PAYABLES MANAGEMENT AND FINANCIAL VALUE OF COMMERCIAL BANKS IN KENYA

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Abstract:

The concept of firm value has become a great concern to shareholders, managers, potential investors, creditors and other stakeholders globally since it measures the firm's worth and posits a positive public image. The main objective of the study is to evaluate the effect of payables management on the financial value of commercial banks in Kenya. The study employed a correlation research design on the panel data collected over a span of 10 years. The target population was 38 commercial banks in Kenya. Secondary data was collected from audited financial statements downloaded from the Nairobi Stock Exchange and Central Bank of Kenya websites. Normality was tested through Shapiro Wilk and confirmed. Stationarity was tested using Levin-Lin-Chu test and the results confirm stationarity. The overall descriptive statistics show high variation between the dependent and independent variables among different commercial banks. Inferential statistics comprised of Pearson's correlation analysis and Random Effects Model. The Pearson's correlation coefficient depicts $r = - 0.15$ with a p-value of 0.0037. The regression coefficient was established as 4.34 with p-values < 0.05 confirming that all payables management had a significant positive influence on the financial value of commercial Banks. It was recommended that commercial banks should properly manage short-term liabilities, pending bills and accrued expenses should be minimal as this reduces the liquidity of the firm and further reduces the value of the commercial banks as potential investors see a bank with so many liabilities as risky to invest in. All receivables particularly outstanding loans issued to customers should be closely monitored.

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JEL: G21; G29; G38

Keywords: payables management, financial value, commercial banks

1. Introduction

Payables management refers to administering a company's outstanding debts or liabilities to vendors to purchase goods and services made on credit. It entails planning a transaction resulting from credit purchases, and coordinating and monitoring the outcome (Kipkirui, 2018).

Banks in East Africa have experienced a reduction in client transactions and amounts in bank collection accounts as businesses faced a downtime in operations. This directly translates to a reduction in the number of funds available for banks to invest and lend. Hence most banks have diversified their income streams. Although all income streams have shown a significant decline in amounts of revenue collected in terms of commission, banks that offered these services were better cushioned against large losses compared to banks that did not provide these services. One significant challenge faced by banks is the increase in the number of Non-Performing Loans (NPLs). Layoffs, salary cuts, low demand and low purchasing power mean collaterals such as vehicles are not easy to dispose of, and banks may ultimately be unable to cover their losses in the event of a default. The NPL ratio for the Kenyan and Ugandan banking industry has been on a gradual increase between 2018 and the first quarter of 2021 (Deloitte, 2021/2022).

In Kenya gross NPLs to gross loans ratio increased from 12.7 percent in June 2019 to 13.1 percent in June 2020. Agriculture, Building and Construction, Energy and Water, and financial services sectors recorded the highest increases in NPLs. Profitability declined by 17.2 in the year ended June 30, 2020. Total expenses increased by KShs 404.1 billion in J 2020 due to a 150.8 percent increase in bad debts. Increased NPLs leads to delays in cash inflows and hence reduced working capital (CBK, Annual report and Financial Statements, 2020/2021)

The significantly higher provisional requirement levels coupled with the increased credit risk led to slower loan growth in Q1'2021, which came in at 11.0% compared to a growth of 14.1% in q1'2020. The NPL ratio for the entire banking sector stood at 14.2% as at April 2021, a deterioration from 14.1% in December 2020. High levels of NPLs were witnessed in sectors such as trade, personal and household and manufacturing sectors which registered increases of 38.5%, 16.7% and 9.6% in their NPL levels respectively (Cytonn, 2021).

In Kenya, the banks' gross Non-Performing Loans increased by 12.6 percent from KShs. 298.4 billion in June 2018 to KShs. 335.9 billion in June 2019. In the year 2019/2020, profitability in the banking sector declined by 17.2 percent in the year ending June 30, 2020. Total expenses increased by 11.9 percent to KShs. 404.1 billion in June 2020 due to a 150.8 percent increase in bad debts (CBK, Annual report and Financial Statements, 2020/2021)). A decrease in profitability decreases the firm's financial value and shareholders' wealth.

2. Literature Review

2.1 Conceptual Framework

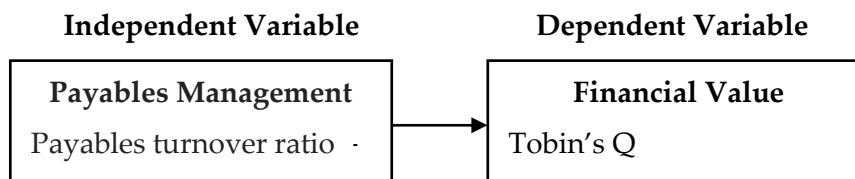**Independent Variable**   **Dependent Variable**

Figure 1: Conceptual Framework

2.2 Empirical Literature

Njenga, Omagwa and Mithi (2020) studied the relationship between financial characteristics and firm value of commercial banks listed at the Nairobi Securities Exchange, Kenya. Eleven publicly listed commercial banks were studied. Panel data was collected from published audited financial statements of the commercial banks studied for year 2014 to year 2018. Data was analyzed using descriptive statistics, Pearson's simple correlation and panel regression analysis. The study found that loan book value had no significant effect on the firm value of commercial banks listed at the NSE (p = 0.462). Return on investment had a significant positive effect on the firm value of commercial banks listed at the NSE (p < 0.05).

Gerio and Wahome (2020) Undertook a study with the objective to determine the influence of liquidity management on the financial performance of agricultural firms listed on the Nairobi Securities Exchange. A descriptive survey research design was applied. A Census of all 6 companies listed at the Nairobi Securities Exchange from July 2014 to July 2019 constituted the study population. The study employed secondary data extracted from audited financial statements and individual company's annual reports for the five-year period covering July 2014 to July 2019. Statistical Package of Social Science (SPSS) software program was applied to the analysis. Liquidity management has a positive relationship with the Return on Investment (ROA) of the firms under study.

Gitau, Onguso, Karungu and Kirui (2016) in a study titled "What Are the Implications of Working Capital Management on Liquidity Risk? A Case of Listed Commercial Banks in Kenya" Concentrated on Banks that were listed at the Nairobi Securities Exchange. The study used a longitudinal research design for it involved taking repetitive measures over time for the purpose of comparing returns over the periods. Data was collected from secondary sources; these were published financial statements available at the banking survey of Kenya. The key findings from the study were: debtors' collection period and cash conversion cycle had a significant negative relationship with the liquidity of quoted commercial banks. Creditors' payment period also had a significant positive relationship with the liquidity of quoted commercial banks in Kenya.

A study by (Majakusi, 2016) in a study aimed to determine the effects of liquidity management on the performance of commercial banks used a descriptive research design. Secondary data was obtained from the CBK. A regression model was used in data analysis. The study found that payables management was positively correlated to the

financial performance of commercial banks. This relationship is also established to be statistically significant.

A study by (Namasake, 2018) purposed to determine the effect of working capital management on the financial performance of energy and petroleum companies listed in the Nairobi Securities Exchange. The study adopted the use of descriptive research design. The target population comprised of all the Energy and Petroleum companies listed in the Nairobi Securities Exchange. The study adopted a census sampling technique where all listed firms were sampled. Data was analyzed with the help of Statistical Packages for Social Sciences. Descriptive statistics included the percentages, mean and standard deviation. Inferential statistics established a strong positive correlation between accounts payables and return on equity for the firms.

3. Methodology

3.1 Research Philosophy
Research philosophy relates to how the world works and focuses on reality, knowledge and existence. Positivists are researchers whose quantitative tools and methods entail quantifying and counting. Positivism enables one to apply statistical techniques in testing hypotheses to evaluate research data collected using quantitative research techniques. Positivists believe reality is stable and hence can be observed from an objective viewpoint (Leitch, Hill & Harison, 2010). This study was guided by positivism. Positivism was appropriate for this study because the data collected requires to quantitate analysis. It helped in establishing the relationship between the constructs of working capital and the financial value of commercial banks.

3.2 Research Design
This study employed a correlation research design on the panel data. Since the data was purely quantitative, the design was most appropriate to enable the study to establish the link between working capital management and the value of commercial banks (Saunders, Lewis & Thornhill, 2019).

3.3 Target Population
The target population was 38 commercial banks in Kenya as per CBK report 2022. Other banks which were under receivership or those that had collapsed were not included.

3.4 Sample Population
Census was adopted thus all 38 commercial banks will be used in the study to establish the relationship between working capital management and the financial performance of commercial banks and financial value so as to be objective enough to conclude and generalize for the whole country.

3.5 Data Analysis and Presentation

Normality was tested through Shapiro-Wilk. Stationarity was tested using Levin-Lin-Chu test. Descriptive statistics comprised mean, standard deviation and variance. Inferential statistics comprised Pearson's correlation and the Hausman test for random effects. Data was presented using tables. The model below was used to test the hypothesis.

$$FV_{it} = \alpha + \beta PM_{it} + \varepsilon_{it}$$

Where:
α = Regression constant;
β = Panel regression coefficient;
PM = Payables management;
FV = Firm value;
i = 38 Commercial banks;
t = Time period from 2012-2021;
ε = Error term.

3.6 Ethical Consideration

Clearance and permission for carrying out research were sought from National Commission for Science Technology and Innovation (NACOSTI). All data was treated with the utmost confidentiality. Further, all data obtained in the study were securely stored to avoid unauthorized access. The information was used only for research purposes.

3.7 Measurement of Variables

The dependent and independent variables were measured as shown in Table 1 below.

Table 1: Measurement of Variables

Variable	Nature	Formula
Payables management	Independent	$\dfrac{\text{Total short - term liabilities}}{\text{Average short - term liabilities}}$
Firm value	Dependent	$\dfrac{\text{Equity market value + Debt market value}}{\text{Equity book value + Debt book value}}$

4. Research Findings and Discussion

4.1 Descriptive Statistics

Mean, standard deviation, minimum and maximum were run to establish the behavior of the independent and dependent variables. The results are shown in Table 2. The study period ran from 2012 to 2021 giving a 10-year span with 38 observations for each bank. This produced a panel total of 380 observations over the 10-year period. The standard deviation of financial value was established as 3.23. The mean was 3.77 with a minimum of 0.15 and a maximum of 13.82. This means that some of the banks had a very low

financial value which may discourage investors as the bank is seen to be riskier to invest in thus share prices may drastically go down. Some banks, however, some banks higher financial value during the period. Such banks are likely to benefit from high investments and increases in share prices thus increasing shareholders' wealth. Generally, the financial value fluctuated over the ten years.

For payables management, the mean was 1.025019 while the standard deviation was 0.1497029 with a minimum value of 0.2150603 and a maximum value of 1.571887. The average industry payables turnover seems to be above one which means many of these banks pay their debts promptly. The variable's standard is less than the mean which implies less variability in the independent variable.

Table 2: Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
Financial Value	380	3.773456	3.228091	.15	13.82263
Payables Mgt	380	1.025019	.1497029	.2150603	1.571887

4.2 Normality Test

In multiple regression, the assumption requiring a normal distribution applies to the residuals. The residuals are the error in the relationship between the independent variables and the dependent variable in a regression model. For the continuous data, the Normality test for the residuals guides the researcher on whether to apply parametric or non-parametric tests. If the variables are normally distributed, then parametric tests are appropriate if not normally distributed the non-parametric tests will be applied (Khatun, 2021).

Shapiro-Wilk test was used to test normality. The null hypothesis for Shapiro-Wilk test is that the variables are normally distributed. At a 95% confidence level, if the p values are less than 0.05 then we reject the null hypothesis. Table 3 shows that the p-values of all variables are greater than 0.05 at a 95% degree of confidence, thus the study failed to reject the hypothesis that data from the variables of cash management, payables management, receivables management and financial value was normally distributed.

Table 3: Shapiro Wilk Normality Test

Variables	Obs	W	v	z	Prob>z
Payables Mgt	380	0.97385	1.795	1.282	0.09993
Financial Value	380	0.97094	1.995	1.513	0.06517

4.3 Stationarity Test

Stationarity means that the statistical properties of variables do not change over time. If the variables in the regression model are not stationary and the variables are trending over time, a regression of one on the other could have a high R^2 even if the two are totally unrelated. The standard assumptions for asymptotic analysis will not be valid. In other words, the usual "t-ratios" will not follow a t-distribution, so we cannot validly undertake hypothesis tests about the regression parameters (Breitung & Das, 2015). To confirm the reliability and validity of the data, the stationary test was done using the

Levin-Lin-Chu test. This test is based on the null hypothesis that the variables are not stationary. Table 4 shows that all the p-values were less than 0.05 at a 95% confidence level, while the t statistics were less than -1.966 t-critical value, hence the study rejected the null hypothesis that all variables were not stationary at a 5% significant level.

Table 4: Levin-Lin-Chu Unit-root Test

Variable	Panels	Periods	Test Statistic	P-value
Cash Mgt	13	10	-2.6015	0.0046
Payables Mgt	13	10	-10.3393	0.0000
Receivables Mgt	13	10	-3.9155	0.0000
Financial Value	13	10	-5.1006	0.000

4.4 Inferential Statistics

Inferential statistics included correlation analysis and random effects model.

4.4.1 Correlation Analysis

Due to the normal distribution of the variables, Pearson correlation analysis a parametric test whose correlation coefficients (r) value range between -1 and 1 ($-1 \leq r \leq 1$) was used to test the association between the variables. A negative value shows a negative association while a positive value signifies a positive association between the variables of the study. Table 5 depicts the relationship between the dependent variable and independent variable which was established to b r = 1487 with a p-value of 0.0037 for financial value and payables management which imply that payables management has a significant positive association with financial value.

Table 5: Pearson Correlation Coefficients

Variable	Financial Value	Cash Management	Payables Management	Receivables Management
Financial Value	1.0000			
Payables Management	0.1487* (0.0037)	-0.0407 (0.4286)	1.0000	

4.4.2 Fixed Effect Model

The Fixed Effects regression model is used to estimate the effect of intrinsic characteristics of individuals in a panel data set. Such factors are not directly observable or measurable but one needs to find a way to estimate their effects since leaving them out leads to a sub-optimally trained regression model. The Fixed Effects model is designed to address this problem. If the fixed effects assumption holds, then the fixed effects estimator is more efficient than the random effects model (Wooldridge, 2013). The results are shown in Table 6.

Table 6: Fixed Effect Model

Firm Value	Coef.	Std. Error.	T	$p>|t|$	Prob > f	R-squared
PM	4.335171	.7640512	5.67	0.000	0.0000	0.2143
Constant	-3.212459	.8283435	-3.88	0.000		

4.4.3 Random Effect Model

A random-effects model assumes that explanatory variables have fixed relationships with the response variable across all observations, but that these fixed effects may vary from one observation to another. Random effect models assist in controlling for unobserved heterogeneity when the heterogeneity is constant over time and not correlated with independent variables. If the random effects assumption holds, the random effects estimator is more efficient than the fixed effects model (Gomes, 2022). The results are as shown in Table 7 below.

Table 7: Random Effect Model

Financial Value	Coef.	Std. Error.	Z	$p>|z|$	Prob > chi2	R-squared
PM	4.335171	.7640512	5.59	0.000	0.0000	0.3143
Constant	-3.075487	.8729562	-3.52	0.000		

4.4.4 Hausman's Test

Hausman's test was run to identify the appropriate model between fixed effect and random effect. In this case, Random effects are preferred under the null hypothesis due to higher efficiency, while under the alternative Fixed effects are at least as consistent and thus preferred. Hausman's test was based on the null hypothesis that the random effect model is appropriate while the alternative hypothesis was that the fixed effect model was appropriate (Yacine, A. and Dacheng X., 2019).

According to Hausman tests in Table 8, the value for probability is 0.2872 which is greater than 0.05 thus, insignificant. Therefore, the study failed to reject the null hypothesis that the random effect model is appropriate.

Table 8: Hausman Test Results

ROA	(b)	(B)	S.E.	$p > \left|Chi^2\right|$
	fe	re		
PM	4.335171	4.335171	.1475551	0.2872
$b =$ consistent under null hypothesis; random effect appropriate				
$B =$ inconsistent under alternative hypothesis; fixed effect appropriate				

The regression model was thus presented in equation 2.

$$FV_{it} = -3.212459 + 4.335171PM_{it} \quad\text{...} (2)$$

The regression coefficient 4.3352 with p-values 0.000 < 0.05 show that payables management had a significant positive influence on the financial value of commercial Banks in Kenya.

4.5 Discussion

The main objective of the study was to establish the effect of payables management on the financial value of commercial banks in Kenya. The null hypothesis was that payables

management has no significant effect on the financial value of commercial banks in Kenya. Pearson's correlation coefficient indicated r = 0.1487 with a p-value of 0.0037 for financial value and payables management which implies that payables management has a significant positive association with financial value.

The random effect results having a regression coefficient of 4.3352, and p-value of 0.000 < 0.05 shows that payables management has a significant positive influence on the financial value of commercial banks. This indicates that a unit increase in payables management will led to a 4.3352 increase in the financial value of commercial banks. This means that if commercial banks are able to properly manage short-term liabilities, the financial value of commercial banks will greatly improve. The study, therefore, rejected the null hypothesis that payables management has no significant effect on the financial value of commercial banks in Kenya. The findings are in line with Njenga, Omagwa and Mithi (2020), Gerio and Wahome (2020) Gitau,Onguso, Karungu and Kirui (2016) who all established a positive and significant relationship between payables management and the financial value of commercial banks in Kenya.

5. Conclusions

Positive Pearson's correlation coefficient and regression coefficient for financial value and payables management implies that payables management has a significant positive association with financial value. This means that if commercial banks are able to properly manage short-term liabilities, the financial value of commercial banks will greatly improve.

6. Recommendations

Since payables management has a significant positive influence on the financial value of commercial banks. It was recommended that commercial banks should properly manage short-term liabilities, pending bills and accrued expenses should be minimal as this reduces the liquidity of the firm and further reduces the value of the commercial banks as potential investors see a bank with so many liabilities as risky to invest in due to increased risk of financial obligations that can lead to financial distress.

Conflict of Interest Statement
We as the authors declare no conflict of interest.

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References

Breitung, J., and Das., S. (2015). Panel Unit Root Tests Under Cross-Sectional Dependence. *Statistica Neerlandica*, 414-433.

CBK. (2020/2021). Annual Report and Financial Statements. *Government of Kenya*.

Cytonn. (2021). Kenya Listed Commercial Banks Review Banking Sector Report.

Deloitte. (2021/2022). Banking Industry Trends Report.

Egesa, K. A. (2019). *Financial Sector Liberalization and Productivity Change in Uganda's Commercial Banking Sector.* Bank of Uganda. Nairobi: African Economic Research Consortium.

Gerio, P. J., & Wahome, N. (2020). Influence of Liquidity Management on Financial Performance of Agricultural Firms Listed in Nairobi Securities. *Strategic Journal of Business and Change Management, 7*(3), 354 – 364.

Gitau, K., Onguso, N., Karungu, M and Kirui, K. (2016). What Are the Implications of Working Capital Management on Liquidity Risk? A Case of Listed Commercial Banks in Kenya. *Research Journal of Finance and Accounting, 5*(10), 24-50.

Gomes, D. G. (2022, January). Should I Use Fixed Effects or Random Effects When I Have Fewer Than Five Levels of a Grouping Factor in A Mixed-Effects Model? Pp. 2794-3105.

Khatun, N. (2021). Applications of Normality Test in Statistical Analysis. *Open Journal of Statistics*, 113-122.

Kipkirui, C. S. (2018). Accounts Receivable Management and Financial Performance of Kericho Water and Sanitation Company Limited, Kericho, Kenya. *Kenyatta University*.

Namasake, M. W. (2018). *Effects of Working Capital Management on Financial Performance of Energy and Petroleum Companies Listed on Nairobi Securities Exchange.* Nairobi: United States International University Africa.

Njenga, P., Omagwa, J. and Mithi, F. (2020). Financial Characteristics and Firm Value of Commercial Banks Listed at Nairobi Securities Exchange, Kenya. *The International Journal of Business & Management,* Vol 8 (Issue 4), 370-347.

Saxberg, B. O. (1979). A Theory of Performance: A Contingency and Path Analysis. *Approach. Management Science, 25*(3), 231-244.

Wooldridge, J. M. (2013). *Fixed Effects Estimation. Introductory Econometrics: A Modern Approach* (5th Ed.). Mason, OH: South-Western. Retrieved From 978-1-111-53439-4.

Yacine Ait-Sahalia and Dacheng Xiu (2019). A Hausman Test for the Presence of Market Microstructure Noise in High Frequency Data. *Journal of Econometrics, 211*(1),176-205