

**A review of AML regulations and its efficacies in a technologically developing financial  
environment**

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## **ABSTRACT**

This dissertation critically examines the effectiveness and adaptability of anti-money laundering (AML) policies in a rapidly evolving global landscape, underscored by advanced technological integrations and increasing interconnectedness across financial systems. The study traces the evolution of money laundering from its early 20th-century origins, where rudimentary methods were employed by organised crime syndicates, to today's sophisticated schemes exploiting digital and financial technologies. The Financial Action Task Force (FATF), United Nations (UN) and the European Union (EU) have laid down comprehensive frameworks aimed at mitigating money laundering.

However, despite global efforts and the establishment of international standards, the implementation of these AML policies often reveals significant discrepancies across jurisdictions, hindered by the dual challenges of adapting to innovative laundering techniques and aligning diverse legal systems. This paper evaluates the role of current AML frameworks in mitigating the mechanisms that facilitate financial crimes, and how these efforts are often compromised by economic, political, and technological factors.

Through a systematic literature review supplemented by case studies and real-world examples, this research not only explores the gaps in AML policy effectiveness but also proposes enhancements aimed at refining enforcement mechanisms, improving international cooperation, and integrating regulatory technology tools. The objective is to foster a more robust, coherent, and adaptive regulatory environment that can effectively combat the complexities of modern financial crimes in the global economy.

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## **1 Introduction**

### **1.1 Anti-Money Laundering Regulation Evolution**

Money laundering, as defined by the International Monetary Fund (IMF), involves the intricate procedure of legitimising unlawfully obtained funds to obscure their illicit origins (IMF, n.d.). The first case of money laundering traces back to the early 20th Century, where the Mafia began using various businesses such as casinos and laundromats to disguise the origins of their illicit gains, a method born out of necessity during the prohibition era (Schneider & Windischbauer, 2010). With the prohibition of alcohol, illegal activities such as gambling, prostitution, and the sale of alcohol surged. The burgeoning market for these activities meant that criminals frequently handled large volumes of cash, predominantly in small denominations. The sheer volume and form of these earnings would have raised suspicions at financial institutions, necessitating innovative methods to integrate such funds into the legitimate financial system without detection (Sullivan, 2015).

The regulatory response to these burgeoning criminal activities began to take shape in the 1970s and 1980s in the United States with the introduction of laws such as the Bank Secrecy Act (1970) and Money Laundering Act (1986). These acts mandated financial institutions to report cash transactions over a certain threshold and maintain a record of others that might signal illicit activity, laying foundational stones for modern anti-money laundering (AML) efforts. In parallel, the Financial Action Task Force (FATF) was established in 1989 by the G7 to develop a coordinated international response. FATF quickly became a predominant global force, advocating for standards and promoting effective implementation of legal, regulatory, and operational measures to combat money laundering, terrorist financing, corruption, and other related threats to the integrity of the international financial system (FATF, 2012-2023).

These early regulations were critical in the evolution of AML efforts, setting a precedent for the complex web of international laws and guidelines that would follow. The FATF, with its 40 recommendations, has been instrumental in shaping global AML policies, ensuring that countries across the world adhere to a minimum standard of action against money laundering and thus maintaining the integrity of the global financial market (FATF, 2012-2023). Further regulations such as the EU Directives and UNODC's Acts such as the Act Against Corruption and Act against blah blah.

With the rapid globalisation of our world and the increasing interconnectedness of people, the ease of laundering funds has reached unprecedented levels. As borders in the financial world blur and transactions traverse across continents with greater speed and ease, opportunities for illicit actors to exploit these networks have expanded (Jojarth, 2013). Findings from previous studies reveal that the correlation between economic globalisation, foreign direct investment and money laundering show a positive correlation with the hidden economy, suggesting that increases in foreign investment may correlate with increased money laundering activities (Al-Kasawnih, 2020). The digitisation of financial systems, coupled with advancements in technology, has further facilitated the process, enabling money launderers to navigate through complex networks with relative ease (Brenig, et al., 2015). It is estimated that illicitly generated funds circle the world five times through various complex webs of financial institutions, front companies, and transactions (Gerbrands, et al., 2022).

In the years following the establishment of these regulations, minimal substantive changes have occurred (Pol, 2020), with recent adaptations seeming to focus on the wrong issues. Scholars have consistently criticised the stagnation and lack of reassessment in anti-money laundering (AML) measures (Gerbrands, et al., 2022), highlighting a notable absence of tangible success indicators. The primary contention lies in the lack of empirical data to substantiate effectiveness, a challenge inherent to combating the clandestine nature of money

laundering (Pol, 2020). Critics argue that the emphasis on enforcement often overshadows the pursuit of actual outcomes.

However, labelling AML regulations as outright failures would be unjust. The unprecedented adoption of these regulations by numerous countries underscores a global acknowledgment of the issue, with most jurisdictions either actively pursuing compliance or demonstrating a commitment to doing so. Despite criticisms, this widespread adherence signifies a collective recognition of the importance of combating financial crimes and the determination to address them, albeit with room for improvement in efficacy assessment and strategy recalibration.

Reports based on effectiveness of AML regulation often provide vague estimates with some contradicting the other. Around \$2tril is estimated to be laundered annually and 90% of the criminal proceeds remain undetected (Kolmar, 2023). These numbers show a dark representation of the reality of the efficacy of these policies and raise questions on why more effective measures haven't yet been developed.

Changes to how AML policies are designed have been implemented with recent adaptations aimed at a more risk-based approach (FATF, 2014), where clients are individually analysed for their risk of criminal activities. Examples of these are Politically Exposed Persons (PEPs) which had adjustment in regards of how they are monitored, due to the heightened risk of criminal activities such as corruption (Kang, 2018).

## **1.2 Research Objectives**

### *Overarching Aim*

The primary aim of this research is to critically evaluate the responsiveness and adaptability of anti-money laundering (AML) policies as well as their efficacy against evolving methods of financial crime. This study seeks to explore how effectively current AML frameworks across various jurisdictions are keeping pace with innovative laundering

techniques and to propose targeted enhancements to strengthen these regulatory measures. By assessing a range of AML strategies—from compliance verification to cross-border collaboration—this research will provide an in-depth analysis of their efficacy in mitigating the mechanisms that facilitate financial crimes, thereby enhancing global economic security.

#### *Understand Evolution in Laundering Tactics*

Study how money laundering methods are evolving in response to the latest AML regulations. This includes investigating new techniques that launderers use to bypass regulatory barriers, such as the use of digital currencies, online platforms, and other technological innovations.

#### *Propose Regulatory Improvements*

Develop evidence-based recommendations for enhancing AML regulatory frameworks to better counteract emerging laundering methods. Proposals should focus on closing identified loopholes, strengthening enforcement mechanisms, and enhancing international cooperation. Recommendations will also include strategies for integrating more adaptive technological tools within regulatory practices, such as artificial intelligence and blockchain, to improve detection and tracking of illicit financial flows.

### **1.3 Research Questions**

- *(1) In what specific areas do existing anti-money laundering (AML) regulations fall short, and what improvements can be proposed to address these gaps?*
- *(2) How are the methods of money laundering evolving due to technological innovation and as a response to current regulatory measures, and how can these regulations adapt to address new challenges in the landscape of financial crime?*



## **2 Literature Review**

The literature on money laundering regulations is abundant and spans various disciplines, reflecting the multidimensional nature of this complex issue. Scholars from fields such as law, economics, criminology, computer science and finance have all contributed extensively to the understanding of money laundering and the efficacy of regulatory measures aimed at combating it. Thus, this literature review shall therefore address the money laundering framework, the varied discussion of current regulatory success and the evolving nature of money laundering including FinTech and RegTech.

### **2.1 Money Laundering: The Framework**

The theoretical framework of money laundering is commonly delineated in various literature as a tripartite process: placement, layering, and integration. This model serves to obscure the illicit origins of funds, facilitating their reintroduction into the legitimate financial system as seemingly lawful assets (Arman, 2023; Levi and Reuter, 2006).

Placement, the initial phase, involves the discreet introduction of criminal proceeds into the financial system. Often, this is executed through deposits made into bank accounts under fictitious entities or via intermediaries. For example, legitimate businesses such as restaurants may report inflated daily earnings to deposit illicit funds, presenting them as legitimate business revenue (Arman, 2023). Additional common techniques include "structuring" and "smurfing," where large sums are broken down into smaller, less conspicuous amounts to evade detection (Levi & Reuter, 2006).

Furthermore, Arman (2023) subdivides the placement stage into Primary and Secondary Deposits, emphasizing the varied tactics employed to introduce illegal funds into the financial system. Primary deposits often involve direct, albeit cautious, injections of cash into the banking system or through other financial instruments. Secondary deposits typically

utilise more indirect methods, such as leveraging the interconnectivity of business entities or through front companies that simulate legitimate business activities.

Following placement is Layering. This stage seeks to sever the funds traceability through a complex series of transactions involving multiple accounts and business entities. This strategic dispersal of funds serves to further distance the money from its criminal origins, complicating any subsequent investigation into its provenance (Levi and Reuter, 2006).

The final stage, Integration, sees the laundered money re-enter the economic mainstream, now indistinguishable from legitimate funds. At this point, criminals are able to use their laundered capital openly without direct links to its illicit roots. This stage may involve investments in real estate, luxury goods, or business ventures, thereby embedding the illicit funds within the legal economy (Arman, 2023; Levi and Reuter, 2006).

## **2.2 Efficacy of AML Implementation**

The global inconsistency in the implementation of Anti-Money Laundering (AML) policies is well-recognised, as highlighted by Gaviyau and Sibindi (2023). They point out significant variances across countries and their adherence. This patchwork of national regulations underscores the need for robust international frameworks to ensure uniform and effective global responses to money laundering, an idea also supported by Yaacob and Hanif (2019). Levi and Reuter (2006) suggest that “available data weakly suggest that the anti-money laundering (AML) regime has not had major effects in suppressing crimes” criticising the lack of available data to conceptualise how effective AML has been at preventing crimes.

Building on this, Levi and Reuter (2006) discuss how the effectiveness of AML measures hinges on the regulatory environment. Historically, less stringent financial havens demanded minimal sophistication from launderers. Today, however, in more tightly regulated jurisdictions, launderers must deploy more ingenious tactics.

Pol (2020) further critiques the substantial disparity between the intentions of AML policies and their actual impact. His analysis shows that AML efforts barely scratch the surface of criminal finances and generate compliance costs that vastly exceed the amounts recovered. This places undue burdens on banks, taxpayers, and ordinary citizens rather than on the criminals. Pol's observations suggest that the fundamental issues might stem from the policy design itself rather than its implementation. His findings underline the need for an integrated approach that includes the regulatory enhancements such as proposed by Gaviyau and Sibindi (2023) and addresses the complex challenges highlighted by Levi and Reuter (2006).

A review paper by Tiwari et al. (2020) highlights a significant gap in the literature regarding the detection of money laundering through shell companies—a preferred conduit for laundering large volumes of illicit funds. Their systematic review calls for focused research on the mechanisms that facilitate the creation and operation of these entities, which are often central to large-scale money laundering schemes. Addressing this gap is crucial for developing more effective detection and prevention strategies (Tiwari et al., 2020).

### **2.3 Impact of Technology**

Scholars are beginning to address the growing gap between technological advancements in tackling money laundering and the technology utilised by criminals. Nestorova (2020) traces the evolution of AML standards over the past three decades, reflecting on the integration of global financial markets and the rapid technological advances. They also emphasise that updating international standards, such as those by the Financial Action Task Force and the European Union's recent Directives, is imperative to respond to new money laundering techniques and the global nature of modern financial crimes (Nestorova, 2020).

The critique of global AML regulations also sheds light on the evolving methods of money laundering facilitated by advancements in financial technology (FinTech). According to Gaviyau and Sibindi (2023), FinTech, incorporates cutting-edge technologies that transform traditional banking services. This evolution creates new vulnerabilities and opportunities for money laundering activities that are not adequately covered by existing regulatory frameworks. The dynamic and rapidly evolving nature of FinTech challenges the traditional banking norms and requires continual updates to regulatory approaches to effectively combat modern laundering techniques.

To counter this Ujoodha and Suppiah (2023) explore the role of technology and regulatory reforms in mitigating money laundering. Their research identifies five key variables that can significantly reduce money laundering activities: robust AML policies, structured employee training, advanced data analytics, meticulous suspicious transaction reporting, and thorough customer due diligence (Ujoodha & Suppiah, 2023).

Moreover, the current regulatory technologies (RegTech) aimed at bolstering compliance are struggling to keep pace with financial technology innovations, as noted by Gaviyau and Sibindi (2023). Although intended to enhance regulatory compliance efficiency, RegTech often falls short in its application across sectors, including financial services. This is compounded by the absence of a universally accepted definition and implementation strategy for RegTech solutions, adding layers of complexity to the regulatory landscape and impeding effective compliance with AML regulations. This gap in technological adaptation further emphasises the need for a comprehensive and coordinated approach that spans disciplines and borders to strengthen the fight against money laundering effectively.

Gaviyau and Sibindi (2023) discuss the shortcomings in current definitions of money laundering, which emphasise proceeds from traditional crimes like drug trafficking, human trafficking, and corruption. These definitions, advanced by scholars such as Schneider (2008)

consistently identify money laundering as the process of legitimising illegally obtained proceeds through the banking system. However, these characterisations have not evolved sufficiently to encompass modern methods that exploit digital and electronic financial channels. This gap in the conceptual framework fails to address the nuances of technology-driven financial crimes (Brenig, et al., 2015), thus highlighting a significant knowledge deficit in understanding and defining money laundering in the age of digital finance.

Paper published by Roide (2022) discusses what the future of financial regulation regarding FinTech should look like. The innovation trilemma is presented which are that regulation cannot achieve all three of these following objectives: market integrity, rules simplicity and fostering innovation. He argues that OFCs have managed to create a better environment fostering innovation whilst still complying with international AML regulation as rated by FATF. The need for cross-border cooperation and harmonisation in bolstering innovation such as the increasing use of DLT technologies should have adaptable regulation which protect market integrity without hindering the innovation. “Innovation hubs” are said by him to “represent the most feasible avenue for implementation” for AML regulation regarding FinTech. However, Schwarz (2011) argues this where a link between money laundering and tax havens has been made, thereby ascertaining that OFCs therefore are not as compliant. Roide argues this by revealing that “tax heavens” are rated amongst the most compliant by FATF assessments, in some cases even higher than nations such as the US.

### **3 Methodologies**

#### **3.1 Systematic Literature Review**

This dissertation employs a systematic literature review as the primary methodology to explore the implementation and effectiveness of anti-money laundering (AML) policies against forms of financial crime such as kleptocracy and drug trafficking. Given the secretive

nature and the rapid evolution of financial crime methodologies, this study also incorporates case studies and news articles to provide contemporary insights and real-world examples of policy implementation and challenges.

**Rationale for a Literature-Only Approach:** Financial crimes are inherently secretive, often involving sophisticated schemes with global implications. The opacity and complexity of these crimes make primary empirical research challenging. The sensitive nature of data related to money laundering and the reluctance of financial institutions to disclose information further complicate data collection. Therefore, a comprehensive review of existing literature, supplemented by case studies and news reports, is employed to overcome these barriers, and provide a robust analysis of AML policies.

### **3.2 Data Collection**

The review will use purposive sampling to select highly relevant academic sources that meet stringent criteria for inclusion:

- **Relevance to AML Policies:** Publications must directly address AML strategies and their outcomes.
- **Peer Review:** Sources must be peer-reviewed and published in credible journals.
- **Language:** All literature must be in English to ensure clarity and consistency in analysis.

### **3.3 Search Strategy**

#### **3.3.1 Databases**

The primary sources for academic literature will include comprehensive databases known for their scholarly content in financial and legal studies. These include:

- **JSTOR:** A widely respected digital library for academic journals, books, and primary sources in various disciplines including economics and law.

- Google Scholar: A freely accessible web search engine that indexes the full text of scholarly literature across an array of publishing formats and disciplines.
- HeinOnline: Specializes in legal history and government documents, HeinOnline contains comprehensive collections of legal research materials.
- Westlaw and LexisNexis: These are leading online legal research services providing quick, easy access to a vast collection of legal resources, law journals, case law, and legal reviews.
- SSRN: The Social Science Research Network is a repository for preprints devoted to the rapid dissemination of scholarly research in the social sciences and humanities.

### **3.3.2 Keywords**

The search for literature will be guided by a set of carefully selected keywords and phrases designed to capture the most relevant research. These keywords will be used alone and in combination to maximize the retrieval of pertinent information. Examples of keyword combinations include:

- "Anti-Money Laundering AND effectiveness"
- "Policy impacts on money laundering AND global regulation"
- "AML regulatory frameworks AND compliance challenges"
- "Transnational financial crimes AND legal responses"

These keywords will be adapted and refined based on initial search results and evolving research needs.

### **3.3.3 News Sources**

To supplement academic research and provide contemporary real-world examples of AML policy application and issues, major news publications recognized for their investigative reporting on financial crimes will be consulted. These include:

- The Financial Times: Known for its global business news, The Financial Times offers in-depth coverage of financial regulations and economic affairs.
- The Economist: Offers authoritative insight and opinion on international news, politics, business, finance, and science – often touching on issues of regulatory efficacy and financial crime.
- Reuters: Known for timely, detailed articles on global financial trends and crime, useful for tracking ongoing developments in AML strategies.
- Wall Street Journal: Provides comprehensive news coverage including detailed reports on economic issues and regulatory frameworks in the financial sector.
- The Guardian: Recognized for its strong investigative journalism and comprehensive coverage of UK and international affairs, The Guardian frequently publishes articles on governance, public policy, and financial crimes, providing critical perspectives on AML effectiveness and challenges.

### **3.3.4 Reports from Credible Institutions**

In addition to utilising academic and news sources, this study will incorporate reports from reputable institutions that provide analytical depth and expert insights into AML trends and effectiveness. These reports are instrumental in shaping a well-rounded understanding of the global regulatory landscape and the evolving challenges in combating money laundering.

Key institutions include:

- International Monetary Fund (IMF): Offers comprehensive assessments of national financial systems and policy advice, with a focus on enhancing global financial stability.



- World Bank: Provides detailed reports on governance and financial sector development, including studies on the effectiveness of regulatory frameworks in various countries.
- Financial Action Task Force (FATF): Produces periodic evaluations of member countries' AML capabilities and publishes guidelines that set international standards for combating money laundering and terrorist financing.
- European Banking Authority (EBA): Issues regular reviews and recommendations to ensure the integrity of the banking sector and financial markets within the EU, focusing on AML compliance and regulatory alignment.
- United Nations Office on Drugs and Crime (UNODC): Releases global studies on crime and its links to economic development, offering insights into money laundering practices and prevention strategies worldwide.

### **3.4 Analytical Techniques**

Content analysis will be employed to systematically extract and synthesise key themes from the collected data. Content analysis in this context involves a detailed, structured examination of the text within the literature, case studies, and news articles to identify recurrent patterns and themes related to AML policy effectiveness. The process will begin with the coding of text into thematic categories, based on predefined criteria aligned with the research questions. This will include themes such as "policy implementation challenges," "technological adaptation in AML practices," and "impact of global cooperation on money laundering prevention". The analysis will help in understanding the frequency and context in which these themes appear and how they interrelate.

### **3.5 Validity and Limitations**

- **Critical Evaluation:** All sources, particularly news articles and case studies, will be critically evaluated for bias and reliability.
- **Acknowledgement of Limitations:** The limitations related to the availability and recency of data, and potential biases in non-peer-reviewed reports, will be clearly stated.

## **4 Discussion on Regulations**

### **4.1 The Shortcomings**

As regulations have evolved over the years, the apprehension of numerous fraudsters and money launderers frequently headlines news outlets. Yet, as Pol (2020) articulates, "policy failure (is) obscured by idiosyncratic effectiveness evaluations poorly connected with policy design principles," suggesting a significant gap in the evidence base supporting these policies effectiveness.

This issue is compounded by the fact that the design of these policies does not primarily target the interception of illicit financial flows. Instead, it fosters additional bureaucratic layers through methods such as Customer Due Diligence (CDD), Suspicious Transaction Reporting (STR), and Know Your Customer (KYC) (Pol, 2020). None of these approaches directly address the core objective of intercepting the laundered money.

The technology deployed is often inadequate for analysing complex global financial transfers comprehensively, relying instead on deterrence strategies. However, for deterrence to be effective, the potential risks and penalties for money launderers must substantially outweigh the benefits they derive from their illicit gains (Jojarth, 2013). Currently, this balance of risk versus reward does not favour regulatory compliance.

Moreover, there is a pronounced tendency to overestimate the effectiveness of these deterrence methods, often based on speculative assessments rather than solid metrics (Pol, 2020), alongside a consistent underestimation of the risks and adaptability associated with money laundering activities.

There appears to be prevalent confusion between genuine compliance efforts and the superficial "tick-the-box" approach (Lewis, 2019). Many countries, while formally adhering to international standards, implement these guidelines in ways that fail to substantially enhance financial integrity. This regulatory arbitrage—stemming from inconsistent compliance practices across different jurisdictions with two ways that are adoption without enforcement and selective implementation (Tang & Ali, 2010)—severely undermines the potential to forge effective, unified solutions against money laundering on a global scale.

Moreover, the effectiveness of AML measures is compromised by the compartmentalised operations of financial intelligence units (FIUs) and other relevant bodies. These entities amass a wealth of data yet operate in isolation, leading to fragmented intelligence that fails to paint a comprehensive picture of criminal networks (Kang, 2018). This disarray thwarts efforts to formulate a unified strategy against global money laundering schemes and squanders valuable resources. A more integrated approach with enhanced data sharing and improved analytical tools is required to provide a holistic assessment of financial crimes and enable proactive interventions.

The resolve to enforce AML regulations also wanes, particularly in regions where financial services are pivotal to the economic fabric. The fear of economic backlash can deter stringent enforcement, fostering an environment where superficial compliance supersedes substantive measures (Tang & Ali, 2010). Additionally, the focus of punitive measures within current AML frameworks often falls on institutions rather than the individuals orchestrating the breaches. This scenario can reduce penalties to mere operational costs rather than

effective deterrents. A shift towards holding individuals accountable is essential to enhance the deterrent effect of these measures and align the perceived risks with the potential consequences of money laundering activities.

Furthermore, AML strategies require a deeper understanding of the socio-economic contexts that breed laundering activities. Addressing money laundering effectively goes beyond financial crime; it encompasses tackling underlying issues such as corruption, legal inefficiencies, and socio-economic inequalities (Yaacob & Harun, 2019). Integrating financial regulatory measures with broader socio-economic policies is crucial for addressing the root causes of money laundering comprehensively.

## **4.2 The Success**

Reevaluating the successes of Anti-Money Laundering (AML) policies, it is imperative to recognise that, despite certain criticisms, these frameworks have made substantial inroads in some critical areas. The structured nature of AML regulations has significantly enhanced the global financial system's ability to deter money laundering activities (and make them increasingly difficult).

One of the notable successes of current AML policies is the establishment of an international standard that compels countries to engage in financial surveillance and cooperation (Levi & Reuter, 2006). This global standardisation has forced many jurisdictions to upgrade their financial systems to track and report suspicious activities more effectively. As a result, the international community has seen an increase in the identification and reporting of suspicious transactions, demonstrating a heightened vigilance across global financial systems. Furthermore, the implementation of Know Your Customer (KYC) and Customer Due Diligence (CDD) protocols has fortified the banking sector's defences against infiltration by illicit funds.

The success of AML policies can also be seen in the punitive measures applied to institutions that fail to comply with regulations. These sanctions serve as a powerful deterrent, compelling financial institutions to maintain rigorous compliance programs. The threat of hefty fines up to a total of £2.2bn in 2020 (Garvey, 2022) and reputational damage has led to a proactive approach in managing financial risks associated with money laundering.

## **5 Case Studies**

### **5.1 Institutional Laundering**

The Azerbaijani Laundromat and the Bank of Credit & Commerce International (BCCI) cases demonstrate the extensive role financial institutions play in facilitating global money laundering, exposing deep vulnerabilities within international financial systems. These cases reveal the exploitation of regulatory gaps and emphasise the systemic failures of due diligence measures in preventing financial crime.

Robert Mazur's undercover work within BCCI highlighted sophisticated laundering techniques common within the bank, reflective of broader banking practices and pointing to systemic issues across the international banking sector (Mazur, n.d.). Mazur's experiences underline the importance of genuinely integrating AML compliance programs into the operational frameworks of financial institutions. This integration should extend to rigorous and continuous employee training to ensure that all staff members can recognise and report suspicious activities effectively.

The sophistication of money laundering techniques employed by BCCI, as recounted by Mazur, included the establishment of accounts in tax havens, the creation of complex layers of ownership to obscure the origins of funds, and the provision of insider advice on evading detection. These tactics align with practices identified in various indictments and

deferred prosecution agreements involving other major international banks in subsequent years, suggesting a persistent and industry-wide challenge as would be evident from the Laundromat case study (Mazur, n.d.).

Mazur's work offers a critical perspective on the "institutional will" required to combat money laundering effectively. His firsthand experiences illustrate the essential need for financial institutions to not only implement AML compliance programs but to ensure these measures are deeply integrated into their operational ethos. The ease with which these laundering operations were conducted under the existing regulatory frameworks reveals significant gaps between the intentions of these regulations and their actual implementation.

The Azerbaijani Laundromat operation begins with the International Bank of Azerbaijan (IBA) and Danske Bank which aided within the placement process. IBA is linked directly to high-level political figures like President Ilham Aliyev, implicating state apparatus in these corrupt activities (Harding et al., 2017). The Danske Bank branch in Tallin failed to detect or report suspicious transactions, illustrating a significant lapse in the bank's internal controls and the broader AML enforcement regime, which then resulted in \$2bn paid to settle the investigations after admitting that over \$200bn was laundered through Estonia (Lynch, 2022).

The layering stage of the scheme involved over \$2.9 billion funnelled through complex networks of international banking and corporate systems, utilising entities in lenient jurisdictions such as the UK, including Scotland's Limited Partnerships (SLPs) and entities in the British Virgin Islands (Harding, et al., 2017). These jurisdictions were chosen for their opacity and the ease with which they could mask the origins and movements of substantial sums. These revelations were brought to light by the Panama Papers which were leaks from the law firm Mossack Fonseca (ICIJ, 2017). This leak highlighted institutional laundering

schemes from various individuals all over the world, notably Eastern Europe with Ukraine and Russia, and the Middle East with Qatar and Saudi Arabia.

Leyla and Arzu Aliyeva, daughters of President Aliyev, engaged the offshore front companies for real estate transactions in London, illustrating a typical money laundering mechanism through the property market. Their actions implicate the London real estate sector as a channel for kleptocratic funds, highlighting systemic vulnerabilities (Garside, et al., 2016). A recent study by Borne, et al. (2022) which explores offshore-owned residential properties in London has revealed additional layers of complexity within the property market, with an estimated between £145-174bn of the properties as potential assets held by criminals.

The pervasive effects of such laundering schemes are manifold, undermining the integrity of international financial systems, distorting property markets, particularly in the UK, and eroding public trust in global governance and economic systems. The UK's National Risk Assessment of Money Laundering and Terrorist Financing (2020) echoed these concerns, rating the risk of money laundering through property purchases as high. Despite legislative attempts to curb these practices, the persistent use of offshore shell companies by individuals linked to political elites indicates a continuing struggle against kleptocratic money laundering, with little academic investigation done (Tiwari, et al., 2020).

## **5.2 Money Mules**

This case study examines the intricate role of money mules within organised crime networks, with a focus on their recruitment and operational strategies as detailed by Rob Pickles (2021). Money mules act as critical intermediaries in laundering illicit funds, often straddling the line between victimisation and knowing participation in criminal activities.

Pickles (2021) highlights how criminal groups exploit digital platforms to recruit money mules, targeting vulnerable populations through social media and online job postings. This modern recruitment strategy reflects a significant shift in money laundering tactics,

which increasingly incorporate digital tools to broaden their operational scope. Such methods pose challenges for regulatory bodies and financial institutions, which must evolve their customer due diligence processes to counteract these sophisticated approaches (Brenig et al., 2015).

In Ireland, the legal framework addressing money mules is anchored by the Criminal Justice (Money Laundering and Terrorist Financing) Act 2010, with amendments designed to align with EU directives. Despite robust legislation, the ongoing prevalence of money mule schemes highlights the adaptive challenges faced by enforcement agencies. The European Money Mule Action (EMMA) operation, which led to numerous arrests across Europe, underscores the widespread nature of this issue and the need for a coordinated enforcement response (Europol, 2021).

The use of money mules involves complex ethical considerations, often complicating the legal pursuit of AML efforts. These individuals may be partially victimised, manipulated into criminal activities through deceit or financial desperation, creating a nuanced legal and social dilemma (Pickles, 2021). Better employee training is needed in this case to implement CDD and evaluate whether someone is being taken advantage of. Understanding these dynamics is crucial for formulating effective legal and preventive measures, which must account for both the technological and human factors influencing financial crime.

### **5.3 Digital Laundering**

The cases involving FTX and Binance have cast a spotlight on the critical shortcomings and systemic vulnerabilities within the regulatory frameworks that govern the burgeoning sector of cryptocurrencies. These events underscore the pressing need for more robust, adaptive regulatory approaches capable of keeping pace with rapid technological advancements. (Greenberg, 2023) (Helmore, 2023)



Starting with FTX, the theft of over \$400 million highlighted the adeptness with which criminals can exploit the crypto ecosystem. The stolen funds were moved through a complex network of transactions involving decentralised exchanges (DEXs) like Uniswap and PancakeSwap (Greenberg, 2023). These platforms are particularly vulnerable due to their inherently lax KYC protocols, enabling the conversion of stolen virtual assets into other cryptocurrencies that are harder to trace. This case exemplifies how the anonymity and lack of centralised control in DEXs can be manipulated to facilitate large-scale illegal activities.

Further complicating the regulatory challenge, the funds were laundered through cross-chain bridges—services that allow the transfer of assets between different blockchains—which are not subject to the stringent regulatory oversight typical of traditional financial networks. The use of these services highlights a significant gap in current financial regulatory regimes which are designed primarily for more static and less technologically integrated financial systems. As the assets moved from blockchain to blockchain, they became progressively harder to trace, eventually being exchanged for Bitcoin and mixed with other funds to obscure their illicit origins.

This incident not only exploited the technical capabilities of blockchain technology but also revealed critical weaknesses in international regulatory frameworks. Current regulations, such as those enforced by the Financial Action Task Force (FATF), are inadequately equipped to handle the dynamic, decentralised nature of blockchain technology and digital currencies. These frameworks often lag in incorporating new technological developments, leaving exploitable gaps that can be leveraged by criminal entities.

Turning to the Binance case, the situation further illustrates regulatory inadequacies. Binance, the world's largest cryptocurrency exchange, faced multiple charges including money laundering and the facilitation of transactions involving illicit proceeds. The platform was accused of failing to implement adequate AML (Anti-Money Laundering) procedures,

which reportedly allowed transactions linked to a variety of criminal activities including those tied to sanctioned regions and organisations (Helmore, 2023). The fact that Binance operated across multiple jurisdictions further complicated regulatory oversight, highlighting the challenges of applying traditional financial regulations to decentralised, borderless digital platforms.

These high-profile cases have catalysed a critical discourse on the need for a more cohesive international regulatory strategy, one that includes the harmonisation of regulatory standards and the sharing of financial intelligence across borders. Without such cooperation, the fragmented regulatory landscape will continue to be an Achilles' heel that can be exploited by transnational criminal networks.

## **6 Evolving Techniques and Regulation**

### **6.1 Utilising New Technologies**

The Azerbaijani Laundromat and the Bank of Credit & Commerce International (BCCI) cases underscore the critical vulnerabilities within the global financial system, often exacerbated by inadequate due diligence and the exploitation of regulatory loopholes by financial institutions. These cases, involving significant sums laundered through complex international networks, highlight the necessity of robust anti-money laundering (AML) frameworks and the potential role of emerging technologies in mitigating these risks. Supervisory Technology (SupTech) and Regulatory Technology (RegTech) could have played a pivotal role in preventing such extensive money laundering activities.

SupTech and RegTech, by leveraging advanced data analytics and real-time monitoring capabilities, offer substantial improvements in regulatory oversight and compliance processes. For instance, in the Azerbaijani Laundromat case, SupTech could have

enhanced the detection capabilities of regulatory bodies through better data collection and analytics, identifying unusual transaction patterns and high-risk activities early in the process.

Similarly, RegTech could have provided financial institutions like Danske Bank with the tools to automate and enhance the KYC process and monitor transactions more effectively, potentially flagging the suspicious activities that led to the laundering of billions. These technologies enable a proactive regulatory approach, shifting from traditional reactive methods to a more dynamic, predictive system that could significantly disrupt money laundering operations before they reach the scale observed in these cases.

Supervisory Technology (SupTech) and Regulatory Technology (RegTech) are becoming increasingly vital tools in enhancing the effectiveness of Anti-Money Laundering (AML) frameworks across the financial sector. SupTech, with its innovative use of technology, assists supervisory agencies in digitising reporting and regulatory processes, thereby allowing more efficient and proactive monitoring of compliance and risk within financial institutions. Many supervisory agencies have already integrated SupTech, leveraging technological advancements and increased data availability to potentially revolutionise supervisory tools and methods.

SupTech applications focus primarily on two main areas: data collection and data analytics (Broeders & Prenio, 2018). Technologies such as automated data validation and direct data retrieval from bank's IT systems facilitate effective data collection. Meanwhile, virtual assistants and chatbots not only manage consumer complaints but also gather critical data, enhancing the scope for monitoring compliance. In the realm of data analytics, SupTech is used for a variety of tasks including market surveillance, misconduct analysis, and both microprudential and macroprudential supervision (Broeders & Prenio, 2018). These tools are crucial in identifying potential money laundering activities, monitoring liquidity risks, detecting insider trading, and forecasting market trends.

Conversely, RegTech provides a strategic advantage in the fight against money laundering by automating and enhancing compliance processes. This reduces the regulatory burden on financial institutions significantly. Through advanced analytics and machine learning, RegTech facilitates more accurate detection of suspicious activities, while SupTech enhances real-time monitoring and reporting, improving both the efficiency and effectiveness of regulatory oversight.

Despite their potential, the adoption of SupTech and RegTech faces numerous challenges. Financial institutions often struggle with integrating these new solutions due to outdated legacy systems and a general lack of technological capabilities. Additionally, data-related issues and cybersecurity threats pose significant barriers, compounded by the high costs associated with procurement and the need for specialised training. The frequent changes in national and international regulations further complicate the landscape, requiring ongoing adjustments to compliance frameworks.

RegTech providers themselves encounter difficulties related to data privacy and protection, interoperability, and the high costs of user acquisition. A lack of uniform understanding of RegTech applications among financial institutions and the perceived immaturity of providers solutions exacerbate these challenges. Both sectors—providers and financial institutions—must navigate a lack of harmonised legal and regulatory frameworks and clear regulatory guidance, which can obscure the compliance process.

Furthermore, both SupTech and RegTech solutions must compete with other technological innovations, making market penetration and acceptance challenging. Despite these hurdles, the ongoing development and refinement of SupTech and RegTech applications are critical. They not only support the shift from reactive to proactive and predictive monitoring of financial activities but also enhance the global fight against money laundering

by making regulatory processes more efficient and robust (European Banking Authority, 2021).

## **6.2 Regulation around virtual assets**

Strengthening the regulation around virtual assets is essential, as demonstrated by the case studies of FTX and Binance. These incidents reveal critical vulnerabilities within the current regulatory frameworks that govern the cryptocurrency sector. The BBC has reported that “crypto money laundering” has risen by 30% in 2021, with net of £6.4bn being laundered through blockchain technologies (BBC, 2022). Digital currencies, such as Bitcoin and Ethereum, offer high levels of anonymity and can be used across borders with ease. This makes them attractive for laundering illicit funds. The decentralised nature of blockchain, the technology underpinning cryptocurrencies, complicates the tracking of transactions.

Developing global standards for cryptocurrency regulation is paramount in curbing the misuse of these digital assets for money laundering. As cryptocurrencies operate across borders with relative anonymity, creating and enforcing international regulatory frameworks is essential to mitigate their use in illicit activities. By establishing clear guidelines and compliance requirements, countries can collectively deter criminals from exploiting these digital platforms to funnel and hide illicit funds (Financial Crimes Enforcement Network, 2021).

The exploration of cryptocurrencies as potential instruments for money laundering (ML) illuminates the complex interplay between technological advancements and regulatory challenges. Cryptocurrencies, not tethered to any fiat currency and operating without central oversight, offer unique advantages for ML due to their intrinsic properties (Brenig et al., 2015). These digital assets are powered by blockchain technology, facilitating peer-to-peer transactions that bypass traditional financial intermediaries. This decentralisation not only enhances transaction privacy but also creates substantial hurdles for implementing standard

Anti-Money Laundering (AML) controls such as Know Your Customer (KYC) and customer due diligence, which are critical in the traditional banking sector.

The Financial Action Task Force (FATF) has recognized these challenges and the potential of cryptocurrencies to be used for nefarious purposes. In response, FATF has expanded its regulatory framework to encompass virtual assets, setting global standards aimed at preventing their misuse for ML and terrorist financing (FATF, 2023). These standards include mandatory customer due diligence, record-keeping, and reporting of suspicious transactions, akin to regulations imposed on traditional financial institutions. However, the effectiveness of these controls is often contingent on the robustness of national regulatory frameworks, which vary significantly across jurisdictions.

Moreover, the FATF emphasises the urgent need for countries to adopt these standards to mitigate the risks associated with virtual assets. Despite the potential of these technologies to streamline payment processes and extend financial services to the unbanked, their largely unregulated nature poses significant risks, including vulnerability to cyberattacks and scams. The discrepancies in regulatory adoption leave exploitable gaps that can be used by criminals and terrorists, making it imperative for global compliance (FATF, 2023).

Cryptocurrency's ability to facilitate secure and transparent transactions offers significant advantages, yet this potential is overshadowed by the challenges of integrating them into the global financial system. As Brenig et al. (2015) note, the decentralised nature of these digital assets complicates the implementation of AML controls, affecting the economic incentives for using cryptocurrencies for lawful versus unlawful purposes. The mining process that adds transactions to the blockchain not only secures the network but also creates new coins, incentivising participants to maintain and grow the network while potentially facilitating ML activities.

The integration of blockchain and cryptocurrency into financial practices offers both opportunities and significant regulatory challenges. The development and enforcement of comprehensive, consistent global standards by bodies such as the FATF are crucial in harnessing the benefits of these technologies while effectively mitigating the risks they pose as potential instruments for money laundering.

### **6.3 Implementing Artificial Intelligence**

The rise of online banking and mobile payment platforms has exponentially increased the speed and volume of financial transactions. While this has brought significant benefits to global commerce, it also allows launderers to quickly move large sums of money across jurisdictions, complicating the tracking and tracing of illicit flows. Whilst regulators have been able to tackle this through implementing various methods such as transactions being reviewed upon meeting a certain threshold, the problem arises if criminals are able to evade this by transferring sums just below the specified threshold.

AI and machine learning technologies are revolutionizing AML efforts by enhancing the ability to analyse vast amounts of transaction data in real-time. These tools can identify patterns indicative of money laundering that would be impossible for humans to detect manually, significantly reducing the incidence of false positives and improving the efficiency of regulatory compliance.

The rapid evolution of financial technology has presented new opportunities and challenges in the fight against money laundering and terrorist financing (AML/CFT). According to Ujoodha & Suppiah (2023), leveraging advancements in Artificial Intelligence (AI), machine learning, and cognitive automation can significantly enhance the effectiveness of regulatory frameworks. EY Global (2019) emphasizes that these technologies are pivotal in refining the Know Your Customer (KYC) processes, enhancing performance screening,

and monitoring transactional activities, thereby enabling the detection and mitigation of potential money laundering risks more effectively.

AI-based tools, as described by Pavlidis (2023), have the potential to transform AML/CFT operations by improving compliance with both national and international standards. These tools facilitate more accurate customer identification and risk assessment at the onboarding stage, crucial for detecting fraud early. For instance, AI can integrate and analyse data from diverse sources such as biometric recognition systems, beneficial ownership registries, and PEP lists to enhance customer profiling and due diligence measures. This capability is vital given the sharp rise in identity fraud cases, which saw \$24 billion in illicit financial gains in 2022 alone in the USA (Javelin Strategy and Research, 2022).

Furthermore, AI's role extends beyond initial customer assessments to ongoing transaction monitoring. Financial institutions are required to report suspicious activities; here, AI can process and analyse large datasets in real-time, recognizing patterns that may indicate fraudulent activities. By establishing baseline behavioural profiles of customers, AI tools can swiftly detect deviations that signify potential risks, thereby enhancing the accuracy and speed of regulatory reporting and reducing the occurrence of false positives which, according to the Institute of International Finance (2018), constitute a significant burden on financial institutions.

However, integrating AI into financial regulatory systems is not without challenges. The Financial Action Task Force (FATF, 2021a) points out that most financial institutions still rely on static, rule-based risk assessments that lack the dynamism and detailed overview required for effective AML/CFT enforcement. AI tools offer a solution by allowing for a more nuanced, real-time analysis that can integrate customer information with ongoing transaction data across various platforms. To maximize their effectiveness, these tools must



operate within a framework that promotes data sharing and collaborative analytics, while adhering to stringent data privacy laws.

For Financial Intelligence Units (FIUs), the adoption of AI means more efficient data handling and improved prioritization of high-risk cases, as AI tools can automate routine data processing tasks and enhance analytical capabilities (FATF and Egmont Group, 2021). This shift not only improves the quality of investigations but also allows for a more strategic allocation of human resources, focusing on complex analyses that require nuanced human judgment.

#### **6.4 Identity Technologies**

The integration of advanced digital identity technologies, including biometric verification, is revolutionising the accuracy of customer due diligence processes. By securely verifying identities, these technologies significantly mitigate the risk of financial systems being exploited for money laundering activities. This enhanced security framework is critical in maintaining the integrity of financial transactions and safeguarding against the illicit use of financial infrastructures.

The World Bank's Identification for Development (ID4D) Initiative exemplifies a comprehensive approach to harnessing the transformational potential of digital identification systems. With a strategic focus on accelerating inclusive growth and achieving diverse development outcomes, ID4D channels over \$1.2bn in financing into the development of digital ID and civil registration systems across more than 40 countries. As a pivotal entity in the global landscape, ID4D serves as a knowledge hub and authority on creating robust digital ID systems and assessing their impact, promoting best practices that enhance transparency and traceability in financial transactions—key components in combating money laundering (World Bank, 2019).

Parallel to these developments, blockchain technology is increasingly pivotal in enhancing Know Your Customer (KYC) and Anti-Money Laundering (AML) processes within the financial sector. Innovators like Bloom are leveraging blockchain to develop secure, blockchain-based profiles that ensure rigorous data protection. Bloom's OnRamp, for example, integrates ID verification with advanced screening capabilities, significantly bolstering the security of financial transactions against fraud and identity theft. Likewise, Quadrata's introduction of the "Quadrata Passport," a non-transferable NFT for KYC/AML data storage, alongside major banks like HSBC, Deutsche Bank, and Mitsubishi UFJ Financial Group implementing blockchain for KYC data exchange, illustrates a strategic shift towards more secure, efficient, and transparent financial services. These initiatives reflect the substantial impact of blockchain in redefining financial practices by enhancing data integrity, reducing operational costs, and increasing transactional transparency (Thommandru & Chakka, 2023).

Together, these technological advancements represent a paradigm shift in the financial sector, promoting a more integrated, secure, and efficient framework for conducting financial transactions globally. By combining digital identification with blockchain technology, the financial industry can achieve a higher standard of regulatory compliance and fraud prevention, setting a new benchmark in the fight against money laundering.

## **6.5 Cross border cooperation**

Enhancing international cooperation in tech-based Anti-Money Laundering (AML) solutions is critical for addressing the global nature of money laundering (Pol, 2020). Sharing technological resources and intelligence across borders allows for the synchronisation of efforts and bolsters the capacity of nations to identify, track, and prevent money laundering schemes (Pavlidis, 2023). This collaborative approach ensures that the technological

advancements in one country can benefit the broader international community, making it harder for launderers to exploit jurisdictional gaps.

International AML standards harmonisation is essential for creating a cohesive and unified global response to combat money laundering. Advocating for the alignment of national AML regulations with international standards, especially those established by the Financial Action Task Force (FATF), is pivotal (Jojarth, 2013). This alignment includes standardising definitions, reporting requirements, and enforcement mechanisms across borders. Such standardisation facilitates more effective international cooperation and information sharing, crucial for tracking and combating sophisticated global money laundering operations. By ensuring that all countries adhere to a common set of rigorous standards, the international community can close loopholes that launderers exploit due to regulatory discrepancies (Pol, 2020).

Fostering international cooperation and information sharing is key to combating cross-border laundering activities. Money laundering is a transnational issue, and no country can effectively tackle it in isolation. Enhanced collaboration among international partners facilitates the exchange of crucial financial intelligence and best practices, which is essential for dismantling sophisticated global laundering networks. This cooperation should be structured and continuous to adapt to new laundering methods and emerging threats.

## **6.6 Strengthening Current Methods**

Strengthening the capacity of Financial Intelligence Units (FIUs) and ensuring their operational independence is vital for conducting effective investigations (Pavlidis, 2023). FIUs play a crucial role in the AML landscape by analysing suspicious transaction reports and disseminating findings to law enforcement. Enhancing their capabilities and safeguarding their autonomy ensures that they can perform their duties without undue influence, leading to more robust and effective anti-money laundering enforcement.

Implementing more stringent due diligence processes for politically exposed persons (PEPs) and high-risk jurisdictions is crucial in mitigating the risks associated with these potentially vulnerable entities (Kang, 2018). PEPs, due to their positions, can potentially facilitate significant abuses of power, including corruption and money laundering. Enhanced due diligence for these individuals, along with rigorous scrutiny of transactions from high-risk jurisdictions, will ensure that financial systems are not exploited for illicit purposes (Kang, 2018). Such measures require financial institutions to not only identify and track the financial activities of these high-risk profiles but also to perform ongoing monitoring to detect any suspicious behaviour effectively.

Enhancing whistleblower protections is an essential measure for uncovering and addressing money laundering activities effectively. Introducing stronger protections for whistleblowers who expose such illicit operations can significantly increase the rate of detection (Kohn, 2024). Providing legal immunity, financial incentives, and maintaining anonymity are crucial steps in encouraging more individuals to come forward with information without fear of retaliation. These protections not only help uncover the complex layers often involved in money laundering schemes but also bolster the overall integrity of the financial system by ensuring that crimes do not go unreported due to fear of personal or professional repercussions.

## **6.7 Beneficial Ownership and Public-Private Relationship**

Enhancing transparency around beneficial ownership is essential to prevent the misuse of legal entities for laundering purposes. By requiring companies to disclose their true ownership, jurisdictions can close a critical loophole that allows criminals to hide behind shell companies and other opaque structures. This transparency not only aids in the direct prevention of money laundering but also enhances the overall integrity of the business environment. Beneficial Ownership Transparency is another critical area requiring attention.

Implementing global standards for the disclosure of beneficial ownership information would significantly obstruct the ability of individuals to conceal illicit funds behind complex corporate structures. Creating publicly accessible registers of beneficial ownership, alongside enhancing the due diligence requirements for legal entities, would provide crucial data that can be used to trace illicit activities back to their sources. This transparency not only aids in direct enforcement efforts but also serves to deter individuals from using corporate vehicles for criminal purposes due to the increased risk of detection and prosecution.

Strengthening Public-Private Partnerships is vital for leveraging the strengths and resources of both the financial sector and regulatory bodies. By fostering closer collaboration through these partnerships, both sectors can benefit from the shared expertise and information. Financial institutions can provide insights into customer behaviour and financial trends, while regulatory and law enforcement agencies can offer legal and tactical support to help identify and prosecute money laundering schemes. This collaborative approach enhances the capacity to understand and mitigate emerging laundering threats effectively and develops more robust and adaptive AML strategies that benefit the entire financial ecosystem.

## **6.8 Employee training**

In their literature review, Issah et al. (2022) highlight the importance of employee training in bolstering anti-money laundering (AML) practices within financial institutions. The significant impact that employee training has on AML efforts in the banking system is noted, suggesting that well-trained staff are better equipped to identify and report suspicious activities. (Ujoodha & Suppiah, 2023) also identify employee training to be part of the five IVs which are essential in preventing money laundering activities through financial institutions.

In their findings, Yacoob & Harun (2019) also highlight the importance of employee training to “ascertain the effectiveness of money laundering regulations in Malaysia”. They

hypothesised that employee training significantly impacts the effectiveness of money laundering controls within the MSB industry in Malaysia, suggesting a direct correlation between comprehensive training initiatives and the successful implementation of AML regulations. They discovered that key factors such as suspicious transaction reporting, employee training, and customer record-keeping are crucial in influencing compliance officers within money-service businesses (MSBs) tasked with implementing these regulations. This emphasises that robust training programs are not only beneficial but essential for the money business service sector to enhance the effectiveness of money laundering regulations.

Effective employee training can allow the magnitude of illicit funds entering the economy to be diminished. Furthermore, they can also provide guidance for those who may indeed be the victims of bigger schemes as was illustrated in the money mules case. However, the effectiveness of such training is often undermined by the non-binding nature of FATF regulations. Unless these guidelines are incorporated into national laws, their impact remains limited, leading to widespread non-compliance (Yaacob & Harun, 2019). This gap highlights a critical need for countries to embed AML training within legal frameworks to strengthen enforcement and compliance.

## **7 Final Remarks**

In conclusion, this research underscores the complex, multifaceted nature of Anti-Money Laundering (AML) efforts and their evolution through decades of regulatory practices and legislative frameworks. It is evident from the historical context that money laundering has adeptly adapted to the various barriers erected by international regulations. The development from primitive laundering in the early 20th century to the sophisticated,

technologically advanced schemes of today illustrates a dynamic interplay between criminal ingenuity and regulatory response.

The analysis presented in this paper reveals a critical dichotomy in the realm of AML efforts: the robust framework of laws and global initiatives spearheaded by entities like the FATF juxtaposed against the practical challenges of implementing these frameworks effectively across diverse jurisdictions. The universal adoption of AML standards speaks volumes about global intent to curb financial crime. However, the actual application and enforcement of these regulations often fall prey to economic, political, and technological influences that vary significantly from one region to another.

While there are notable successes in standardising efforts and enhancing the financial system's integrity through measures like KYC and CDD, these successes are tempered by the persistent issues of enforcement and the agility of regulatory bodies to keep pace with rapid technological changes. The paper's findings on the effectiveness of AML regulations highlight the necessity for a reassessment of current strategies, pointing out that while the framework exists, its execution needs recalibration to better address the modern landscape of financial crime.

Significantly, the paper advocates for a shift from a predominantly compliance-based approach to one that emphasises enforcement and accountability, particularly targeting the individual culprits rather than the institutions they exploit. This proposed shift aims to realign AML strategies with the realities of today's financial crimes, suggesting that enhancing punitive measures and focusing on individual accountability could deter the perpetuation of money laundering activities more effectively.

Furthermore, this research stresses the importance of understanding the socio-economic and political contexts within which money laundering thrives. It suggests that tackling these underlying issues in conjunction with strengthening financial regulations could

lead to more comprehensive and effective AML strategies. This holistic approach would not only address the symptoms of money laundering but also the environments that foster these illegal activities.

In essence, the ongoing battle against money laundering requires a dynamic, integrated approach that is adaptive to technological advancements and sensitive to the global disparities in economic and regulatory environments. Only through sustained international cooperation, enhanced regulatory technologies, and a deeper commitment to understanding the root causes of financial crime can we hope to stem the tide of laundered money that threatens to undermine the global financial system. The future of AML efforts hinges on the ability of governments, financial institutions, and international bodies to implement these rigorous, nuanced strategies effectively.

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