih društava. Analiza je takođe pokazala da se granica između poreskog predikatnog dela i naknadnih aktivnosti pranja novca često ne može pouzdano utvrditi analizom pojedinačnih transakcija, već zahteva integrisanu procenu poslovnih odnosa, ekonomske opravdanosti transakcija i obrazaca operativne kontrole.

Rad doprinosi literaturi o poreskim prevarama, pranju novca i forenzičkom računovodstvu identifikovanjem upozoravajućih signala značajnih za otkrivanje složenih šema finansijskog kriminala, kao i potvrđivanjem značaja forenzičke rekonstrukcije i procene ekonomske suštine u detektovanju prikrivenih poslovnih i finansijskih odnosa koji se nalaze u osnovi formalno zakonitih poslovnih struktura.

Ključne reči: *zloupotreba privrednih društava; neosnovani povraćaji PDV-a; pranje novca; forenzička rekonstrukcija; simulovani poslovni aranžmani; forenzički indikatori.*

Introduction

Contemporary value-added tax (VAT) fraud schemes increasingly exceed the scope of isolated tax irregularities and take the form of complex organized structures based on the use of multiple formally separate legal entities functioning as corporate vehicles. Within such schemes, these entities do not operate as autonomous market participants engaged in genuine economic activity, but rather as instruments for the coordinated routing of goods, documentation, and financial flows aimed at obtaining undue tax benefits and concealing the origin of illicitly acquired funds. The literature increasingly recognizes organized tax fraud and money laundering as interconnected forms of financial crime, particularly in cases where formally legitimate business structures are used to conceal the true nature of economic relationships and financial transactions [18, pp. 579–631].

An important manifestation of these practices involves fraud schemes based on unjustified VAT refunds. Unlike tax evasion models in which unlawful gain is primarily achieved through the avoidance of tax liabilities, VAT refund fraud results in the direct transfer of budget funds to the perpetrators, making such schemes a significant source of illicit financial flows suitable for further concealment through formally legitimate business and financial transactions. Europol highlights that organized VAT fraud increasingly involves complex transaction chains, interconnected corporate vehicles, and multilayered financial flows aimed at concealing the true economic background of transactions and hindering their detection by tax and investigative authorities [9, pp. 10–14]. At the same time, national risk assessments in Serbia recognize tax fraud and VAT abuse as significant predicate offenses for money laundering, particularly in cases involving networks of related legal entities and simulated business relationships [26, pp. 132–138].

A further challenge in detecting and investigating such schemes lies in their reliance on formally valid documentation, registered legal entities, and recorded business transactions that create the appearance of legitimate business activity. OECD [23, pp. 14–17] emphasizes that legal entities may be instrumentalized to conceal the true

control over assets and create the appearance of legitimate business operations, while formal compliance does not necessarily reflect the actual economic substance of business relationships. Similarly, FATF and the Egmont Group [11] identify the absence of economic substance, inconsistencies between the formal and actual business functions of the participants, and coordinated patterns of financial behaviour as important indicators of the abuse of corporate vehicles in complex tax fraud and money laundering schemes.

Although the literature extensively addresses tax fraud, money laundering, and the abuse of legal entities, considerably less attention has been devoted to the forensic analysis of simulated business relationships between active corporate vehicles whose apparent legitimacy is sustained through compliant documentation and nominal business activity. Against this backdrop, the paper examines a case involving the abuse of registered legal entities and simulated business relationships within a scheme involving fraudulent VAT refunds and money laundering in the Republic of Serbia. The analysis focuses on forensic accounting indicators pointing to transactions lacking economic substance, as well as on the functional interconnectedness of legally separate entities operating within the analysed scheme.

Theoretical framework

The Intersection of Tax Fraud and Money Laundering

The concept of a predicate offence constitutes a fundamental element in understanding money laundering, as it refers to the underlying criminal activity from which illicit assets are derived before being concealed, converted, or integrated into seemingly legitimate economic flows. International standards adopt a broad understanding of predicate offences and require money laundering provisions to apply to the widest possible range of serious criminal offences, including tax crimes related to both direct and indirect taxation [7], [10]. Consequently, tax crimes are no longer viewed solely as offences against the fiscal system, but increasingly as a source of illicitly acquired assets

capable of subsequent concealment through complex transactional structures and multilayered monetary flows.

The National Money Laundering and Terrorist Financing Risk Assessment of the Republic of Serbia identifies tax crimes as one of the most significant categories of predicate offences for money laundering, taking into account the scale of budget losses exceeding EUR 318 million, the volume of illicitly obtained financial gain, the frequency of occurrence, and the pronounced level of organisational sophistication among perpetrators. The assessment further emphasises the frequent use of shell entities and laundering vehicles, namely corporate vehicles used to simulate business relationships, extract funds from legitimate economic flows, and further conceal their origin through fictitious transactions and multiple monetary transfers [26, pp. 132–138].

In investigative and prosecutorial practice in Serbia, a distinction is frequently drawn between shell entities and laundering vehicles as organisational instruments used in tax fraud and money laundering schemes. Shell entities are typically characterised as short-lived and effectively non-operational corporate vehicles lacking authentic business infrastructure, employees, accounting records, while the registered owners or legal representatives are frequently unavailable or unaware of the underlying business operations. Their primary function is the issuance of fictitious business documentation. By contrast, laundering vehicles often display a certain degree of formal organisational and documentary compliance, including active bank accounts, engaged accounting agencies, and documented business activity [21, p. 120]. Nevertheless, their underlying economic purpose is not the performance of legitimate commercial functions, but rather the layering and concealment of monetary flows through seemingly legitimate business arrangements. This distinction is of particular importance in the forensic analysis of complex VAT fraud and money laundering schemes, as the existence of nominal business activity and formal compliance substantially complicates the differentiation between simulated transactions and their underlying economic substance.

A recurring issue in the literature concerns the increasingly blurred distinction between corporate income tax evasion and money laundering, particularly

in situations where unlawful gain does not arise from a direct inflow of illicit funds, but from tax savings generated through the concealment of taxable income, artificial reduction of the tax base, or other mechanisms aimed at unlawfully minimising tax liabilities. Analysing the FATF treatment of tax crimes as predicate offences for money laundering, Kemsley et al. [17] argue that such an approach effectively enables even lawfully generated income to fall within the conceptual scope of money laundering once the corresponding tax obligations have been unlawfully evaded. Similar concerns are raised by Maugeri [20] who emphasises that expansive interpretations of self-laundering may lead to substantial overlap between the underlying tax offence and subsequent money laundering, particularly in situations where no autonomous acts of concealment, layering, or integration of illicit proceeds can be clearly distinguished.

Similar concerns have also been raised in Serbian literature. Through the analysis of a case study, Miletić et al. [21] demonstrate that, in practice, the boundary between tax evasion, simulated business arrangements, and money laundering is often blurred, particularly where the same network of interconnected corporate vehicles is used both to generate unlawful tax savings and to conceal or disguise the origin of the resulting monetary flows. Likewise, analysing the criminal legislation of several regional jurisdictions, Miletić et al. [22] emphasise that tax evasion creates a particularly high risk of overlap between the predicate offence and self-laundering, especially in situations where subsequent activities intended to conceal the unlawful origin of tax savings cannot be clearly distinguished from the underlying tax offence.

Fraudulent VAT refund schemes occupy a particularly important position among tax-related predicate offences, given that the unlawful gain in such cases is realised through a direct inflow of public funds. The National Money Laundering and Terrorist Financing Risk Assessment [26] indicates that these schemes are frequently implemented through networks of interconnected corporate vehicles, simulated business arrangements, fictitious invoices, and multilayered monetary flows aimed at concealing the origin of unlawfully obtained assets.

From a criminal-law perspective, however, the mere receipt or possession of unlawfully obtained VAT refunds cannot automatically be equated with money laundering. Money laundering arises only where additional actions are undertaken following the acquisition of funds, including the placement, layering, and integration of illicit proceeds, concealment of beneficial ownership, and the incorporation of unlawfully obtained assets into ostensibly legitimate economic flows. Consequently, the distinction between tax fraud and money laundering extends beyond the level of formal criminal-law qualification and requires forensic analysis focused on the economic substance underlying business arrangements, transactional structures, and financial flows.

Abuse of Corporate Vehicles and Simulated Business Arrangements in Financial Crime

The literature on organised VAT fraud increasingly demonstrates that such schemes rarely rely exclusively on non-operational shell entities, but frequently involve registered corporate vehicles possessing business documentation, active bank accounts, and documented commercial activity. Organised VAT fraud is therefore commonly characterised by the creation of an appearance of legitimate economic activity through networks of interconnected entities engaged in simulated business arrangements and transactions lacking genuine commercial rationale. Keen and Smith [16, pp. 7–10] emphasise that organised VAT fraud schemes operate through coordinated chains of invoicing and documented movements of goods involving multiple legal entities, while individual transactions observed in isolation often appear consistent with legitimate business conduct.

Carousel, or Missing Trader Intra-Community (MTIC) fraud occupies a particularly prominent position in the literature as one of the most sophisticated forms of organised VAT fraud within the European Union. These schemes typically operate through chains of interconnected corporate vehicles involved in coordinated and artificially structured trading transactions, whereby one entity within the chain charges VAT to purchasers but subsequently disappears without remitting the collected tax to the state. At the same time, other entities within the transactional

network rely on documented invoices and reported commercial transactions to claim VAT input credits or obtain VAT refunds to which they are not lawfully entitled. In certain cases, the same goods are repeatedly circulated through the transactional chain, creating circular trading patterns that obscure the underlying economic reality and complicate the detection of fraudulent VAT recovery schemes, which explains the origin of the term “carousel” fraud [4], [5], [12].

Although carousel fraud schemes are typically associated with the intra-Community VAT system of the European Union, their analytical and forensic relevance extends well beyond the European regulatory framework. Lord et al. [19] observe that complex financial crime schemes frequently involve networks of formally separate legal entities and multilayered transactional structures that obscure the identification of underlying financial flows and beneficial control over unlawfully obtained assets. Similarly, Borselli [3, pp. 6–12] emphasises that organised VAT refund fraud schemes often rely on formally valid documentation and the appearance of regular commercial activity to create an artificial basis for the declaration of input VAT credits and the subsequent recovery of VAT refunds.

Empirical studies based on VAT transaction data further indicate that organised VAT fraud frequently involves anomalous transaction patterns and interconnected communities of firms engaged in coordinated, rapid, and high-frequency trading activities lacking genuine economic substance [2]. As a result, contemporary approaches to the detection of VAT fraud increasingly emphasise transaction network analysis, behavioural patterns, and the economic function of transactions rather than relying solely on the formal verification of invoices and accounting documentation.

The literature on the misuse of legal entities in financial crime further demonstrates that the formal incorporation of a company, the existence of business documentation, and recorded commercial transactions do not, in themselves, constitute reliable indicators of real autonomy or independent commercial decision-making. OECD and the Inter-American Development Bank [24, pp. 10–12] emphasise that effective control over legal entities frequently extends beyond formal ownership

structures and may be exercised through networks of associated persons, contractual arrangements, nominee relationships, and other mechanisms of *de facto* control. Similarly, Findley et al. [13] demonstrate that anonymously owned and indirectly controlled corporate vehicles are frequently used to obscure the identity of the beneficial owner and to distance the formal transacting entity from the individual exercising effective control over the underlying business arrangement.

Accordingly, contemporary forensic accounting approaches are not confined to the formal verification of individual transactions and accounting records but place greater emphasis on the reconstruction of underlying business arrangements, behavioural patterns, and the economic interconnectedness of ostensibly separate corporate vehicles. Within this framework, the analysis of economic substance increasingly emerges as one of the central issues in the forensic examination of complex VAT fraud and money laundering schemes, particularly in situations where ostensibly compliant transactional structures are used to conceal coordinated financial activity and the actual allocation of economic benefits.

Methodological Approach and Data Sources

The research adopts a case study approach to the analysis of a complex VAT refund fraud scheme and related money laundering activities in the Republic of Serbia. Case study research is particularly relevant in forensic accounting, as it enables the reconstruction of complex organisational, financial, and transactional relationships among legally distinct corporate vehicles. Yin [27, pp. 15–18] emphasises that case study research is especially suitable for examining complex phenomena within their real-life organisational and institutional context, particularly in situations where the boundaries between formally presented business arrangements and their underlying economic substance are not clearly delineated.

At the same time, case study research occupies a particularly important position in financial crime research due to the limited availability of data and the concealed nature of the analysed activities. Oyelami and Olivier [25] emphasise that, in situations where conventional quantitative

approaches may prove insufficient for examining concealed financial misconduct, a structured case study approach provides a methodologically appropriate framework for reconstructing complex organisational structures and cause-and-effect relationships underlying financial crime schemes.

The empirical analysis is based on multiple data sources collected during tax audit procedures, financial forensic examinations, and pre-investigation and investigative proceedings. The analysed materials included business and accounting documentation, tax returns, invoices, bank statements, customs and transport documentation, as well as data obtained from publicly available registries relevant to the reconstruction of business relationships among the corporate vehicles involved in the scheme. To enhance the reliability of the findings, the research applied a methodological triangulation approach involving the cross-referencing of documentary, goods, and financial flows derived from multiple data sources. Yin [27] emphasises that the validity of case study research largely depends on the use of multiple sources of evidence and their systematic integration for the reconstruction of complex organisational and causal relationships.

The analytical framework applied in this study is based on the forensic accounting reconstruction of business arrangements and the application of the substance over form principle. Under this principle, transactions are not assessed solely according to their formal legal structure, but primarily according to their underlying economic substance and actual commercial purpose. The analysis focuses particularly on simulated business arrangements, the economic interconnectedness of ostensibly separate corporate vehicles, and transactional behaviour patterns that deviate from ordinary market practices and commercial rationale.

The analysis additionally draws upon the Fraud Action Triangle framework as a complementary analytical tool. The framework was used not only for the classification of forensic indicators, but also for examining the evidentiary relationship between the fraudulent act, concealment mechanisms, and the subsequent conversion of illicit proceeds within the analysed scheme.

Case Study Findings and Forensic Reconstruction of the Fraud Scheme

Operational structure of the analysed VAT refund fraud scheme

The analysed scheme involved eleven corporate vehicles and fourteen individuals and was structured around the fraudulent use of the VAT refund system and related money laundering activities. Rather than representing the isolated conduct of a single taxpayer, the scheme operated through a functionally interconnected network of legally incorporated entities whose roles were organised to create the appearance of legitimate commercial activity, generate unlawful VAT refunds, and subsequently conceal the origin of the obtained funds.

Three functional groups of corporate vehicles could be identified within the operational structure of the scheme. The first group consisted of seven import companies engaged in the importation of textile goods from the Republic of Türkiye and the payment of VAT upon importation. The second group comprised two retail companies whose role was to create the appearance of legitimate retail trade and to formally remove goods from inventory through fiscal cash register records. The third group consisted of two consultancy entities. Through business and technical cooperation agreements, these entities served as the formal basis for their involvement in the operations of the import and retail companies. At the same time, they exercised effective operational control over documentary and financial flows within the scheme.

The scheme originated from the actual importation of textile goods. The goods were formally declared to customs authorities, and customs duties and VAT upon importation were duly paid. However, the values declared in the foreign invoices did not correspond to the actual customs value of the imported goods and were significantly lower than the values subsequently determined by customs authorities. Consequently, customs authorities reassessed the customs value of the goods and calculated import VAT on the higher amounts. The VAT paid in this manner was subsequently recorded by the import companies as input VAT and later used as the basis for VAT refund claims submitted through tax returns.

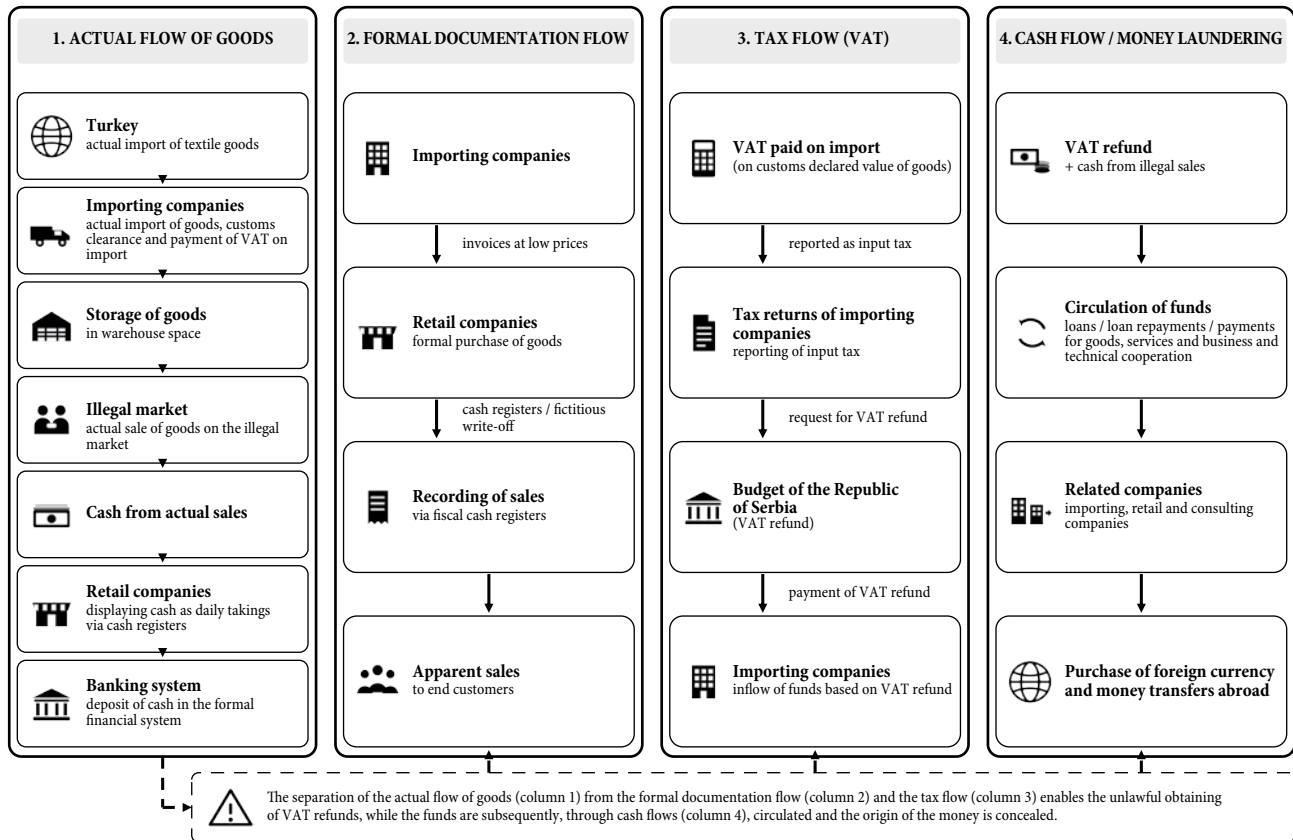
Following importation, a divergence emerged between the documented and actual movement of goods. The documentation indicated that the goods were sold to the retail companies at prices only marginally higher than the values declared in the foreign invoices. The reconstructed movement of goods suggested that, after importation and storage, the goods were distributed through illicit market channels. At the same time, invoices, fiscal cash register records, and supporting documentation were used to create the appearance of legitimate retail trade.

The tax advantage generated by the scheme resulted from the difference between the VAT paid upon importation, calculated on the customs value determined by customs authorities, and the VAT subsequently calculated on the documented sales of goods to the retail companies at substantially lower values. Under the VAT system, the VAT paid upon importation was recognised as input VAT, allowing the import companies to offset that amount against future VAT liabilities or to claim a refund from the tax authorities. In this manner, the scheme created a formal basis for the recognition of input VAT and the submission of VAT refund claims, even though the documented downstream transactions did not correspond to the actual movement of goods.

The operational structure of the scheme demonstrated that the legal separation of the corporate vehicles did not correspond to their actual economic and managerial autonomy. The import companies generated the basis for VAT refund claims, while the retail companies created the documentary appearance of legitimate retail trade. The consultancy entities exercised coordination and effective operational control over the scheme. Viewed as a whole, the structure functioned as a unified operational and financial arrangement aimed at obtaining unlawful VAT refunds and concealing the origin of the resulting funds. Figure 1 illustrates the operational relationships among the entities involved, as well as the separation between documentary, goods, and financial flows.

The reconstructed structure illustrates that the scheme did not depend on entirely fictitious transactions, but rather on the coordinated use of documented commercial activity lacking genuine economic substance. Its operational effectiveness derived from the separation

Figure 1: Forensic Reconstruction of the Analysed VAT Refund Fraud Scheme



Note: Solid lines represent actual flows, while dotted lines indicate the interconnection of flows within the scheme.

Source: Authors' reconstruction based on evidence obtained during tax audits, forensic financial analyses, and investigative procedures.

between the physical movement of goods, the documentary representation of transactions, and the corresponding tax and financial flows. This fragmentation substantially complicated the identification of the underlying economic reality and enabled the generation of formally supported VAT refund claims despite the absence of corresponding market-based transactions.

VAT Refund Fraud Mechanism and Generation of Illicit Proceeds

To illustrate the economic logic underlying the analysed scheme, Table 1 presents a simplified example based on the transactional patterns identified during the forensic reconstruction. For illustrative purposes, it is assumed that the imported goods were invoiced by a foreign supplier at a value of 10 monetary units, while customs authorities determined a customs value of 100 monetary units, which served as the basis for the calculation of import VAT. Under ordinary market conditions, the example assumes

an importer's gross margin of 15% and a retail margin of 35%, resulting in a final retail price consistent with the economic value of the imported goods.

In contrast, the fraudulent scenario reflects the pricing patterns identified in the analysed case. The importer invoices the retail entity at a price only 5% higher than the foreign invoice value, while the retail entity records sales through fiscal cash registers using a similarly minimal margin of 5%. At the same time, the goods are assumed to be sold through undocumented market channels at their regular market value. The example illustrates the resulting VAT positions of the participating entities and the comparative fiscal impact of the scheme on the state budget.

The illustrative example demonstrates how the analysed scheme simultaneously generated fraudulent VAT refund claims and minimised domestic VAT liabilities. While a regular transaction chain would have resulted in VAT revenue of 11.05 monetary units for the state budget, the fraudulent structure produced a VAT refund of 17.79

monetary units. The resulting fiscal impact amounted to 28.84 monetary units per 100 monetary units of customs value, excluding the additional unlawful gains generated through undocumented market sales of the imported goods.

Functional Coordination of Legally Separate Corporate Vehicles

The forensic reconstruction of the analysed scheme identified multiple indicators suggesting that the participating corporate vehicles did not operate as economically autonomous market entities, despite their formal legal separation. One of the central indicators was the existence of coordinated transactional and financial activity among entities that outwardly appeared to conduct independent commercial operations. The reconstruction of documentary, goods, and financial flows demonstrated a high degree of operational interdependence and temporal coordination between the participating entities, inconsistent with ordinary market behaviour.

Additional indicators emerged from the analysis of import documentation and customs records. Although the importation of textile goods and related international payments formally represented legitimate commercial transactions, the values declared in foreign invoices were significantly lower than the customs values subsequently determined by customs authorities. This discrepancy created the basis for recognising substantial amounts of input VAT while simultaneously raising concerns regarding the authenticity of the declared commercial relationships and the economic rationale underlying the reported transactions. The cross-border dimension of the

scheme further complicated the verification of foreign suppliers and limited the ability of domestic authorities to reconstruct the broader commercial chain and establish the actual valuation of imported goods.

Forensic significance was attached to evidence indicating the absence of genuine managerial autonomy among the participating entities. Information obtained through international legal assistance procedures showed that several formally registered owners and legal representatives, primarily foreign nationals, did not exercise effective managerial authority over the companies. At the same time, business and technical cooperation agreements concluded between the consultancy entities and other participating companies lacked a clearly identifiable commercial purpose and functioned primarily as documentary mechanisms concealing effective operational control over the structure.

Digital forensic analysis produced additional indicators of centralised operational management. IP address analysis demonstrated that fiscal cash registers formally associated with the retail entities were physically located at premises controlled by the consultancy entities rather than at the registered business locations of the retail companies themselves. Similarly, electronic payment operations conducted on behalf of multiple participating entities originated from identical IP addresses.

The indicators identified through the forensic reconstruction are summarised in Table 2.

Considered individually, each indicator may not necessarily demonstrate the existence of coordinated control. When assessed collectively, however, they reveal a consistent pattern of operational interdependence, centralised management, and limited economic autonomy

Table 1. Illustrative Example of the VAT Fraud Mechanism Identified in the Analysed Scheme

VAT transaction element	Regular market transaction	Fraudulent scheme transaction
Import value (customs value)	100.00	100.00
Import VAT (20%)	20.00	20.00
Importer's selling price (excluding VAT)	115.00	10.50
Importer's output VAT	23.00	2.10
Importer's VAT position	VAT liability: 3.00	VAT refund claim: 17.90
Retail company's selling price (excluding VAT)	155.25	11.03
Retailer's output VAT	31.05	2.21
Retailer's VAT position	VAT liability: 8.05	VAT liability: 0.11
Net VAT effect for the state budget	VAT revenue: 11.05	VAT refund: 17.79
Comparative fiscal impact of the scheme		28.84

Source: Authors' illustration based on the transaction structure identified in the analysed case.

among the participating corporate vehicles. From a forensic accounting perspective, the significance of these indicators lies not only in their individual evidentiary value but also in their combined ability to challenge the assumption that the entities operated as independent market participants.

Integration of Tax Fraud and Money Laundering within Coordinated Financial Flows

The forensic reconstruction of the analysed scheme demonstrated the simultaneous existence of two interconnected sources of unlawfully obtained funds within the same operational structure. The first source consisted of funds obtained through fraudulent VAT refunds. The second source originated from the sale of imported textile goods through illicit market channels outside documented commercial flows. The subsequent convergence of these funds within the same network of financial transactions substantially complicated the differentiation between formally reported business activity and the actual origin of the funds circulating through the structure. Similar convergence of multiple illicit revenue streams within interconnected corporate networks has been identified

in studies addressing organised financial crime and laundering typologies [1].

Table 3 summarises the two principal sources of illicit proceeds identified through the forensic reconstruction, as well as the subsequent financial flows through which these funds were transformed and incorporated into the analysed structure.

As shown in Table 3, proceeds originating from two distinct unlawful sources ultimately converged within common financial flows, making it increasingly difficult to distinguish their individual origins through the examination of isolated transactions.

The reconstructed financial flows reflected several mechanisms commonly associated with the classical placement-layering-integration model of money laundering [15]. At the same time, the analysed case demonstrated that these mechanisms did not appear as clearly separated chronological stages. Consistent with contemporary perspectives on money laundering [6], the examined structure exhibited substantial overlap between layering and integration mechanisms, while the manifestation of placement varied depending on the origin of the illicit proceeds.

Table 2: Forensic Indicators of Functional Coordination among Legally Separate Corporate Vehicles

Forensic indicator	Analytical significance
Shared IP addresses used for electronic payment operations	Indicates centralised operational control over multiple corporate vehicles
Fiscal cash registers located outside registered retail premises	Suggests simulated retail activity and absence of genuine operational autonomy
Foreign nationals registered as legal representatives without effective managerial authority	Indicates nominee ownership and concealed beneficial control
Business and technical cooperation agreements lacking economic rationale	Suggests the use of contractual arrangements as documentary concealment mechanisms
Coordinated timing of transactions and financial transfers	Indicates operational interdependence inconsistent with independent market behaviour
Discrepancies between invoiced and customs-determined values	Raises concerns regarding transaction authenticity and economic substance

Source: Authors' reconstruction based on evidence obtained during tax audits, forensic financial analyses, investigative procedures, customs documentation, banking records, and digital forensic evidence.

Table 3. Transformation of Illicit Funds within the Analysed Financial Structure

Source of illicit proceeds	Initial form of proceeds	Financial flows following the convergence of illicit proceeds	Dominant laundering mechanisms
Fraudulent VAT refunds	Funds disbursed from the state budget following fraudulent VAT refund claims	Intercompany transfers, business cooperation agreements, foreign currency transactions, payments to foreign suppliers, and loan arrangements	Layering and integration
Undocumented sales of imported goods	Cash generated through illicit market sales	Recording of retail turnover, deposits into formal financial channels, intercompany transfers, and business expenditures	Placement, layering and integration

Source: Authors' reconstruction based on evidence obtained during tax audits, forensic financial analyses, banking records, customs documentation, and investigative procedures.

Placement is commonly understood in anti-money laundering literature as the initial introduction of unlawfully obtained funds into formal financial or commercial channels. Elements of placement could be identified primarily in relation to cash generated through the sale of imported goods via illicit market channels. Although these transactions occurred outside documented commercial flows, part of the resulting cash was subsequently recorded through the reported turnover of the retail entities and introduced into the formal financial system. By contrast, funds obtained through fraudulent VAT refunds originated directly within the formal financial sector following their disbursement from the state budget. Consequently, the laundering of VAT refund proceeds was characterised predominantly by layering and integration mechanisms rather than by a distinct placement phase.

The dominant characteristic of the analysed structure was the extensive use of layering mechanisms. Funds originating from fraudulent VAT refunds and undocumented commercial activity circulated through interconnected corporate vehicles on multiple formal legal grounds, including intercompany loans, payments based on business and technical cooperation agreements, foreign currency transactions, and cross-border transfers. These transactions progressively obscured the connection between the funds and their unlawful origin. Comparable patterns of coordinated financial flows and interconnected transactional networks have been observed in analyses of complex money laundering structures, where multiple actors and entities interact through multilayered financial relationships that conceal the movement and provenance of funds [14].

At the same time, many of these transactions also performed an integration function by embedding the funds within apparently legitimate business relationships and formally documented financial flows, including payments for services, repayments of intercompany loans, ordinary business expenditures, and payments presented as settlement of commercial obligations toward foreign suppliers. Rather than representing separate stages, layering and integration frequently operated simultaneously, as transactions designed to obscure the source of proceeds also contributed to creating the appearance of legitimate commercial activity. This finding

suggests that, in complex financial crime structures, the same financial flows may perform both concealment and legitimisation functions.

Additional forensic indicators emerged from the analysis of international financial transfers. Although the import companies genuinely imported goods from suppliers in Türkiye and conducted international payments related to those imports, forensic examination established that substantial foreign currency transfers were also directed to foreign corporate entities that were not identified as actual suppliers within the documented import transactions. Significant international transfers were therefore detected toward foreign entities lacking a direct connection to the reconstructed goods flows. This finding suggested that a portion of the funds was not used solely for the settlement of genuine import obligations. Instead, part of the proceeds was redirected through additional international transactional channels, further complicating the tracing of financial flows and the identification of their ultimate destination.

When examined as an integrated structure, the analysed scheme demonstrated that the boundary between the predicate tax offence and subsequent money laundering activities could not be reliably established through the isolated examination of individual transactions. The movement of funds generated through fraudulent VAT refunds and undocumented commercial activity formed part of a coordinated financial framework in which layering and integration mechanisms frequently overlapped. Only through the combined reconstruction of goods flows, documentary records, and financial transactions was it possible to identify how unlawfully obtained proceeds were progressively incorporated into apparently legitimate business activity. Consequently, forensic accounting analysis in such cases requires an assessment of the overall economic substance of the arrangement rather than an isolated evaluation of individual transactions.

Forensic Indicators through the Fraud Action Triangle Framework

Traditional fraud theories primarily focus on explaining the conditions that motivate individuals to commit fraud.

The Fraud Action Triangle, developed as a complementary analytical framework, shifts attention from motivation to observable conduct. The model distinguishes three components of fraudulent activity: the fraudulent act, concealment, and conversion [8]. The fraudulent act represents the execution of the scheme and the generation of unlawful benefits. Concealment encompasses activities aimed at disguising the fraudulent conduct and reducing the likelihood of detection. Conversion refers to the transformation of unlawfully obtained proceeds into assets or financial flows that can be used while appearing legitimate. Unlike motivational fraud theories, the Fraud Action Triangle focuses on activities that can be documented through evidence and reconstructed through forensic investigation, making it particularly useful in the analysis of complex financial crime schemes.

The analysed case demonstrated that the identified forensic indicators did not represent isolated irregularities but formed a coherent pattern consistent with a coordinated VAT fraud and money laundering structure. When examined through the Fraud Action Triangle framework, the indicators revealed evidence relating to the execution of the fraud, the concealment of the underlying scheme, and the subsequent transformation of illicit proceeds. The principal indicators identified through the forensic reconstruction are summarised in Table 4.

The indicators classified within the fraudulent act dimension primarily relate to the generation of unlawful economic benefits. In the analysed scheme, these indicators included both the artificial creation of VAT refund claims and the diversion of imported goods into undocumented market channels. Considered together, they demonstrate that

the structure relied on multiple and mutually reinforcing mechanisms for generating illicit proceeds rather than on a single fraudulent transaction.

Additional support for the existence of the fraudulent act emerged from the analysis of reported retail turnover. Although the imported goods were formally presented as being sold to individual consumers through retail channels, the volume of recorded sales and the speed at which transactions were processed through fiscal cash registers were inconsistent with ordinary retail activity. In several instances, goods worth several million dinars were allegedly sold within extremely short time intervals, including periods of less than one hour. Given the nature of textile retail operations, such sales volumes were difficult to reconcile with normal market conditions and therefore raised concerns regarding the authenticity of the reported turnover. From a forensic perspective, these findings suggested that fiscal records were being used to create the appearance of legitimate retail sales rather than to document genuine consumer transactions.

Indicators associated with concealment reflected efforts to obscure the true organisational structure behind the scheme. Their forensic significance lies not in any individual indicator but in their cumulative evidentiary value. When viewed collectively, the use of nominee representatives, shared operational infrastructure, and coordinated administrative patterns demonstrated that formally independent entities operated under common control despite the absence of apparent ownership links.

Indicators classified within the conversion dimension illustrate how proceeds originating from different unlawful sources were subsequently incorporated into common

Table 4. Classification of Forensic Indicators through the Fraud Action Triangle Framework

Fraud Action Triangle element	Manifestation in the analysed scheme	Key forensic indicators
Fraudulent act	Artificial generation of VAT refund claims and undocumented sales of imported goods through illicit market channels	Unrealistic pricing structure; discrepancies between invoice values and customs values; economically unsustainable margins; fictitious retail turnover; VAT refunds as the dominant source of inflows; evidence of goods being diverted from documented retail channels
Concealment	Creation of the appearance of independent business activity and concealment of effective operational control	Nominee owners and foreign representatives; consultancy agreements lacking economic substance; shared infrastructure; centralised management of fiscal systems; closed network of related entities
Conversion	Transformation and circulation of illicit proceeds through apparently legitimate financial flows	Circular financial flows; intercompany loans and repayments; payments for services; foreign currency transactions; payments to foreign entities unrelated to actual imports; convergence of illicit proceeds within common financial channels

Source: Authors' reconstruction based on evidence obtained during tax audits, forensic financial analyses, customs documentation, banking records, digital forensic evidence, and investigative procedures.

financial flows. Through a combination of contractual payments, intercompany transfers, foreign currency transactions, and other formally documented financial relationships, the proceeds obtained through VAT fraud and undocumented commercial activity became increasingly difficult to distinguish from legitimate business funds. The convergence of multiple illicit revenue streams within the same transactional network further complicated the reconstruction of financial flows and reduced the visibility of their original source.

Considered collectively, the identified indicators demonstrate that the forensic detection of complex VAT fraud and money laundering schemes depends less on the identification of a single irregular transaction and more on the recognition of recurring behavioural patterns, coordinated financial relationships, and the absence of economic substance. The analysed case further illustrates the value of integrating tax, customs, banking, accounting, and digital forensic data in the detection and reconstruction of coordinated financial crime structures.

Financial Scale and Procedural Outcome of the Analysed Scheme

The forensic investigation covered business activities conducted between February 2019 and October 2022. Based on the analysis of business documentation, financial records, customs documentation, banking transactions, and the findings of financial and economic expert examinations, the authorities concluded that the analysed structure had generated fraudulent VAT refunds amounting to approximately RSD 396 million.

The investigation further established that proceeds obtained through fraudulent VAT refunds and undocumented sales of imported goods were subsequently incorporated into interconnected financial flows with an estimated total value of approximately RSD 1.5 billion. The scale of the identified financial activity significantly exceeded the amount of the initial tax fraud and reflected the extensive circulation of funds through multiple corporate vehicles and financial transactions.

The evidence obtained through the forensic investigation formed the basis for the initiation of criminal proceedings

against fourteen individuals for VAT fraud and money laundering offences, followed by the filing of an indictment by the prosecution authority.

The scale of the identified activity further supports the conclusion that the analysed structure cannot be interpreted as a series of isolated tax irregularities but rather as a coordinated financial crime scheme involving substantial illicit proceeds.

Implications for Risk Management and Financial Crime Detection

The analysed case demonstrates that formal compliance indicators, such as registered corporate entities, documented transactions, fiscal records, and formally valid contracts, cannot be regarded as sufficient evidence of legitimate business activity. For companies, one of the principal lessons arising from this case is the importance of risk-based due diligence procedures that extend beyond the verification of legal documentation and formal regulatory compliance. In complex VAT fraud schemes, entities participating in transactional chains may become exposed to significant legal, financial, and reputational risks even without direct involvement in the organisation of the scheme. Consequently, the assessment of business partners and significant transactions should focus on their underlying economic rationale and consistency with ordinary market behaviour.

Failure to identify indicators of coordinated financial structures may result in serious consequences, including the denial of VAT recovery rights, increased regulatory scrutiny, reputational damage, disruption of banking relationships, and potential involvement in tax or financial crime investigations. Importantly, such indicators are relevant not only in the assessment of external business partners but also in the detection of potential internal abuses involving employees, managers, or related parties who exploit legitimate business structures to facilitate fraudulent activity. The analysed case therefore highlights the importance of corporate risk management systems capable of identifying transactions and business relationships that are formally lawful yet economically inconsistent with genuine commercial activity.

The analysed case also carries important implications for regulatory and investigative authorities. One of its principal findings is that complex VAT fraud and money laundering schemes cannot be reliably detected through the isolated examination of tax returns, customs declarations, banking transactions, or corporate records. Although each of these information sources may individually appear consistent with lawful business activity, their combined analysis may reveal patterns that are incompatible with genuine market behaviour. The case therefore highlights the importance of information sharing and analytical cooperation among tax administrations, customs authorities, financial intelligence units, law enforcement agencies, and judicial authorities.

The findings are equally relevant from the perspective of distinguishing predicate tax offences from subsequent money laundering activities. In complex financial crime structures, unlawfully obtained funds are frequently incorporated into broader financial flows immediately after their acquisition, making it difficult to determine where the predicate offence ends and the laundering process begins. As demonstrated by the analysed case, this distinction can rarely be established through the examination of individual transactions alone. Instead, it requires the reconstruction of the broader economic context in which goods flows, financial transactions, organisational arrangements, and operational control mechanisms interact. The ability to identify this transition is of particular importance for prosecutorial and investigative authorities because it directly affects the legal qualification of conduct, the scope of financial investigations, asset tracing activities, and the evidentiary basis for establishing money laundering offences.

More broadly, the case illustrates the value of forensic methods in the detection of complex financial crime. The most significant evidentiary findings emerged not from isolated documents or transactions, but from the reconstruction of relationships between commercial activity, financial flows, and organisational structures. This confirms that the effective detection of coordinated VAT fraud and money laundering schemes requires analytical approaches focused on economic substance and functional relationships rather than solely on the formal legality of individual transactions.

Conclusion

The analysed case demonstrates that contemporary VAT fraud schemes frequently extend beyond the boundaries of isolated tax offences and evolve into complex financial structures involving multiple interconnected corporate entities, coordinated transactional arrangements, and mechanisms aimed at concealing the origin of unlawfully obtained proceeds. Rather than relying on fictitious business activity, the analysed structure was built around existing companies, documented transactions, and commercially plausible relationships that created the appearance of legitimate economic activity while facilitating the generation and circulation of illicit funds.

A key finding of the study is that the analysed scheme relied on the functional coordination of legally separate entities operating within a unified economic structure. The forensic reconstruction identified two principal sources of illicit proceeds: fraudulent VAT refunds and funds generated through undocumented sales of imported goods, which subsequently converged within common financial flows. The findings further demonstrate that the distinction between predicate tax offences and subsequent money laundering activities often cannot be established through the examination of individual transactions alone, but requires an integrated analysis of goods flows, financial relationships, organisational arrangements, and patterns of operational control.

The study also confirms the value of forensic accounting methods in the detection and investigation of complex financial crime. The most significant evidentiary findings emerged not from isolated documents or transactions, but from the reconstruction of relationships between commercial activity, financial flows, digital evidence, and organisational structures. The analysed case further highlights the importance of risk-based due diligence, interagency cooperation, and analytical approaches focused on economic substance rather than on the legal form of individual transactions.

As with any case study research, the findings should be interpreted considering the limitations associated with the analysis of a single empirical case and cannot be automatically generalised to all forms of VAT fraud

and money laundering. Nevertheless, the complexity of the analysed scheme provides valuable insights into the mechanisms through which tax fraud and money laundering may become integrated within coordinated corporate structures. Future research could expand the analysis to other forms of VAT abuse that rely on the interaction between tax fraud and money laundering mechanisms. Attention may be devoted to schemes involving exports and other VAT-exempt transactions, the use of offshore jurisdictions and secrecy structures, cryptocurrency-based transactions, as well as mechanisms for abusing the VAT system outside the context of international trade. Such research could contribute to a better understanding of how different forms of commercial transactions, corporate structures, and financial arrangements may be used to generate, conceal, and integrate illicit proceeds within complex corporate and financial structures.

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