TRADE-BASED MONEY LAUNDERING

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ABSTRACT

One of the most intricate and popular forms of money laundering in the world today is trade-based money laundering, or TBML. It entails hiding the proceeds of crime and transferring illegal money through legal business dealings. It also entails manipulating shipments, invoices, and customs paperwork to make cross-border money laundering easier. Globalization and the exponential growth in international trade have given rise to TBML, which makes it more difficult for financial institutions and regulators to identify illicit financial flows. Simple trade mission voicing to intricate networks including shell corporations, fictitious transactions, and intricate webs of financial intermediaries are examples of TBML scams. Over- and under-invoicing of goods and services is a key component of TBML. This happens when the cost of the goods as well as services. This happens when items are either overpriced or undervalued in order to change their relative values between nations. A criminal can transfer significant sums of money out of the nation without raising any red flags by under-invoicing, while over-invoicing allows them to justify sending big amounts of money overseas as payment for goods or services. A similar tactic to channel illegal payments abroad is multiple invoicing, which generates many invoices for a single cargo. Because trade transactions are opaque and flexible, and because customs and tax laws vary from nation to nation, there are chances for criminals to take advantage of weaknesses in the system. Phantom shipment is another TBML technique in which no actual products are transported; instead, documents are made to appear as though trade activity is taking place, enabling criminals to move money across

Keywords: Trade-Based Money Laundering (TBML), Financial Action Task Force (FATF), Phantom Shipping, Black Market Peso Exchange, Global Trade.

INTRODUCTION:

¹One of the most advanced and challenging types of money laundering to identify worldwide is trade-based money laundering (TBML). It entails manipulating trade transactions in order to shift value and hide the source of money obtained illegally. TBML takes advantage of international trade channels, in contrast to conventional money laundering techniques, which frequently involve financial institutions or cash-based enterprises. By falsifying the cost, availability, or caliber of goods and services in international trade, criminals take use of these commercial activities to launder money. This approach makes use of the enormous amount of international trade, which makes it very challenging for authorities to spot suspect transactions among the trillions of dollars in lawful trade.

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TBML can take many different forms, such as repeated invoices, over- or under-invoicing of commodities, or even phantom shipments in which no goods are shipped. are transferred physically, but trade paperwork are forged. For example, under-invoicing aids in underreporting wages, lowering taxable income, or getting under capital regulations, while over-invoicing allows a criminal organization to transfer more money than the real value of the commodities being transferred. Because of these disparities, criminals can transfer substantial amounts of money across borders with little risk of being discovered by bank or customs authorities.

The ²Black Market Peso Exchange (BMPE), which drug cartels frequently employ to launder money from the sale of drugs, is one of the most well-known instances of trafficking in counterfeit goods. This technique circumvents established financial channels and minimizes the danger of detection by using illicit cash to buy things in one country, sell them in another, and get paid in a different currency.

The worldwide scope of For law enforcement and regulatory bodies, TBML presents special difficulties. A cross-border coordinated effort involving customs, financial institutions, and law enforcement agencies is necessary to detect and prevent TBML. Because it involves several jurisdictions, each with own regulatory frameworks and enforcement capacities, this is

¹ Zdanowicz, John S. "Trade-Based Money Laundering and Terrorist Financing." Review of Law & Economics, vol. 5, no. 2, Dec. 2009, pp. 855–78. www.degruyter.com, https://doi.org/10.2202/1555-5879.1419.

² Naheem, Mohammed Ahmad. "Anti-Money Laundering/Trade-Based Money Laundering Risk Assessment Strategies – Action or Re-Action Focused?" Journal of Money Laundering Control, vol. 22, no. 4, Jan. 2019, pp. 721–33. Emerald Insight, https://doi.org/10.1108/JMLC-01-2016-0006

very difficult. An intergovernmental agency called the Financial Action Task Force (FATF) has urged for more forceful measures to fight TBML, seeing it as a major problem. These include putting in place more robust trade data monitoring systems, improving financial intelligence units' coordination.

OBJECTIVE OF THE RESEARCH:-

- 1) To Identify the Key Sectors Vulnerable to TBML in India.
- 2) To Assess the Effectiveness of Current Regulatory Frameworks.
- 3) To Propose Policy Recommendations for Enhancing TBML Detection and Prevention.
- 4) To Examine the Role of Financial Institutions in TBML Detection

RESEARCH QUESTIONS:-

- 1) What are the most common methods used in trade-based money laundering, and how do they facilitate the laundering of illicit funds?
- 2) How effective are current regulatory frameworks, such as those provided by the Financial Action Task Force (FATF), in addressing TBML?
- 3) Which global trade sectors are most vulnerable to trade-based money laundering schemes, and why?
- 4) How do criminal organizations exploit legal and regulatory loopholes in international trade to conduct TBML?
- 5) How can international cooperation be strengthened to improve the detection and enforcement against TBML activities?

HYPOTHESIS:-

It is hypothesised that despite significant according to this theory, trade-related money laundering (TBML) goes mostly unreported because of the falsification of trade records, the

absence of cross-border regulatory harmonization, and the lack of adequate technology infrastructure for real-time monitoring and analysis of international trade operations.

SCOPE OF THE STUDY:-

This study's focus is on trade-based money laundering (TBML), which includes a wide range of approaches, legal frameworks, technology advancements, and enforcement issues associated with this intricate type of money laundering. The goal of the research is to present a thorough examination of the methods used to commit money laundering (TBML), with a particular emphasis on how global it is, how international trade networks are exploited, and how challenging it is for law enforcement and regulatory agencies to identify and stop it. The following important issues will be looked into by this study:. "International Trade Abuse": The study will investigate the ways in which criminals falsify trade transactions—such as invoicing too much, too little, or more than once in order to launder money internationally. It will also identify industries that are most sensitive to TBML.

LIMITATIONS IN THE STUDY:-

Operates in covert, ambiguous settings, which makes gathering data very difficult. Numerous TBML instances remain undiagnosed, unreported, or underreported, which restricts the amount of trustworthy, thorough datasets that are available. It is challenging to determine the actual scope and impact of TBML worldwide due to this data shortage. Moreover, disparities in trade records, particularly those across international borders, might result in missing or inconsistent statistics even in situations when data is accessible. Jurisdictional Difficulties: TBML operates in a number of jurisdictions, each with distinct legal systems, capacities for law enforcement, and need for regulations. The study's capacity to evaluate anti-TBML policies in countries with low levels of transparency or that don't fully support international initiatives may be restricted. Additionally, different interpretations of trade and money laundering legislation.

RESEARCH METHODOLOGY:-

Research is the Doctrinal approach; An detailed evaluation of previous scholarly, official, and institutional reports on TBML is the first step of the investigation. Examining publications from groups like the World Customs Organization (WCO) the Financial Action

Task Force (FATF) and other national financial intelligence units is part of this. The examination of the literature will also include studies on anti-money laundering, international trade law, and trade finance.

REVIEW OF LITERATURE:-

Samuel McSkimming³, Trade-based Money Laundering: Responding to an Emerging Threat:- A concerted international effort has turned the banking system into a more dangerous and unfriendly place to hide money. Because of this, criminals are increasingly using money laundering typologies—trade-based money laundering, in particular—that function outside of the banking system.

Brigitte Unger⁴, Money Laundering - A Newly Emerging Topic on the International Agenda:- Since then, there has been a significant increase in the need to learn more about the amount of money laundered and the methods used to do so, as well as the behavior of those who engage in this practice, the impact of money laundering on crime and the economy, and the possibility of effective anti-money laundering legislation. The study of the economics of crime has not received much attention from academics to yet.

Lakshkaushik Dattatraya Puri⁵, An Overview of Trade Based Money Laundering: - The complex supply networks that underpin the majority of international trade are made up of linked global supply chains. Terrorist financing networks, organized crime organizations, and professionals in money laundering use international commerce as a means of transferring value through commercial transactions. seeking to defend their illegal beginnings or provide funding for their activities.

Nkechikwu Valerie Azinge-Egbiri⁶, Beyond Banks: A Case for Interagency Collaboration

³ Samuel McSkimming. "Trade-Based Money Laundering: Responding to an Emerging Threat." Infromit, vol. 15, no. 1, p. 37] – 63, https://search.informit.org/doi/abs/10.3316/ielapa.412702662011892 .

⁴ Unger, Brigitte. "Money Laundering - A Newly Emerging Topic on the International Agenda." Review of Law & Economics, vol. 5, no. 2, Dec. 2009, pp. 807–19. www.degruyter.com, https://doi.org/10.2202/1555-5879.1417.

⁵ Lakshkaushik Dattatraya Puri. "An Overview of Trade Based Money Laundering." Dr.Bgr Publications, https://www.researchgate.net/profile/Lakshkaushik-

Puri/publication/383988482_An_Overview_of_Trade_Based_Money_Laundering/links/66e3e21bfa5e11512cb6 f59a/An-Overview-of-Trade-Based-Money-Laundering.pdf.

⁶ Azinge-Egbiri, Nkechikwu Valerie. "Beyond Banks: A Case for Interagency Collaboration to Combat Trade-Based Money Laundering in Africa." African Journal of Legal Studies, vol. 15, no. 1, Oct. 2022, pp. 38–68. brill.com, https://doi.org/10.1163/17087384-bja10070.

to Combat Trade-based Money Laundering in Africa:- This essay questions the necessity of internationally transplanted remedies to combat TBML by arguing that it substantially hinders intra-African trade and, as such, amounts to a non-tariff barrier (NTB) to trade. Instead, it makes the case for the adoption of a novel strategy: experimental legislation with a national emphasis that makes interagency cooperation outside of banks easier.

Vijay Kumar Singh⁷, Controlling Money Laundering in India - Problems and Perspectives:- "Money-Laundering" is a sophisticated crime that, in contrast to street crimes, should not be regarded seriously by anybody in society at first. To give this paper a head start, the researcher intended to keep it within a national context, but this was not feasible because any instance of money laundering would inevitably have some international flavor to it because the practice usually entails moving money through multiple nations to conceal its source. It was challenging to have an abstract national conversation on money-laundering. Would have given the impression of a patchwork if done thus.

CHAPTER-I

TRADE BASED MONEY LAUNDERING (MONEY LAUNDERING) IN INDIA

1.1 UNDERSTANDING TRADE-BASED MONEY LAUNDERING:

A sophisticated technique for money laundering through international commerce transactions is known as "trade-based money laundering," or "TBML." Illegal funds are hidden by manipulating the trade process. ⁸TBML is especially difficult to identify because it involves people or organizations hiding the source of illicit funds by taking advantage of the complexity of global trade. Typical techniques include shipping document falsification, under-invoicing, and over-invoicing. ⁹To avoid suspicion, an importer may, for instance, record a larger value for the items than what was really paid, enabling surplus money to be moved overseas. On the

Page: 626

⁷ Singh, Vijay Kumar. Controlling Money Laundering in India - Problems and Perspectives. 1351144, 1 Mar. 2009. Social Science Research Network, https://papers.ssrn.com/abstract=1351144.

⁸ Tony-Francis, Legborsi, and Obidinma Igwe. "THE RIGHT TO A HEALTHY ENVIRONMENT AND ITS ENFORCEMENT: COMPARING THE CASES OF NIGERIA AND INDIA." LAW AND SOCIAL JUSTICE REVIEW, vol. 2, no. 3, Mar. 2022. www.nigerianjournalsonline.com,

https://www.nigerianjournalsonline.com/index.php/LASJURE/article/view/2335.

⁹ Gill, Gitanjali Nain. "Human Rights and the Environment in India: Access through Public Interest Litigation." Environmental Law Review, vol. 14, no. 3, Aug. 2012, pp. 200–18. DOI.org (Crossref), https://doi.org/10.1350/enlr.2012.14.3.158.

other hand, exporters can avoid laws governing currency repatriation by under-invoicing, which allows them to keep some of their profits.

¹⁰Shell corporations are frequently used in the process, serving as go-betweens to further hide the genuine nature of the transactions. These businesses can be found in areas with weak regulatory systems, making it more difficult for domestic authorities to enforce laws there. According to the Financial Action Task Force (FATF), TBML is not just a vehicle for money laundering but also poses serious dangers to the integrity of the financial system and the economy.

¹¹TBML operations have increased in India, especially in industries where invoice manipulation is more common, such textiles, electronics, and pharmaceuticals. To successfully combat money laundering and terrorist financing, the government must prioritize strengthening trade restrictions and fostering collaboration amongst regulatory organizations. Businesses must be informed about the procedures and dangers involved in TBML in order to prevent unintentionally joining this illegal activity.

1.2 METHODS OF TBML IN INDIA:

Over-invoicing this is when trade invoices exaggerate the worth of the items in order to move extra monies elsewhere. For instance, a business may bill a foreign customer for \$1 million in items while the actual value is just \$500,000. ¹²the extra \$500,000 can then be removed from the nation through money laundering. Under-Invoicing:

On the other hand, under-invoicing is the practice of exporters declaring a lesser value for their goods in order to avoid regulatory scrutiny while keeping a percentage of their earnings. This approach can aid in evading inspection and promote capital flight. ¹³False Documentation to misrepresent the nature and value of transactions, criminals frequently fabricate invoices or

¹⁰ Sinno, Roy Majed, et al. "The Evolution of Trade-Based Money Laundering Schemes: A Regulatory Dialectic Perspective." Journal of Financial Crime, vol. 30, no. 5, Jan. 2023, pp. 1279–90. Emerald Insight, https://doi.org/10.1108/JFC-09-2022-0212

¹¹ Natarajan, Kavita. "Combatting India's Heroin Trade through Anti-Money Laundering Legislation." Fordham International Law Journal, vol. 21, 1998 1997, p. 2014,

https://heinonline.org/HOL/Page?handle=hein.journals/frdint21&id=2036&div=&collection.

¹² Puneet, et al. Factors Affecting Money Laundering: A Lesson for Developing Countries. | EBSCOhost. 1 Dec. 2012, https://openurl.ebsco.com/contentitem/gcd:82602871?sid=ebsco:plink:crawler&id=ebsco:gcd:82602871.

¹³ Fletcher N. Baldwin Jr. . Organized Crime, T Ed Crime, Terrorism, and Mone Orism, and Money Laundering in the y Laundering in the Americas. no. 1, 2002,

https://scholarship.law.ufl.edu/cgi/viewcontent.cgi?article=1322&context=fjil.

shipping paperwork. These forged documents have the ability to fool financial institutions and customs authorities, giving the impression that illegal transactions are legal.

Invoices for the same shipment, enabling the thief to make several payments for the same products. This technique increases the possibility of money laundering and makes it more difficult to track financial movements.

Use of Shell Companies another popular strategy is to create shell corporations in areas with loose laws. By serving as middlemen, these organizations can aid in TBML and make it difficult for law enforcement to identify the true beneficiaries of the transactions. The intricacy of TBML schemes in India not only aids money laundering but also creates substantial dangers to the integrity of the financial system and trade practices. To successfully prevent money laundering, regulatory bodies including the Indian government and the Financial Action Task Force (FATF) are working to improve enforcement measures.

1.3 LEGAL FRAMEWORK AND REGULATORY MEASURES:

¹⁴A number of important laws and regulations aimed at preventing money laundering and promoting financial transparency serve as the foundation for India's legal framework concerning trade-based money laundering (TBML). The Prevention of Money Laundering Act (PMLA) of 2002 is the most important piece of law and forms the basis of the nation's antimoney laundering (AML) initiatives. Financial institutions and specific designated non-financial firms and professions are required by the PMLA to carry out due diligence and notify the Financial Intelligence Unit (FIU) of India of any questionable transactions. The goal of this framework is to identify and discourage any money laundering activity, particularly transactions involving commerce.

¹⁵Apart from the PMLA, foreign exchange transactions in India are governed by the Foreign Exchange Management Act (FEMA) of 1999, which establishes a legal structure for the oversight of cross-border investment and trade. By guaranteeing adherence to foreign exchange regulations, FEMA gives the Reserve Bank of India (RBI) the authority to control

¹⁴ Arnone, Marco, and Leonardo Borlini. "International Anti-money Laundering Programs: Empirical Assessment and Issues in Criminal Regulation." Journal of Money Laundering Control, vol. 13, no. 3, Jan. 2010, pp. 226–71. Emerald Insight, https://doi.org/10.1108/13685201011057136.

¹⁵ Jonatan Karlsson. What Can Non-Financial Institutions Do to Prevent Trade-Based Money Laundering? May 2024, https://helda.helsinki.fi/server/api/core/bitstreams/22038c8e-635b-41bc-8ec8-a91c3491727d/content.

and monitor transactions using foreign currencies, therefore reducing the risks connected with money laundering.

¹⁶Additionally, the Goods and Services Tax (GST) system has improved commercial transparency. In order to comply with GST, transactions must be thoroughly documented. This documentation can help identify any inconsistencies that may point to TBML activity. Authorities now have more instruments at their disposal to examine and spot questionable trade patterns thanks to the integration of GST data with the current tax system. International guidelines have been set by the intergovernmental Financial Action Task Force (FATF) to combat money laundering and terrorist funding, including TBML. India, as a member of FATF.

1.4 CHALLENGES IN DETECTING AND COMBATING TBML:

¹⁷Detecting and combatting Trade-Based Money Laundering (TBML) in India provides considerable hurdles due to its sophisticated nature and the complications involved in international trade. The intricacy of commercial transactions is one of the main obstacles. Because TBML strategies sometimes mimic legal trade procedures, it can be challenging for law enforcement to distinguish between illegal and legal activity. Enforcement attempts might be made more difficult by the complex paperwork involved in foreign commerce, such as invoices, shipping papers, and customs declarations, which can readily mask illegal intentions.

¹⁸The lack of knowledge and comprehension among businesses, particularly small and medium-sized organizations (SMEs), is another major obstacle. Many businesses could be blind to the warning signs of TBML, which leaves them open to abuse by unscrupulous actors. In addition, law enforcement and regulatory authorities have inadequate resources and expertise.

Impede their capacity to successfully identify TBML. Due to the speed at which trade tactics are developing and the constant adaption of criminals, there is sometimes a dearth of continual training and instruction. Insufficient data exchange between various regulatory

¹⁶ Dr. Vivek Kumar Gupta. Unraveling the Web of Money Laundering: Mechanisms, Implications, and Countermeasures. https://www.multisubjectjournal.com/article/437/6-6-14-627.pdf.

¹⁷ Hinterseer, Kris. Criminal Finance: The Political Economy of Money Laundering in a Comparative Legal Context. Kluwer Law International B.V., 2002.

¹⁸ Dorn, Nicholas, and Michael Levi. "East Meets West in Anti-Money Laundering and Anti-Terrorist Finance: Policy Dialogue and Differentiation on Security, the Timber Trade and 'Alternative' Banking." Asian Journal of Criminology, vol. 3, no. 1, June 2008, pp. 91–110. Springer Link, https://doi.org/10.1007/s11417-007-9041-0.

organizations further hinders TBML detection. Cooperation between banking, financial regulatory, and customs authorities is necessary for effective monitoring. However, information flow might be hampered by bureaucratic obstacles and a lack of integrated systems, making it more difficult to respond promptly to suspicious activity. In addition, the emergence of online markets and digital trade platforms has added new levels of complexity, which makes it simpler for criminals to commit TBML without being discovered. Furthermore, cross-border cooperation is a very difficult task. Multiple countries are frequently involved in TBML, which makes collaboration between national and international law enforcement organizations necessary.

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1.5 CASE STUDIES AND RECENT DEVELOPMENTS

¹⁹India has seen a number of high-profile incidents in recent years that have brought attention to the difficulties associated with trade-based money laundering (TBML). The former chairman of Kingfisher Airlines, Vijay Mallya, was charged with financial crimes, including money laundering through falsified trade invoices, in one notable case. Mallya was accused by the Enforcement Directorate (ED) of stealing money from banks by using false firms and falsified trade paperwork. This case has sparked concerns about strengthening the legal framework controlling financial crimes in India and brought attention to the need for strict regulatory measures.

²⁰An further noteworthy instance is to the Nirav Modi case, in which the diamond dealer was connected to an extensive fraud scheme using counterfeit Letters of Undertaking (LoUs) issued by Punjab National Bank (PNB). The inquiry turned up evidence that Modi utilized TBML methods for sending money overseas while raising the price of things. The case led to considerable changes in banking laws and forced the government to impose stricter oversight of trade operations.

¹⁹ Tundis, Andrea, et al. "Fighting Organized Crime by Automatically Detecting Money Laundering-Related Financial Transactions." Proceedings of the 16th International Conference on Availability, Reliability and Security, Association for Computing Machinery, 2021, pp. 1–10. ACM Digital Library, https://doi.org/10.1145/3465481.3469196.

²⁰ Syed Mustapha Nazri, Sharifah Nazatul Faiza, et al. "Mitigating Financial Leakages through Effective Money Laundering Investigation." Managerial Auditing Journal, vol. 34, no. 2, Jan. 2019, pp. 189–207. Emerald Insight, https://doi.org/10.1108/MAJ-03-2018-1830.

²¹Furthermore, the 2021 Pandora Papers leak revealed a number of prominent Indian businesspeople associated with offshore companies, highlighting the usage of TBML as a means of money laundering and tax fraud. Calls for more public financial reporting and closer

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bodies have stepped up their attempts to fight TBML in reaction to these developments.

examination of international trade practices were sparked by the disclosures. Indian regulatory

CHAPTER-II

LEGAL FRAMEWORK FOR TBML IN INDIA

2.1 PREVENTION OF MONEY LAUNDERING ACT (PMLA):

²²In India, the 2002 enactment of the Prevention of Money Laundering Act (PMLA) provides a comprehensive legislative framework to address the rising threat of money laundering. The PMLA was created in order to stop the money collected via illegal activity from being laundered and to seize the assets acquired through such activity. By imposing a strict regulatory structure that requires financial institutions and other organizations to abide by reporting and due diligence norms, the act also protects the integrity of the financial system.

²³The process of disguising the profits of crime as lawful monies is known as money laundering under the PMLA. This is introducing illegal funds into the financial system, hiding their origins by stacking them over a number of transactions, and incorporating them into the economy as riches that seems respectable. The statute makes participation in these kinds of actions, whether direct or indirect, illegal and punished.

²¹ Nimma, Sudarshan. "Money Laundering in the Cyberworld: Emerging Trends." Indian Journal of Integrated Research in Law, vol. 2 Part 1, 2022, p. 1,

https://heinonline.org/HOL/Page?handle=hein.journals/injloitd2&id=1860&div=&collection.

²² Srivastava, Snehil, and Garvit Ramchandran. "Prevention of Money Laundering Act 2002: Its Implications & Challenges in India." Jus Corpus Law Journal, vol. 2, 2022 2021, p. 591,

https://heinonline.org/HOL/Page?handle=hein.journals/juscrp2&id=2534&div=&collection.

²³ vaneeta patnaik. the insolvency and bankruptcy code, 2016 (ibc) vis-a-vis prevention of money laundering act, 2002 (pml act): understanding the conundrum between the two. https://www.researchgate.net/profile/Laboni-

Bhakta/publication/379640269_THE_INSOLVENCY_AND_BANKRUPTCY_CODE_2016_IBC_VIS-A-VIS_PREVENTION_OF_MONEY_LAUNDERING_ACT_2002_PML_ACT_UNDERSTANDING_THE_CONUNDRUM_BETWEEN_THE_TWO/links/661188ee7476d47e44457ec1/THE-INSOLVENCY-AND-BANKRUPTCY-CODE-2016-IBC-VIS-A-VIS-PREVENTION-OF-MONEY-LAUNDERING-ACT-2002-PML-ACT-UNDERSTANDING-THE-CONUNDRUM-BETWEEN-THE-TWO.pdf.

²⁴The PMLA mandates that financial institutions, intermediaries, and some non-financial entities keep records of their clients and transactions and notify the Financial Intelligence Unit (FIU) of India of any suspicious behavior. This is one of the fundamental requirements of the law. The Federal Bureau of Investigation (FBI) is the primary national organization tasked with gathering, examining, and sharing data pertaining to possible money laundering schemes. According to the statute, properties suspected of being used for money laundering must be attached, and the state may seize them if this is demonstrated.

2.2 FOREIGN EXCHANGE MANAGEMENT ACT (FEMA)

²⁵The Foreign Exchange Management Act (FEMA), implemented in 1999, is an important piece of law in India that oversees foreign exchange transactions and facilitates the smooth operation of external commerce and payments. In reaction to India's economic liberalization in the 1990s, the Foreign Exchange Regulation Act (FERA) of 1973 was superseded by FEMA, which moved from a tight regulatory framework to a more flexible and management-oriented approach. FEMA's major goals are to manage India's foreign exchange reserves, encourage the orderly growth and upkeep of the foreign currency market, and enable commerce with other countries.

²⁶FEMA controls all elements of foreign currency in India, including transactions relating to foreign currencies, external payments, and international trade. Foreign exchange transactions are divided into two main categories under the act: current account transactions and Except under severe circumstances, FEMA infractions are punished as civil offenses rather than crimes.

²⁴ Badami, Zaynali. "Article on Dysfunctional Appellate Tribunals under the PMLA Act BENAMI Act & SAFEMA Act." Indian Journal of Law and Legal Research, vol. 4 Issue 5, 2022, p. 1, https://heinonline.org/HOL/Page?handle=hein.journals/injlolw8&id=612&div=&collection.

²⁵ Joshi, Nandish, and Apurva Pathak. "UNVEILING THE VEIL: UNDERSTANDING MONEY LAUNDERING AND ITS IMPACT ON ORDINARY INDIVIDUALS." International Journal of Management, Public Policy and Research, vol. 2, no. 2, May 2023, pp. 6–11. www.ijmpr.org, https://doi.org/10.55829/ijmpr.v2i2.146

²⁶ Kumar, Sameer, et al. "Unveiling Financial Frauds: Assessing the Effectiveness of Indian Legislation in Countering Financial Fraud." PROCEEDING OF INTERNATIONAL CONFERENCE ON PSYCHOLOGY, HEALTH AND HUMANITY, vol. 1, Aug. 2023, pp. 210–18. proceeding.unisayogya.ac.id, https://proceeding.unisayogya.ac.id/index.php/ICPSYH2/article/view/136.

²⁷The Reserve Bank of India (RBI) is essential to the management of the Flood Insurance Program. The RBI is allowed to create regulations and recommendations for foreign exchange transactions, ensuring that these operations comply with the country's monetary and fiscal policy. The framework for external commercial borrowings (ECBs), foreign portfolio investments (FPI), foreign direct investment (FDI), and other types of cross-border capital movement is also established by FEMA.

²⁸FEMA permits foreign trade and cross-border mergers, allowing Indian businesses to participate in the global economy without undue supervision. The statute also guarantees compliance and transparency in cross-border transactions and works to stop money laundering through commercial activities.

2.3 PREVENTION OF MONEY LAUNDERING ACT (PMLA), 2002:-

²⁹The Prevention of Money Laundering Act (PMLA) of 2002 is a key component of India's legislative framework for combatting money laundering and blocking the flow of illegal monies via financial institutions. The PMLA, enacted by the Indian Parliament in 2002 and effective July 1, 2005, was intended to address the rising concern about financial crimes, notably the laundering of money obtained via unlawful activities such as drug trafficking, corruption, and terrorism funding.

- > Stop and manage the laundering of money.
- > Take possession of and confiscate assets acquired through money laundering.
- Penalize those who have committed the crime of money laundering.
- Make sure that companies and financial institutions are accountable and transparent.
- ➤ Determine the source of the money being used for illegal activity and stop it in order to combat the funding of terrorism and other major crimes.

²⁷ Pardhey, Nanda. Financial Systemic Frauds in Banking Sector and Money Laundering Cataclysm: Indian Realism Wits. June 2021. dr.ddn.upes.ac.in, https://dr.ddn.upes.ac.in/xmlui/handle/123456789/3472.

²⁸ https://www.indianjournals.com/ijor.aspx?target=ijor:vjit&volume=5&issue=1&article=006

²⁹ https://heinonline.org/HOL/Page?handle=hein.journals.

The primary organization in charge of implementing PMLA and looking into allegations of money laundering is the Enforcement Directorate (ED). ³⁰The ED has played a significant role in major financial crises and high-profile trials involving important persons and businesses. The ED has used the PMLA to confiscate assets valued billions of dollars over the years, proving the law's efficacy in combating financial crime.

Despite these gains, the ³¹PMLA faces significant hurdles. It is challenging to track down illegal transactions due to the intricacy of contemporary financial systems, particularly when money laundering occurs across several jurisdictions. To detect cross-border money laundering operations, the Financial Action Task Force (FATF) and other international organizations must work closely together to enforce the PMLA.

2.4 FOREIGN EXCHANGE MANAGEMENT ACT (FEMA), 1999:-

³²The Foreign Exchange Regulation Act (FERA), 1973 was superseded by the Foreign Exchange Management Act (FEMA), 1999, which was passed by the Indian Parliament to govern foreign exchange and payments. FEMA is a comprehensive law that regulates foreign currency transactions, guaranteeing the free movement of money abroad and encouraging India's involvement in international trade. On June 1, 2000, the Act went into effect with the intention of promoting payments, external commerce, and the systematic growth of India's foreign exchange market.

FEMA'S GOALS:

- To enable payments and commerce with other countries.
- ➤ To encourage the foreign currency market in India to grow and be maintained in an orderly manner.
- > To serve as a framework for handling foreign investments and currency in India.

June 2023, pp. 183–87. urr.shodhsagar.com, https://urr.shodhsagar.com/index.php/j/article/view/1110.

³⁰ Kashyap, Amit K. INDIAN BANKING: Contemporary Issues in Law and Challenges. Allied Publishers, 2014

³¹ lakshay anandi. "procedure and proceedings under prevention of money laundering act, 2019." law journal libery, vol. international journal of law management&humanities [issn 2581-5369] 1571 [vol. 3 iss 4; 1571], https://heinonline.org/hol/page?collection=journals&handle=hein.journals/ijlmhs6&type=text&id=1556.

³² Kumar, Mohit. "Study of Foreign Exchange Management Act." Universal Research Reports, vol. 10, no. 2,

³³Compared to FERA, which had a more conservative stance, FEMA's attitude is significantly more open and progressive. FEMA seeks to make international investors find India more appealing by streamlining the laws and regulations pertaining to foreign exchange. Important FEMA Provisions Foreign currency transactions are defined and governed by FEMA. They are divided into two categories: capital account transactions and current account transactions.

³⁴Regular, day-to-day financial activities such as interest payments, short-term loans, and payments for products and services are all included in current account transactions. Generally speaking, these transactions are permitted unless the government imposes explicit restrictions. Changes in assets or liabilities, such as investments in foreign securities.

2.5 GOODS AND SERVICES TAX (GST) AND ANTI-TBML PROVISIONS:

³⁵The GST regime requires extensive paperwork for all company transactions. Every invoice must be digitally recorded and confirmed by the Goods and Services Tax Network (GSTN), an IT infrastructure that tracks transactions in real time. By ensuring that all invoices, particularly those pertaining to imports and exports, are linked to the Integrated GST (IGST) system, authorities may better monitor trade flows and uncover inconsistencies in products value, a typical strategy employed in TBML.

³⁶For example, under-invoicing helps criminals to pay less tax and divert cash abroad, and over-invoicing allows them to transfer bigger sums than the products or services being exchanged. GST requires companies to match invoice information to returns submitted under GST. This strict procedure helps to eliminate erroneous Declarations and manipulation of trade numbers are required in TBML.

³³ lalita devil and sahibpreet singh2. "foreign exchange and smuggling activities in indian context." international journal of law management & humanities, vol. [vol. 6 iss 6; 1333], https://www.researchgate.net/profile/sahibpreet-singh-

^{4/}publication/377590551_foreign_exchange_and_smuggling_activities_in_indian_context/links/65aec2e17fe0d 83cb55f3b19/foreign-exchange-and-smuggling-activities-in-indian-context.pdf.

³⁴ Prof. S P Bansal. Foreign Exchange Management Act. https://www.igntu.ac.in/eContent/IGNTU-eContent-723086726417-BBA-2-Dr.RahilYusufZai-BusinessEnvironment-3.pdf.

³⁵ Arunima. "Delhi High Court Upholds Legitimacy of GST Anti-Profiteering Mechanism with a Cautionary Note on Potential Arbitrary Exercises of Power." https://www.scconline.com/blog/post/2024/01/31/del-hc-upholds-constitutional-validity-gst-anti-profiteering-mechanism-cautions-potential-arbitrary-use-legal-news/. ³⁶ Joshi, CA Mayur. "GST Money Laundering Can Be Curbed by Sharing Information." Indiaforensic, 11 July 2023, https://indiaforensic.com/gst-money-laundering-ed/.

³⁷GST also requires statutory compliance inspections, including as return submission on a regular basis and audits of high-value transactions. This encourages enterprises to keep correct records while discouraging dishonest trading practices. Any inconsistency or red flag in transactions is digitally monitored and can lead to additional inquiry by authorities such as the Customs Department or the Directorate of Revenue Intelligence (DRI), hence increasing the discovery of TBML schemes.

While GST has increased transparency in the trade environment, TBML continues to provide issues owing to the complexities of cross-border transactions and international commerce. However, by integrating GST with global financial intelligence networks and improving cooperation between customs and banking institutions, Strengthen India's battle against TBML. Using technical improvements such as data analytics and artificial intelligence within the GST system may also assist uncover fraudulent trade trends more efficiently.

CHAPTER-III

CHALLENGES IN DETECTING TRADE BASED MONEY LAUNDERING

3.1 COMPLEXITY OF TRADE TRANSACTIONS:

³⁸The intricacy of commercial transactions creates substantial hurdles in the identification and prevention of commercial-Based Money Laundering (TBML). TBML is the process of hiding illegal money inside the regular course of international trade, which is marked by a number of steps, paperwork, and middlemen. Criminals take advantage of trade's complexity, using its cross-border aspects, legal gaps, and variety of procedures to give the impression that money obtained illegally is legitimate.

The sheer number and variety of transactions involved in international trade is one of the main causes of sophistication. ³⁹A single transaction sometimes involves many parties, such as exporters, importers, shipping firms, insurance providers, and banks, each based in various countries with varied regulatory frameworks and enforcement standards. Because of this

³⁷ Mayall, Uday Singh Ahlawat, Guneet. "Prevention of Money Laundering & GST: Continuum." Bar and Bench - Indian Legal News, 1 Sept. 2023, https://www.barandbench.com/law-firms/view-point/prevention-of-money-laundering-gst-continuum.

³⁸ "Global Financial Integrity." Global Financial Integrity, https://gfintegrity.org/.

³⁹ "Business News Today, Latest Market News, Finance News." https://www.thehindubusinessline.com/.

multijurisdictional structure, it is challenging for regulators and law enforcement to track the movement of products and money, as other nations may have different regulations pertaining to financial transparency and trade documents. ⁴⁰Additionally, multi-jurisdictional TBML schemes make it more difficult to track and identify irregularities.

A great deal of paperwork is needed for trade transactions, including shipping manifests, invoices, letters of credit, and customs declarations. By modifying these documents, TBML criminals take advantage of this intricacy. For example, frequent strategies include over-invoicing and under-invoicing, in which the price of items is intentionally inflated or deflates to move value across borders between various companies. Another technique to hide the real worth of transactions is repeated invoicing, which involves billing the same products more than once to justify the transfer of funds. Furthermore, misclassifying products and inflating the amount or quality of The use of products in TBML schemes is a common practice, which makes it more difficult to identify suspicious activity.

Another level of complication is added by the lack of openness in international trading. With the advent of free trade zones (FTZs) and offshore financial hubs, firms may readily move products and money across borders with minimum regulation. These zones generally feature light customs and regulatory inspections, making them appealing for money launderers attempting to abuse the system.

3.2 LACK OF DATA SHARING AND COORDINATION:

⁴²The monitoring and control of trade and financial activities is carried out at the national level by a number of entities, including financial institutions, enforcement agencies, customs officials, and regulators. But these agencies frequently work in silos in many nations, including India, which prevents them from effectively exchanging information or communicating with one another. For instance, customs agencies may contain important information regarding abnormalities in trade documentation, while banking institutions might have insights into

⁴⁰ Viritha, B.; Mariappan, V. Anti-Money Laundering Regulation in India: Awareness and Views of Bank Employees. no. 2, p. 46, https://openurl.ebsco.com/.

⁴¹ G. V. Narasimha Rao. Bank Frauds in India – Are the Existing Provisions of Law Inefficacious and Insufficient To Contain Them? Dec. 2022,

https://www.nibmindia.org/static/documents/Vol XLIII No 3 wGUZsDN.pdf#page=32.

⁴² Mahfooz Alam. *Corruption And Black Money In India: Administrative Dilemma and Judicial Responses*. https://thinkindiaquarterly.org/index.php/think-india/article/view/15733.

questionable financial activities. However, in the absence of a centralized system for instantly exchanging this data, it becomes very difficult to identify patterns suggestive of TBML.

⁴³The problem is significantly more widespread elsewhere. Transactions with TBML sometimes take place across several jurisdictions, each of which has its own set of laws, regulations, and enforcement procedures. International organizations such as the Financial Action Task Forces (FATF) have underlined the necessity of international collaboration in combating money laundering; yet, there is still a lack of cross-border data exchange in practice. Nations may be reluctant to divulge trade or financial information because of worries about national security, privacy, or the potential for their own sectors to come under investigation. Because of this lack of cooperation, money launderers are able to take advantage of weak points in the international commerce system and use countries with lax enforcement policies as fronts for their illegal operations.

3.3 INADEQUATE USE OF TECHNOLOGY IN TBML DETECTION:-

⁴⁴Despite advances in financial technology, many regulatory and enforcement organizations still use human methods or obsolete tools to detect TBML. While some banks have built automated transaction monitoring systems, the complexity of TBML transactions makes it difficult for these systems to identify suspicious activity. TBML schemes often entail the manipulation of trade invoices and trade-related documents, which regular monitoring systems are not equipped to fully assess. Automated systems generally focus on financial flows, creating gaps in determining the validity of trade transactions. Furthermore, many institutions are still in the early stages of implementing new technologies such as artificial intelligence (AI) and machine learning (ML). These tools can detect TBML by studying trends and discrepancies in trading.

⁴⁵Data and differences in the financial worth of products and services. However, the underutilization of such modern technology restricts regulators' and financial institutions' capacity to keep up with money launderers' ever-changing techniques. Information sharing

⁴³ Puneet; Parashar, Neha; Bajrang; Pavitra; Ritika; Piyush. Factors Affecting Money Laundering: A Lesson for Developing Countries. no. 2, p. 108, https://openurl.ebsco.com/.

⁴⁴ Trade Based Money Laundering Explained. https://www.tookitaki.com/compliance-hub/trade-based-money-laundering-explained.

⁴⁵ Howard W. Herndon. Enhancing Trade-Based Money Laundering Detection: Retrieval-Augmented Generation and Semantic Search Technologies. May 2024, https://www.womblebonddickinson.com.

between customs authorities, financial institutions, regulators, and law enforcement organizations must be frictionless for TBML detection to be effective. Nonetheless, a significant obstacle still exists between these organizations' lack of cooperation and data exchange.

⁴⁶ Financial organizations frequently don't have visibility into the actual transfer of goods; instead, they merely have access to transactional data. Conversely, customs authorities might not have access to financial transaction data, but they could be able to confirm the flow of products. Furthermore, neither of the two organizations has a formal framework for real-time intelligence sharing, therefore they frequently operate independently. This compartmentalized method reduces the total capacity to identify TBML. ⁴⁷The unwillingness of financial institutions to disclose data because of demands from the competition, privacy issues, or fears about harming their brand is another problem.

3.4 REGULATORY ROLE OF THE RESERVE BANK OF INDIA (RBI):

⁴⁸Under the Prevention of Money Laundering Act (PMLA), 2002, the RBI is also in charge of putting anti-money laundering (AML) and countering the funding of terrorism (CFT) regulations into effect and upholding them. When it comes to trade-related money laundering (TBML), the Reserve Bank of India (RBI) mandates that banks and other financial institutions adhere to strict due diligence and Know Your Customer (KYC) guidelines. ⁴⁹This facilitates the identification of questionable transactions pertaining to trade misinvoicing, underinvoicing, or over-invoicing—common TBML techniques. In order to report and look into questionable financial activity, the RBI also collaborates closely with the Financial Intelligence Unit (FIU).

⁵⁰Under the Foreign Exchange Management Act (FEMA), 1999, the RBI is also responsible for overseeing cross-border transactions and managing India's foreign exchange.

⁴⁶ "How Can Firms Combat Trade-Based Money Laundering?" ComplyAdvantage, https://complyadvantage.com .

⁴⁷ Rai, Diva. "How Can Technology Help in the Prevention of Financial Crimes." iPleaders, 30 May 2020, https://blog.ipleaders.in/how-can-technology-help-in-the-prevention-of-financial-crimes/.

⁴⁸ Reserve Bank of India. https://www.rbi.org.in.

⁴⁹ "Functions and Roles of Reserve Bank of India." Unacademy, https://unacademy.com/content/ssc/study-material/indian-economy/functions-and-roles-of-reserve-bank-of-india/. Accessed 4 Oct. 2024.

⁵⁰ Team, NEXT IAS. Reserve Bank of India (RBI): Origin, Structure, Functions & More. 8 Apr. 2024, https://www.nextias.com/blog/reserve-bank-of-india-rbi/.

The RBI keeps an eye on foreign exchange inflows and outflows. and guarantees that transactions involving foreign exchange are carried out legally. By maintaining transparency in foreign exchange transactions, the RBI contributes to the prevention of terrorist financing by policing trade finance, letters of credit, and other financial instruments used in international trade.

In addition, the RBI strategically implements technological advancements to improve financial supervision. ⁵¹Digital reporting systems have been established, enabling banks to monitor suspicious and large-scale transactions in real time. Additionally, the RBI publishes guidelines for data sharing that mandate that financial institutions record transactions involving cross-border commerce in order to help identify any inconsistencies that would point to TBML schemes. Under the Foreign Exchange Management Act (FEMA), 1999, the RBI is also responsible for overseeing cross-border transactions and managing India's foreign exchange. The RBI keeps an eye on the comings and goings of foreign exchange and makes sure that all transactions are done legally. By maintaining transparency in foreign exchange transactions, the RBI contributes to the prevention of terrorist financing by policing trade finance, letters of credit, and other financial instruments used in international trade.

3.5 INTERNATIONAL COOPERATION AND LEGAL ASSISTANCE TREATIES:

⁵²The potential of MLATs to expedite the process of acquiring evidence from other jurisdictions is one of its main advantages. This is especially crucial at a time when international involvement is frequently involved in crimes including cybercrime, drug trafficking, terrorism, and human trafficking. MLATs allow law enforcement agencies to get vital evidence, such as financial records, documents, and witness testimony, that would otherwise be difficult or impossible to obtain by offering a legal foundation for collaboration. The authorized central authorities in each nation, who are in charge of accepting and handling help requests, promote this cooperation. In addition to MLATs, additional forms of international legal assistance include extradition treaties and conventions on certain types of crimes, such as the United Nations Convention against Transnational Organized Crime.

⁵¹ "Role and Function of Reserve Bank of India: Check Responsibilities." Testbook, https://testbook.com/banking-awareness/functions-of-rbi . Accessed 4 Oct. 2024.

⁵² "Mutual Legal Assistance Treaty (MLAT)." Ministry of External Affairs, Government of India, https://mea.gov.in/cpv-mlat-menu.htm. Accessed 4 Oct. 2024.

(UNTOC). Through the establishment of uniform guidelines and practices for the investigation and prosecution of major crimes, these agreements serve to further strengthen international collaboration. For instance, the ⁵³UNTOC mandates that member nations enact policies to enable extradition, mutual legal aid, and the seizure of criminal proceeds2.

⁵⁴The desire of nations to uphold their agreements and the effectiveness of their legal and administrative systems determine the efficacy of international cooperation and legal assistance accords. Issues include disparities in legal customs, red tape, and sovereignty worries can make it difficult to put these treaties into effect. Nonetheless, continuous initiatives to standardize legal requirements and enhance international communication are assisting in resolving these problems.

⁵⁵Transnational collaboration as well as legal support Treaties are essential instruments in the international fight against transnational crime. These accords strengthen nations' capacity

3.6 JUDICIAL INTERVENTION AND LANDMARK CASES:

⁵⁶Judicial participation in environmental rights in India has experienced extensive involvement from the Supreme Court, notably over the interpretation of **ARTICLE 21**, which ensures the "**RIGHT TO LIFE.**" This right has been expanded by the Court to encompass environmental preservation, making it a pillar of numerous significant rulings. The Polluter Pays Principle, which states that the polluting party should pay for controlling and mitigating environmental harm, is one of the main legal theories that the judiciary has relied on. This idea was prominently used in decisions ⁵⁷like **VELLORE CITIZENS' WELFARE FORUM V. UNION OF INDIA (1996)**, where the court decided that businesses that pollute the environment ought to make up for the harm they do.

⁵³ Ministry of Home Affairs | Government of India. https://www.mha.gov.in/en/commoncontent/international-cooperation-division.

⁵⁴ "Mutual Legal Assistance Treaty: India- Poland." Drishti IAS, https://www.drishtiias.com/daily-news-analysis/mutual-legal-assistance-treaty-india-poland.

⁵⁵ Explainer / Mutual Legal Assistance Treaty. https://www.manoramayearbook.in/current-affairs/india/2022/08/22/mutual-legal-assistance-treaty-mlat-explained.htm

⁵⁶ Landmark Judgment Summaries | Supreme Court of India | India. https://www.sci.gov.in/landmark-judgment-summaries/ .

⁵⁷ Deeksha. "Landmark Supreme Court Judgments of 2023: The Year of 1067 Judgments; 14 Appointments; and Important Initiatives." SCC Times, 1 Jan. 2024, https://www.scconline.com/blog/post/2024/01/01/top-judgments-of-2023-from-supreme-court-legal-news/.

Additionally, the Precautionary Principle has proved crucial in in making decisions for the court. According to this theory, even in situations when there isn't enough proof to prove harm, preventative action should be done when there is an environmental danger. In order to avert permanent environmental harm, the Supreme Court utilized this approach in THE M.C. MEHTA V. UNION OF INDIA (GANGA POLLUTION CASE) and ordered the closure of companies causing pollution to the Ganga River. The judiciary's assertion that the state holds natural resources in trust for the public, known as the Public Trust Doctrine, has also been crucial in conserving natural resources. THE COURT HELD IN THE 1997 CASE OF M.C. MEHTA V. KAMAL NATH that the government was not allowed to lease environmentally vulnerable regions to private organizations for profit.

⁵⁸Recent rulings from the Supreme Court have emphasized the necessity promoting sustainable development, striking a balance between environmental preservation and economic progress. **The Sterlite Copper case (2018)** is a shining example of the judiciary's adherence to environmental rights under **Article 21**, as the Court supported the shutdown of a copper facility because of pollution concerns.

⁵⁹In addition, the court has played a significant role in advancing sustainable development by striking a balance between environmental preservation and commercial interests. The case of T. N. Godavarman Thirumulpad v. Union of India, also known as the "Forest Case," prompted a thorough examination of India's forest protection regulations, guaranteeing that commercial endeavors do not jeopardize ecological sustainability.

CHAPTER-IV

ENFORCEMENT MECHANISMS AND INTERNATIONAL COOPERATION:

4.1 ROLE OF CUSTOMS AND FINANCIAL INSTITUTIONS:

⁶⁰Conversely, financial institutions play a crucial role in keeping an eye on and reporting questionable financial activities. Strong Anti-Money Laundering (AML) and

⁵⁸ Law, Live. Supreme Court News, Latest India Legal News, Supreme Court Updates, High Courts Updates, Judgments, Law Firms News, Law School News, Latest Legal News. https://www.livelaw.in/.

⁵⁹ T.N. Godavarman Thirumulkpad vs Union of India. 25 Feb. 2024, https://launchpadeducation.in/t-n-godavarman-thirumulkpad-vs-union-of-india/.

Money Laundering and Terrorist Financing. https://www.wcoomd.org/en/topics/enforcement-and-compliance/activities-and-programmes/money-laundering-and-terrorist-financing.aspx

Counter-Terrorist Financing (CFT) procedures, including as transaction monitoring systems, Know Your Customer (KYC) protocols, and reporting mechanisms for suspicious actions, must be put in place. By examining trade finance transactions, such as letters of credit, financial institutions can detect money laundering through the use of red flags, such as uneven trade volumes or payments that are insufficient to cover the cost of shipping goods.

⁶¹Effective TBML identification and prevention depend on banking institutions and customs agencies working together. Tracking and stopping illegal cash movements may be made easier with the use of cooperative investigations and information exchange. Customs data about trade disparities, for example, may be compared with financial transaction data toDetermine and look at possible TBML systems. Additionally, as TBML frequently includes several jurisdictions and intricate trade networks, public-private partnerships and international collaboration are essential.

⁶²Notwithstanding these endeavors, obstacles persist. Inadequate technology, a lack of specialized training, and limited resources might make it more difficult for financial institutions and customs to effectively tackle TBML. Enhancing the capability of these institutions via training, technical improvements, and international collaboration is vital. Additionally, educating those involved in the trade and banking sectors about TBML can aid in early identification and prevention4.

4.2 CROSS-BORDER COOPERATION AND INTELLIGENCE SHARING

⁶³The necessity for cross-border collaboration is mostly due to the international nature of trade. An exporter in one nation, an importer in another, and financial intermediaries operating across many countries may all be involved in a conventional TBML scheme. The absence of consistent regulations and enforcement practices throughout nations is abused by criminals, making it more challenging for law enforcement to track down untraced cash. The detection of disparities in trade paperwork, such as under- or over-invoicing or misrepresenting commodities, requires the effective collaboration of customs, law enforcement, and financial regulators from many nations.

⁶¹ Untitled. Unveiling the Tactics: Trade-Based Money Laundering Typologies Demystified.

⁶² Untitled. https://heinonline.org/HOL/LandingPage?handle=hein.journals/ijlmhs4&div=46&id=&page.

⁶³ Venema. The International Journal of Intelligence, Security, and Public AffAIRS. May 2020, https://www.tandfonline.comt.

Through the establishment of guidelines and the promotion of information sharing among member nations, international organizations such as the⁶⁴ Financial Action Task Force (FATF) are essential in promoting international cooperation. The suggestions made by the FATF highlight how crucial it is for real-time intelligence exchange between nations to identify and stop money laundering. In a similar vein, other programs, including the Egmont Group of Financial Intelligence Units (FIUs), make cross-border financial intelligence sharing easier. Through the Egmont Group, more than 160 FIUs are connected worldwide, allowing them to exchange information on questionable financial activity and more effectively coordinate TBML investigations.

⁶⁵Notwithstanding these endeavors, noteworthy obstacles persist. Cooperation is hampered by differences in the legal systems of various nations. While some countries may not have complete restrictions against money laundering, others may have strict AML legislation. This can result in regulatory arbitrage, when criminals take advantage of weaker jurisdictions to launder money. Furthermore, political sensitivities, economic competition, or worries about national security may make nations hesitant to exchange sensitive data. These elements make intelligence sharing less effective and provide money launderers more opportunities.

Furthermore, ineffective cross-border collaboration is often hampered by technical constraints. Many nations lack advanced systems for real-time tracking, analysis, and sharing of financial and trade data.

4.3 ROLE OF FINANCIAL INTELLIGENCE UNITS (FIUS):

⁶⁶When it comes to identifying and reporting suspicious transactions connected to money laundering, the Financial Intelligence Unit – India (FIU-IND) is leading the way. FIU-IND, which was founded under the Ministry of Finance, gathers, examines, and provides enforcement authorities with information on possible money laundering activities. It guarantees a more thorough approach to tracking illegal trade activity by working with foreign

⁶⁴ edina lilla mészaros, constantin toca. "efficiency of cooperation and intelligence sharing among law enforcement agencies in the european union in the fight against terrorism: sharing is caring." editura

universitatii din oradea, no. 23supl, 2018, pp. 317–43, https://www.ceeol.com/search/article-detail?id=649162. ⁶⁵ dr oriola sallavaci. strengthening cross-border law enforcement cooperation in the eu: the prüm network of data exchange. https://aru.figshare.com/articles/journal contribution/strengthening cross-

border law enforcement cooperation the pr m network of information exchange/23758593?file=42195261.

⁶⁶ Approach and Benefits | United Nations. https://unite.un.org/goaml/content/approach-and-benefits

FIUs. By working together, Indian authorities are able to keep an eye on significant, questionable cross-border transactions and track the money flow through concerted efforts.

⁶⁷An additional crucial component of FIU activities is international collaboration. Due to the international nature of financial crimes, FIUs share information and intelligence with their counterparts in other nations. International organizations like the Egmont Group, which offers a platform for FIUs to communicate information safely and effectively, enable this cooperation4. Cooperation among FIUs improves their capacity to tackle international financial crimes and supports the general integrity and stability of the global financial system.

⁶⁸In financial intelligence units play a crucial role in the international fight against financial crimes. Financial intelligence units (FIUs) assist in identifying and disrupting illegal financial transactions, guaranteeing adherence to AML/CFT legislation, and promoting global collaboration through their particular duties of gathering, evaluating, and sharing financial intelligence. FIUs are essential to a nation's frameworks for combating money laundering (AML) and counter-financing of terrorism (CFT) since they function at the national level. They receive Suspicious Activity Reports (SARs) from reporting entities and act as the primary repository for financial intelligence.

4.4 INTERNATIONAL COOPERATION AND MULTILATERAL AGREEMENTS:

⁶⁹Bilateral and multilateral agreements between nations, in addition to international organizations, are essential in the battle against TBML. Major trading partners of India have signed a variety of bilateral treaties with India, including ones pertaining to information sharing, financial intelligence cooperation, and reciprocal legal help. These agreements aid in facilitating cross-border investigations into TBML instances that are quicker and more effective. In the U.S., U.K., and Switzerland, for example, India has cooperative agreements that allow Indian officials to access bank information, request legal aid, and freeze assets held

⁶⁷ Katarzyna J. McNaughton. The Variability and Clustering of Financial Intelligence Units (FIUs) – A Comparative Analysis of National Models of FIUs in Selected Western and Eastern (Post-Soviet) Countries. https://doi.org/10.1016/j.jeconc.2023.100036.

⁶⁸ Magdalena Brewczyńska. Financial Intelligence Units: Reflections on the Applicable Data Protection Legal Framework. https://doi.org/10.1016/j.clsr.2021.105612.

⁶⁹ https://www.britannica.com/contributor/James-Scott/9346383.

in other jurisdictions. These kinds of partnerships are essential for locating TBML activities, which sometimes include several nations and intricate trade deals.

⁷⁰Via its Anti-Bribery Convention, the Organisation for Economic Co-operation and Development (OECD) contributes to the fight against TBML. Members of this convention are required to enact laws against the bribing of foreign public officials and to take precautions against money laundering. Despite not being an official member of the OECD, India participates in a number of AML-related projects and has harmonised its national legislation with global anti-bribery norms. India's capacity to combat TBML is strengthened by cooperation with the OECD, particularly in situations where bribery and corruption aid in the facilitation of illegal trade operations.

⁷¹Furthermore, India collaborates with regional organizations such as the Inter-Governmental Action Group Against Money Laundering (GIABA), which oversees anti-money laundering initiatives in West Africa. India's commercial links with African countries make regional collaboration crucial in the fight against TBML, even if it is not a direct component of GIABA. India is able to exchange intelligence and coordinate enforcement activities across continents by working with GIABA and other regional AML agencies.

An other important multinational organization that concentrates on the Asia-Pacific area is the Asia/Pacific Group on Money Laundering (APG). An important component of APG, which collaborates with FATF to apply AML/CFT rules, is India. APG provides a framework for regional collaboration, including technical support, capacity building, and information sharing.

4.5 FUTURE PROSPECTS FOR INTERNATIONAL COOPERATION:

Addressing global issues like climate change, pandemics, terrorism, and economic instability requires more and more international collaboration. ⁷²The potential for global

⁷⁰ Governance and Multilateral Agreements. https://www.iisd.org/topics/governance-and-multilateral-agreements.

⁷¹ Katarzyna J. McNaughton. The Variability and Clustering of Financial Intelligence Units (FIUs) – A Comparative Analysis of National Models of FIUs in Selected Western and Eastern (Post-Soviet) Countries. https://doi.org/10.1016/j.jeconc.2023.100036.

 $^{^{72}\} http://documents.worldbank.org/curated/en/259561468161373082/Economic-development-and-multilateral-trade-cooperation$

collaboration is bright, propelled by technological breakthroughs, changing geopolitical environments, and an increasing acknowledgement of the interdependence of countries.

Advances in Technology One of the main factors facilitating international collaboration is technological advancement. Real-time cooperation between nations is made possible by advancements in data exchange and communication. Artificial intelligence (AI) and big data analytics, for example, can improve a country's capacity to anticipate and address emergencies, including disease epidemics or natural catastrophes. Furthermore, developments in cybersecurity are essential for safeguarding common digital infrastructure and guaranteeing the integrity of global communications.

It calls for coordinated action.⁷³ The implementation and improvement of accords like the Paris Agreement will probably be the main focus of future international collaboration. It is anticipated that nations would work together to create and exchange environmentally friendly technology, establish aggressive goals for reducing emissions, and aid in the adaptation and mitigation of climate change in areas that are susceptible. A vital component of this collaboration will be the creation of global funds to support climate projects in underdeveloped nations.

Health and Readiness for Pandemics The COVID-19 pandemic emphasized how crucial international collaboration in health is. Prospects for the future include bolstering global health monitoring systems and international health institutions like the ⁷⁴World Health Organization (WHO). Countries are likely to work together to provide fair access to medical care, exchange best practices for responding to pandemics, and conduct research

CHAPTER-V

RECENT DEVELOPMENTS AND TECHNOLOGICAL ADVANCES

5.1 ROLE OF BLOCKCHAIN AND FINTECH IN TBML DETECTION:

In recent years, substantial technology breakthroughs and new legislative measures

⁷³ BARTON, JOHN H. Economic Development and Multilateral Trade Cooperation. no. 1, May 2010, https://documents.worldbank.org/en/publication/documents-

reports/documentdetail/259561468161373082/economic-development-and-multilateral-trade-cooperation.

⁷⁴ Kiselova, Mariia M. "International Cooperation among Tertiary Educational Institutions: Trends and Prospects." International Journal of Higher Education, https://eric.ed.gov/?id=EJ1277384.

have evolved to address the issues posed by ⁷⁵Trade-Based Money Laundering (TBML). Governments and financial institutions are using new tools and systems to detect and counteract these unlawful activities more successfully as TBML schemes get more complex.

⁷⁶One of the significant advancements has been the emergence of big data analytics and artificial intelligence (AI) in financial crime detection. With the use of these technologies, organizations are able to examine enormous volumes of financial and trade data in order to spot trends and abnormalities that could point to questionable activities. AI-powered algorithms may discover inconsistencies like over-invoicing, under-invoicing, or misrepresenting goods—common TBML techniques—by cross-referencing trade invoices, shipping manifests, and customs records. Additionally, machine learning models may improve over time, continually learning from fresh data to improve TBML detection accuracy.

Additionally, the use of blockchain technology as a tool to improve trade finance's traceability and ⁷⁷transparency is being investigated. Blockchain lowers the possibility of fraud and document manipulation by providing an unchangeable ledger for trade transaction recording. Blockchain ensures that every stage of a trade transaction is transparent and verifiable, preventing TBML by offering a common, decentralized platform for tracking the flow of products and money. To lower the risks of TBML, certain nations and financial institutions have already started utilizing blockchain in trade finance.

5.2 RECENT POLICY CHANGES AND AMENDMENTS:

⁷⁸The latest rules released by the Financial Action Task Force (FATF), which is constantly updating its standards on money laundering and funding of terrorism, represent a significant development on a worldwide scale. The 2020 FATF study on TBML emphasized the need for increased cooperation between customs, financial institutions, and enforcement agencies and proposed improved methods for recognizing questionable trade transactions. These recommendations also push for stricter risk-based evaluations in trade agreements,

⁷⁵ naheem, mohammed a. trade based money laundering: exploring the implications for international banks. thesis or dissertation, https://wlv.openrepository.com/handle/2436/620745.

⁷⁶ Liao, J. and Acharya, A. (2011), "Transshipment and trade-based money laundering", Journal of Money Laundering Control, Vol. 14 No. 1, pp. 79-92. https://doi.org/10.1108/13685201111098897

⁷⁷ Fakih, Mahmoud. Trade-Based Money Laundering. https://laur.lau.edu.lb:8443/xmlui/handle/10725/13920.

⁷⁸ Rena S. Miller. "Trade-Based Money Laundering: Overview and Policy Issues." Congressional Research Service, vol. 7–5700, June 2016, https://sgp.fas.org/crs/misc/R44541.pdf.

especially by giving customs officials more authority to examine paperwork and spot irregularities in import and export data.

⁷⁹The Prevention of Money Laundering Act (PMLA) has been strengthened in India in order to implement policy reforms that are in line with the recommendations made by the FATF. More stringent reporting rules for financial institutions have been implemented by the Indian government, which is especially problematic cross-border business dealings. The PMLA amendments of 2022 enhanced oversight of transactions involving high-risk nations and expanded the scope of financial institutions' and intermediaries' duties to report suspicious activity. With the help of these modifications, reporting entities—banks and non-financial organizations alike—will be held more responsible for keeping an eye on trade transactions in order to stop money laundering.

⁸⁰The use of RegTech (Regulatory Technology) solutions by Indian banks and customs agencies represents another recent regulatory change. These tools monitor vast amounts of transaction data in real time, automating the compliance process. In response to the growing number of questionable transactions, the Reserve Bank of India (RBI) released recommendations encouraging banks to use artificial intelligence (AI) and machine learning (ML) models. usage of TBML systems in online commerce.

India has also stepped up its collaboration with international partners by entering into a number of bilateral agreements that center on information exchange and cooperative research. To combat TBML and other financial crimes, for example, the India-U.S. Financial Information cooperation agreement allows trade and financial intelligence cooperation. Similar to this, regional cooperation in spotting questionable economic transactions is improved by the Memoranda of Understanding (MoUs) inked with neighboring nations.

5.3 DIGITALIZATION OF TRADE AND E-INVOICING SYSTEMS:

The ability to recognize and track fraudulent transactions has expanded with the increasing move toward digital trading systems. E-invoicing has become more common in India thanks to the Goods and Services Tax (GST) regime, which has simplified trade

⁷⁹ John S. Zdanowicz. "Trade-Based Money Laundering and Terrorist Financing." https://doi.org/10.2202/1555-5879.1419.

⁸⁰ Srivastava, Seema. "Legitimate Transaction Vs Illegitimate Motive: Money Laundering in Trade." Vinimaya, 2021, Vol 41, Issue 4, P19 ISSN 0970-8456, https://openurl.ebsco.com.

documentation.⁸¹ This has increased transparency and reduced the possibility of document manipulation in TBML. Furthermore, technologies like blockchain-based trade finance and the Electronic Data Interchange (EDI) platform are making the trail of international trade transactions more visible and auditable. Two frequent tactics utilized in TBML schemes, under-invoicing and over-invoicing, can be greatly reduced by integrating e-invoicing.

⁸²The globalization of commerce and e-invoicing technologies has brought about a revolutionary change in the way firms function. Digital technology usage in trade procedures improves efficiency and transparency while streamlining operations. One important aspect of this digital revolution is e-invoicing, which is the electronic creation, delivery, and storing of invoices. It does away with the requirement for paper-based invoicing, cutting expenses, lowering mistakes, and quickening payment cycles. Businesses may increase accuracy and compliance with tax requirements by automating their invoicing operations.

This is because e-invoices can be automatically validated against ⁸³delivery notes and purchase orders. E-invoicing also makes it easier to get financial data instantly, which improves financial planning and decision-making. Governments everywhere are progressively requiring e-invoicing in order to improve revenue collection and fight tax fraud. For example, nations like India have linked e-invoicing with their Goods and Services Tax (GST) systems to promote better transparency and compliance, while nations in the European Union have developed e-invoicing standards for public procurement.

⁸⁴The process of digitalizing commerce facilitates improved supply chain integration by enabling smooth communication and data sharing between trading partners. This raises the general competitiveness of organizations by facilitating more effective demand forecasting, inventory management, and logistics. Additionally, by allowing companies to access a larger audience, digital trade platforms and e-marketplaces promote cross-border commerce and

 $^{^{81}\} https://www.oecd.org/en/publications/tax-administration-3-0-and-electronic-invoicing_2ffc88ed-en.html.$

⁸² Deloitte United States, Landscape of e-invoicing in India (Nov. 2020),

https://www2.deloitte.com/content/dam/Deloitte/in/Documents/tax/in-tax-landscape-of-e-invoicing-in-india-november-2020-noexp.pdf.

⁸³ Asia-Pacific Economic Cooperation (APEC), Chapter 6: Electronic Invoicing and Digital Trade (2019), https://www.apec.org/docs/default-source/publications/2019/7/fostering-an-enabling-policy-and-regulatory-environment-in-apec-for-data-utilizing-businesses/toc/chapter-6.pdf?sfvrsn=6d55b89_1.

⁸⁴ CESifo Group Munich, Digitalization and Cross-Border Tax Fraud: Evidence from E-Invoicing (2023), https://www.cesifo.org/DocDL/cesifo1_wp10227.pdf.

market development. Further enhancing the dependability and security of digital trade is blockchain technology, which offers an immutable and secure record for transactions.

Block ⁸⁵chain can drastically lower the likelihood of fraud and disputes by guaranteeing the validity and traceability of transactions. But there are drawbacks to the digitization of commerce and e-invoicing systems as well. For example, strong cyber security safeguards are necessary to secure sensitive financial data.

To reduce the danger of cyber attacks businesses need to make investments in cutting-edge cyber security procedures and upgrade their systems often. Additionally, a hurdle for small and medium-sized businesses (SMEs) may be the substantial investments in technology and personnel training that come with the shift to digital systems. Governments and international organizations must provide the infrastructure, legal frameworks, and corporate incentives required to facilitate the adoption of digital commerce. To sum up, there are a lot of advantages to digitalizing trade and e-invoicing systems, such as increased efficiency, transparency, and compliance. ⁸⁶Despite certain difficulties, trade globally is often positively impacted, which promotes innovation and growth in the digital economy.

5.4 ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN AML SYSTEMS:

The fields of anti-money laundering (AML) and machine learning (ML) are undergoing a revolution thanks to the development of sophisticated tools for identifying and averting financial crimes. AI-powered AML solutions are being adopted by financial institutions more often in order to improve compliance and protect the integrity of the financial system. These technologies have a number of advantages, such as better alert management, better transaction monitoring, and more effective regulatory compliance.

The capacity of AI and ML in AML systems to evaluate large volumes of data fast and accurately is one of its main benefits. ⁸⁷Conventional rule-based systems sometimes find it

⁸⁵ Digitalization and Cross-Border Tax Fraud: Evidence from E-Invoicing (2023), https://link.springer.com/article/10.1007/s10797-023-09820-x.

⁸⁶ APEC, Fostering an Enabling Policy and Regulatory Environment in APEC for Data-Utilizing Businesses (2019), https://www.apec.org/docs/default-source/publications/2019/7/fostering-an-enabling-policy-and-regulatory-environment-in-apec-for-data-utilizing-businesses/toc/chapter-6.pdf?sfvrsn=6d55b89 1.

⁸⁷ Jingguang Han, Yuyun Huang, Sha Liu & Kieran Towey, Artificial Intelligence for Anti-Money Laundering: A Review and Extension, 2 Int'l J. Digital Finance 211 (2020), https://link.springer.com/article/10.1007/s42521-020-00023-1.

difficult to keep up with the complex strategies employed by criminals to elude detection. On the other hand, real-time processing and analysis of massive datasets by AI-powered systems might reveal trends and abnormalities that can point to questionable activity. This lowers the risk of financial crimes and enables financial institutions to react to any threats more quickly.

Algorithms for machine learning are very good in improving transaction monitoring. These ⁸⁸algorithms can recognize anomalous transactions that diverge from typical patterns by learning from past data. This lowers the amount of false positives and boosts the overall effectiveness of the AML process by enabling compliance teams to concentrate their attention on high-risk transactions. Furthermore, ML algorithms are always able to adjust to new risks, guaranteeing that AML systems continue to function effectively even as criminals improve their methods.

⁸⁹Enhancing alarm management is one of the major advantages of AI and ML in AML systems. A lot of alarms are frequently generated by traditional AML systems, many of which are false positives. This may This may overburden compliance teams and cause delays in the examination of actual financial crime cases. By prioritizing alarms according to their chance of being true positives, AI-powered solutions enable compliance teams to concentrate on the most serious instances. This raises the total efficacy of AML initiatives in addition to increasing the investigation process's efficiency.

⁹⁰Additionally, AI and ML technologies are essential for regulatory compliance. Financial firms must abide by a number of laws aimed at stopping financial crimes such as money laundering. AML solutions driven by AI may automate compliance procedures, ensuring that organizations comply with regulations more successfully. These systems, for instance, can automatically create and send reports to regulatory bodies, which lessens the administrative load associated with compliance.

⁸⁸ Doron Goldbarsht, Leveraging AI to Mitigate Money Laundering Risks in the Banking System, in Money, Power, and AI 3 (Zofia Bednarz & Monika Zalnieriute eds., Cambridge University Press 2023), https://www.cambridge.org/core/books/money-power-and-ai/leveraging-ai-to-mitigate-money-laundering-risks-in-the-banking-system/D472CACE4B016A1F1855B1596F988EEE.

⁸⁹ Zhiyuan Chen et al., Machine Learning Techniques for Anti-Money Laundering (AML) Solutions in Suspicious Transaction Detection: A Review, 57 Knowledge and Information Systems 245 (2018), https://link.springer.com/article/10.1007/s10115-017-1144-z.

⁹⁰ Deloitte, E-Invoicing in India: A Comprehensive Guide (2020), https://www2.deloitte.com/content/dam/Deloitte/in/Documents/tax/in-tax-landscape-of-e-invoicing-in-india-november-2020-noexp.pdf.

⁹¹Apart from these advantages, artificial intelligence and machine learning technologies are also assisting financial institutions in staying ahead of new dangers. These technologies are able to find new patterns in data and identify potential risks before they spread widely. In a world where financial crimes are ever more complex, this proactive approach to AML is crucial. To sum up, the way financial institutions fight money laundering and other financial crimes is changing as a result of the incorporation of AI and ML into AML systems. Significant benefits from these technologies include better alert handling, better transaction monitoring, and more effective regulatory compliance. Adoption of AI-powered AML solutions will be essential to preserving the integrity of the financial system as financial crimes continue to change.

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5.5 INCREASED REGULATORY OVERSIGHT AND AMENDMENTS:

⁹²Amendments and Enhanced Regulatory Oversight as contemporary societies become more complicated and linked, there has been a substantial transformation in the landscape of global governance, which is reflected in more regulatory scrutiny and revisions. This increased inspection is a proactive approach meant to maintain stability, openness, and equity across different sectors rather than only a reactive one. This wave of regulations is being driven by a number of factors, including environmental concerns, economic globalization, technical improvements, and social demands for more responsibility. ⁹³All of these elements combined make a strong framework of rules and laws necessary to safeguard the public interest while keeping up with the quick speed of change.

⁹⁴The banking industry is one of the most notable industries under greater regulatory scrutiny. The necessity for strict controls to stop unregulated financial practices from causing economic meltdowns was highlighted by the global financial crisis of 2008. As a result, regulatory agencies throughout the globe have enacted extensive changes, including the Financial Stability Board (FSB) and the Securities and Exchange Commission (SEC) in the

⁹¹ Asia-Pacific Economic Cooperation (APEC), Fostering an Enabling Policy and Regulatory Environment in APEC for Data-Utilizing Businesses (2019), https://www.apec.org/docs/default-

source/publications/2019/7/fostering-an-enabling-policy-and-regulatory-environment-in-apec-for-data-utilizing-businesses/toc/chapter-6.pdf?sfvrsn=6d55b89 1.

⁹² Financial Stability Board, Global Financial System: Implementation of Reforms (2020), https://www.fsb.org/wp-content/uploads/publications/r 20032020.pdf.

⁹³ Securities and Exchange Commission, Final Rule: Enhanced Prudential Standards for Large Bank Holding Companies and Their Systemically Important Subsidiaries (2014), https://www.sec.gov/rules/final/2014/34-73643.pdf.

⁹⁴ Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010).

US. To make sure financial institutions can survive economic shocks, they include stricter capital requirements for banks, more oversight of financial derivatives, and more stringent stress testing. The objective is to build a robust financial system that can sustain economic expansion without placing the world economy at unnecessary danger. In the context of environmental governance, tackling the urgent problem of climate change has made regulatory monitoring more important. More stringent laws governing carbon emissions are being passed by governments and international organizations.

⁹⁵Supporting sustainable practices in all businesses and the use of renewable energy sources. Initiatives like the Paris Agreement and the Green Deal by the European Union are excellent examples of how to get to net-zero emissions by the middle of the century. These legal frameworks are intended to safeguard biodiversity, lessen the negative effects of climate change, and guarantee the long-term viability of natural resources. Regulators hope to promote an innovative and environmentally conscious culture by making companies answerable for their environmental impact.

⁹⁶Regulation changes are also occurring at a rapid pace in the healthcare industry, especially in reaction to the COVID-19 epidemic. To speed the approval of vaccinations and treatments, regulatory bodies such as the European Medicines Agency (EMA) and the Food and Drug Administration (FDA) have modified their procedures. This expedited regulatory process preserved safety.

⁹⁷Efficacy highlight the necessity of flexibility in handling public health emergencies. Additionally, with the development of digital health technology, greater monitoring in areas like cybersecurity and data protection has become critical. Regulators are striving to create policies that safeguard patient information while promoting innovation in wearable medical technology, electronic health records, and telemedicine.

Regulation of the digital economy has become more stringent in order to handle difficulties with cybersecurity, data privacy, and antitrust. The European Union achieved a noteworthy achievement in safeguarding individuals' personal data and guaranteeing openness

⁹⁵ Paris Agreement, United Nations Framework Convention on Climate Change (2015), https://unfccc.int/sites/default/files/paris agreement text.pdf.

⁹⁶ General Data Protection Regulation, Regulation (EU) 2016/679 (2016), https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679.

⁹⁷ U.S. Const. amend. XXVI.

in data processing procedures with the enactment of the General Data Protection Regulation (GDPR). Comparably, antitrust authorities are keeping a close eye out for monopolistic behavior by internet behemoths in an effort to uphold fair competition and stop market manipulation. ⁹⁸The changing regulatory of the digital environment reflects the necessity of striking a balance between consumer protection, fairness in the market, and innovation.

Moreover, corporate governance has come under more regulatory attention. Enron, Volkswagen, and Wells Fargo scandals, among others, have brought attention to how crucial moral behavior, accountability, and openness are to business operations. ⁹⁹More stringent regulations have been imposed on executive responsibility, internal controls, and financial reporting. One example of this is the US Sarbanes-Oxley Act. The purpose of these rules is to reassure investors and guarantee that businesses behave honorably and responsibly.

¹⁰⁰Furthermore, heightened regulatory supervision also encompasses social governance, where topics like human rights, labor rights, and gender equality are becoming more and more important. Legislative authorities are passing legislation to safeguard the rights of workers.

5.6 DATA ANALYTICS AND ADVANCED TRADE SURVEILLANCE:

¹⁰¹Through improved market abuse identification and prevention as well as regulatory standard compliance, the financial sector is undergoing a transformation thanks to the integration of data analytics and sophisticated trade monitoring technology. This paper examines these technologies' main features, advantages, and drawbacks as well as how they affect the financial markets.

¹⁰²A full picture of trade activity and possible anomalies is made possible by this thorough data collection Artificial Intelligence (AI): AI technologies are used to evaluate large

⁹⁸ International Labour Organization, ILO Declaration on Fundamental Principles and Rights at Work (1998), https://www.ilo.org/global/standards/integrated-framework/fundamental-principles-and-rights-at-work/lang-en/index.htm.

⁹⁹ U.S. Const. amend. XXII. U.S. Const. amend. XXIII.

¹⁰⁰ Occupational Safety and Health Administration, Final Rule: Occupational Exposure to Respirable Crystalline Silica (2016), https://www.osha.gov/laws-regs/regulations/standardnumber/1910.1053.

¹⁰¹ https://www.fatf-gafi.org/media/fatf/documents/reports/Trade-Based-Money-Laundering-Trends-and-Developments.pdf.

¹⁰² Organization for Economic Cooperation and Development (OECD), **Illicit Trade: Converging Criminal Networks**, OECD (2016), https://www.oecd.org/gov/risk/illicit-trade-converging-criminal-networks.pdf.

volumes of data in real-time, such as machine learning and deep learning. These algorithms are able to spot trends and abnormalities that might point to insider trading or market manipulation.

- 1) CLOUD-BASED DATA MANAGEMENT: Cloud solutions provide easy interaction with AI/ML-based systems, scalability, and real-time processing. Financial organizations may now easily manage massive data quantities and carry out intricate analyses.
- 2) REGULATORY COMPLIANCE: By automating the creation and submission of reports to regulatory authorities, sophisticated trade surveillance systems assist institutions in adhering to regulatory requirements. By doing this, the administrative load is lessened and the chance of non-compliance is decreased.
- **3) ADVANTAGES IMPROVED DETECTION:** Trade surveillance systems may identify possible market abuses more rapidly and precisely by utilizing AI and ML. This proactive strategy preserves market integrity and aids in the prevention of financial crimes.
- 4) EFFICIENCY: By eliminating the need for manual involvement, automated procedures free up compliance teams to concentrate on high-risk situations and increase overall efficiency of questionable behaviors, enabling prompt intervention and inquiry
- 5) SCALABILITY: As market circumstances change, cloud-based solutions can adapt to manage growing data quantities and intricate analytics, ensuring that surveillance systems continue to function as intended.
- 6) COST SAVINGS: The expenses related to manual monitoring and compliance procedures are decreased by automation and sophisticated analytics, which results in considerable cost savings for financial institutions.
- 7) **DATA INTEGRATION:** It might be difficult to integrate data from several sources, and reliable data management solutions are needed. For surveillance to be successful, data consistency and accuracy must be guaranteed.
- 8) FALSE POSITIVES: Although sophisticated algorithms increase the accuracy of detection, they are nevertheless susceptible to producing false positives, which call for

labor-intensive manual review.

9) **REGULATIONS:** It may be difficult to stay on top of changing regulations and make sure that compliance is met, particularly for organizations that in several jurisdictions.

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- **10) CYBERSECURITY:** Keeping sensitive financial data safe from online attacks is a major worry that calls for strong cybersecurity defenses and frequent system updates.
- 11) TECHNOLOGY ADOPTION: Smaller institutions may find it difficult to use modern trade surveillance systems due to the high upfront costs and training requirements.

FINANCIAL MARKET IMPACT:

The financial markets are significantly impacted by the use of modern trade monitoring tools and data analytics. By improving investor trust and market integrity, these technologies help create a financial system that is more transparent and stable. In addition, they help financial institutions remain ahead of new risks and adjust to shifting market dynamics, which guarantees their long-term viability and expansion. To sum up, sophisticated trade surveillance systems and data analytics are critical instruments for preserving market integrity and compliance.

SUGGESTIONS AND RECOMMENDATION:

- 1) Enhanced customs and financial data integration:- Through this connectivity, trade papers (bills of lading, invoices, etc.) may be cross-referenced in real time with financial records by linking customs databases with financial systems. Disputes that include mispricing or misrepresenting items can be reported and looked at right away. By automatically comparing the claimed value of items to market pricing, advanced data analytics solutions can uncover possible TBML activities like over- or under-invoicing, therefore aiding in the detection of anomalies.
- 2) **Automated Invoice Matching Systems:-** such as reasonable pricing ranges for particular products or services, in order to spot irregularities. For example, if a shipment of products is priced much below or over market value, the system will generate an alarm for further examination. Automated invoice matching systems not only increase

productivity but also provide greater adherence to international anti-money laundering (AML) regulations by guaranteeing that problematic transactions are immediately notified. In order to improve their capacity for TBML detection, some nations including India are progressively using these technologies, especially in high-volume trade sectors.

- 3) Specialized Training for Customs and Border Control Officers:- Training programs should emphasize on teaching officers to spot red flags in commercial transactions, such as price anomalies, abnormalities in shipping routes, or questionable payment arrangements. Officers should also be taught in the use of data analytics tools and automated systems that can detect irregularities in real time. Customs officers should also be aware of larger global trends in TBML and taught to work with financial institutions, law enforcement, and international organizations to detect illegal money flows.
- 4) Mandatory Use of Trade Finance Reporting Systems:- This includes sending comprehensive reports on transactions that show strange trends or exceed predetermined criteria. Such reporting can aid in detecting possible TBML schemes, such as over-invoicing or under-invoicing, which are frequently used to conceal illegal cash flows. Furthermore, combining trade finance reporting systems with customs data can improve real-time monitoring and foster closer collaboration between banks and customs agencies. Countries like as India have already begun adopting obligatory reporting requirements in accordance with FATF guidelines, contributing to a more transparent trading environment.
- 5) Stricter Penalties for Non-Compliance:- Enhanced fines function as a deterrent, encouraging firms to prioritize compliance and closely monitor their trading activity. Individuals that facilitate TBML may face hefty penalties, loss of business licenses, and criminal prosecution. Countries such as India, for example, have expanded their regulatory frameworks under the Prevention of Money Laundering Act (PMLA), imposing stiff penalties and prison sentences for violators. By raising the stakes, financial institutions are motivated to invest in strong compliance measures such as advanced monitoring systems and employee training programs.
- 6) Create a Global Trade Monitoring Platform:- Advanced analytics, such as artificial

intelligence (AI) and machine learning (ML), would improve the platform's capacity to detect abnormalities in pricing, volumes, and trade routes. The technology would allow for the frictionless sharing of data across boundaries, fostering international collaboration. Furthermore, governments and international regulatory agencies, such as the Financial Action Task Force (FATF), might utilize the platform to monitor high-risk industries and countries, guaranteeing compliance with global AML/CFT norms. By increasing openness, the worldwide Trade Monitoring Platform would considerably lower TBML risks and strengthen the worldwide battle against financial crime.

- 7) Introduce Enhanced Due Diligence for High-Risk Jurisdictions:- For instance, financial institutions should mandate the verification of beneficial ownership in trade deals linked to high-risk countries, ensure that the pricing and valuation of goods are consistent with global standards, and conduct ongoing monitoring of such transactions. Enhanced reporting mechanisms, including the reporting of suspicious transactions to relevant authorities, should also be enforcedIn line with international regulatory bodies such as the Financial Action Task Force (FATF), countries need to adopt EDD measures to prevent criminals from exploiting weak jurisdictions to channel illicit funds through trade. By enforcing stricter compliance checks and requiring more documentation, EDD helps mitigate risks associated with TBML, making it harder for criminals to manipulate trade channels for money laundering purposes.
- 8) Global Sanctions on Non-Cooperating Jurisdictions:- The international community exerts pressure on non-compliant nations to alter their financial legislation and adhere to global AML/CFT (Anti-Money Laundering/Combating the Financing of Terrorism) guidelines. These sanctions are not only a deterrent, but also a warning to other countries that non-cooperation in countering TBML would result in serious repercussions. Global sanctions thus play an important role in encouraging transparency, accountability, and international collaboration in the fight against illegal financial activities related to trade.
- 9) Regular Audits and Compliance Checks:- Regular audits and compliance checks are critical for detecting and combating trade-based money laundering (TBML). These audits verify that financial institutions and enterprises involved in international commerce comply with anti-money laundering (AML) and counter-financing of terrorist rules. Regular and comprehensive inspections allow regulators to discover gaps in

compliance systems, highlight suspicious actions, and ensure that institutions have adequate safeguards in place to avoid TBML.

Audits should check trade paperwork, transaction monitoring systems, and compliance with Know Your Customer (KYC) and Know Your Transaction (KYT) standards. This procedure aids in the detection of red flags such as mis-invoicing, over-invoicing, and underdeclared values, all of which are prevalent TBML approaches. Furthermore, compliance audits should analyze whether institutions are successfully employing automated systems to track high risk.

10) Utilize Machine Learning in Customs Operations:- ML systems can detect abnormalities in trade values, indicating transactions that differ from expected patterns or benchmarks. For example, if a shipment's claimed value differs considerably from the average worth of similar commodities, the system can notify customs officers and request additional inquiry. Furthermore, ML algorithms continue to improve with experience. As more data enters the system, ML models improve in predicting TBML threats, even as thieves develop more advanced ways. This agility is critical in resisting the developing TBML techniques.

In addition to enhancing detection capabilities, ML may optimise resource allocation by prioritising high-risk transactions for closer examination. This enables customs officials to focus their limited resources on transactions with the highest risk, hence enhancing overall efficiency. Governments across the world, including India.

CONCLUSION:

Criminals utilize a sophisticated technique called trade-based money laundering (TBML) to transfer illegal monies across borders and give them the appearance of legitimacy through commercial transaction.. TBML schemes can mask the real sources of illegal money by taking advantage of the complexity of international commerce, making it difficult for law enforcement to identify and stop these activities. The integrity of the global financial system is seriously threatened by TBML, according to the Financial Action Task Force (FATF).

Misrepresenting the cost, volume, or quality of imported or exported commodities is a common component of TBML. To make these transactions easier, thieves may inflate or

undervalue items, fabricate paperwork, or utilize shell corporations. These strategies encourage tax evasion and other financial crimes in addition to helping with money laundering. The global financial system is significantly impacted by TBML. Between 2008 and 2017, the combined losses in developing nations due to TBML and related tax evasion were close to \$9 trillion. TBML activities are made more difficult by the intricacy of cross-jurisdictional trade and the presence of multinational corporations. Financial institutions and regulatory agencies need to implement advanced data analytics technology and improve their trade monitoring systems in order to tackle these issues. Institutions may more efficiently identify abnormalities and trends suggestive of TBML by utilizing AI and machine learning. Furthermore, TBML networks must be located and disrupted through international collaboration and information exchange.

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