

Reengineering of Money Laundering Prevention Process in the Financial Sector

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ABSTRACT

The development of the financial sector at a global level is increasingly bringing society closer to uncontrolled money flow movements. The amount of money in the shadows is growing every year, and it is becoming increasingly difficult to manage emerging problems at the state and regional levels. Therefore, new methods for money laundering prevention are being sought, and ongoing improvements to existing processes are being implemented. The implementation of money laundering prevention is governed by specific processes and procedures established within organizations, which are used by companies in the financial sector to carry out money laundering and loss prevention. Although these processes have existed for many years, in an ever-expanding environment, it is essential to introduce the latest problem-solving and money-laundering prevention methods to ensure the safety of both financial sector companies and their clients. Therefore, the aim of this study is to identify factors that could be improved for money laundering prevention in the financial sector and reengineer the anti-money laundering process in the financial sector. Research methods such as literature analysis and expert evaluation were chosen and conducted through in-depth interviews to achieve this objective. The results of the study showed that money laundering, as a process, is not only relevant but also dangerous, with up to 5% of the world's GDP being illegally exploited. Money laundering can manifest in various ways and through many different crimes. However, the crucial aspect is how each citizen behaves in certain situations related to money laundering, its processes, and prevention, as well as the actions taken by both individuals and legal entities to control situations associated with the exploitation of illegal money.

Keywords: money laundering process, prevention, process reengineering, financial sector.

1. Introduction

The development of the financial sector worldwide is increasingly bringing society closer to uncontrolled money flow movements (Radu & Cristian, 2019). The amount of money in the shadows is growing each year, making it difficult for municipalities to manage emerging problems. As a result, new methods for money laundering prevention are being sought, and ongoing improvements to existing processes are being implemented. The money circulating in money laundering constitutes up to 5% of global GDP, amounting to 2 trillion USD, which represents a 26% increase in the expanding financial sector each year (Wronka, 2022).

The implementation of money laundering prevention is governed by specific processes and procedures established within companies, which are used by firms in the financial sector to carry out money laundering and loss prevention (Fasna & Gunatilake, 2019). Although these processes have existed for many years, in a continually expanding environment, it is necessary to adopt the latest problem-solving and money laundering prevention methods to ensure the safety of both financial sector companies and their clients (Wronka, 2022). The problem of this study is that money laundering prevention methods have existed for

many years, particularly in the financial sector, and in many cases, these methods can be deemed effective. However, the processes that follow these methods often fall short, being either insufficiently effective or not properly implemented (Ofoeda, Agbloyor, Abor & Osei, 2020). Accelerating organizational activities and enhancing the effectiveness of money laundering prevention methods and processes are potential solutions to existing problems that allow organizations to expand, save costs, and enable the sector to grow significantly faster (Gottschalk, 2024).

There are many ways to develop the financial sector and its business processes, and one of them is improving efficiency through business process reengineering (Musonda & Okoro, 2022; Pasaribu et al., 2021; Wang et al., 2024). This approach will be applied to reengineer the anti-money laundering process in the financial sector. To address the problem of this study, the aim is to identify factors that could be improved for money laundering prevention in the financial sector and reengineer the anti-money laundering process in the financial sector. The main tasks to achieve this aim are to analyze and present the theoretical aspects of money laundering prevention processes, compare these aspects with alternatives, use the in-depth interview method for data collection, survey experts in the field, and determine the most effective steps for process implementation and utilization in the financial sector based on the collected information; to create a strategy for improving money laundering prevention processes and identify areas where they should be implemented (Hall et al., 1993). Research methods such as literature analysis and expert evaluation, conducted through the in-depth interview method, were employed to achieve this study's aim.

2. Importance of money laundering prevention process reengineering

The importance of reengineering the money laundering prevention process lies in enhancing the ability to detect and prevent illicit financial activities, ensuring compliance with regulatory standards, and improving operational efficiency and effectiveness (Ryder, 2012; Ramadhan, 2025).

Money laundering consists of a series of interrelated processes and actions working towards a common goal. Different sources describe this factor in different ways. However, using the most recent sources, the authors define money laundering as the concealment or disguise of the true nature, real origin, source, location, disposition, movement, ownership or rights in respect of property, with the knowledge that the property has been derived from, or is involved in, a criminal act (Hock et al., 2024).

This problem is particularly visible and needs attention in this era of e-money, where personal remittances are growing by at least \$50 billion annually as of 2020 and have at least doubled since 2009 (The World Bank, 2024). Constantly burdened by ever-improving and increasingly sophisticated financial products or services and new technologies, but in an economically and financially expanding environment, it is imperative to address the need to improve current processes, which in a large number of companies currently operating in the financial sector are not only outdated, not up-to-date, and raising concerns about the security of customer and company information but also inefficient, in many cases taking months to go through the entire anti-money laundering process. To combat this situation, there are funds and special attention from anti-money laundering institutions, which follow specific principles to ensure the safety of money, people, and organisations (Šaparnis, 2023).

In academic literature, different scholars have proposed different anti-money laundering strategies. For example, Zuk (2022) proposes anti-money laundering strategies related to customer knowledge, monitoring of financial transactions, and cooperation (Figure 1). The money laundering process is universally recognised as a 3-step crime model (United Nations, 2024):

- Money laundering - using different methods to transfer illegally earned money into the bank accounts of fictitious persons;

- Cash distribution - the use of money received illegally and held in bank accounts in different ways. From buying securities to exchanging currencies. These money transfers are usually sent to accounts in other countries and then sent back (Vera and Zapata, 2022);
- Money integration - transfers of money to criminals from seemingly trustworthy sources. Usually, firms open specifically for this crime, where the money can be freely transferred to other countries or to countries with a higher risk of money laundering.

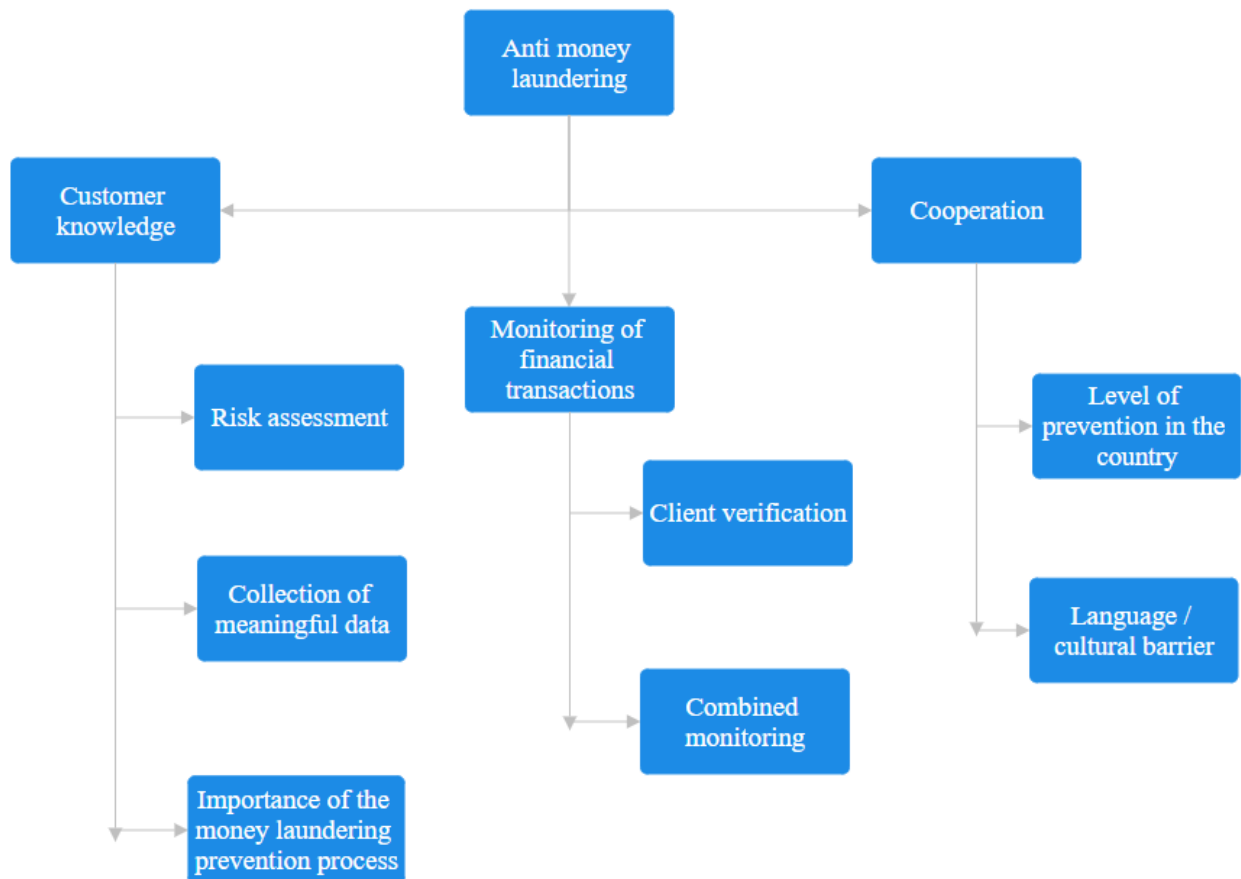


Figure 1: Diagram of the Anti-Money Laundering Strategy (based on Žuk, 2022)

There are a number of dependent or independent intergovernmental bodies around the world that, in turn, work to prevent money laundering and reduce the harm it causes (Hoch et al., 2016). One of the most important and recognised a key global body is the Financial Action Task Force (FATF), which in 2003 published an updated and generally accepted list of 40 recommendations to improve national legal frameworks, strengthen the role of the financial sector and enhance cooperation in the fight against money laundering (FATF, 2023).

3. Money laundering prevention process reengineering analysis

The reengineering of the money laundering prevention process involves redesigning and optimizing the procedures and systems used to detect and prevent money laundering, with the goal of improving efficiency, effectiveness, and compliance (Ryder 2012). The challenges of reengineering the money laundering prevention process include managing the complexity of regulatory requirements, integrating new technologies, ensuring data accuracy and security, and maintaining operational continuity during the transition. By reengineering the process, organizations can enhance their ability to identify suspicious

transactions more quickly and accurately. Additionally, it can reduce operational costs by streamlining workflows and leveraging advanced technologies.

In gathering information from different sources, this work relied on three different methods of gathering and analysing information, each with its own added value. The analysis of scientific literature was relied on to find information on theoretical aspects of the topic, and other aspects of the work that had already been studied. Analysis of primary and secondary sources was also used to understand and interpret information from different sources (Jindal - Snape et al., 2020).

The main source of information was the in-depth interview, a qualitative research method that is widely used to obtain detailed and in-depth views of the interviewees' experiences, abilities, and opinions (Deterding & Waters, 2021). The purpose of in-depth interviews was to gain a deep understanding of experts' experiences and perspectives through exploratory conversations. In-depth interviews offer several advantages, including gathering detailed and nuanced knowledge, exploring complex issues in depth, and building rapport with participants, leading to more prosperous and meaningful information.

In the in-depth interviews, selected experts meeting all the qualifications of experts answered the questions developed by the author on the topic of the functioning and improvement of AML processes.

In order to identify ways in which the processes used to prevent money laundering in the financial sector could be improved, an expert assessment was carried out through an in-depth interview using a structured and thematically appropriate questionnaire. A total of 7 experts working in the financial sector were interviewed, all of whom have been working in the financial sector for more than 5 years, and 42% (3 experts) have been working in the financial sector for over 10 years. All experts had a university degree, and 57% (4 experts) also had a master's degree in finance. All the experts interviewed are specialists in the field and have experience in a number of companies in the financial sector. The experts' positions range from managers of agent implementation teams (4 experts), director of the finance department (1 expert) to region-specific financial analysts (2 experts).

In the interviews conducted, the questions ranged from experience with anti-money laundering to the improvement of precise processes for a more efficient and quality financial sector. The experts answered questions related to their work experience, each one's encounter with AML processes, the pros and cons of the processes and recommendations on how the field and the constantly evolving financial sector could improve.

The following key questions were asked of the experts involved in improving anti-money laundering processes in the financial sector:

- Please assess and comment on the current state of the anti-money laundering process in your organisation.
- What are the main characteristics of the processes in place?
- Please assess and comment on the possibility of correcting system errors in your organisation.
- Assess and comment on the potential for employee error correction in your organisation.
- Comment on the possibilities to measure the effectiveness of the process.
- Comment on the opportunities to measure employee performance.
- Evaluate and comment on the total time taken by the process.
- Please rate and comment on the availability of user feedback to employees.
- Evaluate and comment on the level of feedback from employees to customers.

- Comment on the recommendations to improve the AML process.

4. Research results

The peer review looked in detail at evaluation factors such as the smoothness of the AML process, the characteristics of the processes involved, the assessment of the system's ability to correct errors, the assessment of the staff's ability to correct errors, the ability to assess the efficiency of the process, the ability to assess the staff's productivity, the overall time taken by the process, the provision of user feedback to the staff, the staff's provision of feedback to the clients, and recommendations for improving the AML process (Tables 1 and 2).

Table 1: Expert assessment of the problem areas of the current processes: smoothness of the AML process and other aspects to be assessed (compiled by the author)

Factors	Expert evaluation results
Smoothness of the money laundering prevention process	Anti-money laundering in the financial sector must be carried out smoothly and efficiently, and experts believe that while the process is smooth enough, it takes far too long to achieve the best results. 4 experts (57%) say that fluency depends more on the staff, their abilities and the cooperation of the client, while 3 experts (43%) attribute fluency problems more to the technological side of AML, which lacks optimality, speed and the latest technology.
Characteristics of the processes involved	<p>The majority of experts (85%) consider that the financial sector has a number of positive aspects to its anti-money laundering (AML) processes, with all companies complying with international and local legal requirements to ensure the veracity and reliability of information. Also, risk assessment systems, which rank high in the financial sector, help to identify and manage specific emerging issues in companies. Know Your Customer (KYC) processes allow for efficient verification and validation of customer identity, thereby preventing in advance non-transparent transactions from or to higher-risk jurisdictions.</p> <p>All the experts mentioned the lengthy AML process as a major negative feature, which is why the financial sector is working very hard on it, and the organisations represented by the experts are also developing robots or other process-efficient tools to help deal with the problems faster. Another negative factor mentioned by the experts is the poor cooperation between companies in the financial sector and their clients - often, the data and documents provided by clients are not of good quality or are insufficient, thus significantly prolonging the process and involving more staff in one task. Although the financial sector is vulnerable, experts believe that the security of every person and all information is taken care of 24 hours a day.</p>
Assessment of the ability to correct system errors	2 experts (28%) believed that the possibility of correcting errors in the AML system should be seen through strengthening accountability and training of staff in order to maximise the optimisation of the care and maintenance of the systems. In comparison, 5 experts (72%) advised investing in technology in order to maximise automation of processes, regular audits, and cooperation with national supervisory authorities.

Darbuotojų klaidų taisymo galimybės vertinimas	All experts agreed that human error is inevitable. However, the 28% of experts who tended to be more oriented towards training and increasing accountability suggested an additional staff appraisal system in which staff are more highly valued and rewarded for better performance (Aven 1992). Meanwhile, 72% of the experts were in favour of automating processes as much as possible, thus reducing human error and the responsibility for mistakes.
The ability to measure the effectiveness of the process.	Experts believe that there are a number of effective ways and methods to measure the efficiency of different processes in financial sector companies. For example, it is important to assess how effectively the system identifies and prevents potential money laundering. It is also necessary to observe how efficiently and smoothly the system prevents potentially illegal transactions and, in the event of a failure, how smoothly the customer can receive or send money once the failure has been resolved. 28% of experts also mentioned the system's cost-benefit ratio, which allows them to see the profitability of the problem-handling process in monetary terms.

The analysis of the scientific literature and the in-depth interviews with experts have shown that there are several options to improve and speed up AML processes, such as staff development, reduction of human errors and continuous training, or automating most of the processes and allowing artificial intelligence to develop and slowly change the human factors processes.

In this field, and especially in the financial sector, there are many processes that cannot be changed by any robot or artificial intelligence because the decision must be made by a human being, but that does not mean that the process cannot be optimised as much as possible to the point where it is a human being (Ito et al., 2018).

Table 2: Expert assessment of current process problem areas: ability to assess employee performance and other evaluative aspects (compiled by the author)

Factors	Expert evaluation results
Ability to measure staff performance	4 out of 7 experts cite the ability to effectively identify suspicious transactions and to act in accordance with established procedures as a key factor in assessing staff performance. The remaining experts mention the most important aspect, which is the ability of employees to cooperate not only with each other but also with clients and regulators - the authorities responsible for money laundering criminal activities. Although both factors are equally important, it is interesting to see the difference between the main problem areas of escorts in terms of anti-money laundering processes.
Total time taken for the process	All experts agree that the process takes, on average, around 3-8 days. However, one of the most important indicators of this is the ability of clients to provide quality and correct information.
Getting user feedback to employees	Most experts agreed that employees must be prepared to listen to reports and concerns from customers and counterparties about possible illegal or suspicious financial activities and that, once identified, they must be able to react appropriately, assess the details carefully, and take action from line managers to regulators. This feedback mechanism helps to ensure that all suspicious or unrecognised cases are properly investigated and assessed.

<p>Providing employee feedback to customers</p>	<p>All experts believe that a smooth feedback loop between employees and customers is one of the most important parts of a company in the financial sector. Feedback provides a level of interaction and trust that cannot be obtained in any other way, which is invaluable to companies. By showing a willingness to cooperate and providing feedback, companies demonstrate their commitment to honesty and transparency and increase customer confidence in their performance.</p>
<p>Recommendations to improve the anti-money laundering process</p>	<p>All the experts mentioned a number of recurring recommendations on areas for improvement to ensure the prevention of money laundering. Risk assessment systems must be continuously updated, and KYC processes must be strengthened. Staff training also needs to be more tailored to specific groups, and internal controls and audits should be carried out more regularly, covering all areas of risk rather than one area in isolation.</p>

The main recommendations made by the experts to improve the AML process were: regular updating of risk assessment systems; strengthening of KYC processes; staff training, which needs to be more tailored to specific groups; and internal controls and audits, which should be carried out on a regular basis, covering all risk areas (Watahiki, Ishikawa, Hiraishi, 2011).

5. Money laundering prevention process reengineering recommendations

Based on the analysis of the scientific literature and the results of the expert assessment, an AML process flowchart was drawn up (Figure 2). The diagram in Figure 2 provides a possible solution to the problem, which not only speeds up the processes that take place in hours but also allows the implementation of processes using artificial intelligence and its solutions (Umar 2024).

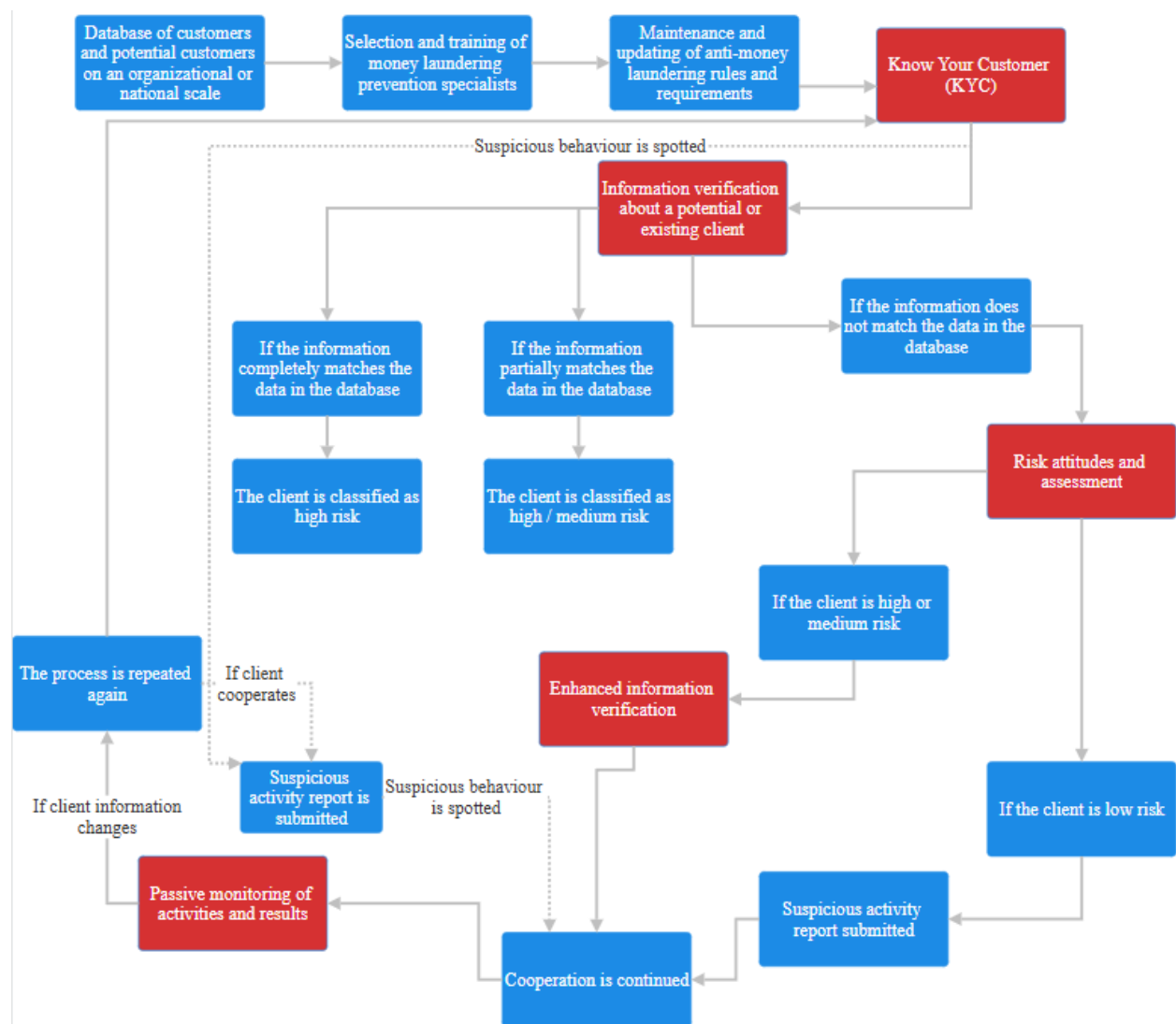


Figure 2: Anti-money laundering process reengineering diagram (compiled by author)

The factors highlighted in red in Figure 2 are precisely the locations that could be fully or partially automated or replaced by AI. All the parts of the AML process highlighted in red are in need of improvement and, based on both the analysis of the literature and expert judgment, there is no single solution to the problem, but rather a complex one, ranging from training and upskilling of staff to the implementation of AI and automation of the processes (Dursun, Findik, and Goker 2022).

6. Conclusions

The significance of reengineering the money laundering prevention process in the financial sector is to enhance the detection and prevention of money laundering activities, ensure regulatory compliance, reduce operational risks, and improve overall financial system integrity (Romaniuk et al. 2023). The analysis of the scientific literature and the results of the expert assessment have shown that money laundering as a process is not only relevant nowadays but also dangerous when up to 5% of the world's GDP is illegally exploited. Money laundering can manifest itself in many different ways, through many different crimes, but what is most important is how each citizen copes with the process of preventing money laundering - what actions are taken by a natural or legal person who wants to combat and deal with the exploitation of illicit money.

Based on the expert assessment, two main ways in which process improvements on AML in the financial sector can be implemented have been identified: training of staff, minimising human error and increasing

staff accountability in the form of additional bonuses or recognition; implementation of high technology or artificial intelligence where possible, automation of as much of the process as possible and a tendency towards less human intervention in every aspect of the process.

The proposed changes to improve and make AML processes more efficient lie in those parts of the process where a presumption of fairness is not necessary to achieve a positive objective. Process verification, monitoring, risk assessment, information verification, and KYC are all processes that can be improved by implementing technology, artificial intelligence, or job training to improve processes. All these areas need to be improved in order to achieve not only the most optimal customer service times but also the most accurate results (reducing the amount of money spent in the sector).

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