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RESEARCH ARTICLE

The Effects of Preventive Measures On Money-Laundering Risk in Mongolia's Banking Sector

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ABSTRACT

The research aims to evaluate the effects of preventive measures on money laundering risk in Mongolia's banking industry. This study examines key variables within Mongolia's anti-money laundering (AML) and combating the financing of terrorism (CFT) regulatory framework, including customer due diligence, new technologies, internal audits, high-risk countries, suspicious transaction reporting, wire transactions, correspondent banking, record-keeping, and designated non-financial professions, as outlined by the Financial Action Task Force (FATF) standards. The data for this study was collected from individuals working in the compliance departments of banks in Mongolia. The findings suggest that customer due diligence, internal controls, audit/compliance and training, and transaction reporting are likely to mitigate money laundering risk in Mongolia's banking sector. However, record keeping, correspondent banking, wire transfers, new technology, high-risk countries, and designated non-financial sectors were found to have no statistically significant impact on reducing money laundering risk. The findings of this study may assist the banks of Mongolia in streamlining the implementation of FATF rules and regulations related to AML/CFT, facilitating more efficient and effective compliance measures. Furthermore, this study provides policy recommendations to support the Bank of Mongolia (BoM) in achieving a higher rating in future risk assessments by addressing bank-specific issues related to AML/CFT compliance and preparing for upcoming risk evaluation measures.

INTRODUCTION

Money laundering is the process of disguising illegally obtained funds as legitimate to conceal their true origin, posing a significant threat to the stability and integrity of the global financial system. This process integrates illicit funds into the financial system, making them appear as lawful economic activities and allowing criminal organizations to freely utilize these assets (Levi et al., 2007). Money laundering, therefore, stands at the core of Anti-Money Laundering (AML) and Countering the Financing of Terrorism (CFT) efforts, introducing substantial risks to financial institutions and economies worldwide.

The international community has introduced various regulatory measures to combat financial crimes. Among these, the Financial Action Task Force (FATF) plays a pivotal role in setting global standards for AML/CFT, evaluating legal and institutional frameworks of member countries, and imposing sanctions on jurisdictions with deficiencies. Mongolia, as a member of FATF and the Asia/Pacific Group on Money Laundering (APG), has sought to align itself with these international standards. Since enacting its first Anti-Money Laundering and Counter-Terrorism Financing Law in 2006, Mongolia has made several amendments to strengthen its regulatory framework.

Despite these efforts, Mongolia was placed on FATF's "grey list" twice (in 2011 and 2019), leading

to decreased trust in its financial system and a decline in foreign investments. These challenges underscore the importance of enhancing the effectiveness and technical compliance of Mongolia's AML framework, particularly within its banking sector, which accounts for over 90% of the nation's financial system. As a result, the banking sector emerges as a critical focus for examining money laundering risks and preventive measures.

This study aims to explore the money laundering risks in Mongolia and the preventive measures necessary to mitigate them. It begins by reviewing the concept of money laundering, its associated risks, and global regulatory trends, followed by an analysis of vulnerabilities within Mongolia's financial system. Based on FATF recommendations, the study will propose effective preventive measures. Specifically, it seeks to identify key elements of preventive actions influencing money laundering risks and empirically assess their impact. This approach provides actionable insights to enhance Mongolia's financial stability and international credibility.

LITERATURE REVIEW

Money Laundering Risk

Money laundering is the process of legitimizing assets acquired through illegal means, allowing them to be used as if lawfully obtained. It involves concealing the illicit origins of assets by knowingly transferring or transforming them, thereby obscuring the true nature, source, location, ownership, and control of these assets. This practice also includes efforts to disguise the property's actual characteristics and legal rights associated with ownership, fully aware that the property derives from unlawful activities (Levi et al., 2007).

- Traditional money laundering entails transferring illegally obtained funds to conceal their origins and make them appear legal
- Terrorism financing entails transferring mostly legal funds for illegal purposes

Financial institutions face the risk that their services and products could be exploited for money laundering purposes. As a result, these institutions have a duty to detect and evaluate risks posed by criminal activity. According to McDowell and Novis (2001), money laundering risk refers to the probability that financial institutions, businesses, or individuals may be misused to support illegal activities such as drug trafficking, terrorism financing, or other criminal operations.

Ross and Hannan (2007) categorized money laundering risks into three main types, emphasizing the importance of a risk-based approach to address them effectively. First, probabilistic risk refers to the likelihood of money laundering occurring, though it is challenging to detect every instance. A risk-based approach helps manage this by organizing risks into categories. For instance, as money laundering is often associated with corruption, closely monitoring politically exposed persons (PEPs) can help mitigate this risk. Second, consequence risk pertains to the severity or impact of money laundering activities. Large-scale laundering transactions pose significant risks and therefore require heightened scrutiny. Failure to detect or report such activities can also severely damage a financial institution's reputation. Third, regulatory risk arises from products, services, or branches that lack adequate oversight, making them more susceptible to money laundering. This highlights the necessity of robust monitoring measures across all financial offerings.

Ross and Hannan (2007) identified three fundamental types of money laundering risks (MLR) and emphasized the importance of using a risk-based approach to effectively combat money laundering.

(1) Placement: The first step involves introducing illegally obtained money into the financial system, typically through banks or other financial entities.
(2) Layering: In this phase, multiple complex financial transactions are carried out to hide the source of the funds, which may include moving the money across different accounts, and countries, or converting it into other assets.

(3) Integration: The final phase sees the laundered funds reintroduced into the legitimate economy, often disguised through investments, property acquisitions, or business activities, making the money appear legally earned.

Money laundering poses significant risks to financial institutions and the broader economy. According to the IMF, money laundering risk refers to the likelihood that financial institutions, businesses, or individuals could be exploited to support illegal activities such as drug trafficking or terrorism financing. When such activities go undetected, financial institutions face reputational damage and a loss of consumer trust, allowing underlying criminal activities to persist.

For example, in the United States in 2017, drug trafficking accounted for two-thirds of the offenses underlying money laundering cases, while theft, property destruction, and fraud made up nearly one-third. According to the International Narcotics Control Strategy Report, research has identified several major predicate offenses for money laundering. These include tax evasion, fraud, corruption, trafficking in counterfeit goods, contraband smuggling, narcotics trafficking, and human smuggling.

Additionally, the report highlighted vulnerabilities such as the unregulated Pakistan–Afghanistan border, which facilitates the illegal movement of goods and money. In fiscal year 2017, approximately $19.3 billion was remitted to Pakistan through formal banking channels. However, the widespread use of alternative remittance systems persists due to poor supervision, a lack of formal banking services in remote areas, and insufficient penalties for illegally operating businesses (Jaffery and Mughal, 2020). These examples demonstrate how money laundering undermines the trust and integrity of financial systems while threatening the stability of national and global economies.

Money Laundering Risk and Preventive Measures in Mongolia

Mongolia's Banking Sector

Mongolia established a two-tier banking system in 1991 with the approval of the Banking Law. Since then, 30 commercial banks have been created, but 18 of them have ceased operations due to financial difficulties, mergers with other banks, or liquidation, resulting in the revocation of their special licenses by the Bank of Mongolia. In 2019, Mongolia's Financial Stability Report indicated that 13 commercial banks operated nationwide, covering all provinces, cities, districts, and settlements. These banks provided services through 1,413 branches and employed a workforce of 16,304 staff members to cater to businesses, organizations, and individuals.

At the end of 2023, the Bank of Mongolia reported a decrease in the number of operational commercial banks to 12, following the bankruptcy of one bank due to financial difficulties. Mongolia's banking industry consists of 12 commercial banks, which are categorized into five large banks and seven medium-sized and small banks. The banking sector is the dominant force in the country's financial system, accounting for 90% of its financial activities. Within this sector, the five systemically important banks collectively manage approximately 85% of the sector's total assets.

Money Laundering Risk in Mongolia

The Financial Action Task Force (FATF) is an international organization founded at the G7 Summit in 1989 to combat money laundering and terrorist financing worldwide. It plays a critical role in creating and promoting standards for Anti-Money Laundering (AML) and Counter-Terrorist Financing (CFT) and evaluates countries to ensure they meet these standards. The FATF regularly assesses each country's legal and regulatory frameworks, placing those that fail to comply on the "grey list" or "blacklist," which can lead to restrictions on international financial transactions.

In 2003, Mongolia joined the International Convention for the Suppression of the Financing of Terrorism, and in 2004, the country was incorporated into the Financial Action Task Force (FATF) and the Asia-Pacific Group on Money Laundering (APG), both of which define international policies

to combat and prevent money laundering and terrorist financing activities. As a result, Mongolia became obligated to comply with international standards for combating money laundering and terrorist financing.

Mongolia first adopted the “Law on Combating Money Laundering and the Financing of Terrorism” in July 2006, which was later amended and re-implemented on May 31, 2013. According to Article 16 of the law, the “Financial Intelligence Unit (FIU)” was established under the Bank of Mongolia. It is responsible for enforcing laws against money laundering and the financing of terrorism.

In June 2011, Mongolia was included in FATF's "Grey List" due to the insufficient assessment of the relevant legal and regulatory framework. It has been identified as a country with strategic deficiencies and included in the "Grey List" again in October 2019. The main reason is that all but two of the 11 enforcement indicators under the FATF regulations received the lowest rating for non-compliance in the AML/CFT area, which led to the ICRG's review. Mongolia's Mutual Evaluation Report (MER) was adopted in July 2017, and the latest follow-up report (FUR) accounts for developments up to February 1, 2023.

Mongolia’s overall ML/TF risk level, based on the AML Risk index developed and operated by the Basel Institute on Governance, declined from 5.86 in 2022 to 5 in 2023, marking a significant advancement of 47 places and positioning the country at 83rd in the ranking out of 152 jurisdictions. The banking sector's money laundering vulnerabilities are ranked by importance and priority, highlighting key areas for improvement. These include enhancing the knowledge and skills of participants in MUTST activities, improving the effectiveness of monitoring and reporting suspicious transactions and operations, increasing the efficiency of banks' compliance activities, and strengthening the customer recognition system.

The Preventive Measure in Mongolia

The Financial Action Task Force (FATF) has established a set of recommendations to assess a country's Anti-Money Laundering (AML) and Countering the Financing of Terrorism (CFT) systems. FATF’s 2012 guidelines include 40 recommendations that serve as a benchmark for evaluating AML/CFT frameworks globally. The FATF’s mutual evaluation process includes examining both technical compliance—where a country’s laws and regulations are reviewed according to FATF standards—and the effectiveness of the AML/CFT measures in place (Basel Institute on Governance, 2023).

On July 5, 2022, the Government of Mongolia outlined a strategy with eight strategic objectives aligned with the thematic goals identified by the FATF. This strategy aims to strengthen Mongolia’s AML/CFT/CPF framework by addressing deficiencies noted in the Mutual Evaluation Report and Follow-Up Reports. It focuses on the effective implementation of the FATF’s 40 Recommendations and 11 Immediate Outcomes to enhance technical compliance and effectiveness.

To achieve these goals, the AML/CFT National Council and Cooperation Council have held six meetings to discuss and address key issues for bolstering the AML/CFT regime. For instance, in response to statements by the FATF and APG regarding ML/TF/PF risks, the National Council issued recommendations on March 9, 2022, to all reporting entities and member organizations, emphasizing the need to assess and mitigate identified risks while maintaining vigilance.

Built on the FATF recommendations issued and integrated into Mongolia’s regulatory framework by the Bank of Mongolia on February 16, 2012, and updated as of November 2023, these preventive measures along with recommendations and regulations outline the essential anti-money laundering steps required from financial institutions. The detailed preventive measures are explained as follows (FATF Recommendations, 2023)

1. CDD: The basic requirement for banks is to identify and verify the customer/entity before establishing a relationship and/or conducting a transaction. It further extends to the

identification of beneficial owner/natural persons and PEPs. This regulation also provides guidelines to mitigate the ML risk posed by high-risk customers.
2. Correspondent banking: This regulation entails preventive measures for banks while providing or availing correspondent banking services (inter-bank transactions).
3. Wire/fund transfer: This regulation includes responsibilities for the parties involved in wire transfer, i.e. originator, beneficiary, and intermediary.
4. Reporting of transactions [suspicious transaction reports (STRs)/currency transaction reports (CTRs)]: It requires reporting of transactions to the Financial Monitoring Unit (FMU) that appear suspicious to the bank (STR) and cash-based transactions exceeding the threshold of PKR 2.0mln (CTR).
5. Record keeping: Banks are required to maintain the records of all transactions for at least 10 years (or permanent record where necessary) and make it timely available for Law Enforcement Agencies.
6. Internal controls, audit/compliance, and training: This regulation binds the banks to formulate an AML policy. It requires an independent audit and compliance function within the bank. It further emphasizes training and capacity building of bank employees to develop an understanding of MLR and its prevention
7. High-risk countries: Enhance due diligence for the customer/transactions that belong to high-risk countries as per FATF, Appropriate countermeasures against such countries
8. New technology: Identification and assessment of ML risk posed by new products, business practices, and delivery mechanisms, Identify risks of new technology
9. Money Transfer Services: All money transfer service providers are licensed and have effective monitoring and compliance system
10. Politically Exposed Person: Proper system for identification of PEPs Senior management should approve the establishment of relationship with PEPs Rational measures for identifying the sources of funds for PEPs Enhance due diligence monitoring Covered under customer due diligence.
11. Tipping off and confidentiality: Protection of bank employees and directors by law on disclosure of information to FIU Prohibition for bank employees and directors by law on tipping off Covered under Reporting of Suspicious Transaction.
12. Third Party: When identifying and verifying third parties, and determining the country of residence, consider the risk level of the respective country Covered under customer due diligence.
13. DNFBPs: customer due diligence: Countries are strongly encouraged to extend the reporting requirement to the rest of the professional activities of accountants, including auditing. Lawyers, notaries, other independent legal professionals, Real estate agents, Dealers in precious metals and dealers in precious stones, trust company service and accountants should be required to report suspicious transactions.

Previous Studies

Antwi (2023) conducted a comprehensive investigation into the relationship between anti-money laundering (AML) policies and financial sector development across Africa. The study revealed that AML measures can support financial growth up to certain thresholds by fostering transparency and trust within financial institutions. However, when AML requirements become excessively stringent, the associated costs and compliance burdens may outweigh the benefits, ultimately stifling financial sector growth. This finding underscores the importance of balancing regulatory stringency with economic growth objectives.

Salehi and Molla Imeny (2019) explored the effectiveness of AML measures within Iranian banks, concluding that banks with larger, more experienced staff are better equipped to enforce robust AML controls. In contrast, banks with extensive branch networks often encounter significant challenges in maintaining consistent compliance across all locations. Their analysis suggests that institutional capacity, particularly in terms of human resources, plays a crucial role in the successful implementation of AML frameworks.

Kurniawan (2023) examined the role of regulatory technology (regtech) and AML officers in enhancing the effectiveness of AML measures in banks. While electronic know-your-customer (KYC) methods were found to have limited standalone impact on preventing money laundering, the study identified transaction monitoring systems, efficient cost and time management practices, and the competence of banking staff as key factors that positively influence AML effectiveness. These findings highlight the need for a holistic approach that integrates technology with skilled personnel to address money laundering risks effectively.

Ahmed (2017) focused on the AML practices in Bangladesh, emphasizing that their effectiveness is closely linked to the availability of resources and infrastructure. The study highlighted challenges posed by alternative remittance systems, which operate outside formal banking channels, as well as the broader influence of globalization and state resources on AML outcomes. This underscores the need for tailored approaches that consider local contexts and resource limitations.

Nobanee and Ellili (2018) reviewed the AML obligations faced by Malaysian bankers, noting that extensive reporting requirements can place significant pressure on banking professionals. Their research documented cases where non-compliance with reporting duties led to severe repercussions, including job termination. In a separate study (2017), they investigated AML disclosure practices among UAE banks, finding minimal levels of disclosure in both Islamic and conventional banking sectors. These findings suggest that despite regulatory requirements, gaps in transparency persist within certain banking systems.

Jayasekara (2018) delved into the challenges of implementing effective AML and counter-terrorism financing (CFT) risk-based supervision using the FATF's 2013 methodology. The study found that a country's income level plays a significant role in determining the success of AML/CFT supervisory frameworks. Higher-income countries tend to have more resources and institutional capacity to implement risk-based approaches effectively, whereas low-income countries often face constraints that limit their effectiveness.

Cociug and Andruşceac (2020) analyzed how risks in vulnerable sectors within EU Member States evolve in response to mitigation measures. Their findings indicate that dynamic and adaptive strategies are essential to addressing emerging threats in these sectors. Similarly, Vaithilingam and Nair (2007) demonstrated that effective legal frameworks combined with strong corporate governance can significantly reduce the prevalence of money laundering, while high levels of innovation capacity are negatively correlated with money laundering activities.

Issah et al. (2022) investigated the impact of AML regulations on banking sector stability in Africa. They concluded that AML measures enhance stability regardless of their enforcement effectiveness, suggesting that even the mere presence of such regulations contributes to a more secure banking environment. Lastly, Ofoeda et al. (2022) examined the global implications of AML regulations on financial development and economic growth. Their study found that while AML measures can foster stability and integrity, overly stringent frameworks in developed countries may weaken the traditional finance-growth relationship when thresholds are exceeded.

These studies collectively emphasize the complex interplay between regulatory measures, institutional capacity, and economic outcomes. For Mongolia, the insights underscore the need for calibrated AML strategies that balance regulatory enforcement with fostering financial sector growth. Tailoring policies to address local institutional capacities, leveraging technology, and building transparent frameworks will be crucial to achieving sustainable economic stability.

METHODOLOGY

Conceptual Framework

In summary, although Mongolia has made notable strides in strengthening its AML/CFT frameworks, persistent challenges such as high-profile corruption cases, institutional weaknesses, economic

dependencies, and emerging threats continue to pose significant money laundering risks. To address these issues and improve the next assessment of Mongolia by the FATF, our research will support policy recommendations by addressing bank-specific issues related to AML/CFT compliance and preparing for the 2025 AML/CFT risk evaluation measures.

The purpose of this study is to estimate the impact of preventive measures on money laundering risk in Mongolia. These measures are aligned with the FATF's Anti-Money Laundering (AML) and Combating the Financing of Terrorism (CFT) Regulatory Framework, which provides global guidelines for combating financial crimes. Drawing on the preventive measures, the study specifically focuses on 9 out of the 12 variables with the remaining 3 variables integrated into other categories for analysis.

Measures related to "Politically Exposed Persons" include establishing systems for identifying PEPs, requiring senior management approval to establish relationships with them, implementing rational measures to identify the sources of their funds, and conducting enhanced due diligence and monitoring. These measures are collectively analyzed under the category of customer due diligence. Similarly, measures to address tipping off and confidentiality include providing legal protection to bank employees and directors who disclose information to the "Financial Intelligence Unit" and prohibiting them by law from tipping off individuals about investigations. These actions are analyzed under the category of reporting suspicious transactions. In the case of third parties, the measures emphasize identifying and verifying third-party information while taking into account the risk level of the country where they reside, and this is also included under customer due diligence. Preventive measures for money transfer services require that all service providers be licensed and have effective monitoring and compliance systems in place, which are analyzed as part of wire transfers. Through this approach, the study provides a detailed evaluation of how these measures collectively impact money laundering risk in Mongolia.

Analytical Model

To achieve the objectives of this study, the following multiple regression model was employed to assess the impact of the independent variables on money laundering risks (MLR). The econometric representation of the model is given by equation (1):

$$MLR = \alpha + \sum_{i=1}^{9} \beta_i X_i + e$$

Where:

- MLR represents the dependent variable (money laundering risks),
- X_i ($X_1 \sim X_9$) are 9 independent variables (preventive measures related to AML/CFT),
- β_i ($\beta_1 \sim \beta_9$)are the coefficients of 9 independent variables,
- α $is\ and$ the intercept and e represents the error term respectively.

X_i includes customer due diligence (CDD), record keeping (RK), correspondent banking (CB), wire transfers (WT), reporting of transactions (ROT), new technology (NT), internal controls/compliance/training (CCT), high risk (HRC) and designated Non-Financial Professions. (DNFP). These questions can be fully expressed as follows;

$$MLR = \alpha + \beta 1CDD + \beta 2RK + \beta 3CB + \beta 4WT + \beta 5ROT + \beta 6NT + \beta 7CCT + \beta 8HRC + \beta 9DNFP + e$$

Data Collection

The data for this study was collected from individuals working in the compliance departments of banks in Mongolia. The target population was carefully chosen to include professionals directly involved in implementing and managing Anti-Money Laundering (AML) and Combating the Financing of Terrorism (CFT) measures within the banking sector. To ensure representative sampling, a stratified random sampling method was employed, taking into account both the size of the banks and the respondents' experience.

Out of 12 banks operating in Mongolia, 11 were included in the sample, as the remaining 2 banks were excluded due to bankruptcy. Based on the statistics, among the selected banks, 80% of the respondents were allocated from the top 5 largest banks. In comparison, the remaining 20% were selected from smaller banks, reflecting the relative size and influence of these institutions in the banking sector. To improve the response rate and facilitate the distribution of surveys, the Mongolian Bankers Association played a key role in delivering the questionnaires to the targeted participants. This collaboration ensured better access to respondents and streamlined the data collection process. In the end, data were collected from 115 respondents.

Measurement

The survey instrument utilized in this study was adapted from the research on money laundering risks and preventive measures conducted in Pakistan by Jaffery and Mughal (2020). The measurement was based on a 5-point Likert scale, with response options ranging from "strongly disagree" to "strongly agree." These options were coded numerically, with "strongly disagree" assigned a value of 1 and "strongly agree" assigned a value of 5.

For the analysis, the average score of each scale for the variables was calculated and combined to evaluate the overall impact of the preventive measures on money laundering risks. This approach provided a comprehensive measure of the respondents' perceptions and the effectiveness of the identified variables—the descriptive Statistics for the variables of Preventive Measures.

ANALYSIS AND RESULTS

To begin with, we examined the correlation between MLR and the variables of preventive measures. The results presented in Table 4 show that all the variables exhibit statistically significant positive correlations ($p < .01$) with money laundering risk prevention, with CDD showing the strongest correlation. These findings indicate that strengthening these preventive measures is crucial to reducing money laundering risks in the context being studied.

Table 1. Pearson Correlation of Money Laundering Risk with the Variables of Preventive Measures

	CDD	RK	CB	WT	ROT	NT	CCT	HRC	DNFP
MLR	.735**	.613**	.625**	.560**	.652**	.638**	.657**	.486**	.443**

Note: 1) the number of samples is 115 2) *, **, *** indicate the statistical significance at the p-value of 10%, 5% and 1%respectively.

Next, a regression analysis was conducted to determine the impact of these variables on MLR, as shown in Table 2. The overall model demonstrates a good fit, with an F-statistic of 18.954, indicating statistical significance at the 1% level. The regression results show that the independent variables

explain 61.9% of the variance in the dependent variable (MLR), as indicated by an R-squared value of 0.619. Additionally, there are no multicollinearity issues, with all Tolerance values above 0.1 and VIF values below 10, confirming the absence of multicollinearity among the variables. Overall, the model is robust and offers reliable insights into the relationships between the variables. The degree of influence and statistical significance of each variable are as follows; the independent variable, CDD is statistically significant at the 5% level, with a t-value of 3.576 and a positive coefficient of 0.377, indicating that it has a meaningful positive effect on the dependent variable. ROT is also statistically significant at the 5% level, with a t-value of 2.504 and a positive coefficient of 0.279, showing a significant positive relationship with the dependent variable. CCT is weakly significant at the 10% level, with a t-value of 2.249 and a positive coefficient of 0.189, suggesting a limited but notable effect on the dependent variable. Other variables, including RK, CB, WT, NT, HRC, and DNFP, are not statistically significant, as their t-values indicate no meaningful impact on the dependent variable.

Table 2. Regression Analysis on the Effect of Preventive Measures on the Money Laundering Risk

	Unstandardized Coefficients	**Standardized Coefficients**	**t-value**	**Tolerance**	**VIF**
(Constant)	0.813 (0.291)		2.797		
CDD	0.377 (0.106)	0.423	**3.576*** **	0.260	3.854
RK	0.000 (0.092)	0.001	0.005	0.361	2.771
CB	0.047 (0.097)	0.050	0.484	0.339	2.946
WT	-0.144 (0.092)	-0.165	-1.569	0.327	3.061
ROT	0.279 (0.112)	0.293	**2.504*** **	0.266	3.764
NT	0.085 (0.091)	0.097	0.935	0.331	3.021
CCT	0.189 (0.084)	0.221	**2.249** **	0.377	2.652
HRC	-0.073 (0.079)	-0.080	-0.928	0.485	2.063
DNFP	0.018 (0.058)	0.024	0.306	0.566	1.768
N=115, R Square=0.619, F =18.954***					

Note: 1) The numbers in the parenthesis are the standard error 2) *, **, *** indicate the statistical significance at the p-value of 10%, 5% and 1%respectively.

The table 3 presents the results of an analysis that includes SIZE OF BANK as an additional variable. This variable was added based on the hypothesis that larger banks (the Top 5) are less exposed to money laundering risks. To test this hypothesis, SIZE OF BANK was coded as "0 for Top 5 banks" and "1 for others."

The results reveal that the coefficient for SIZE OF BANK is negative (-0.272), indicating that smaller banks are more exposed to money laundering risks compared to larger banks. This finding is statistically significant, with a t-value of -2.526 and a p-value below 0.01, supporting the hypothesis. For the other variables, the coefficients and levels of significance remained consistent with previous analyses. CDD (Customer Due Diligence) had a positive coefficient of 0.373, a standardized coefficient of 0.418, and a t-value of 3.621, which is highly significant at the $p < 0.001$ level. Similarly, ROT (Reporting Frequency) showed a positive coefficient of 0.286, a standardized coefficient of 0.300, and a t-value of 2.629, which is significant at the $p < 0.01$ level. CCT (Complexity of Transactions) had a positive coefficient of 0.151, a standardized coefficient of 0.176, and a t-value of 1.807, indicating marginal significance at the $p < 0.1$ level. Other variables, such as RK, CB, WT, NT, HRC, and DNFP, did not show statistically significant effects. The overall model performed well, with an R-Square value of 0.641, suggesting that the model explains 64.1% of the variance in money laundering risks. The F-value was 18.57, indicating that the model is statistically significant at the $p < 0.001$ level.

Table 3 Differential Effects of the Size of Bank on Money Laundering Risk

	Unstandardized Coefficients	**Standardized Coefficients**	**t-value**
(Constant)	0.970 (0.291)		3.342
CDD	0.373 (0.103)	0.418	**3.621*** **
RK	0.015 (0.09)	0.017	0.171
CB	0.084 (0.095)	0.089	0.876
WT	-0.166 (0.09)	-0.191	-1.845
ROT	0.286 (0.109)	0.300	**2.629*** **
NT	0.069 (0.089)	0.079	0.767
CCT	0.151 (0.083)	0.176	**1.807***
HRC	-0.077 (0.077)	-0.084	-0.995
DNFP	0.018 (0.056)	0.024	0.313
Size of Bank (0=top 5 banks)	-0.272	-0.158	**-2.526****
N= 115, R Square = 0.641, F= 18.57			

Note: 1) the numbers in the parenthesis is the standard error
2) *, **, *** indicate the statistical significance at the p-value of 10%, 5% and 1%respectively

CONCLUSION AND DISCUSSION

This study examines the impact of preventive measures on money laundering risk (MLR) in Mongolia, grounded in the FATF's AML/CFT framework. By conducting a regression analysis on 9 key variables, supplemented by an additional variable representing the size of banks, the findings provide critical insights into the factors influencing MLR.

The results confirm that Customer Due Diligence (CDD), Reporting Frequency (ROT), and Complexity of Transactions (CCT) are significant determinants of money laundering risks, with CDD and ROT having strong positive effects and CCT showing a marginally significant impact. Additionally, the inclusion of the SIZE OF BANK variable reveals that smaller banks face higher money laundering risks compared to larger institutions, supporting the hypothesis that bank size plays a critical role in risk exposure. The overall model explains 64.1% of the variance in MLR, demonstrating strong predictive capability and robustness. However, variables such as Risk Assessment (RK), Compliance Budget (CB), and others did not show statistically significant impacts, indicating the need for further investigation in more specific contexts or under different methodological frameworks.

The findings of this study provide insights that both align with and diverge from previous research, offering a nuanced understanding of the relationship between preventive measures and money laundering risks.

Firstly, the study confirms the significant role of Customer Due Diligence (CDD) in mitigating money laundering risks, which aligns with the findings of Shanmugam and Thanasegaran (2008), Ajayi and Abdulkareem (2010), and Morris-Cotterill (2001). These studies emphasize the effectiveness of rigorous customer verification processes in reducing financial crime. The positive relationship between CDD and reduced money laundering risks in this study reinforces the established consensus in the literature that thorough due diligence is a critical component of Anti-Money Laundering (AML) frameworks.

However, the lack of a significant relationship between correspondent banking (CB) and new technology (NT) contrasts with research conducted by Jaffery and Mughal (2020) in Pakistan's banking sector. Their study suggests that correspondent banking and technological advancements play an important role in money laundering risk reduction, whereas this study found no such significant effect. This discrepancy can be attributed to the differing stages of financial system

development in Mongolia compared to Pakistan, as well as the varying regulatory environments and operational dynamics between the two countries. Pakistan's more developed banking sector may leverage correspondent banking and new technologies more effectively, whereas in Mongolia, these factors might not yet be as impactful in the fight against money laundering.

Additionally, the study finds that wire transfers (WT) and record-keeping (RK) have an insignificant effect on reducing money laundering risks, which contrasts with the findings of Kemal (2014), Geiger and Wuensch (2007), and De Smet and Mention (2011). These studies suggest that practices such as monitoring wire transfers and maintaining proper records are essential in curbing money laundering. However, the results of this study imply that, in Mongolia, these measures may not be as effective or may not be enforced as rigorously, suggesting that other factors—such as the overall regulatory environment or compliance culture—might play a more pivotal role in money laundering prevention

Mongolia's international trade is primarily driven by import-oriented enterprises rather than export-focused ones, highlighting the need for stringent customer due diligence (CDD) measures in the banking sector, particularly for international transactions. To address this, the central bank should enhance its regulatory framework by incorporating comprehensive and detailed CDD procedures, ensuring effective monitoring through collaboration with relevant branch offices and operational units. A risk-based approach must be applied prior to executing international transactions to strengthen oversight mechanisms, enabling the identification and interception of financial flows that pose money laundering risks. This requires the central bank and government, in partnership with financial institutions, to implement a real-time system capable of analyzing large datasets from suspicious transaction databases to detect illicit activities.

Once suspicious transactions are reported, a transparent process for managing related information is crucial. Immediate coordination with legal and regulatory bodies, facilitated by direct access to and information exchange with other data repositories, is essential to prevent delays and enhance national capacity to combat money laundering. Regular training programs for banking sector personnel, including management, are necessary to ensure they are well-informed about money laundering risks. Additionally, phased public awareness campaigns should be conducted to educate banking customers on these risks, fostering a proactive approach to preventing money laundering activities.

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