



Money Laundering: A Three Step Secret Game

Md Arman

MBA student, School of Business Administration, University of Asia Pacific, Bangladesh

Abstract – This paper describes, theoretically, what money laundering is and how it is done following some partnered activities over time. This paper also looks for electronic money laundering and found some related and predefined functions which are completed using electronic gadgets and the Internet. To give a clear view on money laundering, the author thinks that it is necessary to make it clear first about the characteristics of money laundering, the reasons behind it, and how it creates negative impacts on the business and economy of a country. In most nations, it is a crime and economically developed countries built strong fortress against money launderers but laundering is not stopped. So, this paper tries to discover out what and how the launderers launder and discover inventive ways to form their unlawful cash lawful which the legal authority can not detect. This paper shows the step by step procedures of this globally illegal money whitening activities mostly theoretically.

Keywords: Money laundering, electronic laundering, illegal characteristics, nations, economy.

1. INTRODUCTION

The term "Money Laundering" comes from the United States and refers to the Mafia's attempt to "launder" illegal money through cash-intensive washing salons controlled by company acquisitions or business formations (Schneider & Windischbauer, 2008). Money laundering happens outside of the typical range of economic data by definition. However, as with other areas of illicit business activity, preliminary estimates have been proposed to provide some measures for the situation. Illicit sources are estimated to account for two to five percent of global GDP. According to 1996 data, the amount of money laundered varied between 590 billion and 1.5 trillion US dollars. The lower amount is about similar to the value of the size of Spain's economic output. A large amount of the revenue comes from drug dealing, prostitution, illegal arms sales, smuggling, or any organized crime. Tax fraud, market manipulation, extortion, and cyber fraud schemes can also generate huge profits, creating an incentive to "validate" illicit earnings through money laundering. The majority of unlawful transactions are completed in cash since there is the least chance of leaving one's mark; nonetheless, there is a clear trend to exploit the internet to conduct illegitimate transactions in the form of Online Banking, Cyber Money, and Electronic Purse. The purpose of a huge proportion of crimes is to make money for the individual or group who commits the act. Money laundering is the processing of unlawful profits to conceal their illegal origin. Launderers take this procedure seriously since it allows the them to earn without risking their source.

We have already entered into the new world of Artificial Intelligence (AI) where people are creating new and innovative technological features to make both mental and physical job easier. Since the new ways to launder money with the traditional methods are blended, it has been more difficult to figure it out the culprits and their secrete activities related to money laundering. Where there is a problem, there is a solution. Launderers are using technology, authorities are using models to detect it. Some researchers



described their own built models and others explained the previous models. The ultimate target is to detect both electronic and traditional money laundering.

Although governments are pro-active to find the laundering, launderers are playing this secret game with huge amount of cash in hand and it is sometime difficult to identify them. Many countries in the world have their own regulations against money laundering, several global institutions like United Nations are working with the collaboration of governments to stop it but still the launderers are at large. Some previously published literature and research were accumulated to find out the scenario of money laundering, process and its effect on the economy. Meta-data analysis shows the results of three secret steps of money laundering which are placement, layering and integration, and the anti-laundering mathematical model is also discussed based on some previously established literature.

2. LITERATURE REVIEW

2.1 Money Laundering

The phrase "Money Laundering" was coined after the Watergate Scandal in 1973 and is thus not a legal definition but a colloquial term denoting the process of converting illicit funds into legal funds (Schneider & Windischbauer, 2008). When an illegal endeavor yields significant earnings, the person or group engaged needs to figure out a way to keep the cash under control without drawing attention to the underlying activity or the individuals involved. Fraudsters conceal the sources, change the form, or they move the money to an area where suspicion is less likely to be raised.

Germany's Criminal Code Section 261 determines money laundering as "Anyone who conceals, distorts, or jeopardizes the determination of the origin, the finding, forfeiture, confiscation, or seizure of an item originating from a crime undertaken by another individual or an offense initiated by another individual or a supporter or illegal affiliation is subject to imprisonment for up to five years or a fine" (Schneider & Windischbauer, 2008). While in Austria, the launderer is defined as "Anyone who hides or uncovers the source of assets". Money laundering, according to current legislation in this nation, entails the procedure of transforming illegally obtained funds to conceal their illicit origins. The goal of money laundering from all property derived from illegal activity. So, the activities that directly defy the legal code, for example, and other felonious transformation of money from illegal to make it legal funds can be defined as Money Laundering.

2.2 Detecting Legal Definition

The United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances developed a transnational interpretation of money laundering in 1988, which was nearly universally adopted by the world community, but limited to drug-related crime (Korejo et al., 2012). Money laundering is a worldwide felony. According to the United Nations Convention against Transnational Organized Crime (Palermo Convention) "The conversion or transfer of property, knowing that such property is the proceeds of crime, for the purpose of disguising the illicit origin of the property or of helping any person who is involved in the commission of the predicate offence to evade legal consequences of his/her action; the concealment or disguise of the true nature, source, location, disposition, movement or ownership of or rights with respect to property, knowing that such property is the proceeds of crime; the acquisition, possession or use of property, knowing at the time of receipt that such property is the proceeds of crime;



participation in, association with or conspiracy to commit, attempt to commit and aiding and abetting, facilitating and counselling the

commission of any of the offence established in accordance with this article” (Drugs and Crime, 2004; Bar-ness, 2014).

According to the European Union Council Directive: (Directive, 1991), "Money laundering" is defined as the following purposeful behavior:

- Converting or conveyance of assets with knowledge that such assets is obtained from illegal conduct or from an act of involvement in such exercise, with the intent of hiding or camouflaging the illegal origin of the assets or supporting any party involved in the agency of such action to circumvent the legal implications of his/her action.
- The concealing or obfuscation of the real nature, origin, site, presentation, transportation, or property rights, recognizing that certain assets is generated through unlawful acts or as a result act of involvement in such crime.
- Acquiring, possessing, or using property recognizing, at the time it was received that certain wealth was obtained from unlawful acts or from an act of engagement in these kind of conduct.
- Involvement in, affiliation to conduct, endeavors to commit, and assisting, condoning, promoting, and advising the commission of any one of the above mentioned offence. Consequently result conditions can be used to infer knowledge, intent, or purpose necessary for the aforementioned actions. Money laundering is defined as such even if the acts that created the properties to be laundered occurred on the jurisdiction of some other Individual Country or a foreign nation.

Money laundering is a crime in the United Kingdom under Section 327 of the Proceeds of Crime Act (2002) (POCA). This section states “A person commits an offence if he or she conceals, disguises, converts or transfers criminal property or removes it from England and Wales or Scotland or Northern Ireland; enters into or becomes concerned in an arrangement which he or she knows or suspects facilitates the acquisition, retention, use or control of criminal property; acquires, uses or has possession of criminal property.” Aside from that, Section 329 of the POCA incorporates the purchase, usage, and ownership of illegal assets as part of the money laundering offense. Furthermore, Section 330 of the POCA defines conditions and subjects a person to money laundering responsibility if he/she is unable to disclose questionable conduct to the regulating sector (banks and financial institutions) (Korejo et al., 2012).

In the United States, section 1956 of the US Code 18: “Whoever, knowing that the property involved in a financial transaction represents the proceeds of some form of unlawful activity, conducts or attempts to conduct such a financial transaction which in fact involves the proceeds specified unlawful activity: with the intent to promote the carrying on of specified unlawful activity; or with intent to engage in conduct constituting a violation of section 7201 or 7206 of the Inland Revenue Code of 1986; or knowing that the transaction is designed in whole or in part to conceal or disguise the nature of, the location, the source, the ownership or the control of the proceeds of specified unlawful activity; or to avoid transaction reporting requirement under State of Federal Law.”

However, it is an offense under Section 3 of Pakistan's AML Act (2010) (AMLA) and “A person commits a crime if they purchase, convert, possess, use, or transfer property while knowing or having reason to believe that it was obtained through criminal activity; they hide or disguise the true nature, origin, location, disposition, movement, or ownership of property while knowing or having reason to believe that it was



obtained through criminal activity; they hold or possess property on behalf of another person while knowing or having reason to believe that it was obtained through criminal activity.”

All of the aforementioned interpretations, nonetheless, seem to be correct; they are based on revenue, ownership, illicit profits, and illegal conduct that are heavily rooted in felony characteristics. However, such a suggestion is a poor characterization of the notion of money laundering, leading in an inadequate understanding of the money laundering process. An examination of these traditional standards of money laundering reveals that they are purposeful and involve a wide range of legal acts. All of the preceding definitions of money laundering appear to embrace nearly any form of behavior, with "criminal proceeds" coming under the scope of "money laundering" and thus considered liable. However, the definition of "criminal proceeds" is excessively broad. As a result, comprehending the crime of "money laundering" requires a grasp of the realm of criminal proceeds (Korejo et al., 2012).

3. METHODOLOGY

Qualitative research was conducted using meta-data from past research literature and scholarly articles. To identify previous research studies for inclusion in the meta-analysis, the researcher searched several databases, mostly business oriented using of related keywords: money laundering, process, anti-money laundering, etc. The researcher is well aware of the content validity because it is one of the key concerns in meta-data analysis (Schriesheim et al., 1993). The deductive approach was used to generate the list of proposed items through the review of the previous literature (Aboul-Ela, 2014). The researcher specially searched ResearchGate, CrossMark, and some publishing platforms like Springer, Elsevier, academia.edu, Emerald Insight, and Sage Journals for relevant studies as well as doing a search through all available EBSCOHost databases. The researcher also reviewed the reference lists of other summaries to identify relevant articles missed in the computerized search.

Using these search procedures, the researcher randomly identified over 50 studies, then screened them to determine their relevance. The researcher excluded some studies which are repeated in the topics. After evaluating the studies based on the inclusion criteria, 16 studies and 5 reports were selected. All studies included in the meta-analysis are appended in the reference section.

4. FINDINGS AND DISCUSSION

4.1 Characteristics of Money Laundering

Money laundering refers to any monetary assets (cash and electronic bank transfers) or their surrogates, along with quasi-assets such as transportable items and real estate, that are created either directly or indirectly from illegal actions or are designed for the implementation of such an activity. The process is meant to launder illegal assets into lawful usage. The action is therefore distinguished by a malicious intention to change, blend, move, redirect, and misrepresent the real origin or characteristics of incriminated items intentionally and in a structured manner (Schneider & Windischbauer, 2008).

Korejo et al. (2012) mentioned that it may be split down to apply to three different categories of characteristics. First, assets obtained as a result of illegal activity related to a specific offense. Second, the worth of the asset in question, and finally, assets comparable in worth maintained inside the nation and taken or held just outside of the nation. In other words, money laundering refers to the intentional creation of all financial and non-financial assets obtained either directly or indirectly from any illegal behavior; the



former refers to cash money or soft-electronic fund transfer or their replacements, while the latter contains portable commodities and immovable estates. Furthermore, such illegal activity is aimed to realize an asset. Additionally, such illegal activity is aimed to realize an asset. As a result, acts are distinguished by a criminal purpose to meticulously transform, blend, hide, and mislead the true source or form of the items engaged in the unlawful activity.

As previously said, the resultant offences have been continuously extended to the crime of money laundering; thus, it is essential to investigate this expanding worldwide legal mechanism combatting money laundering.

4.2 Reason Behind Money Laundering

According to various estimates, the entire revenue of organized crime ranges from \$500 billion to 2.1 trillion USD. Some estimate that the global value of money laundering ranges from \$400 billion to USD 2.85 trillion. Money laundering is considered necessary by launderers because cash is used in practically all unlawful transactions since it puts no transaction marks such as records or proof. Drug trafficking plays a vital role, with a total income of \$500–1,000 billion USD, amounting to about 9% of global commerce (The UNDOC World Drug Report 2008). The illegal drug industry is massive in scope. The amount, assessed at market prices, is greater than the GDP of 88% of the world's nations. These enormous sales volumes and earnings from drug trafficking need to be laundered because one million USD in 20 dollar bills weighs around 55 kg; the same amount in five dollar bills weighs 220 kg (Schneider & Windischbauer, 2008).

According to Blum et al. (1999), who also identified that self-employed farmers are somehow responsible for money laundering, one of the ten essential rules of money laundering is:

... the more the business structure of production and distribution of non-financial goods and services is dominated by small and independent firms or self-employed individuals; the more difficult the job of separating legal from illegal transactions.

Hendriyetty & Grewal (2017) mentioned that Self-employed individuals and small local firms are not regulated in emerging economies and consequently operate unofficially; thus, they are classified as part of the shadow economy. Money launderers utilize business enterprises in the shadow economy as routes to disguise their illicit earnings in the early stages of money laundering. Blum et al. (1999) mentioned that underground operations are either unlawful or unofficial enterprises that engage on several stages with legitimate business.

The shadow economy is mostly comprised of tiny, independent businesses or self-employed people. They typically keep their enterprises small in order to escape official inspection and the need to register in the official sector. As a result, the number of tiny and independent businesses will grow, which will be utilized by money launderers to conceal their unlawful operations and to give it a legal outlook. As a result, the larger the shadow economy, the more challenging it is to discover money laundering since it is impossible to distinguish between legitimate and criminal activities.

Despite the fact that the shadow economy is typically run by small, self-employed or individual businesses, small businesses are an easy scapegoat for extortion by huge corporations that are more competent at skirting the law by abusing small businesses. This informal sector serves as a conduit for money laundering operations. Because it is challenging to do careful research on operations in an economy with a larger level of interaction between documented and undocumented, official and unofficial, underground and above board activities, determining the origins of funds will become increasingly complex Blum et al. (1999).



Furthermore, money laundering promotes the growth of the shadow economy. Because utilizing legitimate means to shift funds is risky, particularly with the anti-money laundering system in place, money launderers will shift their money to the informal economy. In the underground economy, unconventional financial transactions and tangible cash transfers are preferred (Hendriyetty & Grewal, 2017).

4.3 Negative Impact of Money Laundering

On Business

The reputation of the financial services and banking industry is strongly reliant on the notion that it operates within a system of high legal, professional, and moral codes. A business institution's image for transparency is one of its most precious assets. If money from illegal activity is easily processed through a specific institution, either because its professionals or managers have been bribed or because the organization turns a blind eye to the questionable nature of these monies, the organization may be drawn into active complicity with criminals and become part of the illicit network itself. Indications of this collusion will have a negative impact on the views of other financial intermediaries, regulatory bodies, and regular customers (FATF).

On Economy

Launderers constantly search for new ways to launder their money. As established financial centers or developed nations build strong anti-money laundering policies, economies with expanding or emerging financial centers but insufficient regulations are especially vulnerable. Variations of anti-money laundering policies among countries will be targeted by money launderers by transforming their networks to different nations with financial systems that are weak or ineffective defenses. Many may claim that emerging economies cannot expect to be overly choosy about the funding sources they receive. However, deferring consequences is risky. The longer it is delayed, the more established and organized crime occurs. Foreign direct investment is depressed whenever a nation's commercial and economic sectors are considered to be under the influence and dominance of organized crime, just as it is when a personal financial institution's credibility is harmed (FATF).

Financial market imbalances put the international economy's stability at risk. Economic problems are hence worsened, if not caused. Furthermore, money laundering involves the penetration of lawful economic systems as well as crowding cutthroat competition. Additionally, the "dollarization" of the economy limits the budgetary and financial political reach of national governments and banks, respectively. Aside from that, financially impoverished nations that primarily provide financial services risk economic (and hence political) reliance. Measures to fight money laundering boost the cost of legitimate activity and interfere with them in the capital markets.

4.4 Steps of Money Laundering

Money Laundering basically follows three steps.

Placement

The launderer inserts unlawful funds into the economic system at the first or placement stage of money laundering. This might be accomplished by dividing large quantities of cash into smaller sums that are then deposited directly into a bank account, or by obtaining a series of financial instruments (cheques, money orders, etc.) that are subsequently collected and transferred into banks at a different area. There is an elevated chance of being revealed at this point. The placement stage is divided into two sub-sections as follows.



Primary deposit

This refers to the quick transfer of criminal income into a legal economic system without drawing the notice of governmental authorities. Limited quantities are undercut with "structuring" and "smurfing" to escape detection, reporting responsibilities, and paperwork requirements. Furthermore, funds are carefully divided into small quantities in order to allow payment in multiple financial institutions below relevant recognition and disclosure limits. Savings accounts of up to 15,000 Euro are exempt from these requirements in Austria, for example, (Schneider & Windischbauer, 2008).

Another technique of placement includes exerting an effect on economic sector institutions in terms of acquiring existing banks or establishing new banks in offshore nations ("company havens" or "bank havens"). Furthermore, coworker corruption is a regularly utilized criminal tool to place incriminated funds: endeavors are made to socialize with bank personnel in order to permit immediate penetration of funds without drawing the attention of regulatory agencies. Depositing cash into bank accounts located abroad allows participation in the economic or financial cycle.

Secondary deposit

Secondary deposits, as opposed to primary deposits, are a passive penetration of the liquidity into the Financial sector and hence a transformation into book money via the interconnectivity of a real or legal entity. This occurs either by modifying the channel, in which incriminated funds are turned into other resources, or through frontmen, who act on their own behalf but trade for the account of a third party or grant the use of their name in order to execute out (realize) an account opening, the formation of a company, or the conclusion of an insurance scheme.

Forward displacement of the money laundering site onto life insurance companies, financial service providers, and exchange offices can also result in indirect placement. At the moment, numerous proposals are received through email or posted on websites to work as a "financial agent," providing banking accounts that are used to send unlawful gains in order to conceal transfer methods.

Another method of laundering money is the formation of front firms, which, in contrast to frontmen corporate entities, penetrate black money on the bank deposits and hence into the financial system through simulated turnovers. Cash-intensive businesses (for example, cuisine, shipping enterprises, vehicle business, hotel industry, auctioneers, and galleries) are required. Partially, no phantom firm/dummy firm is created, but simply foundational documentation is falsified. For example, 25,000 life insurance clients are suspected of laundering illicit money with single payments totaling one billion euros (Schneider & Windischbauer, 2008).

Layering

Once the money has entered the financial system, the second stage, often known as layering, takes place. In order to disassociate the funds from their source, the launderer converts or moves them during this phase. The money may be transferred using the buying and selling of financial products, or the money launderer could simply transfer the funds using a network of accounts at numerous businesses around the globe. In countries that are unwilling to help with anti-money laundering efforts, this practice of using widely dispersed institutions for laundering is very prevalent. In other situations, the money launderer may disguise the movements as orders for goods or services to give them the impression of legitimacy.



Integration

After successfully processing the illegal gains through the initial two stages of the money laundering procedure, the launderer advances the money to the third step, integration, when the funds are re-introduced into the legal financial sector. The launderer may decide to invest the money in the housing market, luxury goods, or business ventures.

4.5 Electronic Money Laundering and Steps

When funds are laundered electronically, it is defined as electronic (E) money laundering.

E-Placement

In conventional laundering, criminals must give over their money to a bank or convert it into a product or property, which is then sold and the laundering money is used to finance and production. These procedures are more difficult to complete since the client identification and verification criteria have been met. Most nations limit the number of entries in the cash flow, but with electronic money laundering, the criminal can convert his or her unlawful earnings into digital money and cross borders or acquire expensive products since verification is tough and it is a low-risk operation. However, it appears that worldwide regulations for them have not been set.

E-Layering

In conventional money laundering, the launderers must use a comma to separate the occasional source from the first entry and other potential uses. "Money committed to engaging in a leisure facility or a publicly approved action," for example. Confidentiality and camouflage of identity are the goals of money launderers, which have typically been challenging. However, electronic money laundering processes which can be done immediately, without the need for a border, and through the use of digital transactions would not be hard, and even in certain nations, opening a bank account with no physical verification can be done virtually

E-Integrating

In conventional integration, many techniques are followed such as investing, taking loans to form coating firms, and fabrication of papers, including buy or sale transactions, and it is a high-risk operation. However, all those processes can be done in a virtual space and with less danger.

4.6 Anti-Money Laundering Initiatives

For more than thirty years, the international community has developed a comprehensive anti-money laundering legislative framework. The creation of this paradigm was linked to the United Nations Vienna Convention of 1988, which addressed the problem of narcotics trafficking profits laundering. Following this, the Palermo Convention of 2000 and the Convention Against Corruption in 2003 combined enlarged derivative crimes related to the money laundering offense. As a result, all three Conventions formed the basis for the globalized structure for countering money laundering. However, the actions of the Financial Action Task Force have been more essential to the expansion of the international anti-money laundering legal system (Force, 2012).

The United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988) (Vienna Convention) was the first inter-governmental accord to demonize money laundering, but it is limited to drug-related crimes such as drug manufacturing, plantation, acquisition, transfer, ownership, and control. The agreement also compelled governments to implement global anti-money



laundering regulations, including as freezing and relinquishing any unlawful gains. However, the phrase "Money Laundering" was not formally introduced in the Convention. Nonetheless, this document created a broad definition of "proceeds" of narcotic crimes and was a comprehensive weapon for combating present global narcotics trafficking; it required nations to prosecute the laundering of drug-related profits and designated money laundering as an actual criminal act. Under this agreement, "proceeds" are defined as any property derived or received, directly or indirectly, from the conduct of drug-related offences (as defined in paragraph (a) of Article 3 of the Convention). Furthermore, the scope of the offense includes cooperation in concealing or disguising the illicit activity or origin of the assets (drug revenues). Moreover, money laundering is committed by aiding any individual in the commission of such an offence or misdemeanor in order to avoid the legal consequences of his/her actions; assisting means any act of invisibility or disguises of the true origin, disposition, or mobility of assets, recognizing that such assets is acquired from an offence or offences founded in accordance with Article 3 of the UN Vienna Convention. Nevertheless, while the criminalization efforts under the Vienna Convention acknowledged the revenues of drug-related offences, there were major gaps in the terminology with regard to money laundering. Although its range and applicability were limited to drug-associated money laundering. The revenues from other offences were still allowed to be washed and so fell inside the instrument's blind zone (Korejo et al., 2012).

The United Nations Convention on Transnational Organized Crime (Palermo Convention) is a global pact combating global organized crime that was signed in Palermo in 2000. However, it went into effect on September 29, 2003. The Convention was created to encourage governments to work together more effectively to detect and fight international organized crime. The Convention was the initial worldwide legally enforceable treaty addressing cross-border organized crime. The Palermo Convention broadened the criminality realm of "criminal proceeds" from drug-related offences to proceeds of "severe offences" when the punishment for the violent act is ultimate liberty forfeiture for four years or more. Besides, under the same Convention, an essential progression in the crime of money laundering occurred by prosecution to a wide range of predicate offences, which include all severe crimes, participation in a structured terrorist cell, inclusion as an association, bribery, limiting justice, and engagement of legal entities in violent felonies.

Even though the Convention is a comprehensive framework that establishes a foundation for handling with the subject of money laundering and profits of wrongdoing, it has several shortcomings, including ambiguity in words like as "serious offence" and no definition of the phrase "predicate offence." The treaty also has various flaws in terms of corruption and malpractices offences.

The Financial Action Task Force (FATF), a 33-member international group combating money laundering and terrorism funding, aims to guide non-cooperative nations with a "name and shame" approach by releasing a "black list". Furthermore, it is attempting to prevent money laundering on a global scale using conceptual frameworks and 40 international standards suggestions. There have been no Non-Cooperative Nations and Jurisdictions on FATF's list since October 13, 2006.

4.7 Suspicious Transaction Model

Jullum et al. (2020) developed an anti-money laundering model to detect money laundering using machine learning technology. They displayed the following equation:

$$L\{Y_i, f(x_i)\} = Y_i \log\{f(x_i)\} + \{1 - Y_i\} \log\{1 - f(x_i)\}$$



Suppose Y_i to accept the value 1 if transaction i was signaled to the authorities and 0 if it was not. Let x_i indicate vectors comprising the numeric explanatory variables. Jullum et al. (2020) try to predict the chances of a transaction being detected, given its explanatory variables minimizing the logistic loss.

Several research have revealed that there is no perfect method for categorization. Chen et al. (2018), Rivera et al. (2015), Savage et al. (2016), and Zhang and Trubey (2018) all recommend running many algorithms on the same data set before deciding which one to use. Ruiz & Angelis (2021) suggested four algorithms: these are logistic regression, random forest, support vector machines and decision tree.

4.8 Limitation of the study

This study has some general limitations. First of all, this paper deals with the overall money laundering systems but it does not discuss this illegal activities from the point of view of any particular country. An over generalization may be found which, sometimes, may lead the reader to abstract observation. Second, the data were taken from the randomly chosen previously published research and discussion is based on the already published literature. Questions may arise about the validity of those studies. Third, this study was conducted on the theoretical level by screening the established summaries of past research, not on the on-ground practice of money laundering and it is not an empirical research work. Fourth, a limited number of research was chosen for data mining, which can narrow down the diversity of this study. To eliminate this problem, more research papers could be chosen to extract data but most of them were excluded because of the repetition in topics. Fifth, only meta-data are discussed and analyzed. No interview nor questionnaire approach to data collection was conducted.

4.9 Recommendations for further research

The current study presents an overall outline of money laundering and its ways to clean dirty money by following some structural non-complex steps. Though the ways to launder money seem to be to simpler, it needs to be monitored continuously because launderers always look for new ways and unique systems to launder their illicit money. So, regular observation and updated technologies, and their implementation must be on the way to be developed. Researchers, both empirical and non-empirical, can have eyes on the divers and newly discovered techniques that launderers follow for hiding the sources of money and making it legal. The continuous research approach can be one of the ways to help governments and anti-money laundering agencies to reduce it to a minimum level. Additionally, regular updates in the anti-money laundering software and models should be emphasized. Since AI is approaching rapidly, it can be taken into action to be used against money laundering activities worldwide. So, research in technology and in the field of money laundering is necessary to be conducted regularly, particularly, empirical research is essential because without empirical research it is not possible to know about the actual and on-ground scenario. Finally, new transaction models with innovative ideas and creative ways to detect money laundering are also expected. Tech-savvy academicians have the responsibility to develop models which will adopt and help the authorities to find out the crime of money laundering and cope with the newly emerging technologies.

5. CONCLUSION



Conjunction with conventional banking and electronic banking, lowering the threat of illegal activities and the presence of infrastructures and parallel organizations or the non-utilization of activities in technology make electronic money laundering more readily. Additionally, the use of private enterprise development and the function of governmental political analysts is diminishing. Consequently, decentralization will make the money-laundering schemes more creative and complicated, making them very tougher to combat. The transaction models developed by scientists, researches, and tech savvy people are good alternatives to work against money laundering. Anti-money laundering activities are initiated and practiced throughout the world with a great consideration but they are not enough in regarding to the amount of money is laundered annually world wide. Besides, some nations are yet to take strong position against this and some are not helping as much as it should be though, in paper, there are no non-cooperative nations since 2006. Until the documented and theoretical realizations come to the implementation, money laundering can be unstoppable.

ACKNOWLEDGEMENT

The author would like to thank Umama Rashid Lamiya (MSc student, Department of Soil Water and Environment, University of Dhaka) for helping screen the materials and find out the best resources for this paper.

FUNDINGS AND CONFLICT OF INTEREST

No funding was taken for writing this article and the author gives full consent to publish it.

REFERENCES

- [1] AML Act (2010), Pakistan.
- [2] BAR-Ness, G. (2014), "United nations crime conventions" , The Encyclopedia of Criminology and Criminal Justice, Vol. 1, pp. 1-6.
- [3] Blum, J.A., Levi, M., Naylor, R.T. and Williams, P. (1999), "Financial havens, banking secrecy and money-laundering" , Criminal Justice Matters, Vol. 36 No. 1, pp. 22-23. <http://dx.doi.org/10.1080/09627259908552870>
- [4] Chen, Z., Van Khoa, L., Na Teoh, E., Nazir, A., Kandasamy Karupppiah, E. and Sim Lam, K. (2018), "Machine learning techniques for anti-money laundering (AML) solutions in suspicious transaction detection: a review" , Knowledge and Information Systems, Vol. 57 No. 2, pp. 245-285. <https://doi.org/10.1007/s10115-017-1144-z>
- [5] Daniali, G. (2014). E-money laundering prevention. (ویژه نامه) 4, نوین بازاریابی تحقیقات, 29-38.
- [6] Directive, C. (1991), "91/308/EEC of 10 June 1991 on prevention of the use of the financial system for the purpose of money laundering" , Official Journal of the European Union, Vol. 166, pp. 77-83.
- [7] Drugs, U.N.O.O. and Crime, (2004), "Report of the conference of the parties to the united nations convention against transnational organized crime on its first session" , Held in Vienna From 28 June to 8 July 2004.
- [8] A.S. Hovan George, A. Shaji George, & T. Baskar. (2022). Sri Lanka's Economic Crisis: A Brief Overview. Partners Universal International Research Journal, 1(2), 9-19. <https://doi.org/10.5281/zenodo.6726553>
- [9] El Qorchi, M., Maimbo, S.M. and Wilson, J.F. (2003), "Informal funds transfer systems: an analysis of the informal Hawala system" , International Monetary Fund, IMF Occasional Papers, Vol. 222.
- [10] FORCE, F. A. T. Money Laundering. Financial Action Task Force. [linea] FATF-GAFI,(sf)[Citado el: 15 de Enero de 2018.] Disponible en: <https://www.fatf-gafi.org/faq/moneylaundering>.
- [11] Force, F.A.T. (2012), The FATF Recommendations: International Standards on Combating Money Laundering and the Financing of Terrorism and Proliferation, FATF, Paris, February.



- [12] Hendriyetty, N., & Grewal, B. S. (2017). Macroeconomics of money laundering: effects and measurements. *Journal of Financial Crime*. <https://doi.org/10.1108/JFC-01-2016-0004>
- [13] Jullum, M., Løland, A., Huseby, R. B., Ånonsen, G., & Lorentzen, J. (2020). Detecting money laundering transactions with machine learning. *Journal of Money Laundering Control*, 23(1), 173-186. DOI 10.1108/JMLC-07-2019-0055
- [14] Korejo, M. S., Rajamanickam, R., & Said, M. H. M. (2021). The concept of money laundering: a quest for legal definition. *Journal of Money Laundering Control*. DOI 10.1108/JMLC-05-2020-0045
- [15] Proceeds of Crime Act (2002), UK.
- [16] Rivera, E. West, J. and Suplee, C. (2015), “ Addressing AML regulatory pressures by creating customer risk rating models with ordinal logistic regression” , available at: <https://support.sas.com/resources/papers/proceedings15/SAS2603-2015.pdf> (accessed 22 September 2021).
- [17] Ruiz, E. P., & Angelis, J. (2021). Combating money laundering with machine learning- applicability of supervised-learning algorithms at cryptocurrency exchanges. *Journal of Money Laundering Control*. DOI 10.1108/JMLC-09-2021-0106
- [18] Savage, D. Wang, Q. Chou, P. Zhang, X. and Yu, X. (2016), “ Detection of money laundering groups using supervised learning in networks” , available at: www.researchgate.net/publication/305779558_Detection_of_money_laundering_groups_using_supervised_learning_in_networks (accessed 22 September 2021).
- [19] Schneider, F., & Windischbauer, U. (2008). Money laundering: some facts. *European Journal of Law and Economics*, 26(3), 387-404. DOI 10.1007/s10657-008-9070-x
- [20] UNDOC. (2008). World Drug Rep 2007:2008.
- [21] United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988) “United nations office on drugs and crime” , available at: <https://www.unodc.org/unodc/en/treaties/illicit-trafficking.html?ref=menu> (accessed 3 January 2020).
- [22] Zhang, Y. and Trubey, P. (2018), “Machine learning and sampling scheme: an empirical study of money laundering detection” , *Computational Economics*, Vol. 54, pp. 1043-1063. <https://doi.org/10.1007/s10614-018-9864-z>