

Operational Risk Management and Financial Performance; Evidence from Deposit Taking Savings and Credit Cooperative Societies in Western Kenya

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Abstract

Original Research Article

The financial performance of Savings and Credit Cooperative Societies (SACCOs) has been improving steadily throughout the world. In Africa, SACCOs have had a significant role in transforming the continent through financial support of businesses. The SACCOs play a fundamental role in Africa's financial sector by assisting members save money and advancing credit. Regardless of this, statistics show that financial performance of Deposit Taking Savings and Credit Cooperative Societies (DT-SACCOs) in Kenya is fluctuating as shown by non-performing loans which stood at 5.12%, 5.23% and 6.14% as at 2015, 2016 and 2017 respectively, with that of 50% of DT-SACCOs in Western Kenya being even lower. Previous studies show mixed results in linking operational risk management with financial performance. Prior studies on the effect of operational risk management on financial performance have majorly focused on banks and other micro-finance institutions indicating that the effect of operational risk management on financial performance of DT-SACCOs in Western Kenya has not been established. The purpose of the study was therefore to establish the effect of operational risk management on financial performance with a particular focus on DT-SACCOs in Western Kenya. Correlational research design was adopted and a census of the 19 DT-SACCOs for the period 2013 to 2017 was selected, yielding 95 data points. Purposive sampling was used to select interviewees. Secondary data from financial statements was used. Unit root test showed that the data was stationary at levels. Expert opinion was sought to establish face, criterion, content and construct validities. Hierarchical panel data regression was used to analyse data. The findings show that operational risk management as measured by cost income ratio has a negative significant effect on financial performance ($\beta = -0.0499$, $p = 0.0001$) implying that a reduction in cost income ratio by a unit will improve financial performance by 4.99%. The study concludes that operational risk management is an important aspect in management of DT-SACCOs in Western Kenya and recommends that the SACCOs ought to invest in operational risk management if they seek to improve their financial performance.

Keywords: Credit Risk Management; Deposit Taking SACCOs; Panel Data, Financial Performance; Kenya.

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INTRODUCTION

Savings and Credit Cooperative Societies (SACCOs) play a fundamental role in Kenya's financial sector through assisting members save money and advance credit to interested members. DT-SACCO is part of the larger Sacco sub-sector in Kenya which comprises the deposit-taking and the non-deposit taking Sacco Societies. The deposit-taking segment of the sub-sector is composed of those Sacco Societies which undertake both withdrawable and non-withdrawable deposits. Whereas the non-withdrawable deposits portion of the business may be used as collateral and are not refundable unless on withdrawal from membership, the withdrawable deposits portion of the business can be accessed by the members at any time [1]. Statistics

show that non-performing loans in the DT-SACCOs stood at 5.12%, 5.23% and 6.14% as at 2015, 2016 and 2017 respectively which indicates fluctuating financial performance. This rate is relatively high compared with the World Council of Credit Unions (WOCCU) recommended industry average of 5%; and particularly given that the credit lending model in the DT-SACCOs is mostly premised on guarantor-ship, which is meant to cushion DT-SACCOs against bad loans. It also demonstrates that, notwithstanding the fact that the loans and credit advances by DT-SACCOs are guarantee backed, they are still susceptible to default, and thus additional measures to address the risks ought to be put in place [2]. While withdrawable savings deposits do not comprise significant portion of the balance sheet, DT-SACCOs are usually faced with

liquidity mismatch when issuing loans based on multiplier of savings [3].

According to [4], the financial performance of Savings and Credit Cooperative Societies (SACCOs) has globally been improving steadily with time as shown by the increase in membership which is approximated at one billion, with the turnover from the world's 300 top SACCOs amounting to \$2.5 trillion as at December 2017. This increase is attributed to the ever-increasing need for mobilisation funds and investment especially from the low-income earners². However, this growth is threatened by financial and operational risk [2]. The global financial crisis which the world is recovering from has made corporate risk management in financial institutions including SACCOs an integral part in day to day operations [5].

A number of empirical and theoretical studies have shown that corporate risk management is an important aspect of corporate management. Corporate risk management refers to all of the methods that financial institutions use to minimize financial losses. They are the means through which top and middle managers, as well as all employees prevent loss exposure of shareholders' investment through internal controls of people and technologies [2]. Many risks are common to all financial institutions. These include credit risk, liquidity risk, market or pricing risk, operational risk, corporate risk management practices that are mainly used by financial institutions to mitigate financial loss include credit risk management, liquidity risk management and operational risk management. These practices have however been shown theoretically and empirically to influence financial performance of financial institutions in different ways [6]. Studies however show that the most important of these risks is operational risk [7].

Several theories have attempted to link operational risk and the performance of firms. One of the theories that has been used is the Finance Distress Theory. According to the proponents of the theory, firms enter into financial distress as a result of poor management of risks and economic distress and this affects their financial performance. When financial performance deteriorates to the point where a firm 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 and this affects financial performance. Firms experience financial distress due to poor managerial policies, inefficient and ineffective internal control systems, non-disclosure of financial information and inability to recognize stakeholder rights. Poor risk management strategies which lead to increase in non-performing loans, operational risk and sub optimal liquidity levels and lack of trainings among firms' employees on risks

can result to financial distress and therefore affect financial performance.

Empirical studies have studied the relationship between operational risk management and financial performance of firms [8-11]. Whereas some of these studies establish a positive relationship between the variables, [10] establishes mixed results, the study by [8] was however based on only one bank. Elsewhere, [9] use primary data collected through questionnaires which may have introduced bias to the findings. Additionally, [10] also used questionnaires and [11] used banks as the sample. Reviewed literature indicates that corporate risk management constructs of credit, liquidity and operational risk management may influence financial performance even though with mixed results. Most prior studies use conveniently-selected firm-specific cross-sectional data using the descriptive research design which limits the generalization of findings to DT-SACCOs in western Kenya. Therefore, the effect of operational risk management on financial performance of DT-SACCOs in western Kenya has not been established. Therefore, the effect of operational risk management on financial performance of DT-SACCOs has not been determined. Therefore, this study sought to analyse the effect of credit risk management on financial performance of DT-SACCOs in western Kenya.

MATERIAL AND METHODS

The quantitative paradigm was adapted in this study, and since the cause and effect relationship between quantitative variables was sought, a correlational research design was adopted. The study was conducted among DT-SACCOs operating in western Kenya. The area covers the ten counties of Kisii, Nyamira, Homa Bay, Migori, Kakamega, Busia, Vihiga, Kisumu, Bungoma and Siaya. This area lies between latitude 2° North and 3° South, and 33° East and 35° East. The area generally lies in an altitude of 1800 meters above sea level and has agriculture as the main economic activity. According to [12], the population in the region was 9,776,913. The western region of Kenya has seen an increase in the number of economic activities which has led to an increase in the number of financial institutions especially SACCOs. These SACCOs help members financially by allowing them to save and at the same time borrow money to finance their businesses. Despite these developments, the SACCOs in the region just like those in Kenya as a whole still face several challenges arising from issues credit risk management, liquidity and operational risk management which have affected their financial performance.

The study was conducted between January 2019 and December 2019. The data used in the study was for the financial years 2013 to 2017. The target population of this study was 19 DT-SACCOs in western region. The study was conducted on DT-SACCOs in

western Kenya due to the fact that, of the twelve DT-SACCOs that operated on half-year restricted licenses, which expired in June, 2017 and were thereafter renewed for another half-year to the period December 2017, two of them operate in Western Kenya and they had the same challenge in 2016. A DT-SACCO is given a restricted license if it has liquidity challenges, high non-performing loans ratio and if it is undercapitalized. The DT-SACCOs was studied because of the important role they play in enhancing the livelihoods of the people in western region. Statistical information shows that SACCOs averagely control averagely 30% of Kenya's Gross Domestic Product (GDP) and accounts for 80% of the total accumulated savings. Additionally, the DT-SACCOs are selected since their financial data which was used in the present study is clearly determined.

A census survey was used to select all the 19 DT-SACCOs in western region. The study adopted a census approach because of the small number of DT-SACCOs in the region. Purposive sampling was used to select interviewees to assist in collection of primary data. The sampling technique describes the sampling unit, sampling frame, sampling procedures and the sample size for the study. The sampling frame describes the list of all population units from which the sample is selected [13]. A census approach enhances validity of the collected data by including certain information-rich cases for study. Purposive sampling enables the researcher to use judgment to select cases that best meet objectives of the study and is used when working with small sample [14].

The study used both primary and secondary data. Secondary data was collected from financial reports of the DT-SACCOs that were obtained from both SASRA and the DT-SACCOs. Data was collected on Total loans, Non-performing loans, Cash, Net balances with commercial banks, Net balances with financial institutions other than banks, Government securities, Total assets, Operating expenses, Net income after tax, Investment in companies, Balances with other SACCOs and other financial securities and Property and equipment and covered a period of five years (2013-2017). This data was extracted using data collection sheet. Secondary data from annual financial reports were used because, being statutory documents, the reports facilitate easy comparisons since they are produced on an annual basis by the DT-SACCOs. Furthermore, since they are audited annually, data reliability and validity are enhanced making them more

credible sources of data. The research items in the present study were evaluated for validity in terms of face, criterion, content and construct validity by using expert opinions of four professional financial analysts. To establish reliability, the stationarity conditions of the data series were tested using the unit root test of the Augmented Dickey-Fuller (ADF).

Before analysis, the data were tested for assumptions of linear regression. Normality was diagnosed using a histogram of regression standardized residuals along with their summary statistics for financial performance. The shape of the histogram and the Jarque-Bera (JB) statistic was used to determine normality of residuals. The heteroscedasticity condition was not tested in the present study since it is not considered a serious problem for panel data since it allows identification and measurement of effects that are not detectable in pure cross-sectional or pure time-series data. Multicollinearity was tested in the present study by means of variance inflation factor (VIF) while the Durbin-Watson statistic was used to test autocorrelation. To establish the stationarity conditions of the data series in this study, unit root test using the Augmented Dickey-Fuller (ADF) methodology was conducted.

Hierarchical Panel data methodology was employed in this study. This is because the observations have two dimensions; cross-section and time-series. [15] observes that panel data estimation methodology contains more degrees of freedom and less multicollinearity leading to more efficient estimates. Moreover, it allows for greater flexibility in modelling differences in behaviour across entities which enables the control for unobserved heterogeneity.

RESULTS

Data analysis involved cleaning the data collected by checking for any incompleteness, inconsistencies and mistakes. Hypotheses were tested using multiple regression models to determine if significant associations existed between the study variables. Table 1 shows the descriptive statistics of the data on operational risk management which was measured using cost income ratio, and the dependent variable of financial performance which was measured using Return on Assets for the DT-SACCOs in Western Kenya.

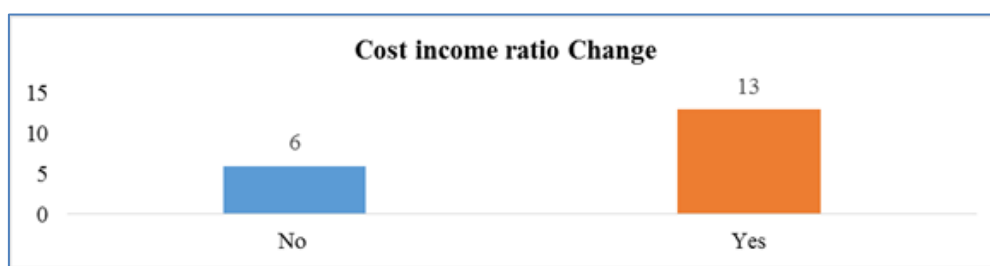
Table - 1: Descriptive Statistics on Study Variables

| Variable | Obs | Mean | Std. Dev. | Min | Max | Skewness | Kurtosis |
|----------|-----|--------|-----------|--------|--------|----------|----------|
| ROA | 95 | 0.0237 | 0.0205 | 0.0201 | 0.0287 | 0.052 | 2.226 |
| CIR | 95 | 0.6579 | 0.0179 | 0.6120 | 0.6856 | -0.725 | 3.038 |

The results in Table 1 revealed that the mean financial performance for the 19 DT-SACCOs in western region was 2.375%. The minimum reported Return on Assets was 2.01% while the maximum was 2.87%. This means that the net income is two percent of total assets. The Return on Assets was spread within a standard deviation of 0.0205 implying that there was a narrow deviation of the Return on Assets from the mean financial performance. Likewise, the mean Non-Performing loan ratio was 0.022. The mean for Cost income ratio was 0.6579. The minimum reported Cost income ratio was 0.6120 while the maximum was 0.6856. The Cost income ratio was spread from the

mean Cost income ratio within a standard deviation of 1.798. This implies that on average, the costs in the DT SACCOs are 60.2% of the incomes.

The findings from the secondary sources were further consistent with the responses from the specific deposit taking SACCOs where they indicated an increase in costs ratio. The figure below indicates that 68% of the Chairmen/Chairladies of Board of Directors and operation managers of the 19-deposit taking SACCOs agreed that cost income ratio has been increasing.



Correlation results between the study variables are shown in Table 2.

Table-2: Correlation Results of Study Variables

| Variables | ROA | CIR |
|-----------------|--------|----------|
| ROA | 1 | |
| Sig. (2-tailed) | ----- | |
| CIR | -0.499 | 1 |
| Sig. (2-tailed) | 0.000 | ----- |

The results in the Table 2 reveal that cost income ratio (CIR) and financial performance of deposit taking savings and credit cooperative societies have a negative and significant relationship with each other ($R= -0.499, p=0.000$). This is consistent with previous findings which showed that there is a positive association between operational risk management and financial performance of organizations [8-11].

Regression analysis was conducted to establish the effect of operational risk management and financial performance of the DT SACCOs. The regression was based on the model below;

$$ROA_{it} = \beta_{0i} + \beta_1 OPR_{it} + \epsilon_{it} \dots\dots\dots$$

The output of the regression result is shown in Table 3 below.

Table-3: Regression Results

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|-------------------------|-------------|-----------------------|-------------|---------|
| Cost income ratio (CIR) | -0.0499 | 0.0121 | -4.1235 | 0.0001 |
| C | 5.5527 | 0.6837 | 8.1213 | 0.0002 |
| R-squared | 0.3693 | Mean dependent var | | 2.3758 |
| Adjusted R-squared | 0.3486 | S.D. dependent var | | 0.2052 |
| S.E. of regression | 0.1656 | Akaike info criterion | | -0.7170 |
| Sum squared resid | 2.4962 | Schwarz criterion | | -0.6095 |
| Log likelihood | 38.0593 | Hannan-Quinn criter. | | -0.6736 |
| F-statistic | 17.7648 | Durbin-Watson stat | | 1.88860 |
| Prob(F-statistic) | 0.00100 | | | |

Dependent Variable: **ROA**
 Total panel (balanced) observations: **95**

Results in Table 3 show that cost income ratio (CIR) is negatively ($\beta=-0.0499$) but statistically significant in relation with the financial performance of deposit taking savings and credit cooperative societies in western Kenya ($p=0.0001$). This implies that a unit decrease in cost income ratio may lead to a 4.9% increase in financial performance in the DT SACCOs. The negative relationship was identical to the findings of [8]) who examined how cost income ratio benchmarking was used by ASB Bank, a New Zealand-based retail bank when reviewing its operational efficiency. The study observed that there is an inverse relationship between the cost income ratio and the bank's profitability and hence a positive relationship between operational risk management and financial performance.

CONCLUSION

The objective of the study was to establish the effect of operational risk management on financial performance of deposit taking SACCOs in Western Kenya. It was established that there was a significant negative effect of operational risk management on financial performance of the DT SACCOs. This implies that managing operational risk is one of the significant ways through which financial performance of DT SACCOs can be improved. It is recommended that cost income ratio in the deposit taking SACCOs in Western Kenya be given more attention if financial performance has to be improved as it has been established that they contribute significantly in their financial performance.

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