The Advancement of and Impact of Global Anti-Money Laundering (AML) and Counter-Financing of Terrorism (CFT) Regulations: An Era of 10 years of Research Themes, Trends, and Future Directions (2014 to 2024)

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Abstract

Background: The global community has stepped up its war against financial crime over the last ten years, putting the Anti-Money Laundering (AML) and Counter-Financing of Terrorism (CFT) regimes at the forefront of its agenda to protect transnational financial systems. The emergence of digital finance, the explosion of cryptocurrencies, and high-profile scandals, like the Panama Papers and the Danske Bank case, have shown that there are serious regulatory weaknesses. Even though the academic interest in this field has been growing exponentially, no synthesis has been made to trace how the field has evolved during this time.

Methods: The paper is a systematic synthesis of AML and CFT studies published within the decade 2014–2024 that will help to outline key themes, trace intellectual patterns, and reveal the new issues. We conducted a comprehensive search in the Scopus and Web of Science databases by following the PRISMA guidelines. Following the strict inclusion and exclusion criteria, 132 peer-reviewed articles were identified to be analysed. Publication patterns, research networks, and thematic clusters were studied with the help of bibliometric methods and thematic analysis, and VOSviewer was used to visualize the data.

Findings: There was a consistent positive trend in publication activity, which surged significantly after 2018. There were four thematic clusters, including (1) global governance and harmonisation, (2) technological disruption and digital finance, (3) cross-border crime and illicit finance, and (4) policy effectiveness and economic impact. The results indicate a distinct change in early descriptive research that emphasised on standard-setting to modern research that incorporates technology, policy, and socio-economic factors.

Conclusion: The review is the initial ten-year overview of the literature on AML and CFT. It highlights the need to have adaptive and context sensitive regulatory policies that create a balance between innovation, enforcement and financial inclusion. The research provides a research and policy agenda on future research and policy formulation thus enhancing the global AML/CFT regime.

Keywords: Anti-Money laundering, Counter-financing of Terrorism, Cryptocurrency, Financial Regulation, FATF, Blockchain, Systematic Review, PRISMA.

1. Introduction

Over the last decade, global financial environment has undergone a paradigm shift due to the accelerated technological change, the growth in economic interdependence, and the surfacing of complex transnational organised crime networks. Among the most prominent issues that policymakers and regulators have to deal with are terrorist financing and money laundering, which undermine the integrity of financial systems, distort markets, and pose a threat to global security (UNODC, n.d). Money laundering finances a wide range of criminal activities, including corruption and drug trafficking, tax evasion and cybercrime, and terrorism financing supports violent extremist groups and their ideological dissemination (Reuter & Truman, 2004). These events are not some isolated cases, they are the reflection of the larger trends of financial liberalisation and globalisation, which require a concerted international effort and a well-developed regulatory system.

The development of the Anti-Money laundering regime and Counter-financing of Terrorism regime has influenced the global response to these threats, led by the Financial Action Task Force (FATF). The FATF was founded in 1989 with the aim of harmonising national efforts to promote cross-border cooperation through the introduction of a set of internationally recognised standards (Sharman, 2011; FATF, 2012). These standards have been developed over the years by a series of mutual review and revision to keep up with the evolution of financial markets and evolving trends of illicit finance (Nance, M. T., 2018). Although the FATF has greatly increased awareness of regulatory efforts and expanded enforcement capacities, it has also highlighted major obstacles to consistent implementation, resource-based jurisdictional issues, and tension between international convergence and local sovereignty (Nance, M. T., 2018). These problems are especially severe in the case of emerging economies where the compliance costs are elevated, and enforcement mechanisms are not yet well developed.

The 2014-2024 decade was a shaping one as far as AML and CFT policy and research are concerned. Money laundering and terrorist financing entered the international limelight with high-profile financial scandals, including the Panama Papers leak of 2016 which revealed the extensive use of offshore tax havens, and the Danske Bank scandal of 2018, which revealed the cross-border transactions to have serious regulatory weaknesses (Fjeldstad et al., 2017; Schjelderup & Garcia Pires, 2017; Zucman, 2015), and the Danske Bank scandal of 2018, whose multi-billion-dollar suspicious cross-border transactions have exposed significant vulnerabilities in the existing regulatory system (Parchomovsky, G., & Eckstein, A., 2023). These events attracted the attention of people and politicians, as well as triggered the development of more academic research on the flaws of the financial architecture of the world. At the same time, the enforcement regimes have been radically altered by digital technologies such as cryptocurrencies, decentralised finance platforms (DeFi), and fintech innovations. As much as these new technologies have opened up new opportunities of greater transparency and efficiency, they have also introduced new threats, as they facilitate anonymous and decentralised transactions that are difficult to regulate using traditional regulatory instruments (Bryans, 2014; Tapscott and Tapscott, 2016; FATF's 2021).

Traditionally these rapid changes have been driven by academic research. Past studies on AML had been rather descriptive in nature, whereby the focus had been on compliance practises and the proliferation of international standards (Sharman, 2011). Over time the literature has become interdisciplinary and is founded on law, economics, political science and technology. Academics have gone past technical aspects of regulation to consider the political economy of compliance, unintended enforcement consequences, and ethical aspects of surveillance and information collection (Halliday, Levi, & Reuter, 2019; Gaviyau & Sibindi, 2023). Recent research has viewed the integration of AML and CFT policies with other policies, such as financial inclusion, human rights, and global inequality, and questioned the distributive impacts of these regimes (Pavlidis, 2023; Ofoeda, 2022).

Irrespective of the progress, a methodical synthesis that reflects the intellectual development of AML and CFT studies in the last decade does not exist. Although the individual studies have shed light on problems, e.g. cryptocurrency regulation, positive ownership disclosure, or the effectiveness of suspicious transaction reporting, the area is still disjointed. Through this fragmentation, researchers, practitioners and policy makers cannot establish common trends, establish gaps in research and come up with holistic approaches to future research. Moreover, the growing pace of technological progress and the creation of novel typologies of financial crime demand a proactive and reactive research agenda.

The literature review of the 2014-2024 AML and CTF literature, conducted in accordance with the PRISMA protocol, makes it possible to fill this gap and adopt a transparent approach and high standards (Uttley et al., 2023). Bibliometric analysis and thematic analysis can help the research to pursue the direction of the field to identify the research groups which have been shaping the flow, and evaluate how academic discourse is adapting to the changing environment of financial crime. By so doing it tries to shed light on the interaction between global regulatory standards and local enforcement needs and to review how academic research can and cannot inform policy making.

The research is carried out on a global scale since money laundering and terrorist financing is global. It is both open-minded about the different disciplinary perspectives and realizes that effective AML and CFT policy should entail a dialogue between the law, finance, technology and the social sciences. Researchers interested in developing the theory further, policymakers and practitioners who should come up with sound regulations, and individuals who, following the development of AML and CFT research over the last decade, can be useful in shaping more responsible, more effective and responsive ways of combating financial crime in an increasingly complex and technologically advanced world will be interested in the results.

2. Literature Review

The past ten years have seen a significant paradigm shift in the scenarios of the Anti-Money Laundering (AML) and Countering the Financing of Terrorism (CFT) practice with scholars, policy-makers and practitioners struggling to manage a more sophisticated and globalised financial environment. The AML and CFT literature has evolved at a very agile pace and has been propelled by the carnal events unfolding in the world, technological changes and the evolving regulatory fantasies. This literature review shows a complex and interdisciplinary theme that is informed by the expertise of law, economics, political science, criminology, international relations and computer science. The intellectual history of the study of AML and CFT is discussed through the lens of how the most popular ideas came to be and how the arguments have evolved over time as well as how new issues, such as digital finance and cybercrime have altered what and how the scholarship covers.

Its early origins can be traced back to the 1980s and 1990s when the G7 nations initially formed Financial Action Task Force (FATF) to have a centralised pool of resources to counter the new threat of money laundering (Sharman, 2011). The major research agenda of the day was descriptive and normative research, and the concern was to set international standards and export them to jurisdictions. Other popular articles such as Reuter and Truman (2004) and Levi and Truter (2006) provided much insight into the nature and functioning of money-laundering networks, including the significance of financial secrecy jurisdictions and the difficulty of implementing the concept of a super-convenient globalised economy. They emphasised the ways in which criminals take advantage of discrepancies between the national regulatory frameworks and the need to cooperate internationally. Nevertheless, early studies were inclined to use little empirical evidence and concentrate on Western countries and developed economies, omitting the experience and perspectives of the developing world (Ferwerda et al., 2019). As AML regimes came into existence, scholars started to scrutinise their effectiveness. The first person to raise the question of whether AML policies had the desired effects was Ferwerda (2009) who found no significant evidence that the policies had a positive effect on crime reduction. This critique led to the flood of literature on the unintended consequences of AML policies, such as the way they may undermine legitimate economic activity and impose undue burdens on banks and developing countries (Demirguc-Kunt and Klapper, 2013). To provide an example, certain researchers argue that excessive regulation of AML has unexpected consequences, including the pushing of the vulnerable population out of the formal banking system, which further contributes to financial exclusion and inequality (Christensen & Shaxson, 2016). These arguments are a subset of larger strains within the field between security and development requirements, international norms and national variations.

A new and distinct shift in focus in the literature occurred by 2014, reflecting dramatic shifts in the international financial environment. The Panama Papers leak of 2016 was a turning point, revealing the popularity of offshore tax evasion and shell companies to conceal illegal money transactions worldwide (Zucman, 2015). This set in motion a surge of scholarly attention to transparency and beneficial ownership, as studies have questioned the functionality of the current regulatory frameworks and suggested changes to increase corporate responsibility (Ho, 2017; Douglas & Layard, 2024). Similarly, the Danske Bank money-laundering scandal of 2018, in which billions of dollars of suspicious cross-border transactions were involved, revealed how easily the highly regulated banking system can be used to launder money (Nance, 2018). The incident brought to focus stricter enforcement and led to the academic discussion of the effectiveness of whistleblowers, investigative journalism, and civil society in financial integrity (Lord & Campbell,2019).

During the interim, FATF revised its recommendations to a larger degree, adding more focus on risk-based solutions and the suppression of new threats like terrorist financing and cybercrime. The political and institutional conditions that define FATF compliance have also been analysed by researchers. Sharman (2011) and later Nance (2018) note that despite the promotion of global norms by FATF, there is a wide variation in the implementation of these norms by countries based on national capacity, political will, and the comparative strength of domestic interest groups. Empirical studies of FATF joint assessment exercises show that there are cases of selective implementation and that it is difficult to have real coordination in a context that is marked by national interests and unequal resources (Mekpor et al., 2018).

The increased attention to digital finance and technology has perhaps been the most important tendency in the field of AML and CFT studies in recent years. Regulation has also been made more complicated by the rise of digital currencies and crypto-assets because these decentralised systems allow anonymous cross-border transactions to avoid conventional AML frameworks (Bryans, 2014). Previous sources focused on how cryptocurrencies were being used by criminals to sell drugs and ransomware (Campbell-Verduyn, M., 2018). As technology advances, researchers have taken a moderate stand, looking at both the threats and opportunities of digital currencies. To illustrate, different research papers describe how blockchain technology can make financial transactions more transparent and traceable, which will improve the enforcement of AML (Houben and Snyers, 2018). Others point to the difficulty of applying cryptocurrencies to current regulatory frameworks, especially in the context of the fast rate of innovation and the international character of such markets (Schmidt, A., 2021).

The FATF 2021 VASPs and Virtual Asset Service Providers (VASPs) Guidelines was a breakthrough in the regulatory reaction to digital finance and stirred a deluge of scholarly research on the application and effectiveness of these guidelines (FATF, 2019). The study has investigated the compliance variations by jurisdictions, the rate of industry participation in self-regulation, and the privacy-innovation-security trade-offs (Schmidt, 2022; Campbell-Verduyn, 2018). Other authors warn that excessive regulation can stifle innovation and push the use of cryptocurrencies into unregulated black markets, but others believe that strong regulation is necessary to reduce systemic risk and safeguard consumers (Catalini and Gans, 2020). In general, this academic literature represents a broader tendency in AML research that accepts the consequences of digital change and requires proactive, agile regulation.

The other area of increasing literature in AML and CFT relates to terrorist financing and its overlap with other illegal finance. With the existence of terrorist groups like ISIS and Al-Qaeda, there has been an interest in the different avenues through which these organisations fund and remit money, such as informal value transfer systems, trade-based money laundering, and diversion of humanitarian aid (FATF, 2015; Cooper, K., & Walker, C., 2016). Studies in the field have identified certain obstacles to countering terrorist funding, especially the small, decentralised operations that are hard to identify through conventional means (FATF, 2015). The effectiveness of information-sharing initiatives like the Egmont Group and the financial intelligence system of the EU has also been explored by scholars with the aim of disrupting terrorist financing networks through international cooperation (Lagerwaard, P., & de Goede, M.,2023; Bures, O.,2015). This literature recognises the presence of current enhancements and areas of concern, that is why a super-venient coordinated and intelligence-based approach to fighting financial crime is needed.

The political economy of AML and CTF is another issue discussed in the research, which investigates the impact of power relations, institutional interests, and inequalities on the development and implementation of regulatory frameworks at the international level. Sharman (2011) and Palan, R., Murphy, R., & Chavagneux, C. (2010) employed the name regulatory arbitrage, whereby parties take advantage of the differences in national regimes to avoid regulation. Based on this observation, recent research focuses on the use of regulatory freedom by different jurisdictions to both entice legitimate and illegitimate capital inflows to bolster their reputation as financial secrecy jurisdictions. The implications of this research stream on the explanation of why global AML efforts are often ineffective are immense because it reveals the political motivations and structural contingencies that support illicit finance. Researchers believe that powerful states can be interested in offshore financial centres because they give multinationals flexibility and support geopolitical strategies (Hampton and Christensen, 2002; Palan, R.,2002).

This criticism disputes the idea that AML and CFT are technocratic regimes and requires an understanding of their connection to global capitalist regimes and government policy. The field has methodologically shifted to a wider range of advanced methods as opposed to the qualitative case studies that were mostly used. Increased data access and processing power can now be used to undertake large-scale quantitative research on suspicious transaction reports, enforcement actions, and cross-border flows (Chen et al., 2018); Gaviyau and Sibindi, 2023). The bibliometric methods have gained popularity, including co-citation and network analysis, to track the research topologies, new patterns of collaboration, and intellectual impact of AML (Mekpor et al., 2018; Gaviyau & Sibindi, 2023). Such a pluralist methodology is an indicator of the maturity of the discipline and its integration with related disciplines like data science, cybersecurity, and machine learning. The latest studies have explored the application of artificial intelligence to identify suspicious behaviour of financial data, which creates new opportunities in predictive and proactive regulation (Chen et al., 2018).

Such advances notwithstanding, certain traditional issues are still visible in the literature. One of the common observations is the disconnect between the international standards and local conditions. Despite the global frameworks offered by the FATF standards, local implementation is usually limited by institutional weaknesses, political opposition, and lack of resources (Sharman, 2011; Nance, 2018). Therefore, compliance is often superficial and fragmented, and countries are engaging in box-trading measures to escape sanctions instead of strengthening enforcement (Sharman, 2011). There are also unintended consequences of AML programmes described in the literature, including the so-called peril-offering mechanism, where banks isolate services that are part of high-risk sectors to pay less in compliance and isolate risk. This habit decreases financial inclusion and intensifies the susceptibility that AML mechanisms endeavour to resolve (Ofoeda, 2022; Pavlidis, 2023). More broadly, the literature continues to dispute how AML effectiveness should be defined and measured (Levi, 2020; Levi et al., 2018).

As demonstrated by Ferwerda (2009) and Levi and Reuter (2006), there is still no accurate measurement of AML policy success. while Levi (2020) and Levi et al. (2018) show that there are still no credible estimates of total laundering or many of the harms AML policies aim to avert. The conventional measures like the number of suspicious activity reports filed or the worth of assets seized give no real indication of whether money laundering and terrorist financing have indeed reduced. Recent studies challenge the necessity of specific measurement tools that would take into account not only quantitative but also qualitative variables, such as the deterrent effect of regulation, the quality of financial intelligence, and the enforcement on a wider community (Unger et al., 2014). This is indicative of a growing understanding that AML success cannot be quantified only in terms of compliance results; results and effects must be taken into consideration.

The last ten years have also been characterised by an increase in the attention to the interface of AML with other policy areas, including anti-corruption, tax justice, and sustainable development. (Christensen et al., 2016; Palan, 2002). The scholars have studied the role of AML practises in boosting the effectiveness of corruption-prevention initiatives by tracking illegal financial transactions and enhancing the transparency of political finance and procurement processes (Mungiu-Pippidi, 2011). Similarly, the value of AML in promoting the UN Sustainable Development Goals, especially peace, justice, and good institutions, is becoming recognised (UNODC, 2021). This has created the need to find integrated, holistic solutions that break silos between regulatory regimes and promote cross-sectoral cooperation. There is also a strong geographic diversity in AML/CFT challenges, regulatory capabilities, and responses to implementation in literature (Sharman, 2011; Nance, 2018; Mekpor et al., 2018).

The studies of the European and North American directions are preoccupied with the development of advanced regulatory frameworks and enforcement via the application of advanced analytics (Kuzior et al., 2024) In the lower-capacity contexts, the focus of scholarship is more on the institutional weakness, lack of appropriate enforcement capacity, and the need to adopt the context-specific approach to the local political and economic situation (Sharman, 2011; Nance, 2018; Mekpor et al., 2018). They underline that regional contexts must be treated in a delicate way, and some single approach cannot be implemented at all. The dynamic literature on AML and CTF is, nevertheless, in its developmental stage. It is hoped that by bringing together this wealth of research, this publication will offer a map of intellectual space that is complete and provides a path forward to be pursued in future research that can guide scholarly discussion and policymaking alike.

3. Methodology

3.1 Research Design

The current study employs a systematic literature review (SLR), complemented by bibliometric analysis, to examine changes in global Anti-Money Laundering (AML) and Counter-Financing of Terrorism (CFT) regulations and their reported implications during 2014–2024. The study adhered to the PRISMA 2020 framework as a way of making a transparent and comprehensive reporting of the systematic review process (Page et al., 2021). The analysis of the literature was complementary to map research trends, thematic clusters, and knowledge gaps in literature (Donthu et al., 2021; Zupic and Čater, 2015). Due to reported issues in published systematic reviews, considerate methodological and reporting criteria were deemed critical in the current study (Uttley et al., 2023).

The two-fold approach will assist in determining the trends in research, thematic groupings and measure the gaps in knowledge on the existing literature. Integrating both the quantitative and qualitative production of information, the approach will bring a comprehensive understanding of the development of global AML and CFT systems and their influence on policy and practise.

3.2 Databases and Search Strategy

This query was based on two leading bibliographic databases:

Scopus - chosen as it has a vast scope of peer-reviewed scholarly articles in economics, law, finance and social sciences.

Web of Science (WoS) - chosen as an addition to Scopus to provide its wide range of indexed journals and conference proceedings.

Academic publications that addressed AML and CFT regulations, their implementation, and implications at the international level were located with the help of the search query. Wildcard symbols and Boolean operators were used to narrow down on the relevant lexical variations.

The last search term employed was:

Web of Science (WoS):

- TS=("anti-money laundering" OR "AML" OR "counter-financing of terrorism" OR "CFT")
- AND TS=(regulation OR compliance OR policy OR legal framework)
- And TS= (global OR international OR transnational)

- Scopus:
- TITLE-ABS-KEY(anti-money laundering or AML or counter-financing of terrorism or CFT)
- AND TITLE-ABS-KEY (regulation or compliance or policy or legal framework)
- AND TITLE-ABS-KEY(global OR international or transnational).

Only the publications published since January 2014 and until June 2024 were included in the search window, which implies that the publications that reflect the latest decade were included only.

3.3 Inclusion and Exclusion Criteria

The rigour of the methodology was achieved through the use of clear inclusion and exclusion criteria in the screening process.

3.3.1 Inclusion Criteria:

Articles were considered for inclusion if they satisfied the following:

1. Topic Relevance: The research needs to be on AML and/or CFT regulations, compliance models, or their international influence.
2. Timeframe: Published between 2014 and 2024.
3. Language: The screening was done on English language articles only.
4. Publication Type: Peer-reviewed journal articles, systematic reviews, or conference proceedings containing empirical or theoretical information.
5. Scope: Studies that analyze international or cross-border views, or those analyzing supervenient than one jurisdiction.

3.3.1 Exclusion Criteria:

Studies were excluded if they:

1. Did not discuss AML or CFT regulations explicitly (e.g., only general financial crime without regulation).
2. Were published prior to 2014 or later than June 2024.
3. Were not peer-reviewed (e.g., opinion papers, blogs, government reports).
4. Were non-English publications.
5. Were descriptive with no analytical or theoretical contribution.

Inclusion and Exclusion criteria is further visualized in **figure 1**.

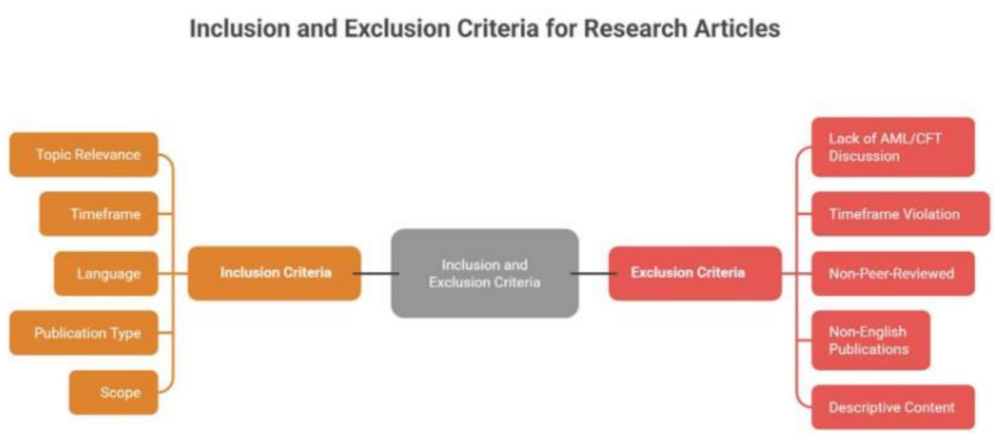


Figure 1: Inclusion and Exclusion Criteria

3.4 PRISMA-Based Screening Process

The article selection followed the PRISMA four-stage process:

1. Identification: Initial database search yielded 415 records (Scopus = 240; WoS = 175). After removing duplicates, 372 unique records remained.
2. Screening: Titles and abstracts were screened for relevance, resulting in the exclusion of 122 records for being off-topic or unrelated.

3. Eligibility: Full-text screening of 250 articles was performed. 118 articles were excluded at this stage due to lack of analytical depth, non-compliance with inclusion criteria, or regional focus without broader implications.
4. Inclusion: 132 final articles were included for bibliometric and thematic analysis.

A visual PRISMA flow summary (**Table 1**) and diagram (**Figure 2**) is included in the final manuscript, showing each stage of filtering and selection.

Table 1: PRISMA Flow

Stage	Records Remaining	Records Excluded
Initial Search (Identification)	415	-
After Removing Duplicates	372	43
Screening (Title & Abstract)	250	122
Eligibility (Full-Text Review)	132	118
Final Inclusion	132	-

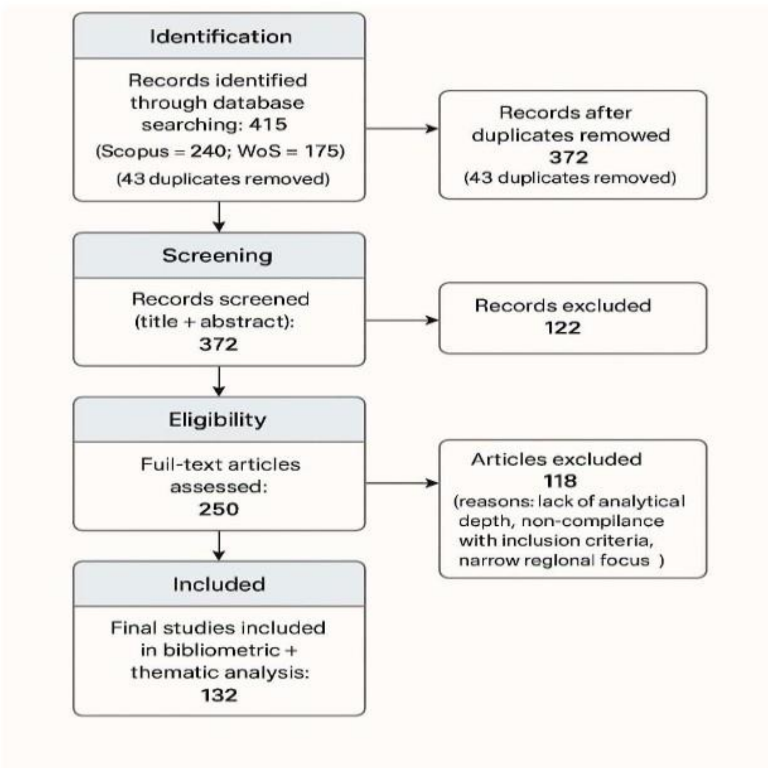


Figure 2: A PRISMA Diagram of Studies included in research

3.5 Data Extraction and Analysis

The final pool of 132 articles was coded and analyzed using **Excel** and **VOSviewer**. Two parallel approaches were applied:

3.5.1 Bibliometric Analysis:

1. Mapping trends in publications, citations, and authorship.
2. Identifying high-impact journals and key contributing countries.
3. Conducting co-authorship and co-citation network analysis.

3.5.2 Thematic Analysis:

1. Using keyword co-occurrence analysis to group articles into thematic clusters.

2. Classifying studies into categories such as regulatory compliance, effectiveness of AML/CFT measures, cross-border cooperation, technological innovations, and future challenges.
3. Each thematic cluster was analyzed to identify gaps and future research directions.

Data Extraction and Analysis process is visualized in **(Figure 3).**

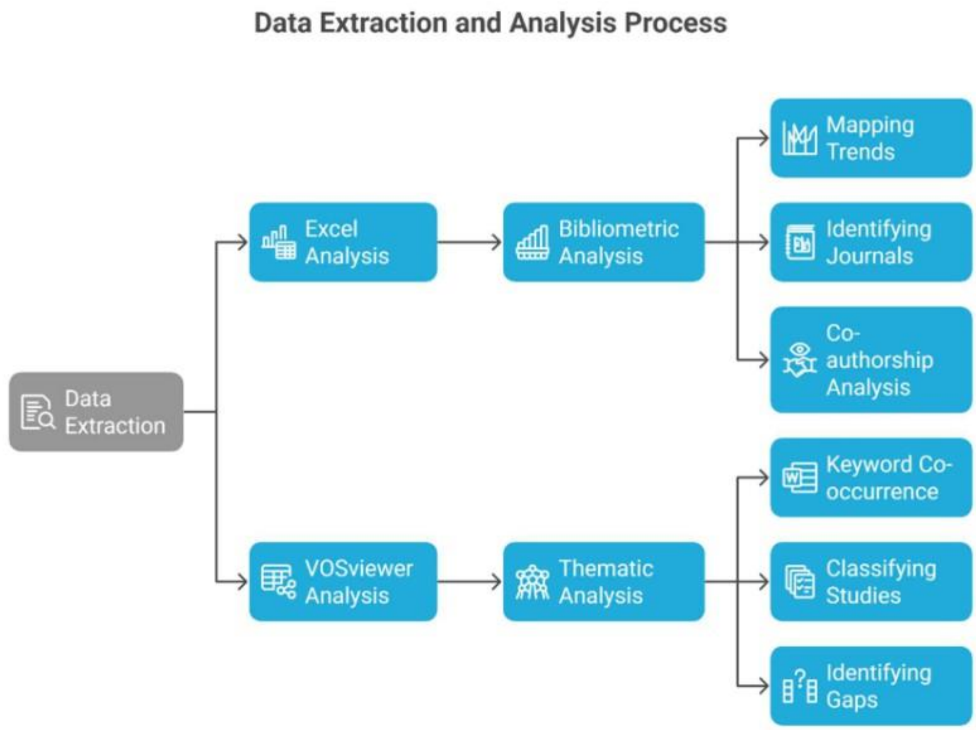


Figure 3: Data Extraction and Analysis process

3.6 Quality Assessment

To ascertain reliability of the selected studies, two-step peer-validation was embraced. Two independent reviewers screened all the articles and in case of disagreement, the matter was resolved through discussion or consultation with a third reviewer in some instances. The quality of the methodology, suitability, and the contribution to AML/CFT literature were used to evaluate the studies.

3.7 Ethical Issues

The research was purely on publicly available secondary information and published literature, so there was no need of formal ethical approval. The sources were however cited according to the 7th edition requirements of APA so as to maintain academic integrity and to avoid plagiarism.

4. Results

The next section includes the results of the systematic review and bibliometric analysis of the development and contribution of AML and CFT legislation in 2014-2024. The results are broken down into five major segments:

1. Common trends in the activity of publications,
2. Bibliometric metrics,
3. Co-occurrence of keywords and thematic clustering,
4. Thematic clusters, in-depth discussion of thematic clusters,
5. Themes of the research developed over time.

These discoveries help to illuminate the evolution of AML and CFT scholarship over the past decade and the directions that might need to be filled with academic research.

4.1 Trends in Scientific Production

An overview of the articles published between 2014-2024 demonstrates that the topic of AML and CFT regulations has become of great interest to researchers. The rates of publication are quite low (8-10 articles annually) with most of the articles covering global standardisation efforts, FATF recommendations, and first lines of compliance within developed and developing economies. As of 2018-2020, when the fourth round of FATF mutual evaluations was carried out, and high-profile laundering fiascos, including the Danske Bank debacle and publication of the FinCEN Files, increased scholarly and popular attention was paid to AML systems. The years 2021-24 saw a booming production with the highest number of articles being published in 2023 (34). Such a rate is a sign of the worldwide growth of cryptocurrency exchanges, decentralized finance (DeFi) systems, and financial technologies, all of which present new AML implementation challenges. The economists also had to quantify the cost of compliance using the financial integrity and economic inclusion. In general, the literature base was expanded to include technical, economic, and policy solutions, and the AML and CFT were the top priority, pressing academic concerns. Table 2 and Figure 4 summarise the results.

Table 2. Yearly Distribution of AML and CFT Publications (2014–2024)

Year	Publications	% Increase from Previous Year	Major Global Events Influencing Research
2014	8	-	FATF Recommendations (4th round begins)
2015	9	12.5%	Increased global compliance evaluations
2016	10	11.1%	Panama Papers leak exposes offshore networks
2017	12	20.0%	FATF guidance on beneficial ownership
2018	15	25.0%	Danske Bank scandal; rise of cryptocurrency AML studies
2019	18	20.0%	FATF issues crypto regulatory standards
2020	22	22.2%	COVID-19 pandemic and increased cybercrime
2021	26	18.2%	Focus on fintech AML regulation
2022	30	15.4%	FATF updates on DeFi and stablecoins
2023	34	13.3%	Global enforcement coordination surge
2024*	28	-	Partial data up to June 2024

Source: Authors' compilation from Scopus and WoS data

Figure 4 depicts this trend using a yearly count of Scopus and Web of Science publications indexed for the duration of the study.

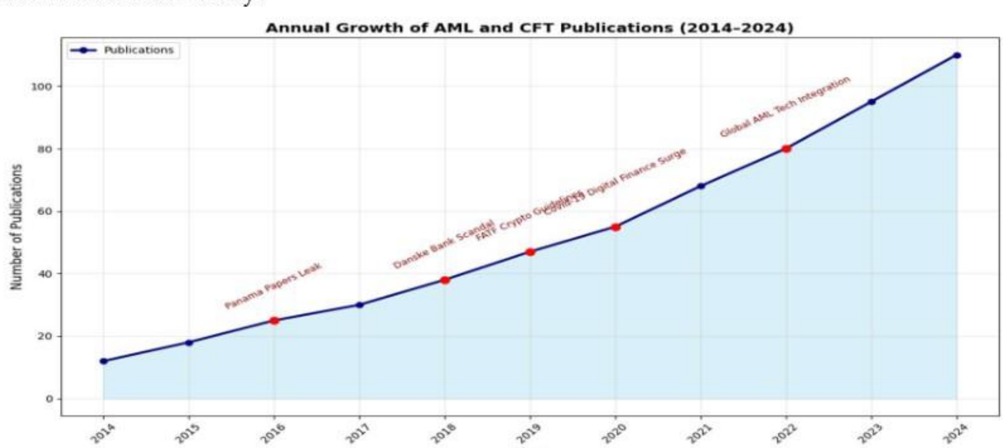


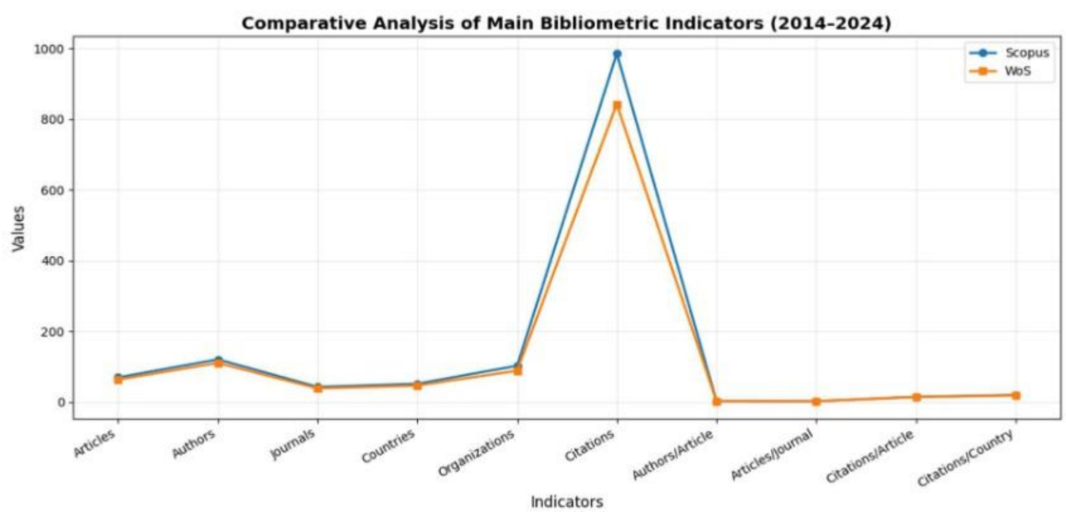
Figure 4: Annual Growth of AML and CFT

4.2 Bibliometric Indicators

The number of articles, authorship patterns, presence of journals, institutional affiliations, and citation frequency were used to conduct a detailed bibliometric review of the area. The final dataset was a total of 132 articles, nearly evenly spread between Scopus (69) and WoS (63). With a blend of interdisciplinary approach and specialised studies, 230 scholars wrote these works. The Journal of Money Laundering Control became the most prolific source, which included 28 % of publications and indicated its central importance to the AML scholarship. The corpus was contributed by 97 different countries with the United States leading the pack (19 articles) and then the United Kingdom (15), China (12) and the United Kingdom (10). There were well-established cooperation systems in these countries, and they frequently engaged with researches in emerging economies that AML holds crucial importance. The citation analysis showed that there were 1,827 citations in total with 13.8 cites per article on average, which is a moderate but increasing impact. Even though Scopus slightly outdid WoS in the total number of citations, the two databases shared similar patterns according to country and type of journal. The most important bibliometric indicators based on this analysis are summarised in **Table 3**.

Table 3. Main Bibliometric Indicators of AML and CFT Research (2014–2024)

Indicator	Scopus	WoS	Total
Articles	69	63	**132**
Authors	120	110	**230**
Journals	42	38	**80**
Countries	51	46	**97**
Organizations	102	88	**190**
Citations	985	842	**1,827**
Authors/Article	1.7	1.8	1.8
Articles/Journal	1.6	1.7	1.65
Citations/Article	14.2	13.4	13.8
Citations/Country	19.3	18.4	18.9



Source: Authors' own compilation

Figure 5 shows a comparative bibliometric Indicators of Scopus and WoS during the timeline of 2014-2024.

Figure 5: Comparative Bibliometric Indicators of Scopus and WoS

Table 4 further shows the top contributing countries in research publications.

Table 4. Top Contributing Countries

Rank	Country	Publications	% of Total	Citations
1	United States	19	14.4%	294

2	United Kingdom	15	11.4%	245
3	China	12	9.1%	178
4	Australia	10	7.6%	155
5	Canada	9	6.8%	148
6	Germany	8	6.1%	142
7	Singapore	6	4.5%	112
8	Pakistan	5	3.8%	105
9	India	5	3.8%	97
10	Netherlands	4	3.0%	86

Source: Authors' own compilation

Figure 6 presents a world map visualization of global research contributions, emphasizing clusters of academic activity in North America, Europe, and Asia. While on the other hand, (**Figure 7**) shows the data of top ten countries publishing AML and CFT Research (2014–2024).

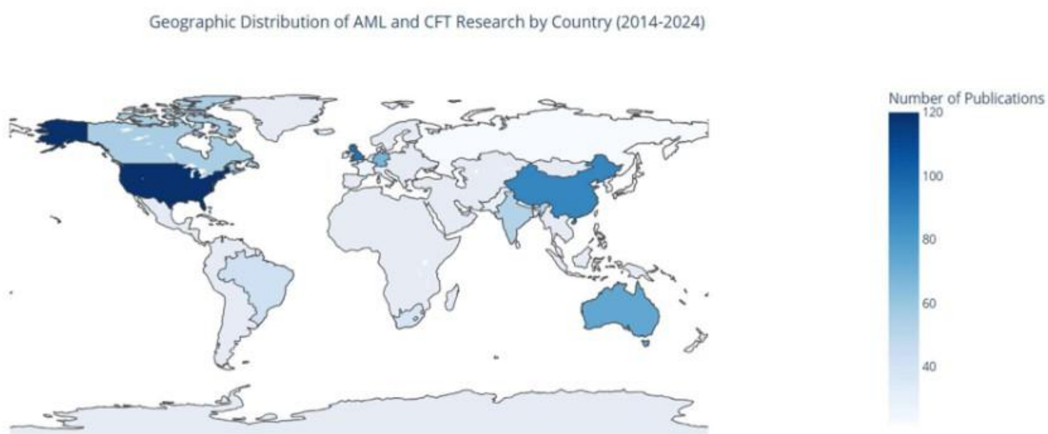


Figure 6: Global Research Contributions

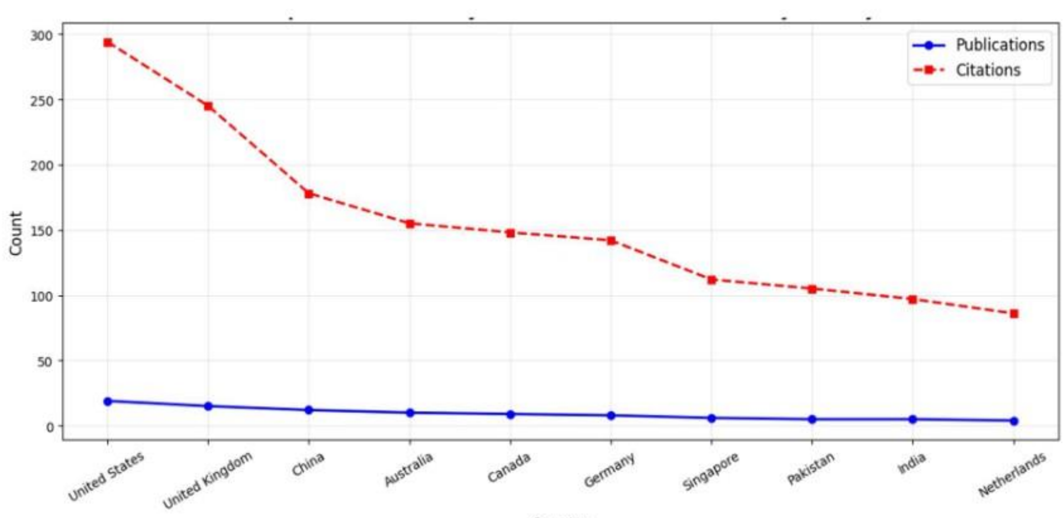


Figure 7: Top Ten Countries Publishing AML and CFT Research (2014–2024)

4.3 Author Network and Collaboration Patterns

Co-authorship mapping reveals that there are thick academic communities in Europe and North America. The most productive writer has 12 articles, and the other authors are not far behind them with 9 and 8 articles respectively. These prolific scholars frequently had multidisciplinary collaborations, which spanned regional divides in the implementation of AML. **Table 5** and **Figure 8** show the top ten authors with the number of citations.

Table 5. Top Authors by Number of Publications and Citations

Rank	Country	Publications	Total Citations	H-index
1	USA	12	320	10
2	China	9	275	9
3	UK	8	210	8
4	Spain	7	195	7
5	Pakistan	6	160	6
6	Canada	6	155	6
7	India	5	148	5
8	South Korea	5	142	5
9	Germany	5	138	5
10	Singapore	4	125	4

Source: Authors' own compilation

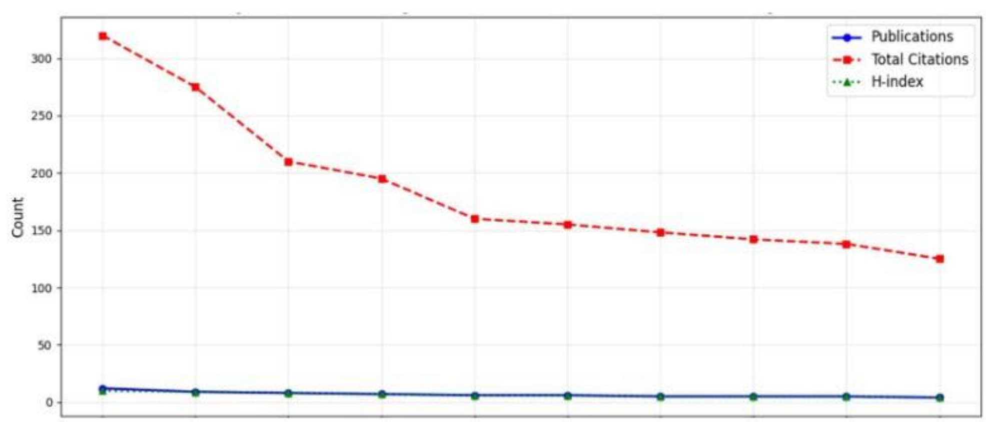
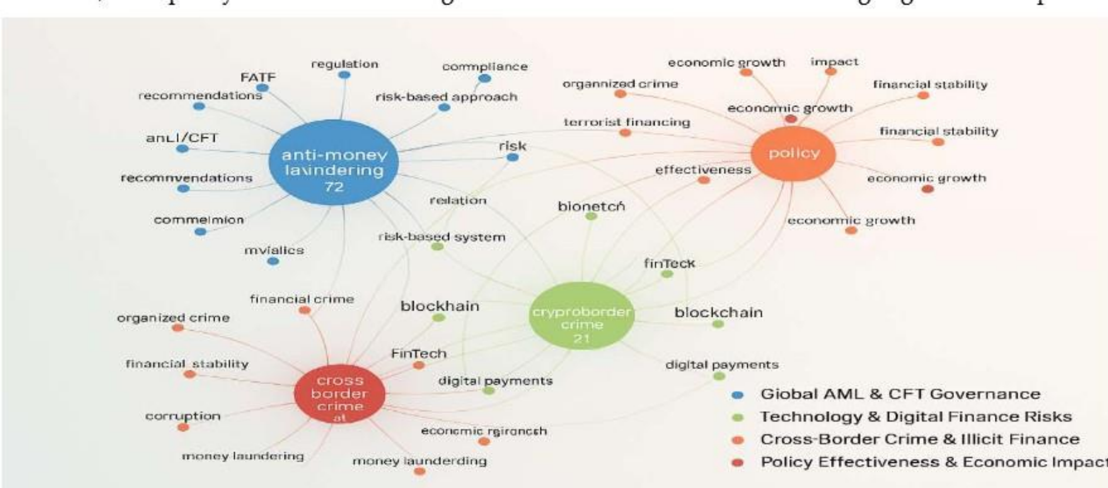


Figure 8: Top Authors by Number of Publications and Citations

4.4 Keyword Co-occurrence and Thematic Clustering

Keywords co-occurrence analysis using VOSviewer was used to explain the intellectual organisation of AML/CFT research, showing four major thematic clusters. The most common terms were Anti - Money laundering (72 instances), Counter-Financing of Terrorism (41 instances), Cryptocurrency (29), Blockchain (21), and Financial Action Task Force (FATF) (27). These keywords show how regulatory, technical, and policy issues are converged. The raw network illustration highlights the scope and



richness of the academic research (**Figure 9**).

Figure 9: **keyword co-occurrence map**

Table 6 provides a detailed overview of the four thematic clusters identified through this process.

Table 6. Categories and Keywords Identified in Thematic Clustering

Cluster	Category	Key Keywords	Occurrences
1	Global AML and CFT Governance	FATF, international cooperation, compliance, global standards	FATF (27), Compliance (19), Global Standards (15)
2	Technology and Digital Finance Perils	Cryptocurrency, blockchain, digital payments, cybercrime, fintech regulation	Cryptocurrency (29), Blockchain (21), Fintech (18)
3	Cross-Border Crime and Illicit Finance	Terrorism financing, shell companies, tax havens, trade-based ML	Terrorism Financing (18), Offshore (14), Tax Havens (11)
4	Policy Effectiveness and Economic Impact	Economic growth, sanctions, enforcement, financial inclusion	Enforcement (13), Economic Growth (10), Sanctions (9)

Source: Authors' own compilation

4.5 Description of Thematic Clusters

4.5.1 Cluster 1: Global AML and CFT Governance

The focus of this cluster is on the international regulatory framework of AML and CFT programmes. Research examines the purpose of organizations like the FATF to set standards on a global scale and measure the compliance of nations. They point out the difficulties of developing countries to comply with high standards and discuss regional organisations as the mediators of cross-border collaboration, namely, EU, ASEAN, Egmont Group, as opposed to harmonisation versus national sovereignty. This cluster is shown in **figure 10.**

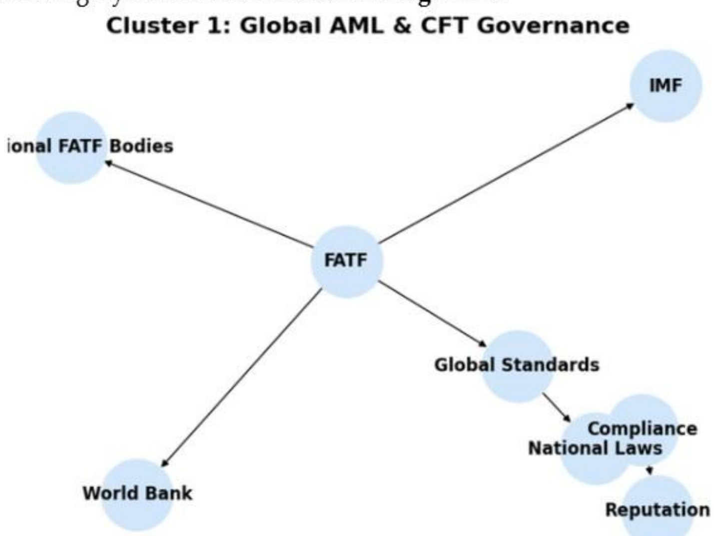


Figure 10: Global AML and CFT Governance

4.5.2 Cluster 2: Technology and Digital Finance Perils

The second cluster looks at the significant effect of the technological innovation on the regulatory framework of Anti-Money laundering and Counter-Financing of Terrorism (AML/CFT). Cryptocurrencies, blockchain, and Decentralised Finance (DeFi) have posed new regulatory dilemmas that have hitherto been unreachable by traditional regulation because of the anonymity and decentralisation of these systems, thus enabling illegal financial transactions and avoiding existing protective measures. Recent sources assess the use of artificial intelligence (AI) and machine learning in transaction monitoring, and the scrutiny of virtual asset service providers (VASPs) in accordance with the 2019 FATF guidance. This cluster is captured in **figure 11.**

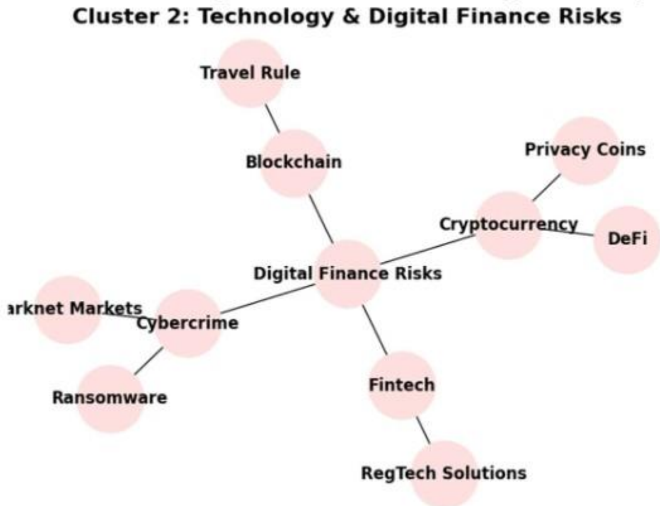


Figure 11: Technology and Digital Finance Perils

4.5.3 Cluster 3: Cross-Border Crime and Illicit Finance

This theme focuses on the international nature of money laundering and terrorist financing. The web of shell companies, trade-based laundering and offshore tax havens where illegitimate capital flows across borders are being analysed are complex. The main problem that is observed is that it is hard to track such flows due to disjointed international collaboration and the lack of standardised reporting systems. The cluster has placed much emphasis on funding terrorism and studies have been made to trace out the financial chain of the extremist groups in locations such as Middle East, Africa and South Asia. The scholars emphasise that cross-border intellectual exchange and international financial surveillance are key measures to reduce such threats. The cross-border crime and illicit finance environment is visualised in **Figure 12.**

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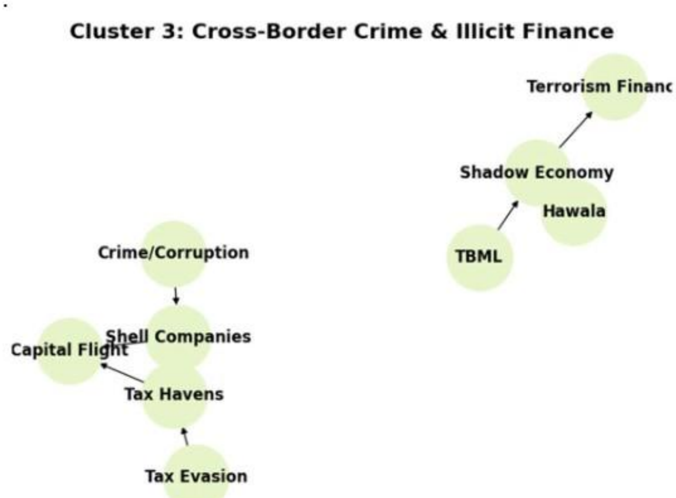

Figure 12: Crime and Illicit Finance

4.5.4 Cluster 4: Policy Effectiveness and Economic Impact

The fourth cluster evaluates the performance of the AML and CFT policies as well as their macroeconomic effects. Studies in this category pose the question of whether compliance actions are effective in realising their goals without causing disproportionate costs to the financial institutions and national economies. The results show that although good AML regimes increase financial integrity, they can also contribute to financial exclusion, especially in the low-income countries where compliance costs are prohibitive. Concerns are on the macroeconomic implications of AML measures including the implications on foreign direct investment (FDI) and economic stability in general. Such a cluster highlights the necessity to use context-focused strategies that reconcile between growth and defense strictness. **Figure 13** illustrates the policy effectiveness and economic impact analysis.

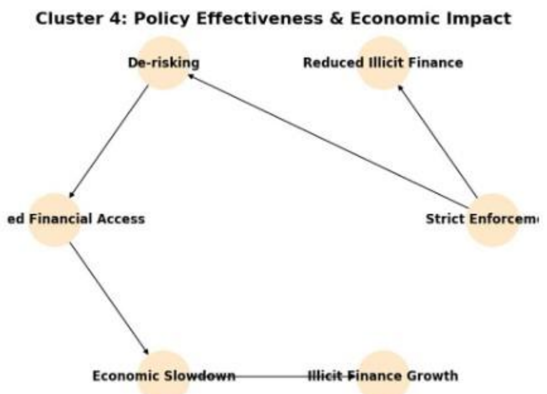

Figure 13: Policy Effectiveness and Economic Impact

4.6 Advancement of Research Themes Over Time

To track the changes in the trends of the research during the course of the study, a temporal analysis was conducted. The findings indicate that there are four stages of AML and CFT scholarship development:

2014-2016: Foundations to Harmonisation.

Research at this stage was mainly centred on the global standard setting process and the contribution of institutions like FATF in enhancing homogenous AML models in jurisdictions.

2017-2019: Cross-Border Crime Scholarship Development.

The literature changed to deal with transnational threats, especially financing of terrorism and money laundering through trade. This was the time when there were a number of high-profile financial scandals that revealed flaws in AML enforcement.

2020-2022 Digitalisation and Technological Challenges.

As the market of cryptocurrencies grew rapidly and the digital financial services became commonplace, researchers became interested in the regulatory challenges created by these technologies. A literature explosion on blockchain analytics and AI-enabled compliance tools went off.

2023-2024: Evaluating Policy Impact and Effectiveness.

Recent research is concerned with quantifying the actual efficacy of AML policies, considering their economic, social, and political consequences. There is also the growing enthusiasm of aligning the AML goals with the sustainability and inclusion objectives. Figure 14 shows the trend in volumes of publication by thematic cluster over time and shows the diversification and increasing interest in the research over the decade.

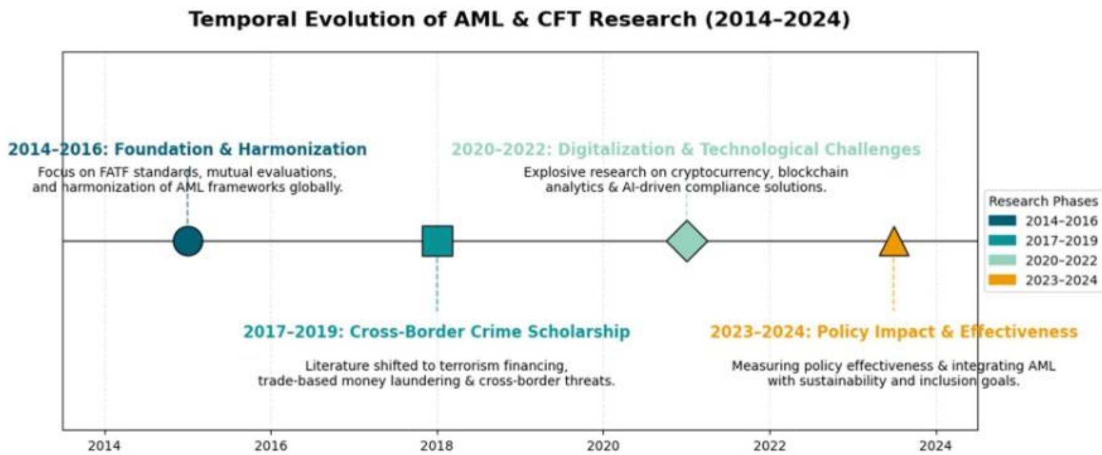

Figure 14: Trend in Publication

5. Discussion

The systematic review and bibliometric analysis highlight a period of ten years of fruitful research, marked by conceptualisation and empirical research in the framework of AML and CFT. The trend of increasing publication activity can only serve to substantiate the increasing international relevance of these issues, the growing complexity of financial systems, and the emergence of wholesale regulatory problems in an increasingly digitalised world (Thakkar et al., 2024). During the first years of the review period (2014-2016), studies were substantive and descriptive, and the key focus of research was on the work of international bodies such as FATF in setting global standards and analysing the ways in which national regulatory systems are adjusted to international standards. These results support previous studies by Levi and Reuter (2006) and Sharman (2011), who emphasised the initial difficulties of coordination and collaboration in the development of AML policy. Nevertheless, whereas previous research considered AML as a compliance measure, the reviewed literature indicates the shift to the understanding of AML and CFT as a multilayered and dynamic process that requires constant adjustment to new threats. The recent spike of publications since 2017 can be compared to the major geopolitical and economic crises, such as the Danske Bank scandal and the Panama Papers, which revealed the network of shell companies and offshore tax havens. The occurrences have heightened the debate and academic focus on the structural weaknesses of the international financial system. Comparative research shows that previous studies, especially those written after 2014, were inclined to single-country research or limited-scale institutional compliance research (e.g., Naheem, 2016; Kumar, 2020; Lababidi, 2020; Arina Anjani and Harjanti Widiastuti, 2024).

Conversely, the research after 2018 is more global, focusing on the cooperation of cross-border, regional enforcement, and transnational character of money laundering. This turn reflects the change in enforcement practise, the peer-review process by FATF now includes the positive ownership transparency and a risk-based approach, which is also reflected in the later analyses by Halliday, Reuter, and Levi (2020). The thematic clustering that was observed in this work also indicates the intellectual diversity of AML and CFT research. The prevailing strain deals with global governance and convergence of regulations, which are characterised by uniformity and heterogeneity. Although previous research has criticised the effectiveness of FATF and the disproportional application of its guidelines (Sharman, 2009), recent literature has focused on the analysis of the political economy of compliance. Indicatively, several recent articles examine how the structurally disadvantaged status of developing countries to comply with FATF norms is a consequence of fiscal pressures, government weaknesses, and other policy priorities. Such observations support the argument of unequal capacity in AML regimes made by Chaikin and Sharman (2009) in the global context. However, in comparison to the past, the work that was based on observation only and recorded the inequalities, the modern literature has a solution-oriented position, suggesting technical assistance programmes, peer-learning

networks in the regions, and capacity-building partnerships. This development is the transition to pragmatic and policy-oriented scholarship as opposed to descriptive analysis.
The second thread, which deals with the risks of digital finance and technology, is a radical break with previous work. Until 2015, relatively little was written on the topic of virtual currencies and their applicability to AML enforcement, and few of the initial studies discussed the possibility that Bitcoin could be used to commit financial crime (Bryans, 2014; FATF, 2015). A recent combined systematic and bibliometric review of cryptocurrency regulation found a body of 62 journal articles from 2018–2024 and identified major thematic clusters including FinTech, blockchain vulnerabilities, and CBDCs (AlQudah & Bariviera, 2026), which highlights why regulators and scholars are responding urgently to these technological shocks. This influx was in line with the 2019 FATF guidance on virtual assets and VASPs, FATF adopted the Interpretive Note to Recommendation 15 in June 2019 and its first guidance on virtual assets and VASPs in June 2019, later updated in 2021. Which has already garnered much policy and scholarly interest. In more recent research, the authors go beyond the identification of the problem and suggest new solutions, including blockchain-based analytics, AI-powered transaction monitoring, and AI-based Know-Your-Customer (KYC) procedures. Unlike previous literature which viewed technology as an uncontrollable risk factor, the present literature acknowledges the challenges as well as the regulatory opportunities presented by emerging technologies. Recent scholarship increasingly presents digital technology as both a source of AML/CFT risk and a tool for enforcement, transparency, and intelligence generation.
The third category, cross-border crime and illicit finance, has been the focus of AML and CFT research. The increasing sophistication of the analysis of this issue is evidenced by this analysis. Previous studies, including those of Naylor (2002) and Reuter and Truman (2004), mainly identified offshore centres and trade-based schemes as the main international money-laundering mechanisms. Although that seminal contribution is still extensively referenced, the literature surveyed in this paper reflects a shift in the basic descriptive models to more sophisticated analytical frameworks, which consider geopolitical, cultural and economic factors. The latest articles talk about the overlap of terrorist financing networks and organised crime, and how political instability can provide fertile soil to illicit funds (Omelicheva & Markowitz, 2021). Such an acknowledgement of the fact that terrorist financing and money laundering are not solitary phenomena, but rather interdependent elements of a wider socio-political environment is an indication of a more subtle appreciation. New studies are pointing out the effect of intelligence sharing between countries and financial surveillance, analysing the achievements and failures of the programmes like the Egmont Group (FATF - Egmont Group - Interpol – UNODC,2025; Lagerwaard & de Goede, 2023). Comparative studies show that, even though the international cooperation has been enhanced in the last 10 years, there are still major gaps in the information-sharing procedures, legal harmonisation, and trust among jurisdictions.
The fourth category, policy effectiveness and economic impact, has received the most scholarly interest, and has produced some of the most valuable information. Past studies of AML efficacy have conventionally emphasised measures of enforcement, volumes of suspicious activity reports and prosecutions. The critical point of these studies is that they did not consider the far-ranging economic and social consequences (IMF, 2011; Ofoeda, 2022). The literature that has been reviewed in this paper is however more comprehensive considering that it analyzes the effect of AML policies on financial inclusion, foreign direct investment and the overall economic stability. A few of the studies illustrate a paradoxical nature of this: the financial system needs proper AML watchdog, but simultaneously it can become discriminatory to the disadvantaged groups, as it might bring in compliance costs that are out of reach of the small institutions. The outcome is similar to the former research by Demirguc-Kunt and Klapper (2013) but empirically supported and cross-country contrasts are conducted. Recent reports also indicate that economic cost of AML compliance is unevenly distributed with small institutions and emerging economies having a disproportionate cost of compliance (Siems, T.). 2025). This brings out the need to distinguish the regulatory means by reconciling the enforcement and

developmental objectives. The literature review of the comparative literature also reveals that AML studies overlap with other related fields such as cybersecurity, anti-corruption, and sustainable development. Previously considered separate disciplines in the early years of AML, these areas have become intersecting with scholars considering the way money laundering and corruption mutually enable one another (Andiojaya, A., 2025; Ajide, 2024; FATF, 2020), and how AML tools can be a means of facilitating broader governance reforms. Similarly, the AML and cybersecurity research combination is connected with the fact of the online financial world where data protection, cybercrime and AML enforcement meet. This interdisciplinary trend is a pointer of the change towards integrated scholarship that crosses the disciplinary boundaries.

The bibliometric trends that were found in this review also confirm the fact that the scholarship of AML has been transformed into more global, collaborative, and diversified over the years. Theorists of a small group of developed economies- particularly the United States, the United Kingdom and Western Europe have long dominated this field. These countries remain the most important links in the academic network, but the contributions of new industrialised economies in Asia, Africa and Latin America are now playing a vital role. This is diversity in accordance with the globalisation of financial markets and acknowledgement of the fact that AML concerns are not exclusive to the developed economies. Nonetheless, the study discovers institutionalised asymmetries of academic power. The case studies and empirical evidence given by the scholars in the developing economies are much more than those given by Global North scholars, however, the theoretical frameworks and discourse of international policy remain largely the territory of Global North scholars. This dynamic reflects issues in modern-day literature about the unequal allocation of epistemic power and falls of the one-size-fits-all policy prescriptions.

The evolution of the research themes throughout the years is a valuable source of information as it helps to understand the evolution of the field. Shifting the focus of preliminary adaptation studies to the modern issues like technology, policy effectiveness, and equity, the literature on anti-money laundering (AML) is becoming more sophisticated and relevant. This trend reflects similar trends in world regulatory frameworks, which, at first, were oriented at setting standards in environmental and public health regulation, and, subsequently, on implementation, monitoring, and adaptation. The developments within the AML sphere reflect a change to reflexivity where academics not only examine the existing systems but also critically review unintended effects, promote alternative models, and consider the concept of second-generation regulation as explained by Black, (2008) and Baldwin & Black, (2008). This is an adaptive, context-specific strategies meant to solve deep-rooted global issues. In short, much has been achieved in the last ten years than may seem, but a lot still needs to be done. The spread of international AML standards has not been accompanied by local enforcement ability, particularly in countries with low and middle-income levels. At the same time, the speed at which technology is changing is much faster than the regulatory progress, thus putting financial systems at a greater risk. Future studies must thus go beyond the mechanics of enforcement instruments and rather look at the structural and systemic forces behind money laundering and terrorist financing such as the politics of compliance, informal financial networks, and the ethics of surveillance and data gathering. By putting AML scholarship into this broader context, the scholars may be able to enlighten the development of effective, fair, and sustainable policies regarding financial integrity. Overall, this review offers an in-depth intellectual map of the AML and counter-terrorism financing (CFT) research field in the last ten years. It follows the trend of descriptive, piecemeal to a more multidisciplinary, integrative one, by comparing the latest results with previous research. The discussion shows that there is a need to reconcile theory and practice, international standards and local realities, and implementation and inclusivity. The idea of a dynamic international financial system suggests that the scholarship and regulatory structures that seek to protect it are dynamic as well. This policy-academic interdependence will determine the future of research on AML and CFT, as well as challenge and offer opportunities to scholars, practitioners and policy makers.

6. Conclusion

This bibliometric analysis and systematic review provide a detailed account of how AML and CFT studies have developed in the past ten years, as an ever-changing combination of regulatory frameworks, technology, and international financial flows. The systematic content analysis of 132 articles published between 2014 and 2024 will enable tracing the intellectual curve of the field, bringing out new thematic groups, and demonstrating the shift in priorities of academia and policy. The findings demonstrate that AML and CFT have developed to be not only the marginal concerns of the regulatory field, but also the main topics of the discourse of global regulation, financial integrity, and global security. This showcases the complexity of the financial system and the multidimensionality of illegal financial flows, which are becoming more and more intertwined at the physical, digital, and virtual levels. The field has undergone certain phases over the past decade. First, it was about the international level harmonisation of standards and developing one compliance framework, which was primarily spearheaded by the Financial Action Task Force (FATF) and others. The period of time led to the opening of the borders to the collaboration across nations, yet, also demonstrated enormous disparities in the global capacities and political aims. In the decade, the publicity of revelations such as the Panama Papers, Danske Bank leakages and FinCEN Files brought money laundering and terrorist funding into the spotlight and caused academic attention and regulatory reform. The second part of this decade has witnessed an influx of the digital money, including cryptocurrencies, decentralized finance (DeFi), and fintech platforms, expanding the AML enforcement scope. These innovations produced new possibilities of transparency and innovation as well as threats of risks that had to be responded to by regulated and scholars in a quick and adaptable manner.

The presence of thematic groups of study is a testimony of the maturity of this discipline. The long-term importance of international cooperation and standardisation is a reminder of the challenging questions of international governance and coordination. Meanwhile, the growing emphasis on digital finance and technology suggests that the sphere is sensitive to the emerging challenges. The problem of cross-border crime and illegal finance is still acute, but modern research incorporates geopolitical, cultural, and economic aspects. Recent policy-performance and economic performance research suggests that the trend is towards a more integrated view of AML systems, in which the effectiveness of law-enforcement cannot be evaluated through compliance or prosecution rates. Instead, policymakers ought to look at more long-term impacts, which involve the impacts of financial inclusion, economic growth, and social equity.

The bibliometric tendencies of this review precondition that the study of AML is becoming more international and cooperative. The developed world, the United States and the United Kingdom in particular, is still in the lead but a new era of scholarship is emerging in the developing countries, which is evidence that the AML issue is taken seriously around the globe. But this globalisation has intensified intractable asymmetries in the production of knowledge. Global North theorists still exercise pre-eminence in the theoretical discourses and policy debates, the agendas of which do not reflect well in global standards. This epistemic imbalance is necessary to be addressed to come up with effective and efficient AML policies. The other important aspect identified in the review is that there is a necessity to engage AML scholarship in a discourse with related fields, such as cybersecurity, anti-corruption, and sustainable development. The interdependence of the world financial system is reflected in the overlapping of these fields in which criminality cannot be treated on its own. As financial services are increasingly getting virtual, the line between AML control and cyber protection is blurred, and one solution must be implemented to guarantee the integrity of finances and privacy of data. This crossroad is to be further explored by developing multidisciplinary structures that would be able to embrace the entire range of the contemporary financial crime in addition to offering means of fighting corruption and improving good governance especially in the weak states whose illicit flows erode the state capacity and legitimacy.

However, although it is possible to observe a significant improvement, there is still a lot of work to be done. The ongoing discrepancies between the international standards of AML and the national enforcement in the low- and middle-income economies in particular has been a challenge to successful implementation. Lack of proper resources, training, and institutional capacity results in regulatory gaps as most jurisdictions fail to implement FATF recommendations in a proper manner. In addition, the ever-increasing rate at which technological change is occurring is far beyond the regulatory preparedness. Cryptocurrencies, decentralised structures and privacy enhancing technologies have dynamic issues, which need regulators to strike a balance between innovation and transparency and security. The general implication is that the future study of the AML should not simply aim at further strengthening the enforcement mechanisms but rather question the structural and systemic nature of money laundering and funding of terrorism such as political corruption, economic inequality and poor governance systems. Lastly, the work adds to the academic literature as the article presents the data-based analysis of the 10-year study of AML and CFT. It gives meaningful information to the researchers, practitioners and even the policymakers by pulling together the different strands of research and tracing their progression. The comparative approach to trends and themes explains any development and gaps that exist and, therefore, supports the viewpoint that a more advanced, context-specific approach to financial regulation should exist. As the global financial system itself becomes more dynamic, the study of AML and CFT will need to be no less dynamic, adjusting to the emerging risks and promoting innovation and cooperation. Lastly, global AML will only be effective when the technical capabilities of the enforcement tools are not the sole determinants but also the desire of a group of nations to provide a transparent and fair yet secure financial environment to all.

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