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Intervening role of Risk Management on the relationship between Mergers and Acquisitions and Financial Performance of Commercial Banks in Kenya

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Abstract

The objective of this paper was to examine intervening role of risk management on the relationship among mergers and acquisitions strategies and commercial bank financial performance. A correlational descriptive research design and positivism paradigm was used to accomplish the project's goals. The thirty Kenyan commercial banks that had undergone mergers and acquisitions by 2017 formed the population of the study. The data was gathered from publicly available financial statements, which were split into two; three years before and three years after mergers and acquisitions, with the transaction year been excluded. To determine the mathematical connection among the variables in the study, multiple regressions were used. The study's findings revealed that; risk management failed to mediate the relationship between mergers and acquisitions strategies and commercial bank financial performance, thus failing to reject null hypothesis. The findings of the research provide answers to the inconsistencies found in the prior reviewed studies by empirically testing the study variables thus contributing to knowledge by providing new insights based on the variables studied. The research findings further contribute to the policy and practice in the sense that; the insights will help decision-making processes geared toward targeted outcome. The study results are limited to elements of the study and hence a recommendation of similar study using other attributes in varied context and scope.

Keywords: Risk management, Mergers and Acquisitions, Financial performance

Introduction

The procedure of recognition, quantification, administering, and keeping track of probable perils that may adversely affect the performance of an organization can be described as risk management (Cumming & Hirtle, 2001). The term risk management can also be used to describe an array of financial and operational procedures designed to mitigate the negative effects of cash flow volatility (Stulz, 1996). Information gathering, analysis, risk quantification, and risk monitoring leading to risk control, risk transfer, risk reduction, risk avoidance, and risk elimination are all components of effective risk management (Cheng et

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al., 2012). Risk management can also be termed as the fulfillment of different initiatives to control the undesirable aftermath of a loss or uncertainty (Schmit & Roth, 1990).

The banking industry has grown enormously throughout the years. Growth has brought with it a plethora of financial and non-financial risks. Credit risk, liquidity risk, operational risk, market risk, interest rate risk, transaction risk, and legal risk are some of the hazards that commercial banks face. A bank's bottom line could be negatively impacted by this risk (Burki & Niazi, 2010). Banks' ignoring risk management primarily contributed to the Asian financial crisis of 1997, where banks were lending based on client relationships without collateral. The result was that borrowers could not repay the loans, weakening the banking sector (Safari et al., 2016). Any business's success depends on how effectively it manages all its risks. Good financial performance is associated with good risk management, while bad management is associated with a drop in financial performance (Ebenezer & Omar, 2016).

Credit risk has been cited as the most significant risk in banks (Colquitt, 2007). Credit risk relates to failure, inability, or refusal to honor credit service terms and conditions by the borrower. Poor financial performance occurs when the borrower fails to repay the principal and interest. The Central Bank of Kenya mandates that banks comply with IFRS 9 in order to keep track of their non-performing loans, a key indicator of credit risk. A bad loan ratio is a common metric of financial soundness. Portfolios with default rates lower than 6% are considered strong (Wood, 2017; Muriithi, Waweru, & Muturi, 2016; Folajimi, 2020). Withdrawals from depositors could jeopardize the bank's liquidity. As a direct consequence, the bank will be unable to satisfy its schedules. Management of liquidity risk is essential because it affects a bank's solvency and the way it handles other risks, such as market and credit risks (Cornett & Saunders, 2008). The most commonly utilized metric of liquidity risk is the liquid ratio (Khan & Ali, 2016; Mardiana et al., 2018; Muriithi & Muigai, 2017; Kumar & Yadav, 2013). To assess credit and liquidity risk, the researcher employed the non-performing loan ratio and the liquidity ratio. The measures were deemed appropriate due to their wide application and ease of data collection and analysis.

Research Problem

Commercial banks operate in an ever-evolving operating and legal environment. The risks facing commercial banks are becoming more sophisticated and complex on a daily basis with the emergency of technology and digital lending platforms accompanied by an increase in online fraudsters and hackers. There are increasing corporate governance issues, which are putting customer's deposits into risk. As such,

the regulator has instituted a stringent operating and legal environment with which commercial banks are bound to comply. The financial crisis of 2008, when there was a mass of bank failures, opened the door for regulators to tighten the regulations to avoid such an occurrence. In Kenya, the Central Bank comes up with prudential guidelines, which all commercial banks are bound to comply. Commercial banks are further bound to follow Basel's committee guidelines as well as international accounting standards and more so (IFRS 9) in consideration of impairments of financial assets and liabilities.

The guidelines, pronouncements, and frameworks, which the banks are bound by makes some commercial bank unable to comply and therefore look for strategies where mergers and acquisitions become the most solemn way to enhance compliance and competitiveness (CBK, 2020; Nguli & Kyule, 2020; Kumar & Bansal, 2008; Kathali, 2014). Mergers and acquisitions strategies facilitate the creation of entities with a large capital base and a sufficient liquidity ratio. It also enables entities to find a soft landing for growth and diversification, tax savings, market power domination, and overall improved financial performance. The synergies brought about by the mergers and acquisitions strategies also facilitate proper risk management due to the combination of homogenous resources (Chui, 2011; Ciobanu et al., 2014; Filipovic, 2012; Heller, 2013).

Mergers and acquisitions can be traced back to 1989, when nine banks merged to form the Kenya Consolidated Bank. Since then, the trend has gained traction with 57 commercials considering mergers and acquisitions as of December 2021. The trend observed reveals that most of the entities acquired have been performing in a dismal manner while the entities that acquired them have been performing extremely well. In Kenya, recent mergers and acquisitions include the National Bank of Kenya and Kenya Commercial Bank of Kenya, the State Bank of Mauritius and the Chase Bank of Kenya, Equity bank and spire bank, and Access bank and Transnational bank. A performing bank and a non-performing bank are involved in the mergers and acquisitions. Other mergers, such as that of NIC and CBA to form NCBA, involved two performing banks seeking synergies. Some commercial banks are under statutory management, which included Dubai Bank and Imperial Bank, due to non-compliance with the regulator's guidelines, which also pointed toward corporate governance problems (Asokoinsight, 2020; Catton, 2019).

The wave of bank mergers and acquisitions has attracted academicians and researchers in equal measures. The direct relationship has been widely studied on mergers, acquisitions, and financial performance as

evidenced by the reviewed studies whose findings and conclusions are varied. The varied findings and conclusions could point towards varied methodologies, population characteristics, context of the study, and assumptions made. A study on the direct connection for both mergers and acquisitions that discovered and concluded that mergers and acquisitions resulted in improved financial performance is an example (Ibeji, 2015; Kathali, 2018; Korir, 2006; Ogada et al., 2016; Ombaka & Jargongo, 2018; Mwanza, 2016). Further reviewed studies on direct relationships whose findings and conclusions indicated that mergers and acquisitions do not have a direct impact on the financial performance of commercial banks included those of (Chesang, 2002; David, 2011; Ochieng, 2006; Marembo (2012), Muya, 2006; and Ndura, 2010). Harney (2011) did more research that was contradictory and found no link between M&A activity and how well commercial banks did financially.

Local studies have looked at the direct connection among mergers and acquisitions and financial performance. The investigations did not take into account any factors that could strengthen or weaken the correlation between the predictor and outcome variables. The investigation also did not take into account intervening variables. The highlighted studies reviewed in the local context included those of Juma et al., 2012; Kathali, 2018; Ombaka & Jagongo, 2018; and Wango'mbe, 2015). International studies reviewed, which also followed a direct relationship, included those of Asli et al., 2014; Nga & Kamolrat, 2007). Following the above shortcomings, these studies will be submitted to address the concept of moderating and intervening variables in the association among predictor and outcome variables in a local context.

The studies reviewed have also revealed varied methodological approaches and population characteristics. Some of the studies reviewed revealed that the researchers used small samples, which could result in an increase in margins of error and hence unreliable results (Njeru & Gathuku, 2015; Kathali, 2014; Waqas, 2019). This study will endeavor to study the aggregate population for accurate and reliable results. Other studies reviewed have used a span of one year before and after mergers and acquisitions, which is a short period for the effect of the event to be felt (Putri V, 2010). This study will use an average of three years before and after mergers and acquisitions, with the deal year being excluded. Other studies reviewed have used primary qualitative data, which is expensive, time-consuming, and sometimes biased due to human emotion variations. This study will use secondary quantitative data, which is more reliable and is available to the public (Muriithi et al., 2016; Yimka et al., 2015; Muriithi & Waweru, 2017; Orangi et al., 2019).

The reviewed studies present three main research gaps. First is the conceptual gap, where the reviewed studies yielded different findings and conclusions, driving toward insufficient knowledge of the in the subject matter. Some studies revealed that mergers and acquisitions result in increased financial performance while others indicated that the relationship is mutually exclusive. Still others indicated that mergers and acquisitions have no impact on the financial performance of commercial banks. The second is the methodological gap, where the reviewed studies present variations in sample size, duration of data collection, and data collection techniques. The third is the contextual gap, which ties with the methodological gap, where the reviewed studies in developing and developed economies have focused on direct associations amongst the predictor and the outcome variables while ignoring the role of moderating and intervening variables. The study intended to fill the gaps identified and empirically test the relationship between mergers and acquisitions strategies, risk management, institutional characteristics, and financial performance among commercial banks in Kenya.

Objective of the study

To determine the intervening role of risk management on the relationship between mergers and acquisitions and financial performance of commercial banks in Kenya

Literature Review

Concentration theory

Eckbo (1985) developed this idea by proposing that consolidation creates massive organizations that generate economies of scale and operational efficiency, which translates into higher financial performance. According to Allen and Gale, financial crises are more common in industries with a large number of small banks (2003). The theory is pertinent in this research because it recognizes that firms consolidate in order to increase one's size, which is associated with economies of scale and profitability. Authorities may encourage concentration for supervisory purposes, according to the concept, because small-to-large firms are well positioned for oversight by a small, comprehensive organization (Demirgu C-Kunt & Levine, 2004).

The critique of the idea behind concentration argues that it may result in the creation of monopolies with undesirable characteristics such as operational inefficiency, possible diseconomies of scale, and generally higher prices to consumers (Pettinger, 2020). Hakenes et al. (2014) argue that small banks are well positioned

to spur economic growth as opposed to large regional banks. They also hold the view that small banks are efficient in serving low-credit consumers, hence facilitating financial deepening.

Empirical Studies

Mardiana et al. (2018) investigated the interaction between risk management and financial success in Indonesia. Credit risk management, as measured by non-performing loans, had no discernible bearing on commercial banks' financial results, based on the findings of the study. This study contradicts Prastiyaningtyas's (2010) findings, which found that non-performing loans have a significant impact on commercial bank financial performance among Indonesian stock exchange-listed commercial banks. The research was carried out in a Western economy, and it must be replicated in a Kenyan setting. Because a single metric may not capture the entire picture, more liquidity and operational risk management will be implemented.

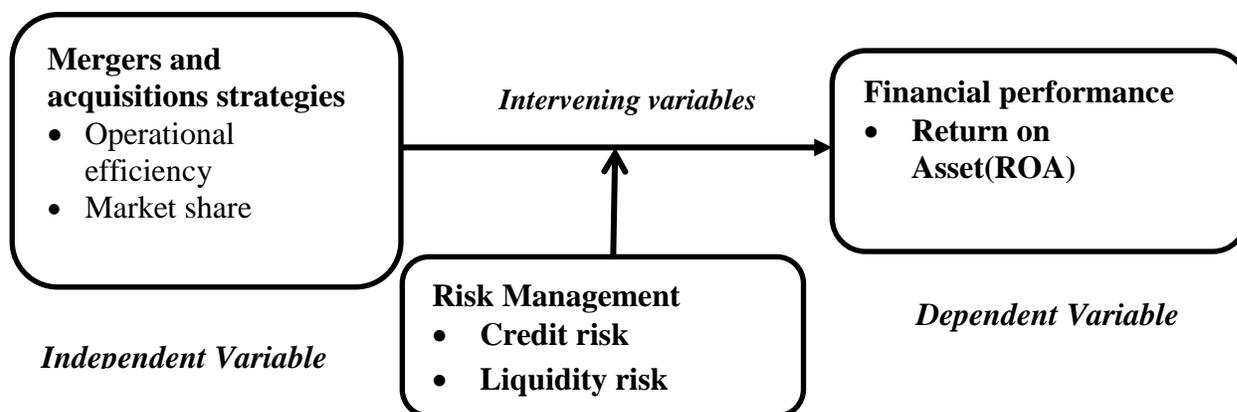
Olalekan and colleagues (2018) investigated the link between risk management and financial performance in Nigerian commercial banks. Liquidity risk, operational risk, and credit risk were all risk management proxies. Credit risk and operational risk management, according to the study's findings, had a negative significant impact on financial performance, while liquidity management had a negligible impact. Olagunju et al. (2012), on the other hand, discovered that liquidity risk had a positive and significant impact on the financial performance of Nigerian commercial banks. According to Matayo and Muturi (2018), operational risk has a significant positive impact on financial performance in an FMCG environment.

Adabenege et al. (2015) investigated the relationship between risk management and organizational performance in Nigeria. From 2005 to 2014, the investigation was ongoing. The sample size was fifteen Nigerian Stock Exchange-listed banks. The study collected 150 observations using secondary data from financial statements. The link was discovered using panel data. Organizational success was measured using ROA and ROE, while risk was measured using standard deviation. According to the study's findings, risk management has a significant positive impact on financial performance. The findings are consistent with (Kolapo et al., 2012; Adeusi et al., 2013; Uwalomwa et al., 2015; Gizaw et al., 2015), but not with (Kolapo et al., 2012). (Kolapo et al., 2012). Margaritis and Psillaki (2010); Cai and Zhang (2011); and Vithessonthi and Tongurai (2014).

Conceptual Framework

Figure 1 below presents a conceptual framework model of relationships between mergers and acquisitions strategies and financial performance of commercial banks in Kenya. The model shows that mergers and acquisitions can directly influence the financial performance of commercial banks.

Figure 1: Conceptual model



The research hypothesis tested in this study was:

The intervening role risk management on the relationship between mergers and acquisitions strategies and financial performance among commercial banks in Kenya are not significant.

Research Methodology

Positivism as a research philosophy guided this study. The paradigm shifts toward a quantitative method of phenomena analysis, causality research, and concept testing (Orlikowski & Baroudi, 1991; Saunders et al., 2007). The study adopted this paradigm as it involved the use of both theoretical and empirical literature, the development of a conceptual framework, hypothesis testing, and establishing the causal link among the study variables. A correlational descriptive research design, which is relevant in this study, is the research design that facilitates a study analyzing correlations among study variables (Konthari & Garg, 2014). A correlational descriptive research design was used for the study, which included time series data. The design attempted to establish correlations between study variables as well as characterize the characteristics of phenomena (Konthari & Garg, 2014; Cooper & Schindler, 2008). Thirty Kenyan commercial banks that engaged in mergers and acquisitions between 1995 and 2017 forms the population of the study. This period stands out because it coincides with an increase in commercial bank mergers and acquisitions in Kenya.

Due to the small population size, no sampling was done. This research relied on secondary data gathered from documents and records including such financial statements and the regulator's annual report. Secondary data was deemed adequate due to its credible sources. To verify that the information was free from any bias caused by the linear regression model suppositions, a diagnostic test was performed. Linearity, normalcy, multi-collinearity, auto-correlation, and homoscedasticity presumptions will be tested particularly on the data. Risk management predictors included credit risk management and liquidity risk management. The ratio of non-performing loans to total loans was used to calculate credit risk, and the ratio of current assets to current liabilities was used to calculate liquidity risk. The predictors and metrics used by Folajimi are comparable (2020; Mardiana et al., 2018).

The mediating effect of risk management on the relationship among mergers and acquisitions strategies and financial performance was tested using four steps as recommend by Baron and Kenny (1986). The first step involved a determination of the direct relationship between independent variable and dependent variable i.e. the relationship between mergers and acquisition and financial performance. The relationship was evaluated using a regression model where the role of intervening variable was ignored i.e. risk management did not feature in the model. The below regression models tested the direct effect of independent and dependent variables.

$$ROA = \beta_0 + \beta_1 \text{ M\&A} \dots\dots\dots (i)$$

Where;

M&A: Mergers and Acquisition

ROA : Return on Asset

β_0 : Regression constant or intercept,

β_i : Regression coefficients of variable

The second step involved the testing of the intervening effect on the independent variable, ignoring the dependent variable. A regression analysis was conducted to assess the association between risk management and mergers and acquisition. The below regression models will be used to test the intervening effect.

$$RM = \beta_0 + \beta_1 \text{ M\&A} + \epsilon_i \dots\dots\dots (ii)$$

M&A: Mergers and Acquisition

RM: Risk management

The third step will entails testing the intervening effect on the dependent variable while ignoring the independent variable. A regression analysis will be conducted to evaluate the association between risk

management and financial performance. The below regression models will be used to test the intervening effect.

$$ROA = \beta_0 + \beta_1 RM + \epsilon_i \dots \dots \dots (iii)$$

Diagnostic and Specification Tests

The Durbin–Watson (1951) statistic tested for autocorrelation in the data. The outcomes are as follows in the table 1 below:

Table 1: Auto Correlation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.267 ^a	.071	.026	.118371174500375	1.553

a. Predictors: (Constant), Liquidity risk management, Market share Post Merger, Operational efficiency Post Merger, Credit risk management

The Durbin-Watson statistic is equal to 1.553, which is in the middle of the two essential values of 1.5 and 2.5, indicating that the data has no first order linear auto-correlation.

Linearity test

To determine the linearity of the connection between the predictor and outcome variables, the Analysis of variance linearity test was used. The analysis of variance outcome is depicted in table 2 below.

Table 2: Linearity Test

		Sum of Squares	Df	Mean Square	F	Sig.
Operational efficiency Post Merger	Between Groups	21.534	86	.007	.849	.699
	Within Groups	.000	0	.		
	Total	21.534	86			
Market share Post Merger	Between Groups	.495	86	.006	1.421	.125
	Within Groups	.000	0	.		
	Total	.495	86			
Credit risk management	Between Groups	.610	86	.007	.889	.645
	Within Groups	.000	0	.		
	Total	.610	86			
Liquidity risk management	Between Groups	.605	86	.007	.849	.699
	Within Groups	.000	0	.		
	Total	1.605	86			

Based on the significance from linearity values total of P 1.605 greater than 05 ($p > .05$), it can be inferred that the entire variable have a linear connection.

Multicollinearity test

A Variance Inflation Factor (VIF) was used where a $VIF > 5$ indicates that multi-collinearity may be present, while a $VIF > 10$ indicates a certainty that multi-collinearity is present.

Table 3: Multicollinearity test

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	.645	.379		1.703	.092		
Operational efficiency Post Merger	.056	.026	.233	2.108	.038	.934	1.071
Market share Post Merger	-.095	.174	-.060	-.546	.586	.943	1.061
Credit risk management	-.040	.186	-.028	-.215	.830	.668	1.496
Liquidity risk management	.032	.183	.022	.175	.861	.696	1.437

a. Dependent Variable: ROA Post Merger

The result from the test indicates that the VIF factor for operational efficiency, market share, credit risk management and liquidity risk management are 1.071, 1.061 and 1.437. The VIF in all the variables are less than 5 which is an indication that there is no Multicollinearity among the variables.

Heteroscedasticity

The researcher used Breusch-Pagan to test for heteroscedasticity and the results are as per the table 4 below

Table 4: Heteroscedasticity tests

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.003	5	.001	1.273	.284 ^b
	Residual	.035	81	.000		
	Total	.038	86			

a. Dependent Variable: Sqres

b. Predictors: (Constant), Liquidity risk management, Market share Post Merger, Operational efficiency Post Merger, Credit risk management

Table 4 above shows there was no evidence of heteroscedasticity in the data since the computed Breusch-pagan statistics is higher than the threshold ($p > .05$).

Normality test

The result for the normality test is as indicated in the table 5 below.

Table 5: Normality tests

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
ROA post-merger	.073	87	.200*	.984	87	.352
Operational efficiency post-merger	.081	87	.200*	.982	87	.260
Market share post-merger	.061	87	.200*	.978	87	.149
Credit risk management post-merger	.060	87	.200*	.972	87	.055
Liquidity risk management post-merger	.066	87	.200*	.977	87	.121

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The result above indicate that the data is normally distributed as the P value for operational efficiency, market share, liquidity risk management and credit risk management efficiency is more than 0.05 which is more or equal to the acceptable of 0.05.

Correlation Analysis

The strength of a linear connection between two variables is evaluated utilizing correlation analysis. The Pearson correlation coefficient was used to assess the relationships between the variables in the study. The outcomes are listed in table 6 below.

According to Table 6 operational efficiency ($r = 0.253$, $p > 0.051$) is highly connected to financial performance as evaluated by ROA. The positive association indicates that improving operational efficiency leads to improved financial success as measured by ROA. This suggests that the enterprises were able to attain optimal operating efficiency, increased revenue, improved capital base asset quality, and liquid assets as a result of the mergers and acquisitions. This result is comparable to that of (Ranjan & Bishnu, 2017; Megeid et al., 2019; and Natarajan et al., 2017). Other researchers showed an inverse link between operational efficiency and ROA (Musah et al., 2019; Meseret & Getahun, 2017; Hongxing et al., 2018), while others found no association at all (Rania & Warrad, 2015).

Table 6: Correlation Analysis results

		ROA Post Merger	Operational efficiency Post Merger	Market share Post Merger	Credit risk management	Liquidity risk management
ROA Post Merger	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	87				
Operational efficiency Post Merger	Pearson Correlation	.253*	1			
	Sig. (2-tailed)	0.018				
	N	87	87			
Market share Post Merger	Pearson Correlation	-0.094	-0.057	1		
	Sig. (2-tailed)	0.389	0.598			
	N	87	87	87		
Credit risk management	Pearson Correlation	-0.086	-.216*	0.084	1	
	Sig. (2-tailed)	0.426	0.044	0.441		
	N	87	87	87	87	
Liquidity risk management	Pearson Correlation	-0.035	-0.132	-0.006	.546**	1
	Sig. (2-tailed)	0.749	0.223	0.959	0.000	
	N	87	87	87	87	87

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Market share ($r = -0.094$, $p = 0.05$) shows a substantial inverse link with financial performance as evaluated by ROA. This implies that if market share increases, so will the ROA, and vice versa. This is owing to the fact that as the firm grows in size, it may encounter decreased profitability due to poor margins. The results were comparable to those of (Fraering & Minor, 1994; Hagigi et al., 1990; Mutshinyani, 2009). The findings contradicted those of (Etale et al., 2016; Leverty, 2001; Venkatraman & Prescott, 1990). This author discovered that as market share grows, so does ROA because enterprises with a large market share benefit from economies of scale and efficient exploitation of idle shared resources.

Credit risk management ($r = -0.085$, $p = 0.05$) is significantly connected with financial performance as evaluated by ROA. This means that if credit risk rises, so does financial performance, and vice versa. It can also be deduced that a unit change in a non-performing loan causes a corresponding change in financial performance (Yeasin, 2021). Liquidity risk management ($r = -0.026$, $p = 0.01$) has a negligible negative relationship with financial performance as evaluated by ROA. This indicates that if liquidity risk rises, so will financial performance, and vice versa. The negative relationship exists because when a company does

not have enough resources to fund its obligations, it is unable to lower the expenses that may have been incurred on external financing (Ariffin, 2012).

Hypothesis Testing and Discussions

The goal was to investigate the mediating role of risk management on the connection among mergers and acquisition strategies and financial performance in Kenyan commercial banks. Baron and Kenny (1986) employ four stages to investigate the intervening influence of the intervening variable on the association among the predictor and outcome variables. In the study, these procedures were followed. Regression analysis was used in stage one of the interventions to examine the association among financial performance (the outcome variable) and mergers and acquisition strategies (the predictor variable), while the intervening variable was ignored (risk management).

The second stage of the intervening model involved performing a regression analysis to examine the association among risk management (the intervening variable), mergers, and acquisition strategies (the predictor variable), while ignoring the outcome variable (bank financial performance). The third step of the intervention was to conduct a regression analysis to examine the relationship between risk management (intervening variable) and bank performance (outcome variable), while ignoring the predictor variable (mergers and acquisition strategies). The fourth component of the intervention study involved assessing the association among financial performance (the outcome variable), risk management (the intervening variable), and merger and acquisition strategies (predictor variable).

For an intervention effect to be considered positive, four conditions must be met, according to Baron and Kenny's (1986) methodology. First, in the absence of an intervening variable, there must be a meaningful link between the predictor variable and the dependent variable. Second, there must be a meaningful relationship between the predictor and intervening variables. Third, the intervening variable and the dependent variable must have a meaningful relationship. Fourth, after evaluating the effects of the intervening variable on the outcome variable, the effect of the predictor variable on the outcome variable becomes unimportant.

The researcher investigated the effects of commercial bank financial performance (as measured by return on asset (ROA)), mergers and acquisition strategies (as measured by operational efficiency, managerial

efficiency, and market share), and mergers and acquisition strategies (as measured by operational efficiency, managerial efficiency, and market share) (as measured by operational efficiency, managerial efficiency, and market share). The intervening variable (Risk Management) was calculated using non-performing loans (Credit Risk Management) and the liquidity ratio (Liquidity Risk Management). The following is the null hypothesis:

The intervening role of risk management on the relationship between mergers and acquisitions strategies and financial performance among commercial banks in Kenya is not significant

Step One of Testing the Intervening Effect: Effect of Independent Variable on Dependent Variable

Mergers and acquisitions strategies were regressed against the financial performance of commercial banks while ignoring the risk management. The results are as presented in the below table 7. The model should be significant for the next step to be activated ($p < 0.05$).

Regression result for mergers and acquisitions strategies as the independent variable and financial performance of commercial banks as the dependent variable

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.266 ^a	.071	.048	.117		
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.087	2	.044	3.186	.041 ^b
	Residual	1.150	84	.014		
	Total	1.237	86			
Coefficient of regression						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.775	.264		2.933	.004
	Operational efficiency Post Merger	.060	.025	.249	2.362	.002
	Market share Post Merger	-.125	.167	-.079	-.753	.454

a. Dependent Variable: ROA Post Merger

Table 7 reveals that mergers and acquisitions strategies as proxied by operational efficiency is statistically significant to financial performance ($p = 0.002 < 0.05$).

The findings of this research indicate that, with the exception of market share, commercial banks' mergers and acquisitions strategies are positively associated to the financial success of the institutions in question.

The analytical model which was: $ROA_i = \beta_0 + \beta_1 OF + \beta_2 MS + \epsilon_i$ is

Therefore specified as:

$$ROA_i = 0.775 + 0.060OF - 0.125MS + \epsilon_i$$

ROA_i stands for return on asset, OF_i for operational efficiency, MS_i for market share, and ϵ_i for an error term .Below is the simplified regression model after elimination of insignificant factors:

$$ROA_i = 0.775 + 0.060OF + \epsilon_i$$

Step Two of Testing the Intervening Effect: Estimate Effect of Independent Variable (mergers and acquisitions strategies) on Intervening Variable (risk management)

Step 2 involved testing the effect of the independent variables on their corresponding intervening variables. The effects of operational efficiency and market share to Liquidity risk ratio and Non-performing ratio were tested. P value should be equal or less than 5 for one to proceed to the next step.

Table 8 Regression result with Liquidity risk management as the dependent variable and operational efficiency as the independent variable

Model summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.132 ^a	.017	.006	.083		
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.011	1	.011	1.507	.223 ^b
	Residual	.594	85	.007		
	Total	.605	86			
Regression coefficient						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.249	.039		32.413	.000
	Operational efficiency Post Merger	-.022	.018	-.132	-1.228	.223
a. Dependent Variable: Liquidity risk management						

The results presented in Table 8 show that operational efficiency is not statistically significant predictor of liquidity risk management ($p=0.223>0.05$).

Table 9: Regression result with Liquidity risk management as the dependent variable and market share as the independent variable

Model summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.006 ^a	.000	-.012	.084		
Goodness of fit						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	1	.000	.003	.959 ^b
	Residual	.605	85	.007		
	Total	.605	86			
Regression analysis						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	1.213	.184		6.587	.000
	Market share Post Merger	-.006	.120	-.006	-.052	.959

a. Dependent Variable: Liquidity risk management

From the results in Table 9, market share is an insignificant predictor of liquidity risk management ($P=0.959>0.05$).

Table 10: Regression result with credit risk management as the dependent variable and operational efficiency as the independent variable

Model summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.216 ^a	.047	.036	.082		
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.029	1	.029	4.166	.044 ^b
	Residual	.582	85	.007		
	Total	.610	86			
Regression coefficient						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.223	.038		5.850	.000
	Operational efficiency Post Merger	-.036	.018	-.216	-2.041	.044

a. Dependent Variable: Credit risk management

From the results in Table 11, operational efficiency is a significant predictor of credit risk management ($P=0.044 \leq 0.05$).

Table: 11 Regression result with credit risk management as the dependent variable and market share as the independent variable

Model summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.084 ^a	.007	-.005	.084		
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.004	1	.004	.601	.441 ^b
	Residual	.606	85	.007		
	Total	.610	86			
Regression coefficient						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.005	.184		.026	.980
	Market share Post Merger	.093	.120	.084	.775	.441

a. Dependent Variable: Credit risk management

From the results in Table 10, market share is an insignificant predictor of credit risk management ($P=0.441>0.05$).

Table 11 Summaries of Results of Intervention Assessment Steps One and Two

	Step 1	Intervening variables	Step 2	Step 3
Mergers and acquisition strategies	*	Risk management	**	***
Operational efficiency	Yes	Liquidity risk management	No	No
Market share	No	Liquidity risk management	No	No
Operational efficiency	Yes	Credit risk management	Yes	Yes
Market share	No	Credit risk management	No	No

* - Is mergers and acquisitions strategies a significant predictor of financial performance?

** - Is mergers and acquisitions strategies a significant predictor of risk management?

***-mergers and acquisitions strategies and risk management to be considered further?

Table 11 above summarizes the results intervention assessment. The findings indicate that only operational efficiency effects the intervening.

Step Three of Testing the Intervening Effect: Estimate Effect of intervening Variable (risk management) on dependent Variable (Financial performance)

Step 3 involved testing the effect of the intervening variables on dependents variables. The effects of credit risk and liquidity risk management were tested. The intervening and dependents variables should be related ($p < 0.05$).

Table 12: Regression result with credit risk management as the independent variable and financial performances the dependent variable

Model summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	
						F Change	df1	df2		
1	.086 ^a	.007	-.004	.120	.007	.641	1	85	.426	
ANOVA										
Model			Sum of Squares	Df	Mean Square	F	Sig.			
1	Regression		.009	1	.009	.641	.426 ^b			
	Residual		1.228	85	.014					
	Total		1.237	86						
Regression coefficient										
Model		Unstandardized Coefficients			Standardized Coefficients		t	Sig.		
		B	Std. Error		Beta					
1	(Constant)	.725	.026			27.782	.000			
	Credit risk management	-.123	.154		-.086	-.800	.426			
a. Dependent Variable: ROA Post Merger										

Table 11 reveals that the ($P=0.426 > 0.05$) and therefore credit risk management do not have a significant influence on the financial performance. Since there is no apparent effect of the intervening variables on the dependent variables, the conclusion is that there is no intervening effect and hence step four is not necessary. It is therefore concluded that risk management has no intervening role on the relationship between mergers and acquisition strategies and the financial performance of commercial banks and hence the failure to reject the null hypothesis three.

Conclusions and Recommendations

The researcher failed to reject null hypothesis, implying that the intervening role of risk management on the relationship between mergers and acquisitions strategies and financial performance among commercial banks in Kenya are not significant.

The study result is similar to those of Yahaya, Mahat, & Matemilola, 2022, whose findings were such that, liquidity risk management and credit risk management had a negative relationship with the financial performance of commercial banks. Yulianto, 2022 found that credit risk management and liquidity risk management do not have a significant influence on the financial performance of commercial banks.

Credit and liquidity risk management, according to the study's findings, have an influence on operational efficiency. This suggests that a lack of operational efficiency can lead to insufficient credit risk management, leading to an increase in non-performing loans and, as a result, an increase in provision for non-performing loans, resulting in worsening financial performance. Similarly, insufficient operational efficiency can result in insufficient liquidity management, leaving the bank unable to service its short-term commitments when they become due. Because liquidity risk management is one of the prudential principles established by the Central Bank of Kenya, the bank may face reputational risk and regulatory scrutiny. Overall, risk management did not have a mediating role in the relationship between mergers and acquisitions strategies and financial performance of commercial banks.

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