

## Regulatory Technology (RegTech): The Solution to Prevent Money Laundering in Indonesia

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### Abstract

Since the 2008 financial crisis, the complexity of regulations and the use of technology and innovation in the financial sector have increased. This makes banks as financial institutions starting to adapt to financial technology very vulnerable to technological risks, one of which is money laundering. Regulatory Technology (RegTech) is a technology trend to assist bank management in supporting regulatory compliance efforts and offering money laundering prevention solutions. Based on this, this study aims to examine the relationship of RegTech, which is represented by three independent variables: Electronic Know Your Customer (e-KYC), Transaction Monitoring, and Time and Cost Efficiency, on Money Laundering Prevention. This study shows that transaction monitoring, as well as cost and time efficiency, have a significant effect on money laundering prevention. In contrast, e-KYC does not affect money laundering prevention. This research is intended to provide valuable insights to Financial Institutions to increase awareness of the importance of adopting new technologies and maintaining good relations with regulators to prevent money laundering in Indonesia.

**Keywords:** RegTech, money laundering, electronic know your customer, transaction monitoring, cost and time efficiency

## Introduction

Nowadays, digitalization has become a necessity for every sector. The rapid development of technology has also forced the financial sector to adapt to these changes. The emergence of the concept of digital customers makes the products and services offered must adapt to this concept so that new companies, instruments and financial products with advanced technology are emerging (Machkour & Abriane, 2020).

The term Financial Technology, which is often shortened to Fintech, has also begun to be recognized by the people of Indonesia. Fintech or Financial Technology according to Bank Indonesia is the use of technology in the financial system that produces new products, services, technology, and/or business models and can have an impact on monetary stability, financial system stability, and/or efficiency, smoothness, security, and reliability of the system payment. Anagnostopoulos (2018) states that disruptive technology changes are an important aspect in investigating regulatory compliance followed by changes. The sophistication of the fintech system certainly does not escape various kinds of risks, so regulatory technology is needed. Research conducted by Turki et al. (2020) forms the basis of this research where RegTech is divided into three dimensions, namely electronic know your customer (e-KYC), transaction monitoring, and cost and time efficiency.

Banks as one of the financial institutions that are starting to adapt to financial technology are very vulnerable in facing technology risks. One of them is money laundering which is still

happening. According to a report from Buletin Statistik APUPPT (Anti Pencucian Uang dan Pencegahan Pendanaan Terorisme), the number of suspicious financial transactions (RSFT) in the Bank during 2020 was 265,813 reporting parties. In addition, Financial Service Providers (FSP) who reported during 2020 amounted to 146 reporting parties. Overall, the number of RSFT received by PPATK (Pusat Pelaporan dan Analisis Transaksi Keuangan) from January 2003 to December 2020 has reached 572,053 RSFT or an increase of 13.5 percent compared to the cumulative number of RSFT at the end of December 2019.

The high number of reports of suspicious financial transactions (RSFT) that occur in the Bank, the presence of RegTech in identifying risks and financial technology systems as part of an effort to prevent money laundering is critical. Regulations that support money laundering prevention in Indonesia have been compiled in the Regulation of the Financial Services Authority of the Republic of Indonesia Number 23/POJK.01/2019 and Bank Indonesia Regulation Number 14/27/PBI/2012. However, according to Miller & Rosen (2017) despite the existence of domestic regulations and law enforcement mechanisms, policymakers still have challenges in identify and address policy gaps and new money laundering methods exploited by perpetrators. Money laundering activities can pose a threat to the economy and its security. The main problem is that money laundering weakens the integrity of the financial system, causes loss of control over a country's economic policies, distorts the economy, causes instability in investment, and results in lower tax revenues for the government (Chen et al., 2018).

Research on money laundering has been widely carried out, but its relationship with Regulatory Technology (RegTech) is still rarely studied. Some researchers emphasize that banks must know their customers and care about their activities such as business activities and sources of funding. According to the documentation of the Bank for International Settlement (2017), the implementation of Know Your Customer (KYC) at the Bank has the potential to effectively reduce money laundering. In addition, Turki et al. (2020) showed that RegTech through transaction monitoring variables and cost and time efficiency was able to boost the effectiveness of money laundering prevention. Thus, this study aims to expand on previous research by investigating the role of RegTech through eKYC variables, transaction monitoring, and cost and time efficiency in conventional banks in strengthening or weakening the Anti-Money Laundering program in Indonesia.

## **Literature Review and Hypotheses**

Regtech is a new term that was created to realize solutions from the use of technology and innovation (Anagnostopoulos, 2018; Arner et al., 2018; Silverberg et al., 2016). Several previous studies (Brody et al., 2017; Neal, 2021) suggest that companies that use technology solutions to support regulatory management and understand regulatory evolution coupled with potential innovation opportunities can gain a competitive advantage in the future.

RegTech is defined as the application of technology for regulatory activities (Baxter, 2016). While Zabelina et al. (2018) defines RegTech as a set of regulatory technologies that help organizations stay compliant with evolving legal requirements and promise reliable, safe and economical solutions for financial institutions to improve their efficiency. In addition, RegTech can also help banks reduce errors that usually occur in manual processes that have an impact on time and number of employees, because regulatory assessments of modern financial activities are becoming more complex so that in analyzing this, automation assistance is needed (Kurum, 2020). Therefore, in general RegTech can be defined as the development of new technologies that assist banks in fulfilling their regulatory obligations.

RegTech was formed through the recommendations of financial regulators that promote the application of technology to the anti-money laundering field to increase cohesion and

coherence at the institutional level (Butler & Brooks, 2018). Arner et al. (2018) provide several reasons why RegTech is needed to overcome financial problems and risks, namely: (1) RegTech helps Financial Institutions to make adjustments to regulatory complexities that require greater detail, precision, and frequency in reporting, aggregating, and analyzing data; (2) The severity of regulatory fragmentation increases the burden of compliance for Financial Institutions so that they can turn to RegTech to optimize compliance management; (3) Regulations evolve rapidly resulting in uncertainty, RegTech may be able to assist Financial Institutions to ensure compliance in a changing environment through repeated modeling and testing; (4) Regtech can ensure Financial Institutions comply with regulations in a responsive manner, because Regtech adds value to regulators by helping them understand in closer and real-time, innovative products and complex transactions, market manipulation, as well as internal fraud and risk.

RegTech is widely considered to have great potential to facilitate the process of monitoring and improving regulatory compliance (Yang & Tsang, 2018). However, there are very few studies examining RegTech in relation to the effectiveness of money laundering prevention in the banking sector in developing countries (Turki et al., 2020). Following this argument, this study focuses on the relationship between RegTech and money laundering prevention with particular reference to developing countries, namely Indonesia. The Basel Institute on Governance (2020) places Indonesia in the 96th position as a country at risk of money laundering and terrorism financing from 141 countries. In line with this, according to data from the APUPPT Statistical Bulletin, reports of suspicious financial transactions that occurred at the Bank in 2020 are still relatively high. This makes Indonesia considered a high potential for money laundering crimes.

Regulatory Technology (RegTech) is an important part of an effective APU-PPT system because it can help by providing safe, cost-effective and reliable regulatory solutions for the use of digital technology, including in FinTech (Karsh & Abufara, 2020; Zabelina et al., 2018). RegTech can prevent money laundering and terrorist financing by controlling transactions and verifying customer identities (Zabelina et al., 2018). A case study conducted in the Bahrain banking sector, which examined the effectiveness of electronic know your customer (e-KYC), transaction monitoring (TM) and cost and time efficiency (CT) as drivers of money laundering prevention, showed that e-KYC technology was insignificant. as a driver of money laundering prevention (Turki et al., 2020). This is different from the Financial Action Task Force (FATF) which recommends the KYC principle as the most effective means for banks to deal with money laundering activities, by recognizing and knowing the identity of customers, monitoring customer transaction activities, and reporting any suspicious transactions.

According to Chen et al. (2018) there are several aspects of KYC that are a solution in reducing the problem of money laundering. When applied to anti-money laundering, RegTech tends to modernize KYC processes as well as improve risk mitigation and support outdated information technology systems (Vaithilingam et al., 2015). According to Kurum (2020) the use of the latest technology is most influential for Financial Institutions to combat crime and financial risk, and there is a strong correlation between detailed compliance programs and the level of sophistication of the methods used for money laundering. E-KYC is considered capable of encouraging. Furthermore, money laundering based monitoring techniques have been applied to monitor money laundering (Chao et al., 2019). Governments from various countries combat money laundering by implementing preventive mechanisms that include automated monitoring systems (Tertychnyi et al., 2022), the earlier money laundering activities are detected, the sooner financial institutions can take action to prevent money laundering from occurring. Banks can monitor transactions using machine learning technology that has more effective systems, controls, and practices (Chen et al., 2018).

In a study conducted in the Bahrain banking sector showed that TM and CT using RegTech have an influence in encouraging money laundering prevention with a very statistically significant level of effectiveness (Turki et al., 2020). Another study Meiryani et al, (2022) conducted on AML-CFT on bank in Indonesia, found that using RegTech can cut costs; speed up the process; and facilitate banks in monitoring, reporting and complying with regulations relating to the prevention of money laundering and terrorism financing. Being able to do it will save you time. Interpret large amounts of data in real time. Fast automation, sophisticated statistical modeling, machine learning-based risk analysis and assessment processes have a much more effective performance compared to commonly applied manual processes (Basel Committee on Banking Supervision, 2018). Therefore, it can be concluded that RegTech can increase CT in preventing money laundering.

Therefore, further research is needed to find out how RegTech influences money laundering prevention, especially in Indonesia. This study identifies three independent variables, namely RegTech: (1) Electronic Know Your Customer (e-KYC), Transaction Monitoring (TM), and Cost and Time Efficiency (CT) embedded in RegTech. Likewise, the dependent variable of the effectiveness of Money Laundering Prevention (MLP) is also measured from the respondent's point of view.

**H1:** *Electronic Know Your Customer (eKYC) has a positive effect on the Money Laundering Prevention (MLP).*

**H2:** *Transaction Monitoring (TM) has a positive effect on the Money Laundering Prevention (MLP).*

**H3:** *Cost and Time Efficiency (CT) has a positive effect on the Money Laundering Prevention (MLP).*

## Research Method

This study uses primary data obtained through questionnaires with the criteria of respondents being Indonesian citizens who work in conventional banks. Staff in the banking sector are considered to have knowledge and skills in preventing money laundering (Turki et al., 2020). The sample size for this study was 77 employees of conventional banks. All data was collected from March to May 2021 through an online survey.

Surveys are distributed to Bank employees online using Google Forms. The questionnaire includes two parts: (1) The first part collects demographic information such as gender, age, work experience, and position; (2) The second part contains a series of structured questions designed to gain a banker's perspective on factors from RegTech that affect the effectiveness of money laundering prevention programs (Turki et al., 2020). In the second part of the questionnaire will use a Likert scale, where number one represents "Strongly Disagree (STS)" to number five represents "Strongly Agree (SS)".

**Table 1.** Results of the Distribution of Research Questionnaires

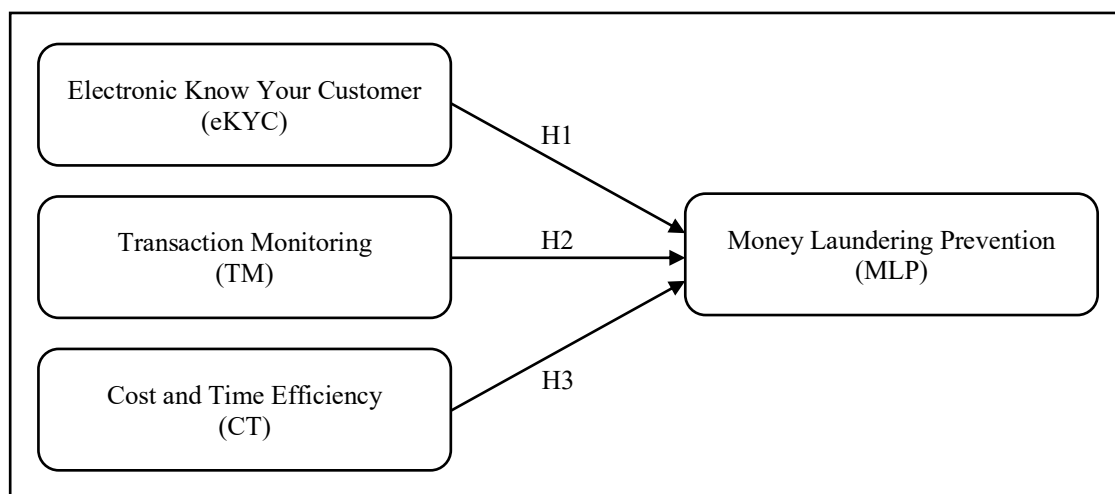
Respondent's description	Amount	Percentage
Total respondents contacted	106	100%
Total respondents who did not give a response	6	5,6%
Total respondents who cannot be processed	23	21,7%
<b>Total respondents who can be processed</b>	<b>77</b>	<b>72,64%</b>

The questionnaires collected from several respondents were evaluated for the completeness of the answers and the suitability of the sample used. After being evaluated, there were (5.6%) questionnaires that did not respond, and (21.7%) respondents who could not be

processed. Therefore, the number of questionnaires that can be processed by this study is 77 questionnaires (response rate 72.64%). That is, from a total of 106 respondents who were contacted, most of the respondents were willing to fill out the questionnaire (See Table 1).

This study aims to examine the relationship between the independent variable, namely Regulatory Technology (RegTech) and the dependent variable, namely the Effectiveness of Money Laundering Programs at Banks in Indonesia. This study uses descriptive statistics as a preliminary tool to describe sample data and an overview of the basic concepts of research (Cooper & Schindler, 2013). The validity of the research instrument refers to how well an empirical indicator and conceptual definition of the construct that should be measured by the indicator is considered fit (Neuman, 2013). The questionnaire used in this study refers to the questionnaire used by (Turki et al., 2020) which has been reviewed by a money laundering prevention specialist and approved by an academic professor to ensure its validity. As a measure of reliability, survey data was measured using Cronbach Alpha.

The independent variable is RegTech, which is measured by eKYC, TM and CT. eKYC is an electronic means used to identify and verify customer identity online to minimize errors usually found in manual processes (Perlman & Gurung, 2019; Turki et al., 2020; World Bank, 2021). TM is one of the efforts that banks can make to monitor and detect financial activities so that cyber security in the services provided remains safe (Repin et al., 2017). CT is the act of saving money dan time by changing a product or process to work in a better way (Turki et al., 2020). This study uses RegTech as an independent variable as measured by eKYC (five indicators), TM (five indicators) and CT (five indicators). The dependent variable used in this study is MLP (five indicators). MLP refers to program to guard the bank against money laundering (Turki et al., 2020).



**Figure 1.** Hypotheses

Before testing the hypothesis, this study examines the relationship between the independent variable and the dependent variable using Pearson's correlation which is commonly used to measure and describe the strength and relationship between variables without the requirement of normality. Furthermore, the testing of hypotheses 1 to 3 will be carried out using regression analysis with the empirical model as follows:

$$MLP = \alpha + \beta_1 eKYC + \beta_2 TM + \beta_3 CT + \varepsilon \dots\dots\dots (Eq.1)$$



## Results and Discussion

### Respondent Description

This section discusses the results of data collection that has been obtained by distributing questionnaires to Bank employees. The results obtained from 77 respondents are summarized in Table 2 based on gender, age, experience and position, while Table 3 describes awareness of RegTech and law enforcement actions taken in the Bank as a result of compliance violations.

**Table 2.** Demographic Data

Category		N = 77	Percentage
Gender	Male	40	52%
	Female	37	48%
Age	< 30 years	44	57%
	30-40 years	19	25%
	41-50 years	10	13%
	> 50 years	4	5%
Work experience	< 5 years	27	35%
	5-10 years	33	43%
	11-15 years	3	4%
	> 15 years	14	18%
Position	Front Office	31	40%
	Operation management	12	16%
	Risk Management/Anti Money Laundering	3	4%
	Audit	8	10%
	Others	23	30%

Table 2 presents demographic data such as gender, where 52% of the sample size is male (representative of most respondents) while female is 48%. Furthermore, for respondent age data, respondents under the age of 30 amounted to the most, namely 57%. In addition, 25% of respondents aged 30-40 years, 41-50 years 13% and four respondents aged over 50 years (5%). These results reflect the concerted efforts made by companies to recruit younger employees, they are considered more able to adapt to the rapid changes in the financial services sector because they often involve the application of the latest emerging technologies (Deloitte, 2019; PriceWaterhouseCoopers, 2008).

In terms of experience as many as 35% of respondents have banking experience under 5 years; 43%, between 5-10 years; 4%, between 11-15 years; and 18%, above 15 years experience. These results provide a balanced response from bankers with varying experience profiles that contribute effectively to the robustness and reliability of research results by bringing about a balance of bankers' varied perspectives on RegTech.

**Table 3.** General Data

	Category	N = 77	Percentage
Regtech Awareness	Yes	70	91%
	No	7	9%
Law Enforcement at the Bank	Yes	69	90%
	No	8	10%

With respect to the job function of bankers who participated in the survey, the results of the top banking position were occupied by the front office as much as 40% of respondents.

Other respondents indicated that operations, risk management/anti-money laundering, auditing functions were 16%, 4%, 10%, and other functions were 30%. It can be seen that the percentage of front officers dominates the research results who are at the forefront where their duties include interacting with customers and knowing customer needs. Therefore, the results of the study credibly represent the views of compliance specialists on the impact of RegTech on money laundering prevention and various opinions from other roles addressing the same.

Table 3 shows that 91% of the Bank's employees are aware of the presence of RegTech and 90% of the Bank's employees acknowledge that law enforcement in the Bank is starting to be enforced well. Calls for FinTech and RegTech have indeed been intensively carried out by the Government and Financial Institutions in Indonesia, but it turns out that there are still 9% of Bank employees who do not realize and understand it. In fact, the public, especially the Bank's employees, must immediately adapt to technological developments that are growing rapidly.

### Reliability and Validity Test

Table 4 shows the results of testing the reliability and validity of the survey instrument in this study. Reliability testing using the Cronbach alpha method. The questionnaire is considered reliable if the alpha coefficient 0.70 (Hair et al., 2014). Furthermore, validity is measured by assessing item-to-item/item-to-total results (Duncan et al., 2018) with the following criteria (1) item-to-Item is equal to or greater than 0,20 and (2) item-to-total is equal to or greater than 0,50.

**Table 4.** Results of Cronbach Alpha and Item-to-item/Item-to-total

Item	Cronbach Alpha	Item to Item Correlation $\geq 0.2$		Item to Total Correlation $\geq 0.5$		Remarks
		Min	Max	Min	Max	
eKYC	0,773	0,171	0,545	0,372	0,680	eKYC1, 4, 5
TM	0,850	0,297	0,809	0,434	0,808	TM5
CT	0,830	0,344	0,624	0,528	0,761	All items accepted
MLP	0,916	0,538	0,824	0,708	0,854	All items accepted

Table 4 shows that the results of Cronbach's alpha 0.70 so that all items are declared reliable. However, the results of the eKYC 1, 4 and 5 item-to-item correlations did not meet the criteria so that the three items were considered invalid. Furthermore, TM5 = 0.434 0.50 so that it is also considered invalid. Meanwhile, there is no validity problem on CT and MLP items so that all statement items can be accepted. To get maximum results, eKYC 1, eKYC 4, eKYC5 and TM5 statement items must be deleted. Furthermore, Table 5 shows the results of cronbach alpha and item-to-item/item-to-total correlation after deletion, where all items have met the criteria so that all items are considered reliable and valid.

**Table 5.** Results of Cronbach Alpha and Item-to-item/Item-to-total after Deletion

Item	Cronbach Alpha	Item to Item Correlation $\geq 0.2$		Item to Total Correlation $\geq 0.5$	
		Min	Max	Min	Max
eKYC2,3	0,698	0,536	0,536	0,536	0,536
TM1-4	0,890	0,584	0,809	0,680	0,842
CT	0,830	0,344	0,624	0,528	0,761
MLP	0,916	0,538	0,824	0,708	0,854

### Research Data Descriptive Statistics

Table 6 of this study displays descriptive statistical data showing the number of research respondents, mean, standard deviation, minimum, maximum for each company. The eKYC variable shows an average value of 8.38 and a standard deviation of 1.670. Furthermore, the average value of the transaction monitoring variable is 17.23 and the standard deviation is 2.865. The cost and time efficiency variables have a larger average value of 21.78 and a standard deviation of 3.064. Finally, the dependent variable Money Laundering Prevention has an average of 21.78 and a standard deviation of 3.28. Positive results from the average of each variable indicate that the three independent variables have a positive influence on the dependent variable.

**Tabel 6.** Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. Dev.
eKYC	77	2	10	8,38	1,670
TM	77	5	20	17,23	2,865
CT	77	10	25	21,29	3,064
MLP	77	7	25	21,78	3,283

**Note:** eKYC is an Electronic Know Your Customer variable; TM is Transaction Monitoring variable; CT is a Cost and Time Efficiency variable; MLP is the variable of Money Laundering Prevention.

### Hypothesis Testing

Pearson correlation analysis is usually used to ensure that there is no multicollinearity problem between variables. These variables have a relatively high value that is  $> 4.00$ , so the multicollinearity test of the independent variables shows that the correlation between variables is high. Table 7 shows the results where all variables have a significant value at the 1% level so that each variable has a significant correlation between variables. However, the value of Variance Inflation Factor (VIF) of the three independent variables is  $< 10$ , this result proves that the three variables are independent of multicollinearity symptoms (Hair et al., 2014).

**Table 7.** Pearson Correlation Matrix

	MLP	eKYC	TM	CT
MLP	1			
eKYC	0,591***	1		
TM	0,841***	0,685***	1	
CT	0,792***	0,601***	0,790***	1

**Note:** \*\*\*significant at the 1% level;

Furthermore, the hypothesis testing of this study was carried out using the multiple linear regression method where Table 8 shows the R-Square which is the proportion of variance of the dependent variable explained by the independent variable. The R-Square value in this study is 0.751, where the independent variables, namely eKYC, Transaction Monitoring (PT), and Time and Cost Efficiency (CT) simultaneously affect the dependent variable Money Laundering Prevention (MLP) by 75.1%. While the rest is influenced by other variables outside the independent variables of this study. These other factors include but are not limited to endogenous bank factors such as Artificial Intelligence (AI), Good Corporate Governance (GCG), senior management commitment to compliance efforts and staff expertise level, and so on (Kurum, 2020; Said et al., 2013; Vaithilingam & Nair, 2007). The results of the ANOVA regression in Table 9 show that this research model is statistically significant in determining how RegTech affects Money Laundering Prevention with a significance of 0.000.



**Table 8.** Model Summary

<b>R</b>	<b>R<sup>2</sup></b>	<b>Adjusted R<sup>2</sup></b>	<b>Std. Error of Estimates</b>
0.866	0.751	0.740	1.673

**Table 9.** Anova Regression

	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	614,972	3	204,991	73,256	,000
Residual	204,275	73	2,798		
Total	819,247	76			

Furthermore, Table 10 shows that the eKYC variable is not significant because its value is  $0.901 > \alpha$  significance level of 0.01 (1%). So hypothesis 1 is rejected, where eKYC has no effect on Money Laundering Prevention. On the other hand, the Transaction Monitoring and Cost and Time Efficiency variables show a significance value of 0.000 and  $0.001 < 0.01$  (1%) so that hypothesis 2 and hypothesis 3 are accepted. There is an effect of Transaction Monitoring and Cost and Time Efficiency on Money Laundering Prevention.

**Table 10.** Determinant Coefficient

<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>	<b>VIF</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>			
(Constant)	2,733	1,364		2,003	0,049	
eKYC (X <sub>1</sub> )	-0,020	0,159	-0,010	-0,125	0,901	1,919
TM (X <sub>2</sub> )	0,661	0,121	0,577	5,468	0.000***	3,258
CT (X <sub>3</sub> )	0,367	0,103	0,343	3,568	0.001***	2,704

**Note:** \*\*\*significant at the 1% level; eKYC is an Electronic Know Your Customer variable; TM is Transaction Monitoring variable; CT is a Cost and Time Efficiency variable; MLP is the variable of Money Laundering Prevention.

## Discussion

The results of testing hypothesis 1 show that Electronic Know Your Customer (eKYC) has no effect on Money Laundering Prevention as shown in Table 10 where the value of eKYC is  $0.901 > 1\%$  (0.01) level of significance. This result is similar to Turki (2020) which states that bankers may perceive non-electronic KYC (Know Your Customer) mechanisms to be effective so that increasing the effectiveness of money laundering prevention from eKYC using sophisticated RegTech algorithms is considered not very influential. Moreover, these results may indicate that bankers who are not part of risk management are less aware of the disruptive impact of advanced technologies such as blockchain on KYC effectiveness (Lootsma & Brussels, 2017; O'Reilly & Khrisna, 2017).

Furthermore, testing hypothesis 2 shows that Transaction Monitoring has an effect on Money Laundering Prevention with a significant value at the 1% level. Machine learning technology that has effective systems, controls and practices helps manage the risk of money laundering activities for the Bank by identifying, analyzing, and reducing manual screening/checking processes (Chen et al., 2018). Interaction of high-tech innovations, incompleteness of information, volatility and risk, market imperfections, and regulatory issues are distractions brought about by overlapping finance and technology, RegTech helps monitor transactions by leveraging near real-time data capabilities, automating advanced algorithmic processes, linking models and advanced analytics with fast-moving artificial intelligence (AI) (Anagnostopoulos, 2018).

Finally, the three research hypotheses state that Cost and Time Efficiency has an effect on the Prevention of Money Laundering. This confirms the support for hypothesis three which shows that there is a significant relationship between Cost and Time Efficiency on Money Laundering Prevention as shown in Table 10. In this study RegTech can reduce costs and time spent in Money Laundering Prevention activities, where RegTech provide solutions in integrating automation, scalability, flexibility, and transaction security. This is in line with bank regulations regarding anti-money laundering requirements, namely innovative and cost-effective technology (Bank for International Settlement, 2017). According to O'Reilly & Khrisna (2017) the adoption of RegTech allows banks to interpret large amounts of data quickly and precisely, and cheaper.

## Conclusion

This study aims to examine the relationship of RegTech to money laundering prevention. In addition, this study also wants to know the impact of RegTech on the effectiveness of money laundering prevention in banks. To achieve this goal, RegTech is represented by three independent variables: Electronic Know Your Customer (eKYC), Transaction Monitoring, and Cost and Time Efficiency where Money Laundering Prevention is the dependent variable.

The results showed that two independent RegTech variables, Transaction Monitoring and Cost and Time Efficiency, functioned as very significant drivers on the level of effectiveness of money laundering prevention at a significance of 0.01 (1%). Cost and Time Efficiency has the highest level of impact on the effectiveness of money laundering prevention. RegTech's ability to process big data in real time reduces costs and improves accuracy in screening large volumes of transactions, amplifying the cost and time impact of money laundering prevention effectiveness. However, this study shows that Electronic Know Your Customer provided by RegTech does not have a significant impact on money laundering prevention although there is a moderate positive correlation between these variables. According to Turki (2020), there are two reasons why this can happen, namely (1) Bankers feel that manual KYC is quite effective; (2) Bankers do not know the importance of eKYC in assisting Money Laundering Prevention.

This study recommends several policies that can be used by policy makers, regulators, and other parties in need. The results of this study indicate that eKYC has no effect on the Prevention of Money Laundering. According to Arner et al. (2018) the financial system is starting to move from the Know Your Customer (KYC) principle to a Know Your Data (KYD) approach, a new regulatory paradigm that addresses everything from digital identity to data sovereignty must evolve. For this reason, it is hoped that the regulator will have a clear regulatory framework and be flexible enough to adapt to market developments. Innovation should not be seen as a Regulatory initiative only, but the Bank must also cooperate with the Regulator. This effort should be in line with the Financial Action Task Force (FATF) recommendation which states that the regulatory framework must strike a balance between financial integrity and financial inclusion, which ensures that KYC requirements will complement the continued growth of responsible mobile money services in emerging markets. (Kipkemboi et al., 2019).

In addition, in order to get better KYC, it is important to link and match the data with government sources of information. RegTech solutions in the future may have a greater influence on regulators in formulating the design of Anti Money Laundering (AML) policies in financial institutions. According to Kurum (2020) previous studies show that regulators (government) are considered as key players by influencing financial institutions through strict regulations regarding the fight against financial crime and thus stakeholders are the most influential factor (Petrasic et al., 2016).

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