# INFLUENCE OF FINANCIAL RISK MANAGEMENT ON THE FINANCIAL PERFORMANCE OF LOGISTICS COMPANIES IN THE COASTAL REGION

**Winfred Nafula Omedo & Dr. Moses Wanjala, PhD**

The Strategic JOURNAL of Business & Change MANAGEMENT
ISSN: 2312-9492 www.strategicjournals.com

*Vol. 10, Iss.2, pp 1084 – 1103. May 17, 2023. www.strategicjournals.com, ©Strategic Journals*

# INFLUENCE OF FINANCIAL RISK MANAGEMENT ON THE FINANCIAL PERFORMANCE OF LOGISTICS COMPANIES IN THE COASTAL REGION

**[1] Omedo, W. N., & [2] Wanjala, M.**

[1] MBA Student, Jomo Kenyatta University of Agriculture & Technology (JKUAT), Kenya
[2] Lecturer, Jomo Kenyatta University of Agriculture & Technology (JKUAT), Kenya

**Accepted: May 5, 2023**

**ABSTRACT**

*This research established the influence of financial risk management strategies on the financial performance of logistics companies in the Coastal Region. The study adopted a cross-section research design. The researcher targeted 132 logistics companies in Kilifi and Mombasa Counties. The research used primary data where structured questionnaires was used to collect data for analysis. Finally, the researcher used SPSS version 26 for data analysis. It was determined that foreign exchange risk management strategy significantly affect financial performance of logistics companies (r=0.140; p=0.003). It was further determined that an improvement of foreign exchange risk management strategy would significantly contributes to the improvement of financial performance of the organization (β=0.127; t=2.037; p=0.044). On the second objective, it was determined that liquidity risk management strategy positively and significantly affect financial performance of logistics companies (r=0.128; p=0.008). It was shown that liquidity risk management strategy improvement significantly contributes to the improvement of financial performance (β=0.218; t=2.741; p=0.007). It was determined that market risk management strategy significantly and positively affects performance of the organization (r=0.112; p=0.007). It was further determined that market risk management strategy improvement would significantly contributes to the improvement of organizational performance (β=0.173; t=3.045; p=0.003). On the fourth objective, the study established that credit risk management strategy significantly and positively affects the financial performance of logistics organisations (r=0.201; p=0.004). It was also determined that credit risk management strategy improvement would lead to a significant improvement of financial performance (β=0.173; t=3.045; p=0.003). The study concluded that financial risk management strategies (foreign exchange risk management strategies, liquidity risk management strategies, market risk management strategies and credit risk management strategy) significantly affects financial performance of logistics companies. The study recommends that; foreign exchange risk management should always be taken in to account to improve the firms return on assets and hence the financial performance of the logistic firms. Policy makers should also undertake to understand risks affecting the foreign exchange markets in order to maximize returns.*

***Key Words:*** *Foreign Exchange Risk Management, Market Risk Management, Liquidity Risk, Credit Risk*

**CITATION:** Omedo, W. N., & Wanjala, M. (2023). Influence of financial risk management on the financial performance of logistics companies in the coastal region**.** *The Strategic Journal of Business & Change Management,* 10 (2), 1084 – 1103.

## INTRODUCTION

Various business organizations including logistics companies apply traditional tactics to financial performance of maximizing sales, values and profitability. However, logistic companies have now realized the importance of nonfinancial and environmental performance, government regulations and community pressures has also been affecting operations of these companies (Memon & Muhamad, 2020). Consequently, several strategies have been introduced for organization to improve their performance and gain desirable environment, namely through risk management, entrepreneurial orientation, intellectual capital and technology (Demartini & Beretta 2020; Shad, *et al.,* 2019).

Globally, the issue of managing risk has taken a center stage in many organizations and logistics companies have not been spared. Investors have continuously grieved from the matters of intermittent business performance (Chapman, 2017). The corporate failure of Enron and WorldCom in 2001 and 2002 respectively had exposed the inadequacies of corporate governance practices, the integrity of financial reporting, inadequate compliance and monitoring as well as poor risk management initiatives (Chapman, 2017) of these great corporate entities. Economist Intelligence Unit (2019) reported that a large number of businesses have perceived a rise in risk and its severity in their operation, due to the interconnectedness of the global business environment.

Egyptian companies have recently suffered from identifying financial risk factors originated from political and economic components that happened between time period of January 2011 and January 2013 (Khodeir & Mohamed, 2017). The top significant risks recognized during this period include: currency price changes, new tax rates, official changes, and workers' strikes and fire risk ( Kolhatkar & Dutta, 2018). Gad, *et al.,* (2018) adds that financial risks are main factors that affect the business organizations in Egypt. Over the past 10 years, the cost of operations has drastically increased. The uncertainties come from various sources such as political risks, economic risks, financial risks, physical risks, design risks, logistics risks, operations-related risks, and environmental risks.

Kenya experienced difficult economic times forcing business organizations such as logistics companies to operate in a very risk environment and hence sustaining their operations has been difficult. Logistics costs are typically 5 – 6% revenue and a major contribution to overall product costs of the customers. The longer lead times with global suppliers, volatile fuel and risks such as unavoidable delays make estimating the costs and time associated with transportation difficult, parts continue to experience delays resulting in higher transportation costs. Increasingly complex international trade laws and security measures threaten to strengthen the delivery times and increase warehousing costs. As a result, logistics companies incur high expenditure and inventory costs Kenya (Freight Forwarders Association, 2017).

Kenya has a large number of logistics companies, based primarily in Nairobi and Mombasa. Large international courier services, such as UPS and DHL, operate in the country alongside smaller, local firms. The major global consultancy firm Deloitte is in operation, alongside local firms such as Strategic Training and Logistics Consultants Limited. The Kenya International Freight and Warehousing Association is the industry body. Development and regulation of the sector is overseen by the Ministry of Transport. The World Bank's Logistics Performance Index places Kenya 122$^{nd}$ overall out of 155 countries, with a score of 2.43, 45.9% of the highest performer, Singapore ((KTA, 2018).

With the launch of SGR, Transporters are operating in a skewed market where SGR is being systematically favoured over road transportation and where importers are being compelled to use the SGR. Many trucking companies are facing


The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

closure due to the unbearable operational costs; un-serviced bank loans due to reduced business due to SGR and licensing (KTA, 2018). The cost of transport is a major component of the cost of doing business for transport and logistics firms in Kenya and the Eastern Africa region. It is a key contributor to the competitiveness of firms involved in import and export. Key factors that raise costs include low productivity of the trucking industry in Africa, notably because of infrastructure constraints (Pedersen 2018); low levels of competition between service providers (Rizet & Hine 2018); and weak infrastructure (Limao & Venables, 2018).

**Statement of the Problem**

Proper management of risks ensures that the financial earning capacity of a firm is enhanced and guarantees future firm growth. One cannot overstate the importance of financial risk management tools and solutions (KPMG, 2020). Strong financial risk management practices can help transportation companies reduce their exposure to financial risks, and enhance their ability to compete in the market with other well-established institutions (Iqbal & Mirakhor, 2017). Since they play an important part of the economy and they account for approximately 93% of cargo transportation from one point to another (Kenya Fowarders Association, 2020)

COVID-19 has directly affected business continuity of various sectors and transport sector has not been spared as demand plunges, supply chain dry up and business operations reduce. These risks may quickly lead to increased third party risks, re-financing requirements, pressure on covenants and liquidity risks (Deloitte, 2021). The number shipping through ports has declined by 9.5% during January to May 2020, including the Port of Mombasa, this has a direct effect on the financial health of transport and logistics firms in the region (ISL, 2020). Further, the complexity of logistic industry is due to the fact that the sector is heterogeneous and fragmented and mainly dominated by family ownership or small scale (Noor, 2019).

Despite the existing problems facing the sector, few studies especially those linking financial risk management strategies and financial performance have not been carried out. For instance, Mutuku (2018) examined the relationship between financial performance and risk management of commercial banks in Kenya. Where it was determined that various classification of risk management practices significantly and positively affected financial performance. Wamalwa and Mukanzi (2018) conducted case study of banks in Kakamega County, on how financial performance is being influenced by financial risk practices. Where it was established that capital and credit risk management practices positively and significantly affect financial performance, while interest rate and liquidity risk management practices have a negative effect. Globally Al-Nimer, Abdadi, Al-Omush and Ahmed (2021) examined the mediating role of business model innovation on the relationship between firm performance and risk management practices in Jordan. Where it was revealed that business model innovation fully mediated the relationship between enterprise risk management practices and financial performance. Based on this review, it is evident that there exists a conceptual and contextual research gap, which this study intends to bridge the gap.

**Objectives of the Study**

The main objective of the study was to examine the influence of financial risk management on the financial performance of logistics companies in the Coastal Region. The study's specific objectives were;

- To establish the influence of foreign exchange risk management on the financial performance of logistics companies in the Coastal Region.
- To determine the influence of market risk management on the financial performance of logistics companies in the Coastal Region.
- To assess the influence of liquidity risk management on the financial performance of logistics companies in the Coastal Region.


The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

- To examine the influence of credit risk management on the financial performance of logistics companies in the Coastal Region.

This study tested the following null hypothesis:

- **$H_{01}$:** Foreign exchange risk management has no significant influence on the financial performance of logistics companies in the Coastal Region.
- **$H_{02}$:** Market risk management has no significant influence on the financial performance of logistics companies in the Coastal Region.
- **$H_{03}$:** Liquidity risk management has no significant on the financial performance of logistics companies in the Coastal Region.
- **$H_{04}$:** Credit risk management has no significant on the financial performance of logistics companies in the Coastal Region.

## LITERATURE REVIEW

### Theoretical Review

#### Purchasing Power Parity Theory

The purchasing power Parity (PPP) turned into first developed by means of the Swedish economist Gustav Cassel in 1920s to observe the relationship between the trade charges of different international locations. The PPP holds if and while change charges pass to offset the inflation price differentials among nations. The PPP is likewise described as the premise of the "law of 1 charge" which asserts that the change fee between currencies should be same to the ratio of the charge level of equal goods and offerings in the countries. The purchasing strength Parity (PPP) theorem explains the relationship among relative costs of products and change quotes. The PPP theorem propounds that under a floating exchange regime, a relative exchange in purchasing power parity for any pair of forex calculated as a price ratio of traded items would have a tendency to be approximated by a trade in the equilibrium fee of change among these currencies (Shapiro & Rutenberg, 2017).

Consistent with the PPP, growth inside the charge stage of a rustic will cause depreciation of its change charge relative to different countries, thereby preserving the relative price of identical items the identical across nations. This principle shows that change price modifications were offset with the aid of relative fee indices/inflation for the reason that law of 1 fee should maintain. PPP follows from the law of 1 rate, which states that in competitive markets, identical items will sell for same prices whilst valued inside the same currency. It relates to an individual product and its generalization is absolutely the model of PPP. Relative PPP pertains to modifications in costs and trade quotes, instead of on absolute rate stages. It states that trade in change costs is proportional to the exchange in the ratio of the 2 international locations' rate levels, structural relationships final unchanged (Shapiro & Rutenberg, 2018).

#### Capital Asset Pricing Model

The Capital Assets Pricing Model (CAPM) is a theory that targets to measure the relationship between the systematic risk of a security or portfolio and its expected return. The theory was propounded by Sharpe (1964) and Lintner (1965). Though it was a development on the portfolio model built by Markowtiz (1952), by adding two assumptions which say that; oneinvestors are risk averse, two-when choosing among portfolios, investors care only about the mean and variance of their one period investment return (Rossi, 2018). In CAPM, total risks associated with an asset can be split up in two components; systematic (non-diversifiable) and unsystematic (diversifiable) risk (Noor & Abdalla, 2019).

The risk that is of importance or relevance to CAPM is the systematic (non-diversifiable) risk which affects all assets traded on the market and is related to political, social and economic variables (Rodriguez-Moveno & Pena, 2018). Similarly, Hull (2018) posits that systematic risk is associated with asset price behavior in relation to market fluctuations and may be subdivided into stock price risk, foreign exchange risk, interest rate risk and commodity price risk. Pertinently, the CAPM shows that investors only get compensated for holding


The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

systematic risk, since the firm specific component of risk can be eliminated through diversification (Monda, *et al.,* 2018).

**Shiftability of Liquidity Theory**

The shiftability theory of liquidity was proposed by Moulton (1918), who affirmed that if the business organisations maintain a substantial amount of assets that can be shifted for cash without material loss in case of necessity, then there is no need to rely on maturities. In other words, for an asset to be perfectly shiftable, it must be immediately transferable without capital loss when the need for liquidity arises. This is particularly applicable to short term market investments, such as treasury bills which can be immediately sold whenever it is necessary to raise funds by these firms.

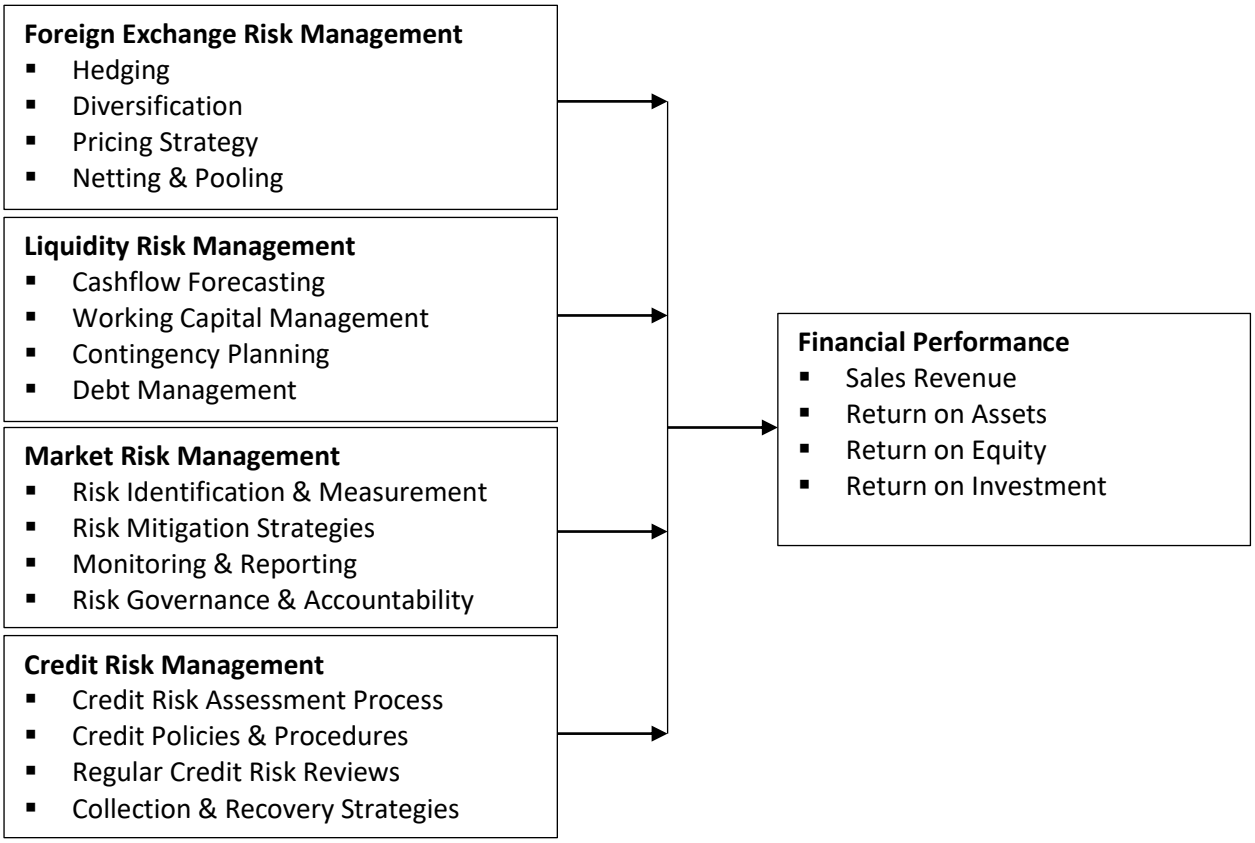
This theory has weaknesses. First, mere shiftability of assets does not provide liquidity to the firms as it entirely depends upon the economic circumstances. Second, the shiftability theory ignores the fact that in times of acute depression, the shares and debentures cannot be shifted on to other firms. In such a situation, there are no buyers and all who possess them want to sell them. Third, a single institution may have shiftable assets in sufficient quantities but if it tries to sell them when there is a run, it may adversely affect the entire finance system (Allen & Gale, 2019).

**Financial Distress Theory**

Baldwin and Scott (1983) purported that when a firm's business deteriorates to the point where it cannot meet its financial obligation, the firm is said to have entered the state of financial distress. The first signals of financial distress are violations of debt payments and failure or reduction of dividends payouts. Whitaker (2019) defines entry in financial distress as the first year in which cashflows are less than current maturities' long-term debt. The firm has enough to pay its creditors as long as the cashflows exceeds the current debt obligations. The key factor in identifying firms in financial distress is their inability to meet contractual debt obligations. However, substantial financial distress effects are incurred well prior to default.

Wruck (2020) stated that firms enter into financial distress as a result of economic distress, declines in their performance and poor management especially on risks. Boritz (2021) depicts a process of a financial distress that begins with an incubation period characterized by a set of bad economic conditions and poor management which commits costly mistakes. The relevance of the financial distress theory emanates from the liquidity and credit risk facing a firm. In the logistic firms, in ability to avoid financial distress and when the demand may constitute a liquidity crisis. Other creditors also need to be taken into account when firms are putting in place risk management measures. The following credit risk management techniques can be used: Credit risk assessment process, credit policies and procedures, regular credit risk reviews and collection and recovery. Logistic firms should manage the credit and liquidity risk in order to avoid the financial distress. The foregoing instigated the question as to what is the effect of the credit risks on the financial performance.

**Conceptual Framework**




**Independent Variables** **Dependent Variable**

**Figure 1: Conceptual Framework**

**Review of Study Variables**

Foreign exchange management involves procedures which entail eliminating or reducing currency risks, and need understanding of all the ways in which the exchange rate risk may have an effect on the operations of economic agents and strategies to alter the resultant risk implications (Walker, 2017). Choosing the suitable hedging strategy is commonly a frightening task attributable to the complexities concerned in measuring accurately current risk exposure and selecting the suitable degree of risk exposure that have to be covered (Papaioannou, 2018). Forex risk mitigating methods embrace forward contracts, cross-currency swaps, options, leading and lagging, netting and value changes. several studies conducted on strategies of risk management, most of them targeting financial performance impact on completely different entities (Tafri, *et al*., 2018)

Foreign exchange rate volatility creates a risky business setting where there are uncertainties concerning future profits and payments. These are particularly exacerbated in countries where monetary instruments for hedging against exchange risk don't seem to be developed, which is the case in several developing countries like Kenya (World Bank & MTTI, 2018). Forex exchange risk is the risk connected with the sudden changes in exchange rates and exchange exposure because the extent to those surprising changes in exchange rates have an effect on the worth of a firm's assets or liabilities (Butler, 2018).

Liquidity risk management refers to the preparation and control needed to ensure that the company risks associated with liquid assets either as an obligation to satisfy the incidental lenders' demand are met (Olagunju, Adeyanju, & Olabode, 2018). The key goal of liquidity management is to ensure

that the cash inflows of a firm are matched with its cash outflows. Liquidity risk management is highly important for firms since the consequences of liquidity insufficiency can be extremely felt on both scales from the firm to the full system. Therefore, firms are responsible for sound management of liquidity risk, which focuses on conserving enough level of liquidity, moreover being ready to face a range of pressure situations, probable losses, or weakness of funding sources (Sviatlana & Lara, 2017).

Liquidity risk management for organisations focuses on the ability of the organization to finance its activities and fulfill its obligations on time and at a reasonable cost. It also means the compatibility between financial reserves and employment in various assets in the medium and short term. This requires studying the nature of the organisation's deposits and the pattern of the cost of obtaining these deposits, the return realized from the use of these deposits in other investments. There are three facets of liquidity risk management: Assessment and management of net funding needs, market access, and contingency planning. A significant part of liquidity risk management is the estimation of potential future events (Ahlam & Aicha, 2018).

Market risk management are the procedures undertaken to manage the risk that a firm will incur losses because of a change in the price of assets held resulting from changes in interest rate, securities, commodity prices and other market risk factors (Ekinci, 2018). Ekinci (2018) upholds that market risk is the risk of losses in liquid portfolio arising from the movements in market prices and consisting of interest rate, inflation rate, equity and commodity price risks. In the words of Ekinci (2018) and Namasake (2018), market risk exposure is more volatile than credit risk exposure because of rapid changes in market condition that can cause severe financial losses and possible collapse.

The market risk approach covers general market risk and the risk of open positions in currencies, debt and equity securities. Assets are assigned a risk according to the amount of capital deemed to be necessary to support them (Ekinci, 2018). According to KU (2018) deregulations and competition increases the volatility of energy prices. The more volatile an energy market is the riskier it is for firms doing business in the market.

Credit risk management is the practice of mitigating credit risk losses by understanding the loans issued to the organisation at any given time (Conford, 2020). Coyle (2020) describes credit risk as misfortunes from the refusal or powerlessness of borrowers to pay up all required funds and on time. Credit risk management practice is characterized as the mix of composed tasks and exercises for controlling and coordinating credit risks faced by an association through the joining of key risk administration strategies and procedures in connection to the organization's goals (Nikolaidou & Vogiazas, 2019). Notably, risk management practices are not created and planned to kill risks in and out but rather they go for controlling opportunities and risks that may bring about risk (Frank, Simon & Josephine, 2014). Credit risk management is fundamental in advancing the optimized running of money related institutions (Basel, 2020).

Afriyie *et al.,* (2018) examined the impact of credit risk on the profitability of rural and community banks in the BrongAhafo Region of Ghana. The study used the financial statements of ten rural banks from the period of 2011 to 2015 (five years) for analysis. The panel regression model was employed for the estimation. In the model, of Return on Equity (ROE) and Return on Asset (ROA) were used as profitability indicator while Non-Performing Loans Ratio (NLPR) and Capital Adequacy Ratio (CAR) as credit risk management indicators. The findings indicated a significant positive relationship between non-performing loans and rural banks' profitability revealing that, there are higher loan losses but banks still earn profit. He found that there is a relationship between the credit risk management and profitability of selected rural banks in Ghana.


The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

Financial performance is a measure of how well a firm uses its benefits from its essential method of business to create incomes. This term is additionally utilized as a general measure of an association's general budgetary wellbeing over a given timeframe, and can be utilized to analyze comparative firms over the same business or to think about ventures or divisions in aggregation (Amidu & Abor, 2018). Measures of after-expense rates of return, for example, the Return on Assets (ROA) and the Return on Equity (ROE) are broadly used to survey the execution of firms, including commercial banks (Allen, 2018). In financial organizations, experts have utilized ROA and ROE to survey industry execution and gauge slants in market structure as contributions to factual models to foresee failures and mergers and for range of different purposes where a measure of gainfulness is sought. Case in point, in banks, productivity is resolved from the interest rate spreads amongst credits and deposits, as dominant part of its wage is from interests. Since productivity is resolved from income and costs, banks need to closely screen the variables that influence these two determinants (Bennaceur & Goaied, 2018).

**Empirical Review**

Internationally, Al-Shraah, *et al.,* (2021) examined the impact of risk management on financial performance of Banks in Jordan. The research implemented the quantitative methodology by distributing the questionnaires to over 300 participants; however, only 123 respondents replied to them. The study found that there is a direct relationship between credit, liquidity, market risk, and financial performance. The findings showed that for every one unit increase in risk control, the risk financial performance is affected by 1%, while for every one unit increase in credit risk, the risk financial performance is affected by 1.6%, while for every one unit increase in market risk, the financial performance is affected by 1.5% and for every one-unit increase in liquidity risk the financial performance is affected by 4.7%. the study recommended that banks should comply more seriously with international standards such as Basel I, II, and III, requiring banks to do a thorough investigation about clients to reduce credit risk.

Coming to Africa, Mapharing and Dzimiri (2020) examined the impact of financial risk management practices on financial performance of banks in Botswana. The research population was all the 10 commercial banks in Botswana and the study covered a period of 8 years from 2011 to 2018. This descriptive study sourced monthly secondary data from Bank of Botswana Financial Statistics database. The study found that interest rates had a negative and significant impact on return on assets and on return on equity. On the other hand, total debt to total assets showed a negative and insignificant effect on return on assets. However, total debt to total assets, revealed a positive and insignificant effect on return on equity. The loan deposit ratio indicated a negative and significant impact on return on assets and on return on equity. Findings suggest that banks should strike a proper balance between financial risk management practices and financial performance by engaging in appropriate market, credit, and liquidity risk management practices that will ensure safety for their banks and yield positive profits.

Locally, Kiptoo, *et al*., (2021) studied financial performance of insurance firms in relation to risk management. The study collected data on 51 insurance firms from the period between 2013 to 2020 and regression analysis was used to examine the relationship between the study variables. The study indicated that market risk management, operational risk management and liquidity risk positively and significantly affects financial performance of the firms. The study recommended that directors and other stakeholders should put in place proper risk management strategies to boost financial performance. It was further recommended that regulators and policymakers should come up with policies and regulations that will ensure firms adopt appropriate risk management strategies to enhance performance.

Mutuku (2018) examined the effect of risk management on the financial performance of commercial banks in Kenya. The study used structured questionnaire which was distributed to 42 commercial banks and regression analysis was done to examine the relationship between the study variables. The study found that risk management practices under study significantly affected the financial performance of commercial banks with an exception of capital adequacy and risk monitoring which had a negative effect. The study recommended that commercial banks should also check their risk management policy, Procedures and practices and streamline them with global standards such as the Basel III accords.

Wamalwa and Mukanzi (2018) studied how financial performance of commercial banks in Kakamega are influenced by financial risk management practice. Panel data analysis and descriptive research design was used, where 9 commercial banks were targeted. The study revealed that credit risk and capital risk management practices had a positive and significant influence on financial performance of commercial banks. On the other hand, liquidity management practice and interest rate risk management had a negative and none significant influence on financial performance of commercial banks in Kakamega. The study recommended that it was important for banks to have a robust framework that effectively management financial risks because they affect financial performance of commercial banks.

Onsongo, *et al.,* (2020) examined financial performance and financial risk: evidence and insights from commercial and services listed companies in Nairobi Securities Exchange, Kenya. The study applied explanatory research design. The target population were the 14 companies listed under this segment of NSE. Secondary panel data contained in published annual reports for the period 2013–2017 was collected. The study found that credit risk had an insignificant positive effect on return on equity (ROE) while liquidity risk had a significantly negative effect on ROE and operational risk had a positive insignificant effect on ROE. The study recommended that credit risk, liquidity and operational risks are critical, and companies need to pay attention to them.

## METHODOLOGY

The study adopted a cross-sectional survey design as a blue print to guide the research process. In study target population was logistics firms located in the Kilifi and Mombasa Counties. This study relied on the Yamen's formulae to determine the sample size of 99 from a target of 132. Cluster sampling strategies was used to select the number of logistics firms to be involved.

The study used primary data and the main instrument for data collection instrument was a questionnaire, with mainly closed ended questions. Collected data was first checked for accuracy before analysis is done. Only fully filled questionnaires was considered so as to help in testing for the distribution of data. Data was analyzed using both descriptive and inferential statistics. The descriptive statistics that was used include percentages and frequencies. According to Kothari and Guarav (2019) the clustering tendency and describing of data characteristics can be done using descriptive statistics (mean, frequency and standard deviation) and inferential statistics. Statistical Package for Social Sciences Version 26 will be used to compute, analyze and present the research findings. The collected data will be first coded to enable the categorization of the responses. Data was also be cleaned by checking for any errors that was committed during entry.

The analysis of inferential statistics was based on the coefficient of correlation, analysis of variance (ANOVA) for model significance, coefficient of determination for model of fitness, and regression model. The model that was used to test hypotheses was multiple linear regression model.

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$

Y = Financial Performance

$B_0$ = Y Intercept


The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

$X_1$ = Foreign Exchange Risk Management
$X_2$ = Market Risk Management
$X_3$ = Liquidity Risk Management
$X_4$ = Credit Risk Management

e = Error Term
$\beta_1$, $\beta_2$, $\beta_3$ and $\beta_4$ = Coefficients of $X_1$, $X_2$ and $X_3$ respectively

**Hypothesis Testing**

**Table 1: Hypothesis Testing**

| Objective | Null Hypothesis | Type of Analysis | Interpretation |
|---|---|---|---|
| To establish the influence of foreign exchange risk management on the financial performance of logistics companies in the Coastal Region. | **$H_{01}$:** Foreign exchange risk management has no significant influence on the financial performance of logistics companies in the Coastal Region. | Pearson Correlation Regression Analysis | If p-value < 0.05, Reject the null hypothesis. |
| To determine the influence of market risk management on the financial performance of logistics companies in the Coastal Region. | **$H_{02}$:** Market risk management has no significant influence on the financial performance of logistics companies in the Coastal Region. | Pearson Correlation Regression Analysis | If p-value < 0.05, Reject the null hypothesis. |
| To assess the influence of liquidity risk management on the financial performance of logistics companies in the Coastal Region. | **$H_{03}$:** Liquidity risk management has no significant on the financial performance of logistics companies in the Coastal Region. | Pearson Correlation Regression Analysis | If p-value < 0.05, Reject the null hypothesis. |
| To examine the influence of credit risk management on the financial performance of logistics companies in the Coastal Region. | **$H_{04}$:** Credit risk management has no significant on the financial performance of logistics companies in the Coastal Region. | Pearson Correlation Regression Analysis | If p-value < 0.05, Reject the null hypothesis. |

**FINDINGS**

**Descriptive Statistics**

**Foreign Exchange Risk Management Strategy**

On the first independent variable the respondents were asked to indicate the extent in which they agree with the various statements on foreign exchange risk management strategies in relation to financial performance. The following scale was used: 1=Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree and 5= Strongly Agree.

**Table 2: Foreign Exchange Risk Management Strategy**

| Opinion Statements | Mean | Std. Deviation |
|---|---|---|
| Volatility in the logistics market can be managed forward contracts | 3.66 | .827 |
| Market uncertainty can be managed by forward contracts | 3.31 | 1.061 |
| Financial options provide profit opportunity for logistics firms in the region | 4.19 | .821 |
| Future contracts can be used to limit logistics firms' exposure to risk | 3.97 | 1.031 |
| Cross-currency swaps presents a compelling benefit to the organisation | 4.19 | .859 |
| Cross-currency swaps has helped in eliminating foreign currency exposure | 4.09 | .963 |
| **Overall Mean** | **3.90** | **.927** |
| Valid N = 93 (listwise) | | |

Based on the table 2, it was evident that majority of the respondents agreed that volatility in the logistics market can be managed forward contracts with (M=3.66; SD=0.827) and majority of them also agreed that market uncertainty can be managed by forward contracts (M=3.31; SD=1.061). It was also determined that majority of the respondents strongly agreed

that financial options provide profit opportunity for logistics firms in the region (M=4.19; SD=0.821) and also majority of the respondents agreed that future contracts can be used to limit logistics firms' exposure to risk with (M=3.97; SD=0.859). Further, it was determined that majority of the respondents strongly agreed that financial options provide profit opportunity for logistics firms in the region with (M= 4.19; SD= 0.859) and they also strongly agreed that cross-currency swaps has helped in eliminating foreign currency exposure (M=4.09; SD=0.963). Finally, the overall mean of 3.90 and standard deviation of 0.927, implied that majority of the respondents strongly agreed that foreign exchange risk management strategy affects financial performance of logistic firms and there was a low variation from the mean since standard deviation is less than 1. This support the findings by Muiru, *et al.,* (2018) who opined that currency hedging has a positive effect on financial performance.

**Liquidity Risk Management Strategy**

On the second independent variable the respondents were asked to indicate the extent in which they agree with the various statements on liquidity risk management strategy in relation to financial performance. The following scale was used: 1=Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree and 5= Strongly Agree.

**Table 3: Liquidity Risk Management Strategy**

| | Mean | Std. Deviation |
|---|---|---|
| Poor management of liquidity risk can cause the firm to fail | 3.38 | 1.129 |
| Meeting some of the short-term obligations has not been possible for the firm due to COVID 19 | 3.59 | 1.173 |
| Majority of assets owned by logistics firms are highly illiquid | 3.41 | 1.103 |
| Logistics firms are unable to exit a position due to asset liquidity risk | 3.81 | .998 |
| Cash management strategies are expected to improve growth and profitability of logistics firms | 3.44 | 1.268 |
| Logistics firms are using sophisticated methods and standardized processes to strengthen cash management activities | 3.44 | 1.045 |
| **Overall Mean** | **3.18** | **1.119** |
| Valid N =93 (listwise) | | |

Table 3 indicated that majority of the respondents agreed that poor management of liquidity risk can cause the firm to fail with (M=3.38; SD=1.129) and they also agreed that meeting some of the short-term obligations has not been possible for the firm due to COVID 19 with (M=3.59; SD=1.073). It was further determined that majority of the respondents agreed that majority of assets owned by logistics firms are highly illiquid with (M=3.41; SD=1.103) and they also agreed that logistics firms are unable to exit a position due to asset liquidity risk with (M=3.81; SD=0.998). It was also revealed that majority of the respondents agreed that cash management strategies were expected to improve growth and profitability of logistics firms with (M=3.44; SD=1.268) and they also agreed that logistics firms are using sophisticated methods and standardized processes to strengthen cash management activities with (M=3.44; SD=1.045). On the overall mean of 3.18 and standard deviation of 1.119, implied that majority of the respondents agreed that liquidity risk management strategy affects financial performance of logistic firms and there was a strong variation from the mean since


The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

standard deviation is greater than 1. The above findings contradicted the findings by Laminfoday (2018) who postulated that there exists a significant negative nexus between liquidity risk management and financial performance of commercial banks in Sierra Leone.

**Market Risk Management Strategy**

On the third independent variable the respondents were asked to indicate the extent in which they agree with the various statements on market risk management strategy in relation to financial performance. The following scale was used: 1=Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree and 5= Strongly Agree.

**Table 4: Market Risk Management Strategy**

| Opinion Statements | Mean | Std. Deviation |
|---|---|---|
| Management of interest risk has become important for the logistics firms to deal with interest rate risk | 4.03 | .861 |
| It is not possible for logistics firms to make profits, without hedging on interest risks | 4.03 | .897 |
| Commodity risk management plays a crucial element in logistics trading | 3.81 | .896 |
| Commodity risk management reduces the uncertainty market swings and can be used to predict outcome | 3.87 | .833 |
| Investors of the logistic firms takes higher risks for the equity market | 3.59 | .946 |
| Inflationary risks affect undermines the investment returns of the firms | 4.03 | .967 |
| **Overall Mean** | **3.89** | **.901** |
| Valid N =93 (listwise) | | |

It was determined that majority of the respondents strongly agreed that management of interest risk has become important for the logistics firms to deal with interest rate risk with (M=4.03; SD=0.861) and they also strongly agreed that it was not possible for logistics firms to make profits, without hedging on interest risks (M=4.03; SD=0.897). It was also agreed that commodity risk management plays a crucial element in logistics trading with (M=3.81; SD=3.59) and they also agreed that commodity risk management reduces the uncertainty market swings and can be used to predict outcome with (M=3.87; SD=0.833). Majority of the respondents agreed that investors of the logistic firms takes higher risks for the equity market (M=3.59; SD=0.946) and they also strongly agreed inflationary risks affect undermines the investment returns of the firms (M=4.03; SD= 0.967). The overall mean of 3.89 and standard deviation of 0.901, implied that majority of the respondents agreed that market risk management strategy influences financial performance and there was a low variation from the mean since standard deviation was less than 1. The above findings can be supported by Pariyada (2018) who opined that bank stock returns was highly influenced by market risk, the relationship was found to be positive.

**Credit Risk Management Strategy**

On the fourth independent variable the respondents were asked to indicate the extent in which they agree with the various statements on credit risk management strategy in relation to financial performance. The following scale was used: 1=Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree and 5= Strongly Agree.


The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

**Table 5: Credit Risk Management Strategy**

| Opinion Statements | Mean | Std. Deviation |
|---|---|---|
| Logistics firms are highly faced with concentration risk due to dependence on investment portfolio, geographic area and single vendor | 3.56 | 1.014 |
| Logistics firms usually determines an acceptable amount concentration risk | 3.50 | .950 |
| Logistics firms uses double principal-agent relationship to control default risk | 4.16 | 1.110 |
| The uncertainty of internal trade structures and external environment has made logistics firms to be vulnerable to default risks | 3.47 | .718 |
| The inability of logistics firms to service their debts has been attributed to high insolvency risk | 2.63 | 1.040 |
| Some of the logistics firms have reorganize some of their operations due to insolvency risks | 3.00 | 1.295 |
| **Overall Mean** | **3.39** | **1.021** |
| Valid N=93 (listwise) | | |

It was determined that majority of the respondents strongly agreed that logistics firms are highly faced with concentration risk due to dependence on investment portfolio, geographic area and single vendor with (M=3.56; SD=1.014) and they also agreed that logistics firms usually determines an acceptable amount concentration risk with (M=3.50; SD=0.950). Majority of the respondents strongly agreed that logistics firms uses double principal-agent relationship to control default risk with (M=4.16; SD= 1.110). Majority of the respondents were neutral that the uncertainty of internal trade structures and external environment has made logistics firms to be vulnerable to default risks with (M=3.47; SD=0.718), and they also agreed that some of the logistics firms have reorganize some of their operations due to insolvency risks with (M=3.00; SD=1.295). The overall mean of 3.39 and standard deviation of 1.021, which implied that majority of the respondents agreed that credit risk management strategy influences financial performance and there was a strong variation from the mean since standard deviation is greater than 1. The above findings were in tandem with that of Afriyie *et al.,* (2018) who opined that there is a significant positive relationship between non-performing loans and rural banks' profitability revealing that, there are higher loan losses but banks still earn profit.

**Financial Performance**

On the dependent variable, the respondents were also asked to indicate the extent in which they agree with the various statements on the financial performance and the findings were depicted on table 6.

**Table 6: Financial Performance**

| Opinion Statements | Mean | Std. Dev. |
|---|---|---|
| With implementation of financial risk management strategies, capital employed is used productively | 4.0645 | .95333 |
| ROA improvement has been contributed by management in handling financial risks | 3.9032 | .88544 |
| Identification of financial risk management strategies has improved ROE of the firm | 3.0430 | 1.03119 |
| There is efficient use of assets by the organisation with the advancement of financial risk management strategies | 3.1828 | 1.02094 |
| The revenue collected by the firm has improved with the application of financial risk management strategies | 3.3118 | 1.12268 |
| **Overall** | **3.5011** | **1.00271** |

The analysis showed that the respondents strongly agreed that with the implementation of financial risk management strategies, capital employed is used productively with (M=4.0645; SD=0.95333). They also agreed that ROA improvement has been contributed by management effectiveness in handling financial risks with (M=3.9032; SD=0.88544) and they agreed that identification of financial risk management strategies has improved ROE of the firm with (M=3.3118; SD=1.12268). They also agreed that there is efficient use of assets by the organisation with the advancement of financial risk management strategies (M=3.1828; SD=1.02094) and they also agreed that the revenue collected by the firm has improved with the application of financial risk management strategies with (M=3.0430; SD=1.03119). The overall mean of 3.5011 and standard deviation of 1.00271, implied that majority of the respondents agreed that financial risk management strategies affects financial performance of the logistic firms and there was a high variation from the mean since the standard deviation was greater than 1. These findings of Gichuki (2014), contradicted that of Wamalwa and Mukanzi (2018) who opined that financial risk management strategies had a negative and none significant influence on financial performance of commercial banks in Kakamega.

**Pearson Correlation**

Pearson correlation analysis was carried out to test the theoretical proposition regarding relationships among the independent variables (foreign exchange risk management strategies, liquidity risk management strategies, market risk management strategies and credit risk management strategy) and dependent variable (financial performance).

**Table 7: Pearson Correlation**

| | | X1 | X2 | X3 | X4 | Y |
|---|---|---|---|---|---|---|
| **X1** | Pearson Correlation | 1 | | | | |
| | Sig. (2-tailed) | | | | | |
| **X2** | Pearson Correlation | .630** | 1 | | | |
| | Sig. (2-tailed) | .000 | | | | |
| **X3** | Pearson Correlation | .376** | .343** | 1 | | |
| | Sig. (2-tailed) | .000 | .001 | | | |
| **X4** | Pearson Correlation | .423** | .194 | .294** | 1 | |
| | Sig. (2-tailed) | .000 | .062 | .004 | | |
| **Y** | Pearson Correlation | .140 | .128 | .112 | .201 | 1 |
| | Sig. (2-tailed) | .003 | .008 | .007 | .004 | |
| | N | 93 | 93 | 93 | 93 | 93 |

where x1= foreign exchange risk management strategies, x2= liquidity risk management strategies, x3= market risk management strategies X4= credit risk management strategy, Y= financial Performance.

Table 7 showed that on the relationship between financial performance and foreign exchange risk management strategies it was determined that (r=0.140; p=0.003), which implied there was weak positive significant relationship between foreign exchange risk management strategies and financial performance since p-value < 0.01. This supports the findings of Muiru, *et al.,* (2018) who determined that that currency hedging has a positive effect on financial performance. It was also determined that on the relationship between liquidity risk management strategies and financial performance (r=0.128; p=0.008), which meant that there was a weak positive and significant relationship between liquidity risk management strategies and financial performance since p-value < 0.01. This contradicted the findings of Laminfoday (2018) who determined there is a significant negative nexus between liquidity risk management and financial performance of commercial banks in Sierra Leone. Hacini, *et al*., (2021) also adds that liquidity risk has a significant negative impact on the financial


The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

performance. Further, on the relationship between market risk management strategies and financial performance, it was determined that (r=0.112; p=0.007), which implied that there was weak significant positive relationship between market risk management strategies and financial performance of logistics companies. The above findings contradicted that of Namasake (2018) market risk management strategy have a negative and significant relationships with bank profitability. Finally, on the relationship between credit risk management strategy and financial performance it was determined that (r=0.201; p=0.004), which implied that there was a weak positive and significant relationship between credit risk management strategy and financial performance, since p-value < 0.01. This cognates with the findings of Kargi (2018) who revealed that credit risk management has a significant impact on the profitability of Nigerian banks

**Regression Analysis**

At this point multiple linear regression analysis was conducted to establish the causal relationship with the study variables.

**Coefficient of Determination**

To determine variation of organizational performance of transport and logistics companies that can be explained using the independent variables and the fitness of equation 3.1 in chapter three, $R^2$ was determined.

**Table 8: Model Summary**

| Model | R | R Square | Adjusted R Square | Std Error of Estimate | Durbin Watson |
|---|---|---|---|---|---|
| 1 | .922[a] | .851 | .844 | .387 | 1.845 |

The analysis indicated there a strong positive relationship between the cost management strategies and organizational performance of transport and logistics companies (r=0.922) The analysis further showed an adjusted $r^2$ of 0.844, which implied that factors (foreign exchange risk management strategies, liquidity risk management strategies, market risk management strategies and credit risk management strategy) can explain only 84.4% of financial performance of logistics companies.

**Analysis of Variance**

To determine the significance of the financial risk management strategies and financial performance and significance of equation 9, the study used ANOVA analysis.

**Table 9: ANOVA**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| **1** | Regression | 218.53 | 4 | 72.84 | 167.01 | .000[b] |
| | Residual | 38.379 | 88 | 0.436 | | |
| | Total | 256.909 | 92 | | | |

The ANOVA model showed (F{4,88}= 167.01; p=0.000), the analysis indicated that the model was statistically significant since p-value<0.05 and hence equation 3.1 was significant. Hence the financial risk management strategies (foreign exchange risk management strategies, liquidity risk management strategies, market risk management strategies and credit risk management strategy) significantly determines financial performance of logistics companies.

**Regression Coefficient**

A regression coefficient was carried out in order to explain the nature and relationship between each independent variables and dependent variable.

**Table 10: Regression Coefficients**

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | T | Sig. |
| (Constant) | 1.083 | 0.266 | | | 0.000 |
| X1 | 0.127 | 0.062 | 0.114 | 2.037 | 0.044 |
| X2 | 0.218 | 0.077 | 0.336 | 2.741 | 0.007 |
| X3 | 0.173 | 0.057 | 0.122 | 3.045 | 0.003 |
| X4 | 0.210 | 0.067 | 0.316 | 3.134 | 0.023 |

Based on the regression coefficient table, the specific regression equation 3.1 becomes:

$Y= 1.083 + 0.127X_1 + 0.218X_2 + 0.173X_3 + 0.210X_4$

Where

Y= Financial Performance

$X_1$= Foreign Exchange Risk Management Strategies

$X_2$= Liquidity Risk Management Strategies

$X_3$= Market Risk Management Strategies

$X_4$ = Credit Risk Management Strategy

Table 10 showed that foreign exchange risk management strategies and financial performance were positively and significantly related (β=0.127; t=2.037; p=0.044) which means that a unit improvement in foreign exchange risk management strategies will lead to a significant 12.7% improvement in financial performance. Further the analysis showed that there was a positive and significant between liquidity risk management strategy and financial performance (β=0.218; t=2.741; p=0.007), which means that a unit improvement in liquidity risk management strategies will lead to significant 21.8% improvement in financial performance of logistics companies. Further, on the relationship between market risk management strategy and financial performance as (β=0.173; t=3.045; p=0.003), which means that a unit improvement of market risk management strategy will lead significantly contributes to 17.3% improvement of the financial performance. Finally, on the relationship between credit risk management strategy and financial performance, it was determined that (β=0.210; t=3.016; p=0.023), this implied that a unit improvement of credit risk management strategy would lead to 21% significant improvement to the financial performance.

**Hypothesis Testing**

To test four hypotheses statements, multiple regression was conducted using the SPSS version 26 to determine the p-values for the independent variables; foreign exchange risk management strategies, liquidity risk management strategies, market risk management strategies and credit risk management strategy. P-values were compared with 5% (0.05) significant level, such that when p-value was more than the significance level, the model was considered alternative hypothesis and null hypothesis rejected.

**Table 11: Summary of Hypothesis Test Results**

| Null Hypothesis | P-values | Decision |
|---|---|---|
| **$H_{01}$:** Foreign exchange risk management has no significant influence on the financial performance of logistics companies in the Coastal Region. | 0.044 | Reject |
| **$H_{02}$:** Market risk management has no significant influence on the financial performance of logistics companies in the Coastal Region. | 0.007 | Reject |
| **$H_{03}$:** Liquidity risk management has no significant on the financial performance of logistics companies in the Coastal Region. | 0.003 | Reject |
| **$H_{04}$:** Credit risk management has no significant on the financial performance of logistics companies in the Coastal Region. | 0.023 | Reject |

## CONCLUSION AND RECOMMENDATION

### Summary

It was determined that foreign exchange risk management strategy significantly affect financial performance of logistics companies. It was further determined that an improvement of foreign exchange risk management strategy would significantly contributes to the improvement of financial performance of the organization. The study also found that volatility in the logistics market can be managed forward contracts and market uncertainty can be managed by forward contracts. It was also revealed that financial options provide profit opportunity for logistics firms in the region and future contracts can be used to limit logistics firms' exposure to risk. The study also indicated cross-currency swaps presents a compelling benefit to the organization and it has also helped in eliminating foreign currency exposure. It was also established that financial options can be used by logistics firms for speculative purposes to hedge risks.

On the second objective, it was determined that liquidity risk management strategy positively and significantly affect financial performance of logistics companies. It was shown that liquidity risk management strategy improvement significantly contributes to the improvement of financial performance. Further it was determined that poor management of liquidity risk can cause the firm to fail meeting some of the short-term obligations, and especially due to COVID 19 hardships. It was also shown that majority of assets owned by logistics firms are highly illiquid and logistics firms are unable to exit a position due to asset liquidity risk. It was shown that cash management strategies are expected to improve growth and profitability of logistics firms and logistics firms are using sophisticated methods and standardized processes to strengthen cash management activities. Finally, the study revealed that logistics firms use liquidity monitoring strategies to aid in assessing liquidity risk

On the third objective, it was determined that market risk management strategies significantly and positively affect performance of the organization. It was further determined that market risk management strategy improvement would significantly contribute to the improvement of organizational performance. The study also revealed that management of interest risk has become important for the logistics firms to deal with interest rate risk and it was not possible for logistics firms to make profits, without hedging on interest risks. It was determined that commodity risk management plays a crucial element in logistics trading and it reduces the uncertainty market swings and can be used to predict outcome. The study also showed that investors of the logistic firms take higher risks for the equity market and inflationary risks effect undermines the investment returns of the firms. Finally, it was revealed that logistics firms use various financial instruments to control effects of inflation

On the fourth objective, the study established that credit risk management strategy significantly and positively affects the financial performance of logistics organizations. It was also determined that credit risk management strategy improvement would lead to a significant improvement of financial performance. It was also revealed that logistics firms are highly faced with concentration risk due to dependence on investment portfolio, geographic area and logistics firms usually determines an acceptable amount concentration risk. The study also revealed that logistics firms use double principal-agent relationship to control default risk and the uncertainty of internal trade structures and external environment has made logistics firms to be vulnerable to default risks. The study found that the inability of logistics firms to service their debts has been attributed to high insolvency risk and some of the logistics firms have reorganize some of their operations due to insolvency risks. It was also shown that logistics firms have a strong account

receivable management technique to ensure customers pay their dues on time.

**Conclusion**

Based on the study analysis and summary of findings, the study concludes that financial risk management strategies (foreign exchange risk management strategies, liquidity risk management strategies, market risk management strategies and credit risk management strategy) significantly affects financial performance of logistics companies. The study also concludes these financial risk management strategies significantly contributes to the improvement of financial performance but liquidity risk management strategy was the main contributor of the financial performance as compared to other financial risk management strategies. The study also concluded that with implementation of financial risk management strategies, capital employed is used productively and ROA improvement has been contributed by management effectiveness in handling financial risks. Identification of financial risk management strategies has improved ROE of the firm and there was efficient use of assets by the organization with the advancement of financial risk management strategies. Finally, the study concluded that the revenue collected by the firm has improved with the application of financial risk management strategies.

**Recommendation**

The study recommends that; foreign exchange risk management should always be taken in to account to improve the firms return on assets and hence the financial performance of the logistic firms. Policy makers should also undertake to understand risks affecting the foreign exchange markets in order to maximize returns. Logistic firms must invest the excess liquidity to increase the firms' profitability. These firms also need to adopt creative policies to manage their liquidity efficiently for avoiding risks.

The study recommends among other things that the firms should adopt the use of hedging to control exchange rate changes and government should maintain a low interest rate that will aid firms increase their profitability. It is recommended that logistic firms, especially locally owned should use financial instruments such as financial derivatives and be active in derivatives markets. These may reduce their interest rate risk and foreign currency risk exposure. The commercial banks are also required to monitor the financial leverage so as to reduce financial risk.

**Suggestion for Studies**

The study limits itself only to four financial risk management strategies. This study recommends additional strategies to be included in futures studies so that the effects could be analyzed and documented. The same study should be replicated in other industries like financial institutions, energy sectors and should be done across the entire east Africa so as to gather more diverse data. The study considers ROA as a measure of firm performance in future, the study recommends that another study should be done in corporation other measures of performance to investigate if the relationship will be that same.

**REFERENCES**


Abbas, K. A.-D., & Mourouj, T. H. (2020). The impact of bank liquidity risk management on banking financial performance: An applied study in a sample of private banks . *Journal of Administration and Economics*, 5 (20), 73-100.

Ahlam, B., & Aicha, T. . (2020). Liquidity risk management in conventional and Islamic banks a comparative study to banks in Qatar for the period 2011-2014. *Economic Insights Journal*, 8, 104-120.

Babbie, E., R. (2020). *The Practice of Social Research.* NY: Cengage Learning.

Bell, E., Harley, B. & Bryman, A. (2022). *Business Research Methods.* Oxford: Oxford University Press.

Bouchaud, J.-P. & Potters, M. (2018). *Theory of Financial Risk and Derivative Pricing.* Cambridge, U.K: Cambridge University Press.

Chapman, R.J. (2017). *Simple Tools and Strategies for Enterprise Risk Management.* Chichester, West Sussex, UK: John Wiley & Sons, Ltd.

Churchill, G., A., Lacobucci, D., & Israel, D. (2017). *Marketing Research A South Asian Perspective.* Delhi: Cengage Learning.

Cole, V. (2020). *Curriculum Theorizing. Class discussion.* Africa International University.

Crawford, J. & Nilsson, F. (2021). *Enterprise Risk Management in Sweden.* Bingley: Emerald Publishing Limited.

Dabari, J., I. & Saidin, Z., S. (2020). Determinants influencing the implementation of enterprise risk management in the Nigerian banking sector. *International Journal of Asian Social Science*, 5(12), 740-754.

Deloitte. (2021). *Managing business continuity and finance during COVID-19*. Retrieved from Deloitte: https://www2.deloitte.com/ch/en/pages/financial-advisory/articles/managing-business-continuity-finance-covid-19.html

Demartini, M. C., & Beretta, V. (2020). Intellectual capital and SMEs' performance: A structured literature review. *Journal of Small Business Management*, 58, 288-332.

Dowd, K. (2020). *Measuring Market Risk.* Hoboken N. J.: John Wiley & Sons Inc.

Drost, E., A. (2020). Validity and Reliability in Social Science Research. *International Perspectives on Higher Education Research*, 38 (1), 105-124.

Economist Intelligence Unit. (2019). *Risk-informed innovation: Harnessing risk management in the service of innovation.* New York: The Economist Intelligence Unit.

Hull, J.C. (2020). *Risk management and financial institution* (4th ed.). New Jersey: John Wiley & Sons.

IMF. (2018). *Financial Sector Stability Assessment.* Nigeria: IMF.

Ismail, T. (2018). *Board Involvement in Risk Management Practices: Evidence from Saudi Arabia Banks.* Hacıoglu, Ümit : Springer.

Kaufman, G. (2020). Banking and currency crises and systemic risk:. *Lessons from recent events, Financial Markets, Institutions, and Instruments*, 9 (2), 9-28.

Khodeir, L. & Mohamed, A.,. (2020). Identifying the latest risk probabilities affecting construction projects in Egypt according to political and economic variables. *Housing and Building National Research Center Journal*, 11(1), 129-135.

Kiptoo, I., K., Kariuki, S., N. & Ocharo, K., N. (2021). Risk management and financial performance of insurance firms in Kenya. *Cogent Business & Management*, 8, 1-17. doi:10.1080/23311975.2021.1997246

Kolhatkar, M. & Dutta, A. (2018). Financial risks in construction projects. *International Journal of Application or Innovation in Engineering & Management*, 2 (11), 45-67.

Kothari, C. & Guarav, G. (2019). *Research Methodology: Methods and Strategies.* New Delhi: Age International Publishers.

KPMG. (2020). *Financial risk management for banks Responding to the challenges presented by COVID-19: COVID-19 implications for credit, market, operational and liquidity risk.* Hong Kong: KPMG Publishing.

McCombes, S. (2023, January 23). *What Is a Research Design | Types, Guide & Examples*. Retrieved from Scribbr: https://www.scribbr.com/methodology/research-design/

Memon, A., Z. & Muhamad, Q. (2020). Does financial availability sustain financial, innovative, and environmental performance? Relation via opportunity recognition. *Corporate Social Responsibility and Environmental Management*, 27, 75-562.

Monad, B., Giorgino, M., & Modolini, I. (2018). *Rational for corporate risk management: A critical literature review.* Department of Management, Economics and Industrial Engineering.

Mutuku, C. (2018, Oct). Effect of Risk Management on the Financial Performance of Commercial Banks in Kenya. *Research Project (University of Nairobi)*.

Mwige, R. (2018). Relationship Between Foreign Exchange Hedging Methods And Financial Perfomance Of Firms Listed At The Nairobi Securities Exchange. *Journal of Business Management*, 2 (1), 451-467.

Noor, J.A.M., & Abdalla, A.I. (2019). The impact of financial risks on the firm's performance. *European Journal of Business and Management*, 6(5), 97 – 101.

Olagunju, A., Adeyanju, O. D., & Olabode, O. S. (2018). Liquidity Management and Commercial Banks' Profitability in Nigeria. *ournal of Finance and Accounting*, 2 (7/8), 24-39.

Rodriguez-Morenno, M., & Pena, J. I. (2018). Systematic risk measures: the simpler the better. *Journal of Banking and Finance*, 37(6), 1817 – 1831.

Rossi, M. (2018). The capital assets pricing model:. *A critical literature review*.

SEC. (2017). *The Nigerian capital market: Submission by Securities and Exchange Commission.*

Shad, M., K., Fong-Woon, L., Chuah, L., F., Jiˇrí, K., & Awais B. (2019). Integrating sustainability reporting into enterprise risk management and its relationship with business performance: A conceptual framework. *Journal of Cleaner Production*, 208, 25-415.

Shapiro, A., C. & Rutenberg, T. (2018). *Multinational financial Management.* New York, USA: Wiley & Sons.

Soyemi, K., A., Ogunleye, J., O. & Ashogbon, F., O. (2019). Risk management practices and financial performance: Evidence from the Nigerian deposit money banks (DMBs). *The Business and Management Review*, 4(4), 345-354.

Sviatlana, H., & Lara, G. (2017). Management Strategies for Bank's Liquidity Risk. *International Journal of Economics and Finance*, 9 (6), 98-110.

Wachiaya, J. (2018). A survey of market risk management strategies by commercial banks in Kenya and their suitability in mitigating financial loss. *Doctoral dissertation, University of Nairobi, Kenya*.

Wamalwa, M. F., & Mukanzi, C. (2018). The influence of financial risk management practices on performance of commercial banks in Kenya. *The Strategic Journal of Business & Change Management*, 5 (4), 1040-1056.

Whitman, A. (2020). Is ERM legally required? Yes for financial and governmental institutions, no for private enterprises. *Risk Management and Insurance Review*, 18, 97-161.

Zhou, V. Y., & Wang, P. (2017). *International Review of Financial Analysis*, 29, 294-302.