

Digital Transformation of Anti-Money Laundering Business Processes: A Capability-Oriented Perspective on Analytics-Driven AML

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Abstract

Anti-money laundering (AML) is becoming an increasingly information-intensive business process requiring advanced analytical support for effective organisational decision-making. Although previous research has extensively investigated machine learning, graph analytics, and other analytical methods, existing studies largely examine these approaches as isolated technological solutions. This conceptual study adopts a business process perspective. It develops a capability-oriented framework for analytics-driven AML by synthesizing digital transformation, business process management, business analytics, and AML literature. This perspective conceptualises the digital transformation of AML as the coordinated development of interconnected organisational analytical capabilities embedded within business processes. The study contributes by integrating previously fragmented research streams into a coherent, management-oriented perspective. It provides a conceptual foundation for future empirical research and practical guidance for financial institutions pursuing analytics-driven AML transformation.

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Introduction

Digital transformation has fundamentally reshaped how organisations create value, organise business processes, and support managerial decision-making. Rather than representing the simple adoption of new digital technologies, digital transformation involves comprehensive organisational change in which digital capabilities become embedded within business processes, organisational structures, and strategic decision-making (Bharadwaj et al., 2013; Vial, 2019; Warner & Wäger, 2019). Accordingly, organisations redesign information-intensive business processes to improve agility, responsiveness, and decision quality in rapidly changing business environments.

Among the business processes most profoundly affected by digital transformation is anti-money laundering (AML). Financial institutions operate in an environment characterised by continuously evolving financial crime typologies, increasing regulatory expectations, growing transaction volumes, and expanding data complexity. As a result, AML has evolved from a predominantly compliance-oriented function into a knowledge-intensive business process that requires the continuous collection, integration, analysis, and interpretation of large volumes of heterogeneous information to support timely and effective organisational decision-making. The effectiveness of AML, therefore, depends not only on regulatory compliance but increasingly on the organisation's ability to process information, assess risk, and respond adaptively to emerging threats (Cornelli et al., 2021; Papathomas & Konteos, 2024).

Traditional AML systems have historically relied on predefined rules, threshold-based transaction monitoring, and manual investigation procedures.

Although these approaches remain essential components of regulatory compliance, they have become increasingly challenged by the growing complexity of financial crime. Criminal networks continuously modify their behaviour, exploit interconnected financial relationships, and operate across multiple institutions and jurisdictions, making suspicious activities more difficult to detect through static monitoring rules alone. As a result, financial institutions face persistent challenges, including high volumes of false-positive alerts, fragmented information, limited analytical integration, and increasing investigative workloads (Oliveira et al., 2025; Korherr et al., 2022; Oztas et al., 2024).

These challenges have spurred rapid advances in analytical approaches to support AML decision-making. Recent research has demonstrated the potential of machine learning, behavioural analytics, graph analytics, heterogeneous graph neural networks, and integrated analytical platforms to improve transaction monitoring, customer risk assessment, anomaly detection, and network analysis (Colladon & Remondi, 2017; Chai et al., 2023; Johannessen & Jullum, 2025; Deprez et al., 2025). Collectively, these developments illustrate a broader shift towards analytics-driven AML, in which analytical methods increasingly support multiple stages of the AML business process rather than isolated operational tasks.

Despite these significant advances, the existing literature remains fragmented. Research on digital transformation primarily focuses on organisational change and business process redesign, and business process management research emphasises process improvement and coordination. At the same time, AML studies predominantly evaluate individual analytical methods or technological solutions. As a

result, current research provides a limited understanding of how these complementary perspectives collectively explain the digital transformation of AML as a business process. Existing studies offer valuable insights into specific analytical techniques. However, they pay considerably less attention to how these approaches interact to develop the organisational analytical capabilities required for analytics-driven AML.

This study addresses this conceptual gap by adopting a business process perspective on the digital transformation of AML. Instead of viewing digital transformation as the implementation of individual analytical technologies, the study argues that it should be understood as the development of interconnected organisational analytical capabilities that collectively support analytics-driven business processes. Building on the synthesis of literature from digital transformation, business process management, business analytics, and AML research, the study develops a capability-oriented conceptual framework that explains how complementary analytical capabilities enable the transformation of AML from a predominantly compliance-oriented function into an analytics-driven business process. Accordingly, the study addresses the following research question: How can the digital transformation of AML be conceptualised from a business process perspective through organisational analytical capabilities?

The study makes three principal contributions. First, it integrates four research streams—digital transformation, business process management, business analytics, and AML—into a unified conceptual perspective. Second, it introduces a capability-oriented explanation of analytics-driven AML that shifts attention from isolated analytical

methods towards complementary organisational analytical capabilities embedded within business processes. Third, it provides a management-oriented perspective that expands current understanding of AML beyond regulatory compliance and technological implementation by conceptualising AML as a digitally transforming organisational business process.

The remainder of the paper is organised as follows. Section 2 reviews the literature on digital transformation, business process management, business analytics, and AML and identifies the existing research gap. Section 3 develops the proposed capability-oriented conceptual framework for analytics-driven AML. Section 4 discusses the theoretical and managerial implications of the proposed perspective, outlines its limitations, and suggests directions for future research.

Literature Review

Digital Transformation of Business Processes in Financial Institutions

Digital transformation has become one of the principal drivers of organisational change across industries, fundamentally reshaping how organisations create value, organise business processes, and support managerial decision-making. Contemporary research consistently emphasises that digital transformation should not be understood merely as the implementation of advanced digital technologies, but rather as a organisation-wide transformation encompassing business strategies, operational processes, organisational structures, and capabilities (Bharadwaj et al., 2013; Vial, 2019). From this perspective, digital technologies are important enablers of organisational change; however,

sustainable value creation occurs only when these technologies are embedded in redesigned business processes and integrated into organisational decision-making.

Accordingly, business process transformation has become a central element of digital transformation initiatives. Rather than simply automating existing activities, organisations increasingly redesign business processes to exploit digital technologies, improve organisational agility, strengthen operational performance, and support data-driven decision-making. The business process management literature suggests that successful digital transformation requires not only process redesign but also the continuous development of organisational capabilities that enable organisations to adapt their business processes to changing technological, organisational, and environmental conditions (Ahmad & Van Looy, 2020; Dumas et al., 2023; Warner & Wäger, 2019). Therefore, digital transformation is increasingly recognised as a continuous organisational capability rather than a discrete technology implementation project.

This organisational perspective is particularly relevant for financial institutions, where digital transformation extends far beyond customer-facing digital services and increasingly influences internally oriented business processes. The rapid growth of digital financial services, expanding data availability, increasing regulatory expectations, and rising operational complexity require financial institutions to redesign how critical business processes are organised, coordinated, and managed. Recent studies argue that competitive advantage in the financial sector depends not only on investments in digital technologies but also on the

organisational ability to transform data into actionable knowledge and integrate analytical insights into operational and strategic decision-making (Cornelli et al., 2021; Papathomas & Konteos, 2024).

An important implication of this transformation is the growing strategic importance of organisational capabilities. Digital transformation research increasingly argues that technologies themselves do not generate organisational value; instead, value is created through organisational capabilities that enable institutions to effectively utilise digital resources within business processes (Warner & Wäger, 2019; Ellström et al., 2022). These capabilities encompass not only technological competencies but also new approaches to information management, organisational learning, analytical decision-making, and cross-functional coordination. As organisations become increasingly data-intensive, the ability to transform data into reliable managerial insights becomes a critical prerequisite for effective business process performance.

Business processes characterised by intensive information processing, complex decision-making, and stringent regulatory requirements are particularly affected by digital transformation. Among these processes, AML is one of the most information-intensive and analytically demanding within financial institutions. Its effective execution increasingly depends on the ability to integrate large volumes of heterogeneous information, support complex organisational decision-making, and continuously respond to evolving financial crime risks. Understanding AML as a business process, therefore, provides the conceptual foundation for explaining why its ongoing digital

transformation extends beyond regulatory compliance towards analytics-driven organisational decision-making.

Anti-Money Laundering as a Business Process

AML has traditionally been examined primarily from a regulatory and compliance perspective. International regulatory frameworks define the objectives, principles, and obligations that financial institutions must fulfil to prevent the misuse of the financial system for money laundering and related financial crimes. Consequently, AML has frequently been perceived as a compliance function responsible for implementing customer due diligence, transaction monitoring, suspicious activity reporting, and ongoing regulatory oversight (Financial Action Task Force (FATF, 2023); Alnasser et al., 2020).

From a management perspective, however, regulatory requirements define what financial institutions are expected to achieve rather than how these objectives should be operationalised. Their implementation depends on the design and coordination of interconnected organisational activities involving information collection, customer risk assessment, transaction monitoring, alert investigation, reporting, and continuous decision-making. Accordingly, AML extends beyond regulatory compliance and can be understood as a complex organisational business process that integrates people, information, technologies, and managerial decisions to achieve both regulatory and organisational objectives (Dumas et al., 2023; Ahmad & Van Looy, 2020).

The business process management literature characterises business processes as coordinated sets of interrelated activities that transform

organisational resources and information into outcomes while enabling continuous improvement and organisational performance (Dumas et al., 2023; Ahmad & Van Looy, 2020). From this perspective, AML exhibits all the essential characteristics of a business process. Individual activities—including customer due diligence, customer risk assessment, transaction monitoring, alert investigation, suspicious activity reporting, and ongoing customer monitoring—are not independent compliance tasks but mutually dependent activities forming an integrated process of organisational decision-making. The output generated in one stage directly influences subsequent activities, requiring continuous coordination throughout the AML process.

Compared with many other organisational processes, AML is distinguished by exceptionally high levels of information intensity, uncertainty, and regulatory complexity. Financial institutions must continuously evaluate heterogeneous customer information, transactional data, beneficial ownership structures, sanctions lists, and external intelligence while simultaneously responding to evolving money laundering typologies and changing regulatory expectations. As a result, effective AML performance depends not only on regulatory compliance but also on the organisation's ability to process information, assess risk, coordinate knowledge across organisational functions, and support timely managerial decision-making (Papathomas & Konteos, 2024; Oztas et al., 2024).

This perspective also highlights the inherently cross-functional nature of AML business processes. Effective AML implementation requires close coordination among compliance departments, risk management, information technology, internal

audit, business units, and senior management. Rather than functioning as an isolated compliance activity, AML operates across organisational boundaries and depends upon continuous information sharing, integrated decision-making, and organisational collaboration. The effectiveness of AML therefore reflects not only compliance expertise but also the organisational capability to align business processes, information resources, and managerial decision-making across multiple functional areas (Warner & Wäger, 2019; Ellström et al., 2022).

Understanding AML as a business process has important implications for analysing its ongoing digital transformation. If AML is viewed exclusively as a regulatory obligation, technological innovation primarily appears as a means of improving compliance efficiency. However, when AML is understood as a business process, digital transformation is a broader organisational phenomenon that reshapes how information is collected, analysed, interpreted, and used to inform operational decisions. This perspective shifts attention from regulatory compliance alone towards improving organisational decision-making and business process performance. As transaction volumes continue to increase and financial crime becomes more complex, the effectiveness of traditional rule-based approaches becomes increasingly constrained, creating the need for new analytics-driven approaches to organisational decision-making.

From Rule-Based AML to Analytics-Driven Decision-Making

The traditional implementation of AML has largely relied on predefined rules, regulatory thresholds, and transaction-monitoring systems to identify

potentially suspicious financial activities. For many years, this rule-based approach provided financial institutions with a practical mechanism for fulfilling regulatory obligations by automatically identifying transactions that deviated from established risk criteria. Such systems remain an essential component of AML programmes, providing consistency, transparency, and regulatory accountability in routine monitoring activities (FATF, 2023; Oztas et al., 2024).

However, the operating environment of financial institutions has changed fundamentally. Rapid digitalisation of financial services, increasing transaction volumes, global payment infrastructures, fintech innovations, virtual assets, and increasingly sophisticated money laundering techniques have substantially increased both the complexity and the scale of AML activities. Financial crime has evolved from relatively isolated suspicious transactions towards highly coordinated, adaptive, and interconnected schemes involving multiple entities, jurisdictions, and financial channels. Consequently, managerial decision-making within AML business processes has become considerably more demanding than when conventional rule-based monitoring systems were originally designed (Vial, 2019; Cornelli et al., 2021; Papathomas & Konteos, 2024).

The literature consistently suggests that the principal limitations of traditional rule-based AML do not arise from the regulatory logic itself, but rather from the increasing complexity, volume, and interconnectedness of financial activities, which exceed the analytical capacity of static monitoring approaches. Static rules are inherently dependent on predefined scenarios and therefore perform effectively only when suspicious behaviour corresponds to previously known money laundering

typologies. As financial crime continues to evolve, rule-based systems often struggle to identify previously unseen behavioural patterns or complex relationships among customers, transactions, and financial networks. At the same time, they frequently generate large numbers of false-positive alerts, requiring extensive manual investigation by compliance analysts. This growing imbalance between increasing alert volumes and limited investigative resources creates significant operational challenges for financial institutions, reducing both the efficiency and the effectiveness of AML business processes (Korherr et al., 2022; Oliveira et al., 2025; Oztas et al., 2024).

From a management perspective, these limitations extend beyond the technical performance of monitoring systems. The principal challenge is not simply the inability of rule-based approaches to detect every suspicious transaction, but also their limited capacity to support effective decision-making in increasingly complex, data-intensive environments. Compliance analysts must continuously assess risk, prioritise investigative activities, interpret heterogeneous information, and make timely decisions under conditions of uncertainty. As the volume and complexity of available information continue to increase, decision-making based primarily on static rules and manual judgment becomes increasingly less sustainable (Davenport & Harris, 2017; Sharda et al., 2023; Warner & Wäger, 2019).

In response to these challenges, the literature advocates integrating business analytics into AML processes. Rather than replacing regulatory compliance, analytical approaches seek to augment organisational decision-making by transforming large volumes of heterogeneous data into actionable knowledge. Recent research explores a

broad spectrum of analytical methods, including machine learning, predictive risk scoring, behavioural analytics, adaptive monitoring, graph-based analysis, and network-oriented approaches. Although these approaches differ in their analytical techniques, they share a common objective: improving the quality, consistency, and timeliness of organisational decision-making throughout the AML process (Halford et al., 2025; Oliveira et al., 2025; Deprez et al., 2025; Johannessen & Jullum, 2025).

The reviewed literature, therefore, suggests that the ongoing evolution of AML should not be interpreted simply as a technological transition from rule-based systems to artificial intelligence. Instead, it reflects a broader transformation in the logic of organisational decision-making. While traditional AML primarily relied on predefined rules to support compliance activities, contemporary AML increasingly depends on analytical approaches that enable financial institutions to assess risks dynamically, prioritise investigative efforts, integrate diverse sources of information, and respond proactively to evolving financial crime. Understanding this evolution provides the conceptual foundation for examining how analytics has progressively transformed AML business processes (Davenport & Harris, 2017; Oztas et al., 2024; Deprez et al., 2025).

Evolution of Analytics in Anti-Money Laundering

The increasing limitations of traditional rule-based AML systems have spurred extensive research into analytical approaches that improve the effectiveness of organisational decision-making. Rather than replacing regulatory requirements, these approaches seek to enhance financial institutions' ability to identify suspicious activities,

assess financial crime risks, and support investigators in increasingly complex, data-intensive environments. Accordingly, the evolution of analytics in AML reflects a gradual transition from isolated monitoring techniques towards more sophisticated approaches that support multiple stages of the AML business process (Oztas et al., 2024; Deprez et al., 2025).

Early developments in AML analytics primarily focused on improving transaction monitoring through enhanced risk scoring, anomaly detection, and statistical analysis. These approaches addressed some of the operational limitations of traditional rule-based systems by enabling more effective identification of suspicious transactions and reducing unnecessary investigations. Although these analytical methods improved monitoring performance, they generally remained focused on individual transactions and predefined risk indicators rather than supporting broader organisational understanding of financial crime patterns (Oliveira et al., 2025; Korherr et al., 2022; Oztas et al., 2024).

Subsequent research increasingly incorporated machine learning and behavioural analytics to improve the adaptability of AML decision-making. Instead of relying exclusively on predefined rules, these approaches enabled analytical models to learn from historical transaction data, identify complex behavioural patterns, and estimate financial crime risks with greater flexibility. As a result, the analytical focus gradually shifted from detecting isolated suspicious transactions towards understanding customer behaviour, risk dynamics, and evolving money laundering typologies. This development significantly expanded the analytical support available to investigators while improving

the responsiveness of AML business processes to evolving criminal strategies (Oliveira et al., 2025; Halford et al., 2025).

A further stage in the evolution of AML analytics emerged as graph-based and network-oriented approaches gained wider application. Unlike transaction-centred analytical methods, graph analytics recognises that money laundering typically involves interconnected entities, accounts, organisations, and financial transactions rather than isolated events. Research on social network analysis, graph neural networks, heterogeneous graph learning, and sub-network discovery consistently demonstrates that analysing relationships among entities provides substantially richer insights into complex money laundering schemes than analysing transactions individually (Colladon & Remondi, 2017; Weber et al., 2019; Chai et al., 2023; Johannessen & Jullum, 2025; Deprez et al., 2025). These developments represent an important conceptual shift by redefining AML as the analysis of financial networks rather than merely the monitoring of financial transactions.

More recently, the literature has recognised that the effectiveness of AML analytics depends not only on individual analytical methods but also on the integration of heterogeneous data, complementary analytical models, and organisational decision-making processes. Graph databases, integrated analytical platforms, and network-based information structures illustrate this broader perspective by enabling financial institutions to combine customer information, transactional data, ownership structures, and relationship networks within unified analytical environments (Tiwari et al., 2023; Deprez et al., 2025). These developments suggest that the value of analytics increasingly

arises from combining multiple analytical approaches rather than relying on individual algorithms or isolated technological solutions.

The reviewed literature demonstrates a clear evolution in AML analytics, from improving individual analytical techniques to supporting increasingly integrated, information-rich organisational decision-making. While existing research provides substantial evidence regarding the effectiveness of specific analytical methods—including machine learning, behavioural analytics, graph analytics, and integrated data environments—it predominantly evaluates these developments as separate technological innovations. Considerably less attention has been devoted to understanding how these analytical approaches collectively contribute to the organisational transformation of AML business processes. This observation provides the conceptual foundation for identifying the research gap addressed in the following section. Consequently, although analytical sophistication has increased substantially, the literature provides only limited guidance on how financial institutions can systematically organise these analytical developments into coherent organisational capabilities that support analytics-driven AML business processes.

Research Gap and Research Synthesis

The reviewed literature demonstrates substantial progress in understanding the digital transformation of financial institutions, the process-oriented nature of AML, the limitations of traditional rule-based monitoring, and the growing role of advanced analytical methods in supporting AML decision-making. Collectively, these research streams indicate that AML is undergoing a profound transformation from a predominantly compliance-

oriented function towards a more data-intensive, analytically supported organisational business process. At the same time, they illustrate that this transformation extends beyond the adoption of individual analytical technologies and increasingly involves broader organisational changes affecting business processes, information management, and managerial decision-making.

Despite these advances, the existing literature remains fragmented. Studies on digital transformation primarily emphasise organisational change and business process redesign. At the same time, AML research predominantly evaluates individual analytical methods, including machine learning, behavioural analytics, graph analytics, and network-based approaches. Although these contributions have significantly advanced the analytical sophistication of AML, they generally investigate technological solutions in isolation and provide limited explanation of how different analytical approaches collectively support the transformation of AML business processes. Consequently, current knowledge offers only a partial understanding of how financial institutions can systematically develop the analytical capabilities required to support analytics-driven AML.

This fragmentation also reveals an important conceptual gap. Existing studies frequently propose or evaluate analytical models designed to improve specific tasks within the AML process, such as transaction monitoring, risk scoring, alert investigation, or network analysis. However, considerably less attention has been devoted to explaining how these complementary analytical approaches contribute to the development of integrated organisational capabilities that support decision-making across the entire AML business

process. As a result, the literature provides limited guidance for financial institutions seeking to move beyond isolated analytical applications towards a coherent, analytics-driven approach to AML management.

To address this gap, this study adopts a business process perspective. It proposes that the digital transformation of AML should be understood as the development of interconnected organisational analytical capabilities rather than the implementation of individual analytical techniques. Building on the synthesis of the reviewed literature, the study develops a conceptual perspective to understand how complementary analytical capabilities collectively support the digital transformation of AML business processes.

Accordingly, the following section develops the proposed conceptual framework by identifying and explaining the key analytical capabilities that collectively enable the transformation of AML from a traditional compliance-oriented function into an analytics-driven business process.

Organisational Analytics Capabilities Enabling Analytics-Driven AML Business Processes

Enabling the Transformation Towards an Analytics-Driven AML Business Process

The literature reviewed in the preceding sections consistently indicates that the digital transformation of business processes extends beyond the adoption of new technologies. Rather than representing isolated technological upgrades, digital transformation requires organisations to redesign business processes, develop new organisational capabilities, and fundamentally change how decisions are made and executed.

Digital technologies create opportunities for transformation, but sustainable improvements emerge only when organisations develop the capabilities required to effectively integrate data, analytics, and decision-making into their operational processes. Therefore, the successful digital transformation of business processes depends not only on technological innovation but also on the organisational ability to utilise these technologies coherently and systematically.

The proposed capabilities should not be interpreted as a maturity model or sequential implementation stages. Instead, they represent complementary and mutually reinforcing organisational capabilities whose relative importance may differ across organisational contexts.

This perspective is equally applicable to AML. Traditionally, AML has relied on predefined rules, transaction monitoring, and manual investigation to support regulatory compliance. However, increasing transaction volumes, more sophisticated money laundering schemes, and the growing complexity of financial networks have exposed important limitations of rule-based monitoring. Consequently, financial institutions increasingly adopt advanced analytical approaches—including machine learning, adaptive monitoring, graph analytics, and network-based analysis—to improve detection accuracy, reduce false positives, and identify increasingly complex patterns of suspicious behaviour.

However, the literature synthesis presented in this study also reveals an important limitation of current research. Most studies evaluate individual analytical techniques independently, with relatively little attention devoted to explaining how these analytical innovations collectively

transform AML as a business process. Consequently, the transition towards analytics-driven AML cannot be sufficiently explained by the implementation of individual analytical methods alone. The transformation requires a broader organisational perspective that considers how analytical capabilities are embedded within business processes and organisational decision-making.

From this perspective, digital transformation of AML should be understood as a progressive shift from rule-based compliance towards analytics-driven decision-making. In such an environment, analytical methods no longer operate as isolated technological solutions but become integrated components of organisational processes that support continuous risk assessment, prioritisation of investigative resources, adaptive monitoring, comprehensive data integration, and network-oriented analysis of financial crime. The organisational value of analytics lies not in adopting individual algorithms but in developing complementary capabilities that enable financial institutions to transform analytical outputs into more effective operational decisions.

Based on the synthesis of the reviewed literature, this study argues that the transformation towards analytics-driven AML business processes is enabled by the development of mutually reinforcing organisational analytics capabilities. These capabilities address different organisational challenges throughout the AML process while collectively supporting more effective risk assessment, data utilisation, and decision-making. Rather than representing independent technological solutions, they constitute complementary organisational mechanisms that together facilitate the transition from traditional

rule-based AML to analytics-driven business processes.

The following sections examine each of these organisational analytics capabilities in greater detail. By analysing their individual roles and collective contribution to organisational decision-making, the study provides a management-oriented explanation of how financial institutions can successfully transform AML into an analytics-driven business process.

Enhancing Risk Assessment through Accurate Risk Classification

Accurate risk assessment represents one of the most critical challenges within contemporary AML business processes. Financial institutions must continuously evaluate large volumes of customer activities and financial transactions to distinguish normal business behaviour from potentially suspicious activities. As transaction volumes continue to increase and money laundering schemes become more sophisticated, traditional rule-based approaches frequently generate excessive numbers of false-positive alerts while simultaneously struggling to identify previously unknown or evolving laundering patterns. Accordingly, improving the accuracy of risk classification has become a prerequisite for more effective AML decision-making rather than merely a technical improvement in transaction monitoring.

Previous studies demonstrate that recent advances in business analytics and artificial intelligence have substantially improved financial institutions' ability to classify AML-related risks. Machine learning models are increasingly capable of recognising complex relationships within transactional data,

identifying subtle behavioural patterns, and reducing false-positive alerts compared with conventional rule-based monitoring. Rather than relying exclusively on predefined rules and manually determined thresholds, these approaches utilise historical data and continuously refine their predictive performance as new information becomes available. As a result, analytical classification increasingly supports more reliable identification of suspicious activities while enabling investigators to focus their attention on transactions with a higher probability of representing genuine financial crime.

However, the literature synthesis indicates that the organisational value of accurate risk classification extends beyond predictive accuracy. Existing studies primarily evaluate classification models using technical performance measures, while providing limited insight into how improved classification supports organisational decision-making. From a management perspective, its primary contribution lies in enabling more consistent, transparent, and evidence-based risk assessment throughout the AML process.

Viewed from this perspective, accurate risk classification should be understood as an organisational analytics capability rather than solely as an analytical technique. It enables financial institutions to transform large volumes of heterogeneous transactional and customer data into meaningful assessments of financial crime risk that support operational decision processes. By improving the reliability of risk assessment, this capability establishes the analytical foundation for subsequent AML activities—including alert prioritisation, investigation planning, adaptive monitoring, and strategic resource allocation—to be performed more effectively. The capability,

therefore, contributes not only to regulatory compliance but also to improving the efficiency and overall performance of AML business processes.

Although accurate risk classification substantially improves the quality of organisational risk assessment, financial institutions must still determine which alerts require immediate investigation and which represent lower operational priorities. Consequently, once reliable risk classification has been established, organisations require an additional capability to prioritise investigative activities and analytical resources effectively. This capability is discussed in the following section.

Improving Resource Allocation through Risk-Based Alert Prioritisation

Following accurate risk classification, financial institutions face a second organisational challenge: determining how to allocate limited investigative resources across an increasing number of generated alerts. Even when analytical models substantially improve risk classification, AML systems continue to produce large volumes of alerts that require further assessment by compliance analysts. Given finite human resources, not every alert can be investigated with the same level of urgency or intensity. As a result, effective alert prioritisation has become a critical organisational requirement for ensuring that investigative efforts are directed towards activities posing the greatest potential risk.

Existing research indicates that recent advances in analytics increasingly support risk-based prioritisation of AML alerts. Machine learning-based scoring models, predictive analytics, and risk-ranking approaches enable financial institutions to estimate the relative significance of

generated alerts by considering multiple risk indicators simultaneously. Rather than treating alerts as independent events requiring equal attention, these analytical approaches facilitate the identification of cases most likely to represent genuine money laundering. Such prioritisation reduces unnecessary investigative effort while improving the timeliness and effectiveness of AML operations.

The literature indicates that the organisational value of alert prioritisation extends beyond analytical efficiency. Existing studies primarily evaluate prioritisation using operational performance indicators, while providing a limited explanation of its broader organisational role. From a management perspective, prioritisation enables the effective allocation of scarce investigative resources, directly influencing both financial crime detection and the efficiency of AML operations.

From this perspective, risk-based alert prioritisation should be understood as an organisational analytics capability that enables financial institutions to transform analytical risk assessments into informed operational decisions regarding resource allocation. By systematically ranking alerts by estimated risk, organisations can focus investigative capacity on cases with the highest potential impact while reducing unnecessary effort on low-risk activities. The capability strengthens business decision-making by improving responsiveness, increasing operational efficiency, and supporting the more effective utilisation of analytical and human resources throughout the AML process.

Although effective prioritisation enables organisations to allocate investigative resources more efficiently, money laundering techniques

continue to evolve in response to regulatory measures and analytical controls. As a result, AML business processes cannot rely solely on static classification and prioritisation mechanisms. Financial institutions must also develop the capability to continuously adapt monitoring activities to emerging risks, behavioural changes, and newly identified money laundering typologies. This adaptive organisational capability is discussed in the following section.

Achieving Adaptive AML through Continuous Monitoring

While accurate risk classification and risk-based alert prioritisation substantially improve the effectiveness of AML decision-making, neither capability alone is sufficient to address the dynamic nature of financial crime. Money laundering schemes continuously evolve in response to regulatory changes, technological innovation, and the implementation of increasingly sophisticated detection mechanisms. Criminal networks rapidly modify transaction patterns, exploit new financial products, and adapt their behaviour to circumvent existing monitoring systems. Therefore, AML business processes cannot rely solely on static analytical models or predefined decision rules; they must continuously adapt to emerging risks and changing behavioural patterns.

The reviewed literature suggests a growing shift from static transaction monitoring to adaptive, continuously evolving monitoring approaches. Recent advances in machine learning, continuous model updating, behavioural analytics, and hybrid analytical techniques enable financial institutions to identify previously unseen risk patterns and respond more effectively to changing money laundering typologies. Rather than depending

solely on fixed rules established during system implementation, adaptive monitoring incorporates new transactional evidence, evolving customer behaviour, and newly identified risk indicators into ongoing analytical processes. This continuous learning capability enhances the responsiveness of AML systems while reducing the likelihood that emerging money laundering strategies remain undetected.

The literature indicates that adaptive monitoring should be understood as more than a technological feature of analytical models. Existing research primarily evaluates improvements in model performance, while paying less attention to its organisational role. From this perspective, adaptive monitoring represents an organisational capability that enables financial institutions to continuously update analytical assumptions, monitoring practices, and operational decision-making in response to emerging risks.

Viewed from this perspective, adaptive monitoring extends the role of analytics beyond the detection of suspicious activities towards continuous organisational learning. It enables financial institutions to systematically integrate newly emerging risks, regulatory developments, and operational experience into AML business processes, thereby maintaining the relevance and effectiveness of analytical decision-making over time. This capability transforms AML from a predominantly reactive compliance activity into a continuously evolving business process that can respond to increasingly dynamic financial crime environments.

Nevertheless, effective adaptation depends on the availability of comprehensive and interconnected information. Even the most sophisticated adaptive

monitoring approaches remain constrained when customer information, transactional data, ownership structures, and external risk indicators are fragmented across multiple information systems. Consequently, continuous organisational learning must be supported by the capability to integrate heterogeneous sources of information into a coherent analytical environment. This organisational capability is examined in the following section.

Enabling Holistic Risk Visibility through Data Integration

The effectiveness of analytics-driven AML business processes depends not only on the quality of analytical models but also on the availability of comprehensive and interconnected information. While adaptive monitoring enables financial institutions to respond to evolving money laundering typologies, meaningful adaptation is only possible when relevant information can be accessed, combined, and interpreted across organisational and technological boundaries. In practice, however, AML-related information is frequently distributed across multiple information systems, organisational units, and external data sources. Customer profiles, transaction records, ownership information, sanctions lists, and regulatory databases are often maintained separately, limiting financial institutions' ability to obtain a complete understanding of financial crime risks.

The literature recognises that fragmented information represents a significant obstacle to effective AML decision-making. Recent research demonstrates that advanced analytical approaches—including graph databases, network-oriented data structures, and integrated analytical

platforms—enable organisations to consolidate heterogeneous information into coherent analytical environments. Rather than analysing individual transactions or isolated customer records independently, integrated data environments provide a more comprehensive representation of relationships among customers, accounts, transactions, beneficial ownership structures, and other relevant entities. Such integration substantially improves the completeness and contextual richness of information available for analytical decision-making.

More importantly, the literature synthesis indicates that data integration should be understood as more than a technological infrastructure issue. Existing research primarily focuses on technical solutions for integrating heterogeneous information, while providing a limited explanation of how integrated information supports organisational decision-making. From a broader organisational perspective, its primary value lies in enabling a unified analytical view of financial crime risk.

From this perspective, data integration represents an organisational analytics capability that enables financial institutions to transform fragmented data into holistic risk visibility. Rather than supporting isolated analytical tasks, this capability provides the informational foundation for accurate risk assessment, effective alert prioritisation, and adaptive monitoring to operate consistently across the entire AML business process. By connecting previously separated sources of information, organisations improve the quality, consistency, and transparency of analytical decision-making while strengthening collaboration between compliance professionals, investigators, and other organisational stakeholders.

Although integrated information substantially enhances organisational understanding of financial crime risks, effective AML decision-making increasingly requires more than holistic visibility. Money laundering activities are rarely confined to isolated customers or individual transactions; instead, they typically involve complex networks of interconnected entities, financial relationships, and transactional pathways. Consequently, organisations require an additional analytical capability to discover and interpret these hidden structures within integrated data environments. This capability is examined in the following section.

Detecting Complex Financial Crime through Network Discovery

Although integrated information provides financial institutions with a comprehensive view of customers, transactions, and related entities, effective AML decision-making increasingly depends on understanding how these elements are interconnected. Money laundering rarely consists of isolated suspicious transactions. Instead, illicit financial activities are typically organised through networks of individuals, legal entities, accounts, intermediaries, and transactional relationships that collectively conceal the origin and movement of illicit funds. Consequently, understanding the structure of these interconnected relationships has become essential for effective AML business processes.

The reviewed studies consistently show a shift from transaction-centered analysis towards network-oriented approaches to financial crime detection. Recent advances in graph analytics, social network analysis, graph neural networks, and sub-network discovery enable financial institutions to identify

hidden relationships, complex transaction paths, and coordinated laundering structures that remain largely invisible when transactions are analysed individually. Rather than evaluating isolated financial events, network-oriented analytics reveal broader organisational patterns, thereby improving the detection of sophisticated money laundering schemes involving multiple actors and interconnected financial activities.

The literature synthesis indicates that the organisational value of network discovery extends beyond graph-based analytical techniques. Existing research primarily evaluates technical performance, while providing a limited explanation of how network-oriented analysis supports organisational decision-making. From a management perspective, its primary contribution lies in transforming complex relational information into actionable knowledge for investigative and strategic decisions.

Viewed from this perspective, network discovery represents an organisational analytics capability that enables financial institutions to move beyond transaction-level analysis towards a relationship-oriented understanding of financial crime. By revealing hidden connections among customers, accounts, beneficial owners, intermediaries, and financial transactions, organisations gain a more holistic understanding of how money laundering schemes operate within broader financial ecosystems. This capability supports more accurate investigations, strengthens strategic risk assessment, and enhances strategic decision-making by providing contextual insights that cannot be obtained through isolated transaction analysis alone.

Importantly, network discovery does not operate independently of the previously discussed organisational analytics capabilities. Its effectiveness depends on accurate risk classification, meaningful prioritisation of investigative resources, continuous adaptation to emerging money laundering typologies, and comprehensive integration of heterogeneous information. Only when these complementary capabilities operate together can financial institutions fully exploit the analytical potential of network-oriented approaches to financial crime detection.

The synthesis of the reviewed literature, therefore, suggests that network discovery represents the highest level of analytical maturity within analytics-driven AML business processes. Rather than replacing previous organisational capabilities, it builds upon them by transforming integrated information into a deeper understanding of complex financial relationships, supporting more proactive, intelligence-driven, and strategically informed AML decision-making.

From Individual Capabilities to an Analytics-Driven AML Business Process

The preceding sections examined five organisational analytics capabilities that support different stages of AML business processes. Although each capability addresses a distinct organisational challenge, the literature synthesis suggests that their primary value lies in their combined contribution to decision-making across the AML business process rather than in their individual applications. Consequently, the transformation towards analytics-driven AML

should not be interpreted as the adoption of isolated analytical techniques but as the progressive development of complementary organisational capabilities that collectively reshape how AML business processes are performed.

The first capability, accurate risk classification, establishes the analytical foundation for reliable risk assessment by improving the identification of potentially suspicious activities. Building on this foundation, risk-based alert prioritisation enables financial institutions to allocate investigative resources based on the relative significance of identified risks, thereby improving operational efficiency and decision quality. Adaptive monitoring subsequently extends this decision-making process by enabling organisations to continuously respond to evolving money laundering typologies, emerging behavioural patterns, and changing regulatory environments.

The final two capabilities broaden the organisational perspective beyond individual transactions and operational decision-making. Data integration enables financial institutions to consolidate fragmented information into an integrated analytical environment that supports consistent and transparent risk assessment across organisational functions. Network discovery further extends this capability by revealing complex relationships among customers, transactions, accounts, beneficial owners, and other interconnected entities, thereby enabling financial institutions to understand money laundering as a networked phenomenon rather than as a sequence of isolated financial events.

Taken together, these capabilities illustrate that analytics-driven AML represents substantially more

than the implementation of advanced analytical technologies. The literature synthesis indicates that digital transformation creates organisational value only when analytical methods become embedded within business processes and decision-making practices. Consequently, organisational capabilities—not individual algorithms—constitute the primary mechanism through which financial institutions transform analytical potential into improved operational performance and more effective AML decision-making.

From a management perspective, this interpretation shifts attention away from the technological characteristics of individual analytical solutions towards the organisational conditions required for their successful utilisation. Instead of asking which analytical model performs best under specific technical conditions, organisations must consider how different analytical capabilities complement one another throughout the AML business process. The effectiveness of analytics-driven AML depends upon the coordinated development of organisational capabilities that jointly support risk assessment, resource allocation, continuous adaptation, information integration, and network-oriented understanding of financial crime.

The synthesis presented in this study supports a broader conceptual interpretation of digital transformation within AML. Rather than representing a technological transition from rule-based monitoring to artificial intelligence, analytics-driven AML should be understood as an organisational transformation in which complementary analytics capabilities progressively reshape business processes, managerial decision-making, and organisational responses to financial

crime. This perspective provides the conceptual foundation for the theoretical and managerial implications discussed in the following section.

Discussion

The synthesis of the reviewed literature suggests that the digital transformation of AML cannot be adequately explained solely through the adoption of increasingly sophisticated analytical technologies. While existing research demonstrates substantial advances in machine learning, behavioural analytics, graph analytics, and integrated data platforms, these developments have predominantly been investigated as technological solutions addressing specific analytical tasks within the AML process (Deprez et al., 2025; Johannessen & Jullum, 2025). From the broader perspective of digital transformation, however, organisational value is created not by technology itself but by embedding digital capabilities within redesigned business processes and organisational decision-making (Vial, 2019; Warner & Wäger, 2019). This observation provides the foundation for reconsidering how digital transformation in AML should be conceptualised.

The proposed capability-oriented perspective argues that the fundamental transformation of AML extends beyond technological innovation and reflects a broader transformation of business processes. Consistent with the business process management literature, business processes evolve when organisations redesign how information is collected, analysed, shared, and transformed into decisions, rather than merely automating existing activities (Ahmad & Van Looy, 2020; Dumas et al., 2023). Within AML, this transformation is evident in the growing reliance on analytical support for customer risk assessment, transaction monitoring,

investigation prioritisation, relationship analysis, and continuous adaptation to emerging financial crime typologies. Consequently, analytics should be viewed not simply as a collection of technological tools but as an organisational capability that fundamentally reshapes how AML business processes operate.

This interpretation also broadens the role of business analytics within financial institutions. Previous studies have primarily evaluated analytical methods based on their ability to improve detection accuracy, reduce false positives, or identify increasingly complex money laundering patterns (Oztas et al., 2024; Deprez et al., 2025). While these contributions remain essential, the proposed framework suggests that their strategic value lies in enabling organisations to integrate heterogeneous information, coordinate analytical insights across organisational functions, and support evidence-based managerial and operational decision-making. From this viewpoint, business analytics becomes an organisational resource that enhances the overall effectiveness of AML business processes rather than an isolated technological solution.

The proposed framework further complements existing digital transformation research by reinforcing the central role of organisational capabilities in creating sustainable value. Consistent with research on digital transformation and organisational capability, competitive advantage increasingly depends on the organisation's ability to orchestrate complementary resources, continuously adapt business processes, and support organisational learning in dynamic environments (Warner & Wäger, 2019; Ellström et al., 2022). Applied to AML, this implies that sustainable improvements are unlikely to result from implementing individual analytical techniques

in isolation. Instead, they emerge through the coordinated development of complementary analytical capabilities that collectively support decision-making throughout the entire AML business process.

Accordingly, the principal contribution of this study is conceptual rather than technological. Instead of proposing another analytical model or evaluating the performance of a specific artificial intelligence technique, this study provides a management-oriented perspective for understanding how interconnected analytical capabilities collectively enable the transformation of AML from a predominantly compliance-oriented function into an analytics-driven business process. By integrating insights from digital transformation, business process management, business analytics, and AML research, the proposed perspective offers a more holistic explanation of how financial institutions can organise, coordinate, and continuously develop analytical capabilities to support increasingly effective AML decision-making (Deprez et al., 2025; Tiwari et al., 2023).

The proposed capability-oriented perspective addresses the conceptual fragmentation identified in the literature review. Although research on digital transformation, business process management, business analytics, and AML has advanced considerably, these streams have largely evolved independently. By integrating these complementary perspectives, this study provides a more comprehensive conceptual explanation of analytics-driven AML as a digitally transforming business process (Vial, 2019; Deprez et al., 2025).

First, this study bridges the fields of digital transformation and AML research. While digital transformation studies explain how organisations

redesign business processes and develop organisational capabilities (Bharadwaj et al., 2013; Vial, 2019; Warner & Wäger, 2019), AML research has largely focused on regulatory compliance and technological innovations. By integrating these perspectives, the study conceptualises digital transformation in AML as the coordinated development of organisational analytical capabilities rather than the implementation of isolated analytical technologies.

Second, this study integrates business process management and business analytics within AML research. While business process management emphasises process redesign and continuous improvement (Ahmad & Van Looy, 2020; Dumas et al., 2023), AML analytics research has mainly examined analytical techniques for specific operational tasks. The proposed framework demonstrates that analytical capabilities create organisational value when embedded within business processes and organisational decision-making.

Third, this study addresses the fragmented nature of AML analytics research. Previous studies have demonstrated the value of machine learning, behavioural analytics, graph analytics, and integrated data environments (Oztas et al., 2024; Johannessen & Jullum, 2025; Tiwari et al., 2023; Deprez et al., 2025), but have largely examined these approaches independently. This perspective explains how they collectively form organisational analytical capabilities that enable analytics-driven AML business processes.

Finally, this study contributes to AML research by introducing a management-oriented perspective that complements dominant compliance- and technology-oriented viewpoints. Rather than

focusing solely on regulatory requirements or analytical models, it conceptualises AML as a business process whose digital transformation depends on the coordinated development of complementary analytical capabilities. In doing so, it links digital transformation, business process management, and business analytics into a unified conceptual explanation of analytics-driven AML.

Collectively, these contributions suggest that the digital transformation of AML is an organisational phenomenon in which business process management, digital transformation, and business analytics converge. By positioning organisational analytical capabilities as the conceptual link between these research streams, the study establishes a theoretical foundation for future research on analytics-driven transformation in other knowledge-intensive and highly regulated business processes.

The proposed capability-oriented perspective has important implications for managers responsible for digital transformation, compliance, risk management, and organisational development within financial institutions. Rather than viewing AML primarily as a regulatory obligation supported by isolated analytical technologies, the findings suggest that organisations should approach AML as a strategically important business process whose performance depends on the coordinated development of organisational analytical capabilities.

The conceptual perspective highlights the importance of aligning digital transformation initiatives with business process redesign. Investments in artificial intelligence, machine learning, graph analytics, or advanced monitoring technologies are unlikely to achieve their full

potential if implemented as standalone technological solutions. Consistent with digital transformation research, organisations create sustainable value when digital technologies are embedded within redesigned business processes and supported by appropriate organisational capabilities (Vial, 2019; Warner & Wäger, 2019). Managers should therefore evaluate analytical investments not only on their technical performance but also on their contribution to the overall effectiveness of AML business processes.

The study also emphasises that effective AML increasingly depends on cross-functional coordination. Analytics-driven AML requires close collaboration among compliance specialists, risk managers, information technology professionals, business units, and senior management. Consequently, managers should focus on strengthening organisational mechanisms that facilitate information sharing, coordinated decision-making, and continuous organisational learning rather than treating AML as an isolated compliance activity. This observation is consistent with the business process management perspective, which recognises that business process performance depends on effective coordination across organisational functions (Ahmad & Van Looy, 2020; Dumas et al., 2023).

Furthermore, the proposed framework suggests that analytical capabilities should be developed as complementary organisational resources rather than independent technological initiatives. Financial institutions frequently implement individual analytical solutions to address specific operational challenges, such as transaction monitoring or risk scoring. However, the findings indicate that greater organisational value is likely to emerge when these analytical approaches are

systematically integrated to support the entire AML business process. Such an integrated perspective enables organisations to improve decision quality, respond more effectively to evolving financial crime typologies, and continuously adapt analytical practices to changing regulatory and operational environments (Deprez et al., 2025; Tiwari et al., 2023).

Finally, the proposed perspective has implications for organisational governance of digital transformation. The successful transformation of AML requires not only technological investment but also strategic leadership, organisational commitment, and long-term capability development. Managers should therefore view analytical capabilities as strategic organisational assets that contribute to resilience, regulatory effectiveness, and continuous business process improvement. By adopting this broader management perspective, financial institutions may achieve more sustainable outcomes than through the isolated implementation of advanced analytical technologies alone.

Overall, the managerial implications extend beyond AML itself. The proposed capability-oriented perspective may also support the digital transformation of other knowledge-intensive, data-driven, and highly regulated organisational processes where effective decision-making depends on the coordinated integration of analytical methods, organisational knowledge, and business process management.

This study has several limitations that also provide opportunities for future research. As a conceptual study, the proposed framework has not yet been empirically validated. Future research should therefore examine its applicability and explanatory

power across different types of financial institutions and organisational contexts. Although the framework integrates insights from digital transformation, business process management, business analytics, and AML research, it does not evaluate the relative importance or maturity of individual analytical capabilities. Future studies should therefore investigate how these capabilities evolve, interact under different organisational conditions, and contribute to analytics-driven AML performance. This study intentionally adopts a management-oriented perspective and does not evaluate the technical performance of individual analytical methods. Future research could extend the proposed framework by examining how analytical methods contribute to the development of organisational analytical capabilities and how technological innovation translates into improvements in organisational decision-making (Deprez et al., 2025; Johannessen & Jullum, 2025; Tiwari et al., 2023). Although developed within the context of AML, the proposed capability-oriented perspective may also support the digital transformation of other knowledge-intensive and highly regulated business processes, including fraud detection, cybersecurity management, financial risk management, healthcare compliance, and public sector governance. Overall, the proposed framework should be viewed as a conceptual foundation for future empirical and conceptual research rather than as a definitive representation of analytics-driven AML. It provides a basis for examining how organisational analytical capabilities support the digital transformation of AML and other knowledge-intensive business processes.

Conclusion

The digital transformation of AML presents financial

institutions with challenges that extend well beyond the adoption of advanced analytical technologies. Increasing transaction volumes, evolving financial crime typologies, fragmented information environments, and growing regulatory expectations require organisations to rethink how AML business processes are designed, managed, and continuously improved. Although recent research has demonstrated significant progress in developing analytical methods for transaction monitoring, risk assessment, behavioural analysis, graph analytics, and network discovery, existing studies have predominantly examined these developments as individual technological solutions rather than as components of a broader organisational transformation.

This study addressed this conceptual gap by proposing a capability-oriented perspective on the digital transformation of AML. Building upon insights from digital transformation, business process management, business analytics, and AML research, the study argued that analytics-driven AML should be understood as the coordinated development of complementary organisational analytical capabilities embedded within business processes. Instead of conceptualising digital transformation as the implementation of isolated analytical technologies, this perspective emphasises that sustainable improvements in AML performance emerge from integrating analytical capabilities that collectively support organisational decision-making across the entire AML business process.

The proposed framework contributes to existing knowledge in several ways. First, it integrates previously fragmented research streams into a coherent conceptual perspective that links digital

transformation, business process management, business analytics, and AML. Second, it shifts the analytical focus from individual methods towards organisational analytical capabilities as the primary mechanism through which digital transformation creates value within AML. Third, it introduces a management-oriented interpretation of AML that complements the dominant compliance- and technology-oriented perspectives by positioning AML as a digitally transforming organisational business process.

From a practical perspective, the study suggests that financial institutions should approach AML not merely as a regulatory function but as a strategically important business process requiring continuous organisational learning, cross-functional collaboration, and the systematic development of analytical capabilities. Investments in artificial intelligence, machine learning, graph analytics, or integrated analytical platforms are therefore most likely to create sustainable value when they are embedded within redesigned business processes and supported by appropriate organisational structures and managerial practices.

As a conceptual study, the proposed framework provides a foundation for future empirical research rather than a definitive model of analytics-driven AML. Future studies should validate the proposed capability-oriented perspective in different organisational and regulatory contexts, examine the relationships among individual analytical capabilities, and investigate their influence on organisational performance and decision quality. Such research would further enhance understanding of how financial institutions can successfully transform AML into an analytics-driven business process capable of responding to increasingly

complex financial crime environments.

Ultimately, this study demonstrates that the future of anti-money laundering is not defined solely by the adoption of increasingly sophisticated analytical technologies. Rather, it depends on the organisational ability to integrate these

technologies into coherent analytical capabilities that transform AML from a predominantly compliance-oriented function into an analytics-driven business process supporting more effective, adaptive, and informed organisational decision-making.

Data Availability: Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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Digitalna preobrazba poslovnih procesov preprečevanja pranja denarja: perspektiva analitično podprtega preprečevanja pranja denarja

Izvleček

Preprečevanje pranja denarja (AML) postaja vse bolj informacijsko intenziven poslovni proces, ki za učinkovito organizacijsko odločanje zahteva napredno analitično podporo. Čeprav so predhodne raziskave obsežno preučevale strojno učenje, analitiko grafov in druge analitične metode, jih večinoma obravnavajo kot ločene tehnološke rešitve. Ta konceptualna raziskava zavzema perspektivo poslovnih procesov. Z uporabo sinteze literature s področij digitalne preobrazbe, upravljanja poslovnih procesov, poslovne analitike in preprečevanja pranja denarja razvijemo okvir analitično podprtega preprečevanja pranja denarja, usmerjenega v organizacijske zmogljivosti. Ta perspektiva digitalno preobrazbo preprečevanja pranja denarja opredeljuje kot usklajen razvoj medsebojno povezanih organizacijskih analitičnih zmogljivosti, vpetih v poslovne procese. Prispevek raziskave je v povezovanju doslej razdrobljenih raziskovalnih tokov v enotno, upravljavsko usmerjeno perspektivo. Raziskava podaja konceptualne temelje za prihodnje empirične raziskave ter praktične usmeritve za finančne institucije pri uresničevanju analitično podprte digitalne preobrazbe preprečevanja pranja denarja.

Ključne besede: preprečevanje pranja denarja (AML), digitalna preobrazba, upravljanje poslovnih procesov (BPM), poslovna analitika, organizacijske analitične zmogljivosti, analitično podprto preprečevanje pranja denarja.