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“Anti-money laundering as a counterparty quality control measure”

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ABSTRACT

Money Laundering (ML) is one of the most debatable issues nowadays since many criminals are getting more devious and the methods used are more sophisticated. As a result, ML has become a serious phenomenon that affects economical, social, and political aspects globally. Before discussing the importance of the Anti-money Laundering Policy (AML), it is reasonable to define ML and be aware of its definition. ML is an illegal process of making a significant amount of money using businesses or different institutions coming from illegally obtained money from drug trafficking or other serious criminal activities.

The main responsibility that AML has is investigating the possible reports of suspicious money transactions from banks and to determine any money laundering activities. In Kazakhstan, there are a considerable amount of actions are taken to lower its vulnerability to money laundering. According to the Kazakh Financial Monitoring Committee, Kazakhstan has been implementing Financial Action Task Force (FATF) standards to most of the transactions, making the improvement in combating financial pyramids, support of terrorists, and any illegal cash flow.

Research problems are to identify Anti-money laundering policies in the global world and Kazakhstan in particular. By this, it is meant that examining the policies connected to AML, their functions and impact on companies and countries as well as the risk assessment procedures are revealed in the study.

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1. Introduction

Money Laundering has been a major concern for all countries, and it is quite common to believe that it is one of the most serious problems that humanity face in the financial world. Before moving to Anti-Money Laundering's devoted work, it would be reasonable to give a brief comprehension of this concept itself. According to the Oxford University Press definition, ML is considered to be an act of processing the illegal source of income which is gained from criminal activity, making this money appear legitimate¹. This process has a considerable amount of methods, which is a reason why Anti-Money Laundering Regulations take place in modern society, the main aim of which is to identify and investigate the cases related to the sums of money whose source seems to be questionable. Many countries nowadays face this problem, since the ML process endanger financial stability, and might even be a reason for such severe kinds of crimes as terrorism or hijacking. However, different countries have different interpretations of this term, that is why many devious criminals are using this fact as a method of taking advantage of the altering laws in a country.

The more sophisticated methods of ML, the stronger gets the system that identifies and defeats this process. That is the reason why banking institutions support the government by law. In most countries, by reporting suspicious transactions and detecting such illegal activities. Kazakhstan one of the countries where strict rules are enforced, due to the government is trying to eliminate and make counter measurements against bribery and terrorism. This thesis will consider the standards of AML policies in Global World, in Kazakhstan and it will identify the effect of AML regulations on local companies and its effect on the World.

The purpose of the dissertation research

The main objective of the study is to consider the principles of the system of standards of AML in the Republic of Kazakhstan, to study the world experience in this area, to identify and analyze the risks and the trends of this issue, and to make the Risk Assessment research of Anti-Money Laundering in the Republic of Kazakhstan.

To achieve the goal, the dissertation tasks that have to be solved are the following:

1. Examine the Principles of ML and Terrorism Funding in the World and Kazakhstan;
2. Reveal the social danger of legalization of proceeds from crime;
3. determine the factors contributing to the receipt of proceeds from crime;
4. study the legal tools for combating money laundering: forms and methods used by the state to counter money laundering;
5. Compare Kazakhstan in terms of AML with Global world;
6. Conduct the Risk Assessment Study in terms of AML.

2. Methodology

To begin with, it is vital to get an idea of algorithms of methodology that exist, which are content analysis, describing classification and regression, and the Money Laundering Risks defining empirical data.

The study is limited to a chronological framework from the second half of last century to the present day. This paper examines The Money Laundering Risk among Kazakhstan respondents where the data about the approximate age group, Gender, Occupation, Purpose of Using a Bank Account, Source of Income, and Transaction Method are taken into consideration and gathered from about 500 respondents.

The Study Implementation was made up of various documents and materials. They can be divided into several main groups.

1. Theoretical and practical reports concerning ML of Kazakhstan and the Global World. These sources are supported by the material gathered from the UN, the FATF and other assemblies that were taken to organize and manage the fight against illegal money use and terrorism. Among the materials gathered, the most significant seems to be the report of the first FATF assembly where the first official organization was officially founded.

2. The materials from the Official Government Representatives related to the AML Regulations in Kazakhstan in two decades period permitted to convey and acquire the information about counter-activities that were taken locally.
3. The study used the sources of the Risk Assessment Methods that are implemented around the World, especially in Kazakhstan. Due to the vulnerability that developing countries has concerning ML, this group of sources supported the assumptions about the strict laws implemented in the Republic of Kazakhstan.
4. Statistical materials and reports that different AML organizations published. This group of sources is of great importance in the analysis of the AML indicators, and helps to identify the official dynamics of counter measures.
5. The AML Risk Assessment Strategies and Factors data. This information made it possible to construct The Linear Regression Analysis with the data taken from 500 respondents about their age, occupation and account type used in the banks.

This research topic is relevant since it has become a debatable issue currently. Raising the awareness of the threats that ML and financing of terrorism bring to the Global World and Kazakhstan will affect economic and social aspects significantly, and the Risk Assessment Data that were gathered and analyzed will also lead to better precautions among people.

3. Literature Review

Money laundering is a process in which obtained property, money, or assets were acquired or accumulated as a result of illegal activities and crimes committed is transferred or hidden in order to confuse and make it seem legal¹. The offender, who made illegal assets from the sale of drugs or corruption as an example, makes an effort to declare official income and legally use money that was originally illegal in nature, but as a result of laundering, it has received a legal coloration.

The threats that are exposed by ML have become obvious to the world community many years ago, which required them to take countermeasures to deal with this issue. This was the reason why many countries, suffering from illegal actions of offenders started to suggest remedies against. Although money laundering and terrorism were widespread factors that happened in the second half of the last century, the starting point for organizing a campaign against money laundering was 1988, where the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances was adopted and signed². The Convention entered into legislation in 1990, and it is one of three main drug control official organizations that are currently in force³. These conventions have been ratified in different years by the Republic of Kazakhstan, thus undertaking obligations to combat this illegal phenomenon. In 1997, criminal liability was introduced for the legalization of funds or other property acquired at first illegally; hence, as a result of the developments and the problem awareness, it has been legally acquired since 2012. In 2009, an authorized body in the field of prevention and investigation of money laundering and the financing of terrorism was

organized, which is named the Financial Monitoring Committee of the Ministry of Finance of the Republic of Kazakhstan⁴. Over the past few decades, the national AML system has been improved; therefore, it has been brought into technical compliance with the international FATF standards in the official meeting from 14 to 19 October 2018 in Paris (France)⁴

3.1. The Process of Money Laundering

For better comprehension of the ML process, it is vital to understand how it works. In most situations, money is laundered through different transactions, which have their methods and rules. According to figure 1 below, there are usually three steps included in this process, which come in this order: Placement → Layering → Integration⁵. The processes may vary; however, the main aim here is to make money entering the bank appear to be legal funds. In this part of the thesis, these steps are going to be explained more briefly.

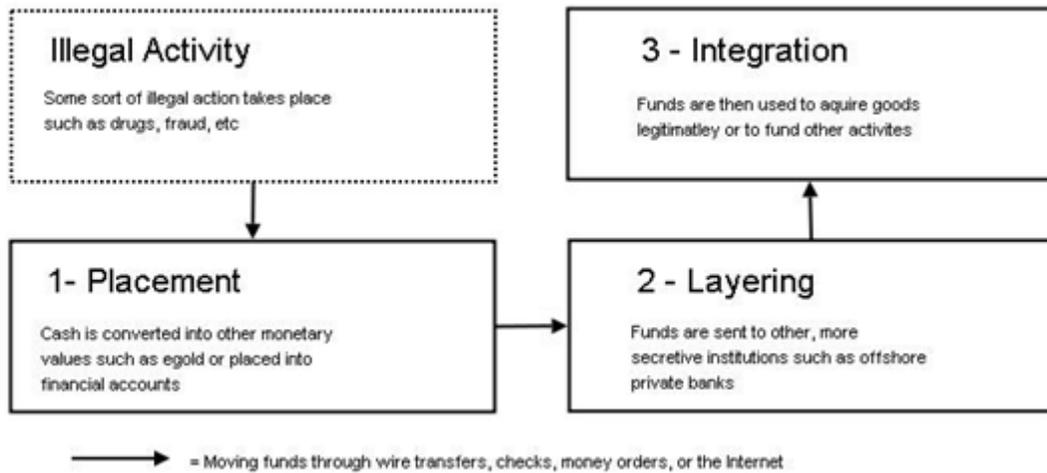


Figure 1. Stages of Money Laundering

3.1.1. First Step: Placement

For the first step, a criminal will integrate illegally obtained money into a legal financial system. This is mostly accompanied by placing assets into companies and other financial institutions as shops, casinos, and local businesses. It usually happens through investing small amounts of money partly, which makes it seem like legal business transactions in an institution⁵. Moving funds and transactions within the legitimate financial chain make it difficult to understand the source of the money and create confusion.

3.1.2. Second Step: Layering

The second step includes moving funds and transactions within the legitimate financial chain to make it difficult to understand the source of the money and create confusion⁵. This could be obtained through transferring cash from one account to another, investment in real estate, reselling some items, buying shares, or using offshore banks.

3.1.3. Third step: Integration

Integration into the legal financial system using the latest money transfers, deliberately trying to make it difficult to identify the source between legal and illegal⁵. This seems to be the last step after which most money is considered to be laundered and "clean".

3.2. The Effect and Consequences from ML

The development of technology has led to more sophisticated and developed methods of money laundering through banking and financial institutions, which is a problem for developed countries, and it has even more disastrous effects on countries in the development stage. For poor countries, money laundering brings significant damage to the country's economic sector,

spreading corruption, drug trafficking, and terrorism. The analysis of money laundering data is probably difficult to obtain and quantify due to the possible occurrence of money laundering in different regions, countries, and institutions simultaneously, complicating the situation for the statistician's anti-money laundering department.

It is highly believed that high crime and corruption lead to a reduction in the level of economic growth. The main factor that has to be considered here is that ML directly reduces the cost and expenses of committing a crime and terrorism and thereby increases the level of the crime-generating situation and the possibility of dangerous actions from different groups that follow terrorism objectives in the country⁵. The financial aspect is vital in that situation since the more affordable ML costs, the more widespread and frequent the criminal activity will probably be.

In this section, however, we will try to reveal the consequences, short and long-term effects on the countries' economy and living standards.

3.2.1. The Effect on Private Sector

Money Launderers tend to invest the money into local business corporations or companies, creating front companies for these purposes. According to the Journal of Money Laundering, the side companies used for ML are able to offer their services or products for the cost which is significantly lower compared to legitimate businesses in the local environment⁷. This phenomenon makes it hard for law-abiding companies to compete against this, putting strain on the private sector, and, thus, affecting the economy of the country concerned.

3.2.2. The Effect on Local Citizens

From the side of the economy, money laundering leads to a lack of tax payments to the treasury of the country, which creates delirium in the economies of developing countries. Thus, it can be argued that the gap in the standard of living between the rich and the poor is increasing, striking social instability and discontent among the population of the country. Also, it is worth noting that the implementation of activities for money laundering in most cases does not benefit society, since this activity is fictional⁷. This can affect the level of prices and services in the SME sector, which is considered to be the driving force of the economy. The main reason for that situation is because these so-called "investors" are not interested in investing with the profitable outcomes because the main interest leaves in laundering activities. Finally, ML increases the crime level, as the citizens suffering from ML activities are often exposed to near drug trafficking and corruption⁷.

3.2.3. The Effect on Reputation

Developed and developing countries cannot afford to have their reputation damaged as a result of ML activities because this situation may have a negative impact on the economic sector. This is explained by the subsidized funding of such actions, meaning that frequent occasions of terrorism and uncontrolled ML could show the possible weakness of a local government, which results in further negative macroeconomic effects as other nations will not be able to trust and invest their funding into the country⁸.

3.3. Analysis of the Consequences

The significance of ML can be seen in figure 2 below, where the supply and demand model is depicted. The Frequency of Crime is shown on the left side; meanwhile, approximate expenses of crimes are revealed in committing a crime (CC) and the marginal income of criminals from committing another criminal through simple changes in the supply-demand model. From the figure it might be assumed that crimes will be committed as long as it is affordable for offenders to do so; showing evidence between the direct proportion of these factors.

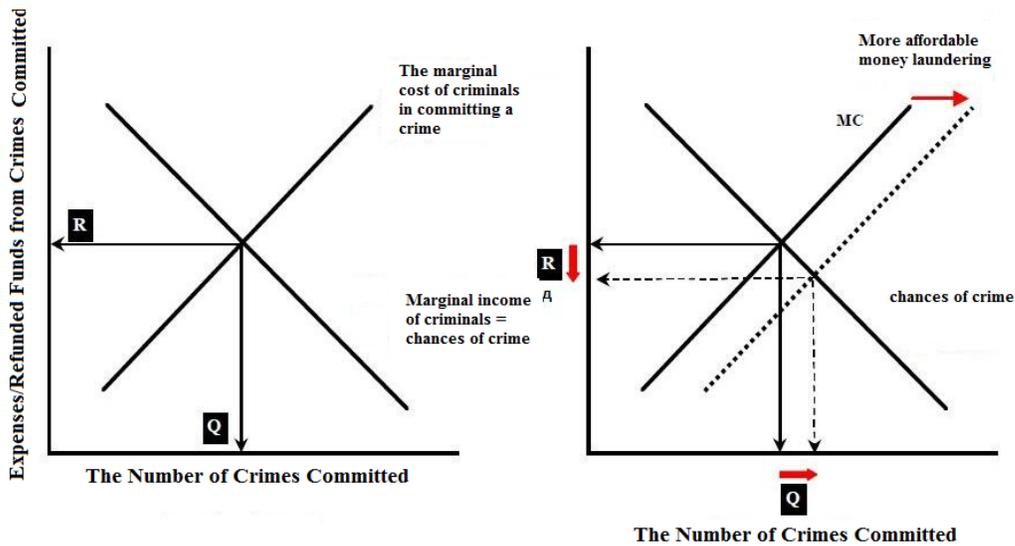


Figure 2. The Direct Relationships between ML and Crimes Committed.

The consequences of ML are widely spread and might vary from economic to social; however, if they are briefly gathered, the most disastrous effects are the following²⁰:

1) The opportunity for offenders and criminals to use and spend “black” money legally and freely. The consequences of this are gaining influence of criminal structures and expansion of criminal activity;

2) The increase in the number of corruption and drug dealing cases in the public sector, so the financial system deteriorates as a result. Significant amounts of capital and funds involved in ML undermine the economy;

3) The taxes are not received from illegal actions and transactions, causing social unrest and affecting the middle

3.4. Banking System

The banking system makes it possible to detect suspicious transactions around the world; however, due to some laws and rules that a country might have, they can also be a reason why ML occurs. Due to the system called correspondent banking, which is the service of transferring money to another bank, making transactions, and currency exchange, it has become possible for devious money launderers to conduct transactions or “Nesting”¹⁵. This issue may be a problem that many countries face in the financial system, as we can see in Kazakhstan or the USA recently. Using this system creates the opportunity to move money in or out of Kazakhstan that makes it one of the most

debatable problems not only in Kazakhstan but also around the World itself¹⁷. That is why, in last years' period, the following recommendations have been taken into account. According to the relatively new laws, it is a widespread phenomenon to demand client personal information, pay more attention to "risky" accounts, and require international registration for the accounts concerned¹³.

One more sector that should also be taken into account is private banking services around the World and Kazakhstan particularly. Owing to the probable close relationships between private banking management and their clients, it is considered to be one of the most vulnerable sectors for ML¹⁸. Other reasons for the risks from such a sector are political ties, better interest in making a profit, and ML government control does not always apply to them in some countries.

However, there were a few updates made in Kazakhstan, where fundamental control of such sectors has been obtained in 2010 due to the World Anti-Money Laundering Regulations, which include the following requirements¹⁰:

- Banks have to demand the personal information of the customer, and any updates relevant;
- Purpose of creating an account;
- The agreement needs to be signed, identifying the relationship between two sides;
- Location of the customer's business or assets source has to be identified;

3.5. Terrorism Financing

One of the widespread reasons why money laundering occurs is terrorism were a significant

9 amount of money might be required to organize such type of crime. The definition of terrorism is considered to be rather complex, making it a reason for considering this topic in this thesis. According to the article from Terrorism-attacks prevention (2006), it is classified into the attacks causing the death of a person or a group of people, kidnapping, causing disastrous exploding of governmental facilities, transport, or buildings, and supplying general, biological, or chemical weapons to a country⁹. Such actions usually require a long-term plan and sums of money, which are usually obtained through illegal activities or ML. That makes Anti-Money Laundering Regulations an important part of combating and preventing possible dangerous actions.

3.6. AML Regulations

Many countries face the problem of ML and terrorism, and they are preventing them to happen around the world. That is why it has become apparent that Legislation of Anti-Money Laundering is important because the creation of strict rules of combating such activities is crucial for society and humanity¹¹.

Considering the thesis topic, Kazakhstan has accepted the World Standards, that is why in this part of the work we are going to consider local legislation and duties of AML directives.

According to the financial laws of Kazakhstan that were accepted, there are established obligations for each client who have transactions above 18,000 USD¹⁸. Financial institutions are required to repeat the process of identifying the customer beneficiary if there are grounds for suspicion of the client of money laundering or terrorist financing¹⁷. This fact makes it convenient for AML to combat this problem if there is proper work made by assistants in banks. One more important obligation that is required according to laws is the duty of verification²². It requires different analysis for contextual and client oriented functions, if there is any suspicion of activities previously included in the duty of identification. It pays attention to the relationship among clients, possible sources, and any relatives related to transactions. The next obligation that appears to be vital in the modern banking system is controlling obligation²³. This obligation obliges the implementation of a client control system, combining, instead of rules and regulations, procedures for writing procedures by clients to increase the likelihood of identifying an illegal source of money. The procedures of this method include the collection of information, funds, policies and procedures, internal control and obliges to maintain the rules for the acceptance of new customers and their service by banks. Many of the rules must be effectively and efficiently checked by the rules of this rule, and checks should be carried out twice a year. One more duty that has to be considered is training²⁴, The training duty ensures that training policies are defined and applied, tailored to the functions performed by employees, relevant in the AML context. Employees should be trained and know the laws of finance and related to transactions in banks, be able to know and be responsible for the legal framework in the field of AML. Should be able to know and prevent procedures, so banks are

required to disseminate and conduct training for additional knowledge in this area, providing guidance and advice in many areas like this²⁴. Employees should be trained on criminals' behavior trends, money laundering and terrorist sponsorship practices and customs, rules, and laws.

3.7. The way AML works

It is quite important to notice that the way AML works may vary depending on the occasions and types of crimes being committed; however, in this part of the thesis, the objectives, methods, and models of AML Regulations in the World are going to be explained and showed. These crime preventing methods may be different in terms of effectiveness and, but the main aim is protecting humanity from ML threatening consequences. Methods that are used in AML policy and obligations will be explained in the next sub-categories.

3.7.1. SAR

A suspicious Activity Report is usually done after bank representatives have noticed any suspicious transactions that are happening in a company or an organization²⁵. Nowadays there are a lot of efforts done to make this report computer-delivered, so the machine or special program that is inserted in banks are made to report automatically²⁵. This is considered as one of the best ways of identifying such crimes or possible terrorism events, so the counter organization can prevent and investigate the cases.

3.7.2. Custom List Analysis

It is considered as also one of the most effective methods to prevent money laundering activity to be repeated more times since it works in a way that once suspicious activity has been reported, the program creates a client list which describes a list of people who are under supervision and investigation²¹.

3.7.3. Reporting

This is also an important part of the system, because the possible trends of ML are being reported and noticed, and being included in the history list of organizations or institutions that are probably related to ML²⁶.

3.8. The World Organizations for AML

To begin with, there are a considerable amount of different organizations combating ML, since it is one of the most serious issues that banks are facing. Some of the main are the following.

3.8.1. The Financial Action Task Force on Money Laundering (FATF)

FATF, which was established in 1989, is an international institution for combating AML or CFT problems²⁴; therefore, it is considered as a worldly-recognized creator of standards to fight Money Laundering procedures around the World. This might be the reason why the UN is binding all the countries which are members of this organization to follow the requirements

of the FATF Regulation Standards¹⁶. About 35 countries are members of FATF now, and it is in close cooperation with the world financial organizations as the World Bank, the OBSG, the UNODC, and the IMF. The Republic of Kazakhstan is currently a member of the EAG, which is a similar organization combating ML²⁷.

The OBSG - the Offshore Banking Supervision Group

The IMF - the International Monetary Fund

The UNODC - the United Nations Office on Drugs and Crime

The EAG - the Eurasian Group on Combating Money Laundering and the Financing of Terrorism

There are around 50 recommendations that need to be followed according to the FATF, which consist of a set of rules and actions that need to be done in a country to create and establish an effective and productive system to fight ML and terrorism. That is probably a reason why in 2013, Kazakhstan applied to the FATF to be a member of this institution²⁷.

3.8.2. The Egmont Finance Intelligence Unit Group (FIU)

The FIU, which was established in 1995 in Brussels, is an institution which is served to overcome money laundering and terrorism globally²⁸. The main objective of this organization is to detect and combat ML and terrorism, which has the Statement of Purpose as the main document. The membership in this organization allows the countries to exchange and convey the information and data related to money laundering and terrorism; therefore, the Republic of Kazakhstan confirmed its participation and was admitted as a member to the Egmont FIU in

2011 with the support of the Committee on Financial Monitoring of Finance²⁹. This shows that Kazakhstan is highly interested in combating illegal funds, and it takes measurements to make its banking system and financial sector a more effective and safe place for society and its residents.

3.8.3. The Wolfsberg Group

The Wolsberg Group was founded in 2000 in Switzerland to create AML principles for the Private Banking Sector that were established in 2000 and renewed and edited in 2012²⁹. The main objective of this association is to counter Terrorism and ML through the basic principle called Know Your Customer. Most Kazakhstan banks are legally obliged to make their clients sign this document, preventing the possibility of creating anonymous accounts. This document, which is signed by the banks, obligates customers to show identification and make changes to personal details if they are changed in the local community.

3.8.4. The United Nations

The UNODC stimulates its members, which the Republic of Kazakhstan is a part of, to enhance regulations to counter ML and terrorism². Owing to ongoing monitoring and analysis, its main responsibility is to diminish ignorance of ML consequences in many countries.

4. Data Analysis

In this part of the study, the techniques and algorithms are going to be shown, where the existing methods are going to be described in implementing current Anti-Money Laundering Regulations. In this chapter, the main objectives are to analyze the AML Risk Assessment Data and measuring the risks that bank clients might carry

To begin with, it is vital to get an idea of algorithms and processes that exist in current Risk Assessment Stages, which are shown and divided into sub-topics below.

4.1. Risk Assessment of AML

Risk Assessment is one of the most important requirements and recommendations that financial institutions need to follow since it is FATF Recommendation 1²⁴. A proper Risk Assessment allows AML Institutions to allocate their resources accordingly; thus, fighting and taking measures to resolve the possible threats. To begin with, it seems reasonable to describe the term of risks in ML. According to the definition from ISO, the concept of risk is defined as the possible damage from the situations that might happen¹². This means that AML Regulations and combating Terrorism Funding might also face some risks that are difficult to predict; therefore, in this part of the study the main risk factors, which are customers, geographical locations, products and services, transactions, and delivery channels, are going to

be examined. That is the reason why such a method should be well-approached and done by this organization. Among the methods that collect just enough data to divide risk measurements into the right categories is called The Wolfsbberg approach. As we can see in table 1 provided below, the risks that might endanger AML are divided into this subcategories⁸: Customer (describing a client’s background and past), Country (the residency of a country), Product s and Services that are provided (Type of work, service or business) and Industry (Activities related report).



Figure 3. The Wolfsbberg risk approach

4.1.1. Risk Factor One: Geographical Location

Country or geographical risk may derive from the location and the origin of the client's activities, its location, and the location of its organizational units, that is probably the reason

why it is considered as one of the most influencing risk factors³⁰. It allows AML to classify the most vulnerable and exposed areas for ML or terrorist finding.

Factors that reveal the possible country and geographical risks are the following¹²:

- The locations which are under sanctions from FATF, IMF, or World Bank;
- Countries that do not follow recommendations from the Global AML Regulation Institutions;

The FATF as a result of this assessment creates the white and blacklists of countries under the powers provided for by law; as a consequence; the measurements are taken to resolve and allocate resources.

4.1.2. Risk Factor Two: Customer or Client Risk

Regarding client risk assessment, it sometimes gets difficult to determine whether a client has an increased risk of money laundering and terrorist financing or not³⁰. The Factors that are considered in this assessment are the following:

- Clients who make transactions under unusual circumstance (suspicious geographical distance between the organization and the buyer's location), frequent transfers of accounts to different institutions;
- Clients' accounts which have hidden and suspicious owners;
- Gambling, casinos, money exchange organizations owners, who have frequent cash flow;
- Politically Exposed Clients (PEP).

4.1.3. Risk Factor Three: Products or Services Related Risks

The risk associated with the products/services is related to the types of products and/or services offered by the financial institution. The institution understands that higher risks are taken with implementing, for example, a new product or service such as international transfers between banks and transfers that require anonymity.

The risks related to Services, Products, and Transactions must be also taken into consideration while assessing the risks, so the products and services that are offered to customers must be analyzed accordingly. The factors that might influence the potentially high risks are the following³⁰:

- International Private Banking Activity;
- Services involving banknotes and precious metal trading and delivery.
- Services involving online banking and trading;
- Products or Valuable Real Estate;
- Gaming activities (casinos and internet gambling).

4.2. The Risk-Based Approach (RBA)

It is the first among the importance for countries to be able to combat, examine, investigate and understand the financing system that exists in the world. That is the reason why taking counter measurements against terrorism and/or ML is very vital, so the RBA system is used in these situations.

Appointing an organization that will take actions to assess and monitor suspicious actions and risks associated with this, while using state resources to ensure analysis and protection of the population from such actions. Solutions to prevent or mitigate money laundering and terrorist financing are commensurate with the identified risks. This approach should be used to use the methods of resource allocation against the financing of terrorism (AML / CFT) and the implementation of risk-based measures in the FATF Recommendations²¹. If countries identify higher risks, they should ensure that their AML / CFT regime adequately addresses those risks. If countries identify lower risks, they can decide on simplified measures for some of the FATF Recommendations under certain conditions.

Countries should require financial institutions and professions, non-financial businesses, and professions (DNFBPs) to identify, assess and take effective measures to reduce money laundering and terrorist financing risks.

The Financial Services Regulatory Authority ADGM (FSRA) is a risk-based regulatory body. This means that the FSRA's approach focuses on those areas that are at greatest risk to its regulatory objectives.

The Risk-Based Approach (RBA) is an effective way to combat money laundering and terrorist financing¹⁶. By applying this approach, competent authorities, financial institutions, and DNFBPs that prevent money laundering and terrorist financing prevention or mitigation are commensurate with identifying risks and enable them to use decisions on how to allocate their resources in efficient ways.

When implementing the RBA, financial institutions and DNFBPs should have mechanisms in place to monitor, manage and mitigate money laundering and terrorist financing risks. The general principle of the RAB is that where there are higher risks, financial institutions and DNFBPs should consider and take enhanced measures to manage and mitigate these risks; and that, accordingly, where the risks are lower, simplified measures can be simplified. Simplified measures are not allowed for suspected money laundering or terrorist financing.

Appointment of a body that will take actions to assess and monitor suspicious actions and risks associated with this, while using the resources of the state to ensure the analysis and protection of the population from such actions. These decisions and actions fully justify themselves, as they have a significant effect on reducing the number of incidents of money laundering and terrorist financing. One of the most important methods to use in this area is the correct allocation of financial and human resources in the fight against money laundering. This point is based on an assessment of the risk of detecting cases in countries, and if the assessment is low, countries can use simplified rules for their clients. For example, it is probably obvious that some countries are less prone to terrorist attacks or post-drug money laundering, for this reason, which is a working method for building the right structure. Countries need to be able to demand full compliance from financial institutions and money-related businesses, for this reason, the Financial Services Regulatory Authority (FSRA) is an important part of reducing and preventing such illegal activities, focusing on countries that are

potentially dangerous and prone to money laundering and terrorism²⁴. This allows you to make the right decisions about how to allocate the organization's resources and implement the right controls in more risky branches of the world. For this reason, where risks are less likely, systems can use simplified methods for regulating financial transactions.

The following recommendation is considered in FSRA:

Identify (determine the risk factor) → Assess (Assess the level of risk) → Understand (Understand the impact of the risk) → Mitigation (Mitigation plan)

4.3. Legislation Rules of Local Banks

Kazakhstani banking system takes into consideration the Global Standards that are described above, that is the reason many banks are obliged to validate the AML legislation compliance.

4.3.1. JSC Halyk Bank

According to the official website of JSC Halyk Bank, the bank has the supervision and responsibilities to make a comply control of the Bank and its employees with the Legislation in RK (Republic of Kazakhstan) of high professional standards.

JSC "Halyk Bank of Kazakhstan" is taking a set of measures for making it possible to apply an internal control system to combat the legalization of proceeds from crime and the financing of terrorism. The methods are accompanied by special training for employees using Wolsberg Group Questionnaire and signed the US Patriot Act where the measurements against

ML are taking place. The bank is also registered in the US Foreign Account Tax Compliance Act, and as a result of registration, the bank has a Globe Registration GIIN: FQYKVF.00000.LE.398³¹.

4.3.2. First Heartland Jysan Bank

According to the official website of Jysan Bank, on January 17, 1992, Tsesnabank JSC was founded, after it was renamed First Heartland Jysan Bank³². The main policy of this bank is to strictly follow the results which are presented in the law of Kazakhstan. It is stated that it is not allowed to conduct transactions, suspend debit transactions on the Account in the cases and in the manner prescribed by the legislation of the Republic of Kazakhstan in the field of combating the legalization of proceeds from crime and the financing of terrorism³².

As we can see, all the local banks have a strict set of rules regarding this issue, where the departments of monitoring illegal transactions are created and well-funded. They are in close relationships with the USA banking system, which makes them directly follow the Global Standards related to Anti-Money Laundering Regulations.

4.4. Models and Methods Used in the Study

This paper examines The Money Laundering Risk among Kazakhstan respondents where the data about the approximate age group, Gender, Occupation, Purpose of Using a Bank Account, Source of Income, and Transaction Method are taken into consideration and gathered from about 500 respondents. The Variables that are taken into account in the study are introduced in Figure 4.

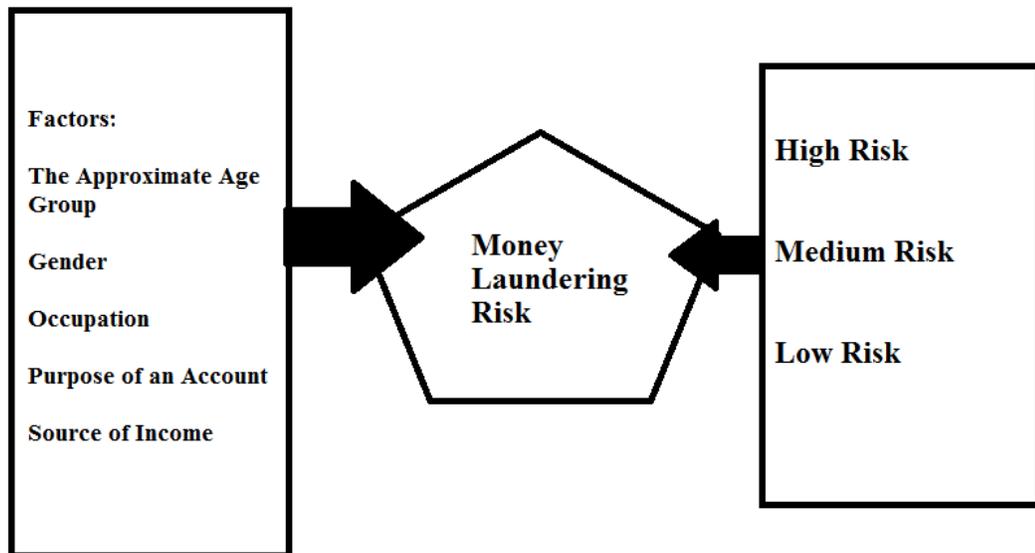


Figure 4. The Variables for Measuring ML Risks in the Study

One of the prime steps for measuring the risks related to ML is gathering data about an individual to detect suspicious activity. The analysis is usually conducted using Machine

Learning Programs that calculate the numbers automatically; however, for this research 500 respondents were surveyed to show the ways and methods of detecting suspicious cases of ML in local banks.

One of the most available methods that are used in Data Analysis is linear regression, which allows the study to predict and forecast the possible ML activity. To design the linear regression model Microsoft Excel was used. The Variables that are taken while conducting this study were the Approximate Age Group, Gender, Occupation, Purpose of Using a Bank Account, Source of Income, Nationality, and Transaction Method. The main formula for conduction linear regression data analysis is: $Y = B_0X_0 + B_1X_1 + \dots + B_rX_r + t$, where “X” is Independent Variable, “B” dependent Variable, “t” is an error that might occur during calculation.

5. Presentation of the Main Results and Tests

The data gathered from 500 respondents were calculated in terms of percentage and was divided into several categories as we may see in Table 1, Table 2, Table 3, Table 4, and Table 5.

Independent Regression Variables and their Symbol		Percent (%)
Abbreviations		
The Approximate Age of Respondents	AG	
0-18		0
18-30		68
30-40		26
40-60		6
60-70		0

Table 1. The Percentage of Age Group of Respondents

OCCUPATION	OC	%
Part-time worker		10
Full-time worker		35
Junior Manager		22
Senior Manager		13
Self-employed		20

Table 2. The Percentage of Work Positions Occupied

BANKING ACCOUNT	ACC	%
Business account		5
International payment account		15
Savings account		10
Current Account		70

Table 3. The Percentage of Banking Account Types

The Usage	PUSAGE	%
Salary/Wage Using		60
Savings or Deposit		15
Business		25
Credit Card		10
Money Transactions		0

Table 4. The Percentage of the Usage of Accounts in Banks

Risk Assessment of ML	RAML	%
I OW		60
MEDIUM		30
I IGH		20
VERY HIGH		0

Table 5. The Percentage of Risk Assessment of ML

5.1. The Right Selection of Variables

Selecting the variables method, using all possible options you can build an entire series of regression models for the same set of variables, which allows specifying single variables and including them in the test. According to the source of the official website of IBM (2021), the following methods are the most common for the Right Selection of Variables³³.

Input data (regression). The variable selection procedure, when all variables in a block are entered in one step.

Step by step. At any step, a new autonomous variable with the shortest possible F is introduced into the equation, provided that this possibility is quite small. Variables that have already been entered into the regression equation are excluded from it if their probability F is sufficiently high. The method hangs when there are no variables left that satisfy the join or exception aspect.

Send it. A variable selection procedure in which all block variables are excluded in one step.

Elimination. A variable selection procedure in which all variables are entered into an equation and then excluded from it in turn. The first candidate for deletion is the variable that has the shortest partial correlation with the dependent variable. If it satisfies the exception aspect, it is removed. A future candidate for exclusion is the variable that has the shortest partial correlation between the other variables and the dependent variable. The procedure hangs when there are no variables left that satisfy the exceptional aspect.

Connection selection. A step-by-step procedure for selecting variables, in which variables are connected to the model in turn. The first candidate for input is a variable with a large correlation modulus with a dependent variable. If this variable satisfies the input aspect, it is cut out in the model. If the 1st variable is integrated into the model, then the next candidate for a relationship between other variables outside the model is the variable with the highest partial correlation. The procedure hangs when there are no variables left that satisfy the input aspect.

The values in the output totals are based on a single model fit. As a result, the value of the values is usually incorrect when using the step method (Step Selection, Connection, or Exception).

Regardless of the selection method chosen, any variable must satisfy the tolerance aspect for such a variable to be introduced into the equation. By default, the tolerance value is the same as 0.00001. In addition, a variable will not be entered into the model if this entails reducing the tolerance of a variable already entered into the equation to a value less than the tolerance aspect value.

All selected stand-alone variables will be added to 1 regression model. However, you can specify all possible ways to enter variables for different sets of variables. For example, you can connect one block of variables to a regression model using the step selection method, and another block using the connection method. To add a block of variables to the regression model 2.

As a result of this theoretical analysis, the linear regression method was chosen where the main variables that might affect the Risk Assessment Management are those, which are usually given while creating an ordinary bank account: these are age, occupation, and residence.

5.2. Constructing Linear Regression of RA

The risks management is assessed in the following numerical order, where Low is 1, Medium is 2, High is 3, Very High is 4.

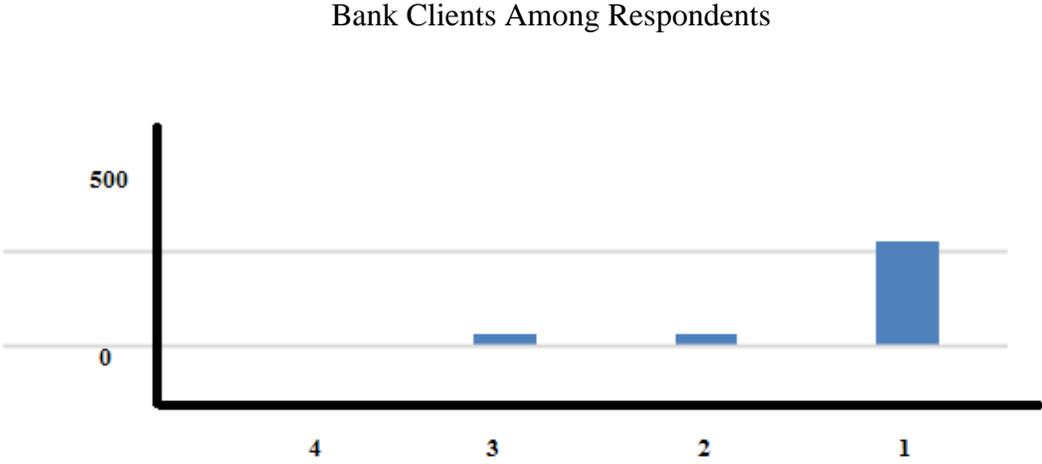


Figure 5. The Results of Risk Management

For Constructing Linear Regression, 500 respondents' data was taken where the main input variables are Age, Residence, and Occupation. For each of the respondents, the amount

of risk was assessed; as a result, the following equation was built using the independent variables. $RiskMeasured = 0.2*Age+0.5*Residency+ 0.3*Occupation$;

This equation is explained as 20% of the Age units, 50% of The Residency and 30% of Job Positions have an influence on the Risk Measurements in this research according to respondents' corresponding data and calculations.

According to the results eval, where the respondents were divided into the categories of Low Risk, Medium Risk, and High Risk, the results shortly reveal Kazakhstani Banking system analysis of Risk Assessment.

Coefficient of RA	Value
Number of Respondents Taken into Account, N	500
Corr. Coefficient, R	0.4256
Determ. Coefficient, R ²	0.2412
Deviation, e	0.001
Coefficient of Adjust. R ²	0.1423

Table 6. The Values of Regression Analysis Statistics

	Possible Error Value	Quadratic Value	Fisher Value
Regression	0.00001568	0.00001568	0.07897
Coefficient, a	0.00002122	0.00002458	
Results	0.00003690		

Table 7. Coefficient Values

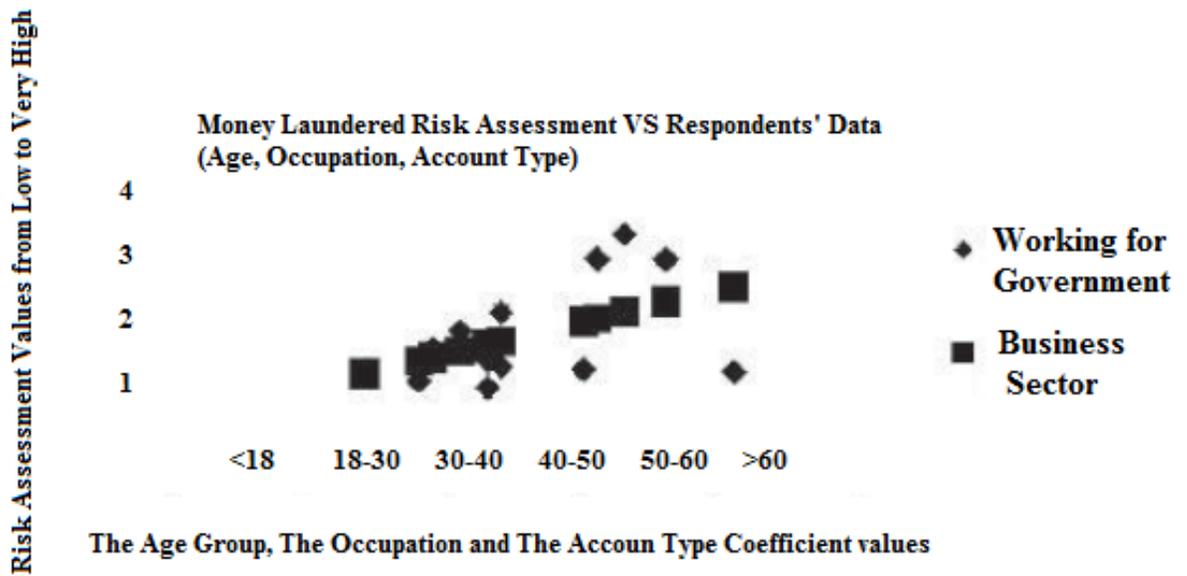


Figure 6. Regression Analysis of ML Risks/Respondents' Data

After the results are obtained, the regression variables of the money laundering risk need to be analyzed and the coefficients were calculated using Microsoft Excel calculation formulas and graph representations.

Regarding the Approximate Age of the Respondents, it is seen that the possible risk of ML indicator vary from low, medium, high, and very high, where the results of the regression analysis in Figure 5 represent a direct proportion between the age and the risk of committing money laundering crime. This is probably because the older a person gets, the more experienced and devious he or she gets; resulting in a possible risk of crime commitment.

Turning to the Occupation Status of the respondents, we can see that in most cases business-related people have a higher risk indicator of committing ML-related transactions compared with the respondents who are into governmental work. This is probably because offenders tend to invest their money into different businesses to "clean" their money.

The reasons for account usage are also an important factor that has to be taken into account. The likelihood of committing ML will increase if a respondent is related to entrepreneurship or investing activities; meanwhile, people who use their accounts only for receiving the salaries have significantly fewer amounts of ML commitment (see table 6).

Money Laundering Risk Indicator increases significantly if the number of transactions per month gets higher, which also supports the hypothesis about the direct dependence of the frequency of transactions to ML commitment.

6. Conclusion and Further Recommendations

Money Laundering and financing of terrorism have an alarming impact on the economy, countries' social and political stability, meaning that lack of measurements taken may directly influence on spreading of corruption, drug trafficking, and a level of the crime itself. Hence, many global organizations have been established to control, combat, and prevent money laundering cases and trends, making it harder for offenders to organize and manage such crimes.

Although the data gained does not allow to conduct more accurate predictions and to assess the risks of ML more accurately, this study aimed to show that the information that is being processed in the banks is an important tool for RA and detecting suspicious money sources. For this research, 500 respondents shared information about the age, type of accounts, and the purposes the accounts are used for, making it possible for the study to make assumptions and predictions as a result.

The results received truly reveal the linear regression figure where the amount of experience (the age), type of work occupied, and purposes of bank accounts usage show the direct impact on the geographical and client risk assessment indicators. As it was shown in the study, the older a person gets, the higher possibility of getting the experience in ML there is, making it likely to assume that ML offenders tend to be around 30-50 years old.

The paper has also analyzed and discussed the current situation that Kazakhstan faces in terms of Money Laundering Regulations, where positive trends have been shown in recent

decades. It has to be noted that the Republic of Kazakhstan follows international standards in the AML as it is a member of many Working Groups on Anti-Money Laundering. By being a member of such groups, Kazakhstan shows its high concern of ML issues and Terrorism, stating clear anti-money laundering position. Based on the results of 2012 of Egmont Group, Kazakhstan received a high rating in AML measures and Global Fight with Terrorism. The attitude of Kazakhstan towards this issue could also be noticed through legislation laws that were announced, showing no tolerance to offenders. Thus, according to Basel AML Index in 2020, Kazakhstan improved its position in seven out of nine indicators and rose to 66th place in the ranking of the best countries fighting ML and terrorism financing last year.

There is no doubt that sophisticated technology used has a significant impact on the improved methods of the ML offenders that is the reason why it would seem reasonable for countries to act together against ML. This cooperation among developed and developing countries around the World might prevent the possible economic deterioration and acts of terrorism, which is itself a significant factor to consider. Being able to work together and follow the recommendations of Global AML Groups like FATF will have a positive impact on all countries due to elimination and a decrease of such factors.

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