

EFFECT OF LIQUIDITY MANAGEMENT ON FINANCIAL SUSTAINABILITY OF LARGE-SCALE RETAIL SUPERMARKETS IN KENYA

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ABSTRACT: The study evaluated the effect of liquidity management on financial sustainability of large-scale retail supermarkets in Kenya. The study used Cash Management theory. The study adopted a cross-sectional research design. The study targeted nine large-scale retail supermarkets in Kenya and census sampling was employed. Secondary data was collected from audited financial statements. Data was analyzed through inferential. Inferential statistics consisted of correlational analysis and random effects model. The results indicated linear regression assumptions were met. The study results showed that liquidity management positively and significantly affects financial sustainability. This is supported with a regression coefficient of 0.4103. This was also accompanied with Probability values of 0.000. The study therefore concluded that liquidity management had a significant effect on financial sustainability of large-scale retail supermarkets. The study recommended that the management of large-scale retail supermarkets in Kenya should consistently monitor and maintain an optimal capital-to-asset ratio, management should set and enforce internal debt ceilings to limit excessive borrowing and management should prioritize efficient utilization of fixed assets.

I. Introduction

Liquidity referred to the ease with which assets could be converted into cash usually assessed by the Net working Capital to Net assets. The Net working Capital to Net assets is a liquidity ratio that measured a company's ability to pay short-term obligations or those due within one year. It told investors and analysts how a company could maximize the current assets on its balance sheet to satisfy its current debt and other payables (Demirgunes, 2018). As stated by Arif and Batool, (2021), cash was considered the liquid asset and served as the benchmark against which other assets were evaluated. This was due to its inherent ease of usage and instant applicability. Additionally, they asserted that a financial institution had the discretion to decline a loan, even to a prospective entrepreneur, if it determined that its liquidity requirement was substantial. They suggested that financial managers could determine the optimal amount of liquidity to maintain and the specific methods they could employ to mitigate financial risks. Liquidity management is the capacity of an organization to meet its short-term financial obligations. It is a foundational pillar of corporate survival and growth. In retailing, where intense competition, thin margins, and rapidly shifting consumer preferences converge, the ability of supermarkets to remain liquid directly influences their financial sustainability and, by extension, their contribution to national economic development (Dahiyat, Weshah, & Aldahiyat, 2021). Kenya's wholesale and retail trade sub-sector contributes roughly 8.4 percent to national GDP and remains the third-largest private-sector employer, with approximately 238,500 formal jobs (KNBS, 2024). Large-scale retail supermarkets that is defined in this study as chains with at least five branches and annual sales exceeding KES 0.6 billion represents the sub-sector's most visible drivers of modern retailing. Yet, the Kenyan market has witnessed headline-grabbing failures. Nakumatt, Uchumi, and Tuskys once iconic brands they succumbed to insolvency triggered by ballooning liabilities of KES 35.8 billion, KES 3.6 billion, and KES 6.2 billion respectively (Kenya Retail Report, 2021). These collapses disrupted supply chains, jeopardized thousands of jobs, and eroded investor confidence. Conversely, emerging players such as Naivas, Quickmart, Carrefour, and Chandarana have expanded aggressively, underlining the critical question: why do some chains sustain financial health while others falter under similar macro-economic conditions? (Durán & Otero, 2020). Retail industry is one of the most profitable for investors, but it is also badly damaged by the local and international financial and economic crises. Several factors affected the sector's performance, including internet shopping, excessive liquidity investments, and insufficient capital. For managers to function effectively, liquidity management is essential. Effective liquidity management has raised the profitability of retail enterprises. Nonetheless, it has been demonstrated that inventory control significantly affects both stock price and company profitability. The profits on stock investments have significantly increased thanks to inventory management (Demirgunes, 2018). Company's ability to put in place efficient liquidity management processes is critical to its survival. The way that payables, receivables, inventory, and cash are managed affects the company's performance. The ability of the manager to

allocate and oversee resources will dictate whether or not there is an improvement in financial performance. It is imperative for organizations to ensure appropriate working capital management if they hope to attain firm profitability (Idewele & Odion, 2017). Therefore, this study evaluates the effect of liquidity management on financial sustainability of large-scale retail supermarkets in Kenya.

Study Objective

To evaluate the effect of liquidity management on financial sustainability of large-scale retail supermarkets in Kenya.

Study Hypothesis

HO₁: Liquidity management had no significant effect on financial sustainability of large-scale retail supermarkets in Kenya.

II. Literature Review

Theoretical Literature Review

The study was based on the Cash Management theory.

Cash management theory

Multiple cash balance models had been proposed by (Archer, 1966; Baumol, 1952; Gibbs, 1976; Miller & Orr, 1966). The Baumol model aimed to achieve optimal equilibrium by combining holding and transaction costs in order to minimize the cost of holding money. The ideal level of cash is obtained only when the carrying cost and transaction costs are minimized. Baumol (1952) introduced the initial comprehensive cash management model, which asserted that the expenses associated with keeping money are influenced by factors such as economic order quantity (EOQ), forgone interest, and cash outlays. On the other hand, ordering costs was determined by broker charges and administrative tasks. The Baumol's model, as stated by Vallone, Griffin, Lin, and Ross, (1990), is considered the most straightforward and rational model for determining the optimal cash balance.

The financial sustainability of a corporation, the level of risk that is deemed acceptable, and the projected cash requirements were the factors that determined this. If the business had sufficient investments in securities or financial stability and was able to raise short-term debt, zero might be established as the bottom limit. The Baumol model implied that the magnitude and timing of cash flows were known with absolute confidence. Nevertheless, in practice, the Miller-Orr model acknowledged that the magnitude and timing of cash flows were unpredictable (Hartwig & Kramer, 2022).

Cash Management Theory was a fundamental aspect of liquidity management for any business, and therefore had a substantial influence on the firm's liquidity position. Monetary management involved the control of monetary assets, including cash, marketable securities, and prepayments (Decamps & Villeneuve, 2022). The management of cash involved overseeing the control and handling of both cash and cash equivalents, which in turn enabled the financing of the business organization. Therefore, cash control was crucial for improving the firm's liquidity position and meeting its obligations.

This involved decreasing wastage and making wise investments with any excess cash generated from operating activities (Kithinji, Wepukulu, Gekara, & Mwanzia, 2023). One significant limitation of the Miller and Orr model was its reliance on assumptions that may not always be applicable in real-world scenarios. The model assumed that cash flows were stochastic, which suggested that they changed randomly over time. However, in practice, cash flows might display patterns or trends that the model failed to represent adequately. This limitation could result in suboptimal cash management decisions if the model's assumptions differ from the company's actual cash flow dynamics (Archer, 1966)

Supermarket's operations revolved around conversion of stock to cash. Therefore, how supermarkets manage cash would definitely have an impact on the liquidity. The theory was of significance based on how policies influence cash management to avoid illiquidity. Therefore, this theory supported the fourth objective of the study to evaluate the effect of liquidity management on financial sustainability of large-scale supermarkets in Kenya.

Empirical literature review

Mugisha and Twesigye, (2024) investigation into the effect of liquidity management on the financial viability of financial institutions in Rwanda, specifically analyzing the Bank of Kigali and Banque Populaire du Rwanda as case studies. The researcher employed correlation and case study approaches, utilizing a quantitative methodology. The study contained a sample size of 333 individuals. The sample was selected using purposive sampling and convenience sampling approaches. The data was gathered through the use of a questionnaire and subsequently examined utilizing descriptive and inferential analysis techniques, specifically correlation and regression analysis. The study results demonstrated that effective management of liquidity has a significant effect on the financial sustainability.

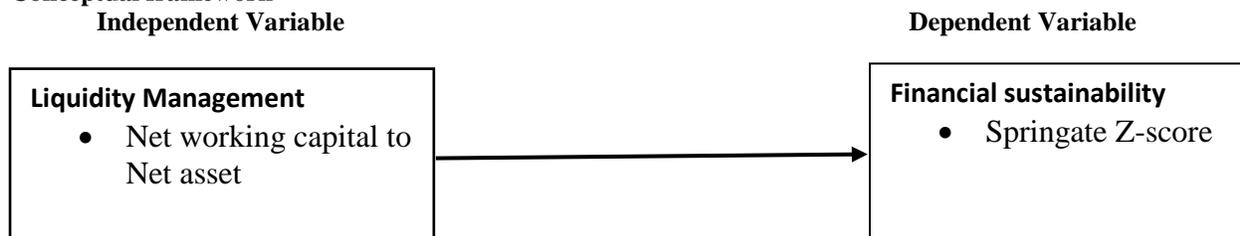
Kusekwa and Masanja, (2022) examined the impact of liquidity management on the financial viability of specific private secondary schools in the lake zone. The research methodology employing a quantitative approach, while the research design was characterized as descriptive. A total of 192 financial administrators were selected as the target population. The sample size of 130 administrators was determined using a sampling formula. These administrators were selected from a pool of 83 primary schools and 13 secondary schools. Based on empirical evidence, it can be concluded that technical considerations, liquidity management elements, profitability factors, and economic factors have significant effects on the financial sustainability of private secondary schools.

Njue, (2020) evaluated the effect of liquidity management on the financial performance of microfinance institutions in Kenya. The study variables were derived from the audited financial accounts of the MFIs being analyzed. The data was acquired via the CBK website, CBK's Annual Supervision reports, and the AMFI annual reports over a period of five years from 2012 to 2016. The target population for the study comprised all twenty-six MFIs. Questionnaires were utilized to collect primary data, while the study of audited financial records was conducted to obtain secondary data. The study employed both descriptive and inferential statistics. The data analysis revealed that the management of liquidity has a significant impact on the financial performance of Microfinance Institutions in Kenya.

Gatheru, Kamau, and Mutiso, (2020) investigated of the impact of liquidity management on the financial sustainability of DTS in the Mount Kenya Region. A comprehensive census survey was conducted on all 52 SACCOs. Cooperative societies operating in the Mount Kenya area. Each SACCO was represented by a single accountant among the respondents. The study employed a descriptive survey design. The analysis incorporated both primary and secondary data. Data on liquidity management was collected using structured questionnaires as primary data, while financial documents were used as secondary data. The study found that liquidity management has a positive impact on the financial sustainability of DTS, however this impact is not statistically significant.

Kai, (2021) conducted a study to determine the effects of liquidity management on the financial performance of Teachers DT Saccos in Kenya, as well as to assess the moderating effect of size on the relationship between liquidity management and financial performance of Teachers DT Saccos in Kenya. The study employed a descriptive survey approach and obtained data from SASRA regulatory filings spanning from 2011 to 2018. The data was taken from eighteen DT Saccos that are specifically categorized as licensed DT Saccos for teachers. The data were analyzed using both descriptive and inferential statistics. The study found that liquidity management has significant effects on the financial performance of Teachers DT Saccos.

Conceptual framework



Research Design

Research design was described as a blueprint for the collection, measuring and analyzing data whose ultimate goal was to aid in the answering of research questions (Cooper & Schindler, 2017). In this study, a correlational research design was employed. This study required a comprehensive and remarkably accurate picture of the financial viability of large-scale retail supermarkets; therefore, the research approach was appropriate. The design was helpful in finding fresh data that reduced previous data because it covered supermarket operations for ten years, from 2014 to 2023. As part of the research plan for this study, financial records of large-scale retail supermarkets from 2014 to 2023 were obtained and scrutinized.

Target Population

The target population of the study included all the 9 large-scale retail supermarkets in Kenya. Large scale retail supermarkets were supermarkets that had five or more branches. They also had a turnover of more than 0.6 billion annually (Matayo & Muturi, 2018). These supermarkets included; Quickmart supermarket, Chandarana food plus supermarket, Naivas supermarket, Carrefour supermarket, Khetias supermarket, Society stores, Eastmatt supermarket, Mathai supermarket and Cleanshelf Supermarket. The target population of the study was as shown in

Table 3.1.

Table 3. 1: Target Population

No.	Supermarket
1.	Quickmart supermarket
2.	Eastmatt supermarket
3.	Carrefour supermarket
4.	Chandarana food plus supermarket
5.	Naivas supermarket
6.	Khetias supermarket
7.	Society stores
8.	Mathai supermarket
9.	Cleanshelf Supermarket

Source: (Kenya Retail Report, 2024)

Data Processing, Analysis, and Presentation

The obtained data was edited and cleaned in Microsoft Excel prior to exporting to STATA. Inferential statistics was used in the study to analyze the panel data. Inferential statistics included panel linear regression. To present the findings, figures, graphs, and tables were used. The following regression equation was used to model the effects of liquidity management on the financial sustainability of retail supermarkets.

$$FS_{it} = \beta_0 + \beta_1 LM_{it} + \varepsilon_{it} \dots \dots \dots (3.1)$$

FS_{it} – Represents financial sustainability.

β₀ – Constant

β₁– Regression coefficients.

LM- Liquidity Management

i – Denotes the observations (large-scale supermarkets)

t – Represents the time dimensions from 2014 to 2023

ε_{it} – The error term

III. Data analysis and presentation

Random Effects model

In a random effects model, it is assumed that the unobserved variables are statistically independent, or more strongly, uncorrelated, with all the observable variables. Although the fixed effects model may estimate effects for time-invariant variables, its standard errors may be pretty substantial, which is why the random effects is preferred. The findings are shown in Table 1.

Table 1: Random Effect Model

Variable	Coef.	Std. Err.	Z	P> z
LM	.4103	.1214	3.38	0.000
Cons	.0614	.0151	4.07	0.000
R-sq:				
Within	= 0.5116			
Between	=0.5512		Wald chi ² (3)	=48.13
Overall	=0.5218		Prob>chi ²	=0.0000

Source: Study Data

IV. Discussion of Results

Regression was used to evaluate the study's hypothesis because the diagnostic test showed that the assumptions of linear regression had not been violated. Based on the results of the Hausman test, it was determined that the random effect model was the most appropriate. In order to ascertain how liquidity management, affect the financial sustainability of large-scale retail supermarkets in Kenya, a random effect model was employed. The discussion of the regression equation and findings of the study is shown results was guided by the study's objectives. The findings of the regression analysis are shown in Table 1 and equation 4.1.

$$FS_{it} = .0614 + .4103LM_{it} \dots \dots \dots 4.1$$

As per the regression model results, the constant of 0.0614 indicates that the financial sustainability of large-scale retail supermarkets, would be 0.0614 if liquidity management strategies are not implemented by the firms.

Liquidity Management and financial sustainability of large-scale retail Supermarkets

The objective of the study was to ascertain the effect of liquidity management on financial sustainability of large-scale retail supermarkets. The study's null hypothesis was that liquidity management has no significant effect on financial sustainability of large-scale retail supermarkets. The findings of the study indicated that liquidity management has a positive and significant effect on financial sustainability of large-scale retail supermarkets. This is backed up by regression coefficients of 0.4103 with Probability values of $0.000 < 0.05$ and Z-statistics 4.07 more greater than the Z-critical of 1.96, implying that liquidity management positively and significantly affects financial sustainability, thus rejecting the null hypothesis. Therefore, the study concluded that liquidity management positively and significantly affects financial sustainability of large-scale retail supermarkets.

According to these findings, a unit increase in liquidity management will lead to subsequent increase in financial sustainability by 0.4103 units in large scale retail supermarkets in Kenya. Mugisha and Twesigye, (2024) investigated the effect of liquidity management on the financial viability of financial institutions in Rwanda, specifically analyzing the Bank of Kigali and Banque Populaire du Rwanda as case studies. The study findings indicated that liquidity management significantly affects performance. Further, the study results were also in line with Kusekwa and Masanja, (2022) examined the impact of liquidity management on the financial viability of specific private secondary schools in the lake zone. The study findings indicated that liquidity management significantly affected financial viability of secondary schools in the lake zone.

V. Conclusions and Recommendations**Conclusions**

The regression analysis indicated that liquidity management had a positive and significant effect on financial sustainability of large-scale retail supermarkets. Therefore, the study concluded that liquidity management has a positive and significant effect on financial sustainability of large-scale retail supermarkets.

Recommendations

The study evaluated that liquidity management had a positive and significant effect on financial sustainability of large-scale retail supermarkets in Kenya. Therefore, the study recommended that management should maintain sufficient levels of current assets to ensure that short-term obligations can be met without straining operations. The study recommended that the management should implement effective cash flow forecasting techniques. Accurate forecasting allows for proactive planning and helps avoid unexpected cash shortfalls that could disrupt business continuity. The study recommended that management should enhance liquidity by optimizing inventory turnover and accelerating receivables collection. This will free up cash tied in working capital and improve the supermarket's ability to respond to immediate financial needs.

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