The impact of internal controls on SACCO performance in Rukiga, Uganda

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Abstract
Purpose: The research on the internal controls of Rukiga SACCO was conducted in Rukiga District to examine the segregation of duties, determine the impact of independent checks, and assess the risk management on the financial performance of the organization.

Research methodology: This research was carried out after the cross-sectional survey. The bivariate correlations between the predictor components and the dependent variable were examined using a Pearson correlation matrix, and a linear regression model was used to fit the data.

Results: The regression model results showed that segregation of duties (R=762), independent checks (R=676), and risk management (R=899) had beneficial influence on Rukiga SACCO performance. Furthermore, the performance was impacted by risk management, separation of roles, and independent checks.

Limitations: The structured questionnaire, which was administered by the participant, served as the primary data collection tool. The probability of non-responses occurred due to the loss of control over the questionnaire after submission to respondents. This situation had a significant impact on the data analysis and the generalizability of the findings.

Contribution: Task segregation, independent auditing, and risk management should be considered to achieve loan portfolio expansion, profitability development, and market share increase, which were crucial elements of Rukiga SACCO performance.

Keywords: Internal Controls Practices, SACCO Performance, Uganda


1. Introduction
SACCO was established in Africa to integrate the majority of the population into the formal economy following the end of colonial rule. Over time, it experienced a significant expansion as individuals were promoted to cultivate cash crops to meet the demands of the growing market. According to the concept, rural and remote areas residents who are economically disadvantaged receive financial assistance. However, the assistance is not presently available to individuals residing in rural areas, denying access to supplementary financial services. Poor financial management often leads to extreme poverty and bankruptcy. Currently, SACCO upholds established principles, regulations, and goals to effect positive global change. Companies also face mounting pressure to fulfill different objectives while meeting the expectations of other stakeholders, such as the government, the general public, and their clientele (Argandoña, 1998).

The microfinance institutions of Uganda are performing well because their clients are more knowledgeable in terms of needs, wants, and expectations. Companies have faced intense rivalry, which is a significant source of competitive advantage to provide high-quality financial services (Turyasingura & Moses, 2023). These are financial institutions that provide services similar to banks.
Many of the institutions were established long before the majority of commercial banks. However, their performance is comparatively deficient when compared to other businesses in the same sector (Gathuruthu, 2011). SACCO has adopted strategies to improve operational financial performance and profitability. According to Olayinka and Mustapha (2022), performance is the solution to the success or failure of organizational goals, as supported by Lekwauwa and Bans-Akutey (2022).

Initially, SACCO struggled to meet its operating expenses since its service is based on educated guesses (Nuwagaba, 2012). The research also discusses the impact of the financial success of SACCO in rural regions on the lack of market research and scientific procedures for pricing and costing. It cannot offer conclusive proof of the role of training in forecasting SACCO financial performance. Even though the government and other organizations have contributed to the reduction of rural poverty, member and staff attitude development frequently had a negative impact on financial success. Several SACCO follow credit and cash management policies, while others lack the knowledge necessary to invest excess funds in marketable securities. Risk managers can review historical data for losses resulting from historical lost data, financial statements, and dangers in light of risk analysis. Many staff still lack the skills necessary to manage risk exposures effectively (Mengich & Njiru, 2015; Mugo, Kahuthia, & Kinyua, 2019). Therefore, Muchiri and Jagongo (2017) noted that staff with high-quality assets, reliable earnings, and sufficient capital might fail due to inadequate liquidity management encountered by weak internal control. According to Eton, Fabian, and Eliab (2023), many businesses in western Uganda have suffered from poor performance. Muchiri and Jagongo (2017) and Ndiege et al. (2016) stated that SACCO should emphasize sustainability rather than profitability in promoting negative loan defaults. Financial viability aids the staff in achieving their long-standing goal of wealth generation. Due to job description overlap and insufficient division of duties, the internal audit department, and procedures have resulted in several functions (SUPCO report 2020).

However, the effective repayment rate has decreased from 67% to 45% and the Principal has increased from 8% to 23% (management report 31/12/2021, Audited accounts since 2018), indicating negative growth. It is also known that Rukiga SACCO (RSACCO) growth from 2018 to 2021 has improved with the registered rates of 23.5%, 27%, 35%, and 31% as provided in Rukiga Strategic Plan 2019-2024. Other findings, including those of an internal auditor and SUPCO, indicate that quantitative growth is not supported by qualitative evidence (internal Monthly Report 2021, SUPCO Report 2018, 2019, and 2020).

1.1 Research problem
Despite having implemented internal controls and an audit department, as evidenced by the reports, Rukiga SACCO has consistently failed to meet the necessary performance standards. Therefore, this research needs to determine how internal controls have impacted SACCO performance. It creates well-informed policy decisions on the effectiveness of internal control at Rukiga SACCO Limited. The findings may give the directorates the justification needed to reassess their internal control procedures more quickly and effectively.

1.2 Research gap
The operational findings may produce enough information to help management decide the steps taken to strengthen internal control at SACCO. The analysis might highlight any weaknesses in the current control systems. This current research may add to the body of knowledge known about internal control systems and SACCO performance. It improves the understanding of internal control and SACCO performance.
1.3 Conceptual framework

Source: Adopted from (Nassazi, 2013) and modified by the researcher in 2022

The conceptual framework shows the relationship between internal controls and SACCO performance in Kigezi. In this research, the independent variable is internal control, which is measured in terms of segregation of duty, independent checks, and risk management. The dependent variable, performance, is measured in terms of profitability, loan portfolio, outreach center, market share, and customer satisfaction. This research hypothesized that when internal controls such as segregation of duty, independent check, risk management, and Second opinion are likely to achieve strategic objectives such as improved profitability, loan portfolio growth, opening new outreach centers, as well as increase market share and stakeholder satisfaction. To achieve all planned objectives, management must address potential challenges that can impede the attainment of its goals, such as micromanagement, lack of staff commitment, unclear job descriptions, and inadequate policies and procedures. Good internal control objectives such as effectiveness and efficiency of operations and risk management help management to work according to set goals and objectives. Therefore, the improved performance can be attributed to its policies, and over the past five years, Rukiga SACCO has consistently claimed better performance. This research aims to investigate the direct correlation between the policies of Rukiga SACCO and its internal control and control environment.

2. Literature Review and Hypotheses Development

2.1 Internal control practices

Merchant and Otley (2006) defined internal control systems as formal, information-based routines and practices employed to safeguard the assets of a company and detect errors. According to the research, ICS had a significant impact on corporate performance. Traditional management believed that investments in value-delivering skills, such as internal control systems, were the foundation for enhancing the performance of profit-oriented firms and industrial-age corporations, rather than solely relying on historical events. This belief was based on financial accountability metrics including profitability, cash flows, and return on investments (Kaplan & Norton, 1996). According to Weerathunga and Seneviratne (2023) existence of tight, strong, impactful, and effective Management Control Systems led to high sales volume and also elevated the annual growth of sales.

In the current competitive and challenging business environment, managers must concentrate on the issues affecting long-term success. Numerous fundamental reasons, such as relative incompleteness, lack of accuracy, promotion of short-term thinking, and lack of balance, have led to increased scrutiny of much traditional utilization of profit-based performance metrics (Kaplan & Norton, 1996). Internal controls contain measures that should promote management and the business to make improvements rather than maintain the status quo (Inman & Green, 2018). However, a multivariate performance measuring system is necessary. These include capital employed, return on investment, return on equity, and financial accountability.

2.2 Financial performance of organizations

Financial and non-financial indicators are used to assess the performance of a company. This research uses the loan portfolio, market expansion, asset management, and profitability to assess financial performance. SACCO performance has received considerable attention recently as an important academic topic for analyzing employee development. Therefore, everyone struggles with financial
performance, and those engaged are continually motivated (Harash, 2017). Financial performance is a gauge of a company to efficiently use the resources from its core business model and generate profits. It is the measurement of business activities and results in financial terms (Abu & Bamidele, 2022).

The attainment of particular corporate goals measured against costs, completeness, and recognized criteria is referred to as financial performance (Thrikawala, 2011). The subject of financial performance is a recurring topic in research on company management. However, the definition and structure of financial performance are seldom explicitly justified. It is commonly assumed that financial performance is applicable in all circumstances. The methods used to generate financial performance can achieve market-focused objectives. To determine the level of success within its industry, financial performance based on a selected time is used. In business research, the term “9 successes” is occasionally used to characterize the financial performance of a corporation (Islam, 2011).

Market share, sales, return on investment, and other financial variables have been used as indicators of financial performance. Although growth indicators, such as sales, can show how a company can enter new markets or expand existing ones, profitability indicators such as ROI and ROS are more effective at measuring the rate of success. Valuing the results of operations, policies, and actions of the company is necessary for measuring financial performance. Operating income, cash flows, total unit sales, and internal control can all be used as measurements. The present performance will be assessed in terms of the loan portfolio, profitability, and growth in market share.

2.3 Segregation of duty and financial performance
A crucial function of SACCO in forecasting financial performance is loan distribution. Due to a lack of segregated responsibilities during appraisal, approval, and payout, it has a high default rate (Munyiri & Wekesa, 2017). SACCO with a wide range of loan products performs better than those offering limited products. The wide range of products helps to diversify their credit portfolio and reduce the proportion of non-performing loans. According to Muchiri and Jagongo (2017), loan products that are easily repayable are more likely to be preferred by borrowers. However, in cases of an excessive number of loans, there is a substantial likelihood of risk exposures, necessitating rigorous and effective risk management measures.

Changes in agricultural pricing have a big impact on the quality of the loan portfolio in rural areas, where the bulk of SACCOs operate. This shows that external factors are likely to have an impact on performance despite the widespread adoption of credit risk management. Besides insured loans, which are not characteristics of SACCO loans, agricultural loans have a high proportion of risk exposure (Magali, 2014).

Todd and Murphy (2015) contended that a division of labor was necessary since no leader was able or willing to hold people accountable for their actions. Some folks are just not capable of developing a little bit of courage. Management may occasionally be held solely accountable when they fail to specify the qualifications for each position. However, ambiguity and accountability should not be used in the same phrase. For expectations to be met, strategies for effective accountability must be implemented.

2.4 Independent check on the financial performance of Rukiga SACCO
A staff member of Rukiga SACCO opines that employers should prioritize employee motivation before holding them accountable for their actions. Therefore, unmotivated workers can prioritize their interests at the expense of the company. Employees view themselves as analogous to engine oil in a car, acknowledging that they may experience failures without being held accountable for subpar job performance. Before asking an employee to justify their presence, they should be given a chance to accomplish some of their objectives, such as purchasing corporate property, paying higher salaries and allowances, and offering equal pay for output at work (Bashaija, 2022).
The board of directors has developed a strategic plan to guarantee the financial success of Rukiga SACCO, and management has agreed to perform as expected when the objectives are met. In the strategic plan for 2019 to 2024, accountability performance indicators were projected, which comprise the fiscal year that ends on December 31, 2022, projected a profit of $1 billion, with growth in the loan portfolio to 28 billion and savings of 16 billion.

A thorough analysis showed that Rukiga SACCO set up scheduled member meetings to enhance communication with current and prospective members, as well as invest in new agricultural business products, and financial training capacity. This necessitates an objective assessment of the management strategy used by Rukiga SACCO to enhance shareholder value.

2.5 Risk management and SACCO performance

Business risk management evaluates, ranks, and manages the risks connected to any adjustments to the operations, systems, and processes of a company. A guide is available to aid in the planning and decision-making processes should an organization need to increase its financial requirements due to chance or emergency. This provides a coordinated reaction to various risks and supports the ability to make informed, risk-based decisions in improving financial performance across all organizational structures.

According to Ciampi, Demi, Magrini, Marzi, and Papa (2021), business risk management is the systematic process of detecting prospective occurrences that pose dangers to the accomplishment of strategic objectives or opportunities to gain an advantage over competitors. It demonstrates the risk culture of the business, level of risk tolerance, and appetite. Accepting strategy risks can result in highly lucrative operations in enhancing adherence to statutory, regulatory, and reporting requirements.

Lack of expertise in enterprise risk management may ignore the business and economic climate, which could result in conflicting information or an unduly cautious approach to risk and the loss of chances (Christensen, Hail, & Leuz, 2021). To be effective, enterprise risk management must assess the risks related to specific business objectives based on significant value drivers. A gap was experienced due to the failure to demonstrate how a business risk management plan will improve SACCO financial performance. Furthermore, there was no specification of the agent responsible for overseeing the use of this strategy to enhance financial performance. This research aims to improve the level of financial performance by studying implementable solutions for business risk management.

2.6 Research Hypotheses

Ho: segregation of duty has no significant effect on Rukiga SACCO performance
Ho: Independent check has no significant effect on Rukiga SACCO performance
Ho: Risk management has no significant effect on Rukiga SACCO performance

3. Research Methodology

3.1 Research design

This research employed a cross-sectional research approach. At Rukiga SACCO in Kigezi, Uganda, data were gathered on internal control and performance (Turyasingura, Moses, Meza, Zombeire, & Kyabarongo, 2022) using quantitative and qualitative methods. The quantitative method was used to establish the link between internal control and performance while the qualitative clarified employees perceptions of Rukiga SACCO, challenges affecting internal control, and potential improvements in internal controls practices.

3.2 Determining the sample size

Morgan (1970) determined the proper sample size based on a total population of 53 Rukiga employees and 12 Board and SUPCO committee members to conduct the relationship between internal control methods and performance. About 48 participants were selected as the sample size. For each category of the population, the sample size was calculated using proportional allocation.
Table 1. Population and Sample Size

<table>
<thead>
<tr>
<th>Population category</th>
<th>Total population</th>
<th>Sample size</th>
<th>Sampling method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch manager</td>
<td>7</td>
<td>7</td>
<td>Purposive sampling</td>
</tr>
<tr>
<td>Management Executive</td>
<td>7</td>
<td>7</td>
<td>Purposive sampling</td>
</tr>
<tr>
<td>Credit officers</td>
<td>18</td>
<td>18</td>
<td>Purposive sampling</td>
</tr>
<tr>
<td>Banking officers</td>
<td>21</td>
<td>21</td>
<td>Purposive sampling</td>
</tr>
<tr>
<td>Board members</td>
<td>9</td>
<td>9</td>
<td>Purposive sampling</td>
</tr>
<tr>
<td>SUPCO members</td>
<td>3</td>
<td>3</td>
<td>Purposive sampling</td>
</tr>
<tr>
<td>Delegate members</td>
<td>140</td>
<td>70</td>
<td>Simple random</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>205</strong></td>
<td><strong>135</strong></td>
<td></td>
</tr>
</tbody>
</table>

3.3 Data collection methods

Primary and secondary sources of information were used to gather the data. This research relied on surveys and interviews, as well as the direct observation approach to gather pertinent data on the location, operations, and structure of Rukiga SACCO. A documentation review was also conducted while observing Rukiga SACCO performance.

3.4 Data quality and control

3.4.1 Validity of the research instrument

The content validity index (CVI) was calculated by summing up the number of items each judge evaluated as valid and dividing by the total number after consulting the two supervisors and four judges.

Therefore, \[ CVI = \frac{\text{Number of items rated relevant by expert}}{\text{Total number of items in the instrument}} \]

For instance, the average CVI was calculated when the instruments have 135 questions and the following summary of the data was obtained.

Table 2. Content validity

<table>
<thead>
<tr>
<th>INDEX Judge</th>
<th>Score</th>
<th>Valid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judge 1</td>
<td>38/40</td>
<td>0.95</td>
</tr>
<tr>
<td>Judge 2</td>
<td>36/40</td>
<td>0.90</td>
</tr>
<tr>
<td>Judge 3</td>
<td>36/40</td>
<td>0.90</td>
</tr>
<tr>
<td>Judge 4</td>
<td>34/40</td>
<td>0.85</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>3.60</strong></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td><strong>0.90</strong></td>
</tr>
</tbody>
</table>

Source: primary data 2022

The findings implied that research tools can facilitate the acquisition of information on the party responsible for financing service provisions. The average content validity index (CVI) for instruments should be 0.7 or higher, according to Moses and Turyasingura (2022). The average index of 0.90 may
exceed the permitted maximum. Similarly, instruments would be considered as legitimate (Moses, Turyasingura, & Kyabarongo, 2022).

3.4.2 Reliability of research instruments
Research instruments can be utilized to gather information on the individuals or entities accountable for funding the provision of services. This research conducted a pilot analysis to determine the internal control procedures of Rukiga SACCO on organization performance. It was investigated whether the responses given by the various research participants were consistent. The Cronbach's Alpha Coefficient (1951) was then determined, as shown below (Moses et al., 2022).

Table 3. Reliability Statistics

<table>
<thead>
<tr>
<th>Variable List</th>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segregation of duties</td>
<td>.812</td>
<td>7</td>
</tr>
<tr>
<td>Independent checks</td>
<td>.742</td>
<td>7</td>
</tr>
<tr>
<td>Risk management</td>
<td>.811</td>
<td>7</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td><strong>0.788</strong></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>

When the reliability test is 0.7 and above, the instrument will be reliable

3.5 Data processing and analysis
Before being inputted into SPSS (Statistical Software for Social Sciences) for analysis to obtain the requisite descriptive and inferential statistics, the collected data were edited and coded to ensure logical coherence.

To evaluate the association between internal control methods and performances at Rukiga SACCO, quantitative data analysis was performed with SPSS. Regarding the phenomena of internal control procedures and SACCO performance, descriptive and inferential statistics were created. To give a general overview of the current condition of internal control processes and performance, descriptive data were presented in the form of graphs and tables. Inferential statistics could be the form of correlation, linear regression, and testing of hypothesis using a test to measure the strength and extent to which internal control procedures affected the performance.

3.6 Research Model
The model for estimation is described as follows:
In this stage, the model had been fitted, and only the independent variables at the bivariate stage had shown a significant relationship with the dependent added to the linear regression model. Furthermore, only variables determined to be significant at the bivariate stage were regressed at the multivariate level. The multivariate model is shown in the equation below:

\[ P = \beta_0 + \beta_1 SD + \beta_2 IC + \beta_3 RM + \varepsilon \]

Where,

\[ P = \beta_0 + \beta_1 SD + \beta_2 IC + \beta_3 RM + \varepsilon \]

Where:

- \( P \) = Performance
- \( SD \) = Segregation of duty
- \( IC \) = Independence Checks
- \( RM \) = Loan Appraisal techniques
- \( \varepsilon \) = Error term

\( \beta_1, \beta_2 \) and \( \beta_3 \) are the partial coefficients of the independent variables

4. Results and Discussions
4.1. Response rate
Table 4. Showing population, sample, and sampling techniques

<table>
<thead>
<tr>
<th>Population category</th>
<th>Expected respondents</th>
<th>Actual respondents</th>
<th>Sampling method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch manager</td>
<td>7</td>
<td>7</td>
<td>Purposive sampling</td>
</tr>
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<tr>
<td>SUPCO members</td>
<td>3</td>
<td>3</td>
<td>Purposive sampling</td>
</tr>
<tr>
<td>Delegate members</td>
<td>70</td>
<td>70</td>
<td>Simple random</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>135</strong></td>
<td><strong>135</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: primary data 2022

Table 4.1 shows a very respectable response rate of 100% from respondents in all categories. This was due to the availability of all participants during data collection. Moses and Turyasingura (2022) stated that it was necessary for viable research to have a minimum response rate of 70%.

4.2 Hypothesis testing

This research utilized statistical inference to test the potential hypotheses and enable the generalization of the findings from the population samples. Correlation and regression research were performed to ascertain the relationship between the independent and dependent variables, as well as the strength and direction, to build a relationship model, and evaluate the two hypotheses.

The alternative hypothesis that the segregation of duties did not influence Rukiga SACCO performance was tested by calculating the strength of the association using the product-moment correlation coefficient of Pearson. The results are presented in the table below.

Table 5. Correlation analysis for segregation of duty

<table>
<thead>
<tr>
<th>Performance</th>
<th>Segregation of duty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation Sig. (2-tailed) N</td>
<td>Pearson Correlation Sig. (2-tailed) N</td>
</tr>
<tr>
<td>1 .762**</td>
<td>1 .762**</td>
</tr>
<tr>
<td>135 .000</td>
<td>135 .000</td>
</tr>
<tr>
<td><strong>. Correlation is significant at the 0.01 level (2-tailed).</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: primary data 2022

There was a correlation coefficient displayed in Table 4.2 and the value of .762 indicated a favorable association between the division of duties and performance. A regression analysis was conducted to ascertain the strength of the association between segregation of duty and performance.
Table 6. Showing the model summary of segregation of duty

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.762a</td>
<td>.825</td>
<td>.924</td>
<td>.15216</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Segregation of duty

The determinant coefficient of .825 suggested that the segregation of duties affects performance. This indicates that the effectiveness of performance improves as the separation of duties becomes more distinct. Segregation of duties accounts for 82.4% of Rukiga SACCO performance.

Table 7. Regression output summary on, segregation of duties

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.385</td>
<td>.134</td>
<td>2.882</td>
<td>.005</td>
</tr>
<tr>
<td>1 Segregation of duties</td>
<td>921</td>
<td>.030</td>
<td>.762</td>
<td>30.953</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance
Source: Field data 2022

The outcome showed a regression coefficient of .762 at a 0.01 level of significance, indicating a difference in favor. The partition of responsibilities affected SACCO performance, with a Beta value of 0.762 at a 95% level of confidence. The alternate hypothesis was that "Segregation of duties had a major effect on Rukiga SACCO performance."

4.3 The qualitative findings on the segregation of duties

Responses from One respondent officer
"Since there is no separation of roles, the majority of SACCO have failed. However, this has not been the case at Rukiga SACCO due to the division of labor. A manager handles his task, and without interference, the loan officers are allowed to perform their responsibilities. This explains the reason SACCO in the Kigezi subregion is performing well

Responses from the second respondent.
The implementation of internal control measures by the board committees was crucial to the successful operation of the bank. They adopt policies and resolutions aiding the sound financial performance of a bank. Meanwhile, the performance of the general manager is monitored by the subunits.

The analysis showed a correlation between the quantitative and qualitative findings. There was a convergence between the two data sets, and it was evident that qualitative and quantitative data supported each other.

4.4 Hypothesis Testing; independent checks on performance
Pearson's product-moment correlation coefficient was used to calculate the size of the relationship to confirm the alternative hypothesis of a strong relationship between independent checks on performance, as shown below:
Table 8. Correlation analysis

<table>
<thead>
<tr>
<th>Performance</th>
<th>Independent checks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed) N</td>
<td>.000</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>135</td>
</tr>
<tr>
<td>Sig. (2-tailed) N</td>
<td>.676**</td>
</tr>
</tbody>
</table>

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

Source: primary data 2022

The correlation coefficient in Table 4.5 above was .676, which was significant at the 0.01 level and indicated a very strong positive link. Therefore, to ascertain the impact of independent checks on Rukiga SACCO performance, a regression analysis was conducted. This showed the degree to which the dependent variable might be impacted by the volatility of the independent variable.

Table 9. Model summary independent checks

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.676*</td>
<td>.099</td>
<td>.087</td>
<td>.32040</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Independent checks

Source: field data 2022

The correlation coefficient of .676 suggested that performance at Rukiga SACCO was affected by independent checks. This implied that the performance could increase with the independent checks of 67.6%.

Table 10. Regression output summary of independent checks

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.680</td>
<td>.507</td>
<td>Beta</td>
<td>5.282</td>
</tr>
<tr>
<td>1 Independent checks</td>
<td>.362</td>
<td>.124</td>
<td>.676</td>
<td>2.928</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance

Source: field data 2022
4.5 The qualitative findings on independent checks
Qualitative analyses were performed on qualitative data generated through key informant interviews. On independent checks, the qualitative findings are presented below.

One key informant noted that:
“SACCO has established a dedicated department for internal auditing, and with the presence of board committees, external and internal auditors, and independent checks, the internal audit function is appropriately staffed.”

Second respondent
“SACCO is performing successfully because the management and board regularly analyze internal audit results.”

This research confirmed that there was a relationship between quantitative and qualitative findings after conducting the analysis. The datasets agreed, and it was evident that qualitative and quantitative data supported each other.

4.6 Hypothesis Testing: risk management
Pearson's product-moment correlation coefficient was used to calculate the strength of the association between risk management and Rukiga SACCO performance to confirm the alternative hypothesis of a substantial relationship between the variables.

Table 11. Correlation analysis on risk management

<table>
<thead>
<tr>
<th></th>
<th>Performance</th>
<th>Risk management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.699**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>135</td>
<td>135</td>
</tr>
<tr>
<td>Risk management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.699**</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>135</td>
<td>135</td>
</tr>
</tbody>
</table>

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

Source: Field Data 2022

Table 4.8 showed a correlation coefficient of .699**, which was significant at 0.01 level implying a very strong positive relationship. A regression analysis was conducted to determine the level of effective risk management on Rukiga SACCO performance. This indicated the effects of the variance in the independent variable on the dependent. A regression analysis obtained the contribution and influence of the relationship between risk management on Rukiga SACCO performance.

Table 12. Model summary of the effect of risk management

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
</table>

The coefficient of determination at .699 implied that risk management affected Rukiga SACCO performance by 69.9%.

Table 13. Regression output summary on risk management and performance

<table>
<thead>
<tr>
<th>Coefficients(^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>1 Risk management</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance
Source: field data 2022

The results showed a significant link with a regression coefficient of .699 at the significance level of 0.01. The findings with a Beta value of 0.699 at a 95% level of confidence illustrated the impact of risk management on performance. The theory was rejected and the following conclusion was accepted: "Risk management does not have an impact on Rukiga SACCO performance.

4.7 The qualitative findings on risk management

Qualitative analyses were performed on data generated through key informant interviews concerning the risk management on Rukiga SACCO performance.

Respondent
("Based on the performance of the bank and the feedback received from the business community, effective risk management has played a crucial role in financial management. The risk strategy of the board has led to the successful implementation of credit risk, business risk, and liquidity management measures."

This research found a correlation between the quantitative and qualitative findings. It was evident that qualitative and quantitative data supported each other because there was an agreement between the two datasets.

4.8 Discussion

The results of assessing the effect of segregation of duties on Rukiga SACCO performance showed a strong and favorable correlation. This is consistent with Munyiri and Wekesa (2017). Meanwhile, borrowers are more likely to obtain loans that are easy for them to pay (Muchiri & Jagongo, 2017). This research affirms the findings of Segun, Kehinde, and Alice (2020) that monitoring has a favorable impact on the liquidity and solvency of banks in the state of Osun. Jeanne (2019) stated the substantial favorable association between financial success and monitoring.
Sigilai (2017) found that revenue collection at Nakuru Level Five Hospital was positively and marginally impacted by monitoring and control actions. Moreover, Asiligwa and Rennox (2017) reported that the financial performance of Kenyan commercial banks was negatively and negligibly impacted by monitoring and control efforts.

According to Kemboi (2019), monitoring operations had a favorable but negligible impact on the financial health of the commercial banks of Kenya. Kiyieka and Muturi (2018) also stated that monitoring and control operations in Kisii County, Kenya, had a favorable but negligible impact on the financial performance of deposit-taking saving and credit cooperative societies.

5. Conclusion
5.1. Conclusion
In conclusion, the segregation of duties, risk management, and independent checks have an impact on Rukiga SACCO performance.

5.2. Limitation
Due to information bias, several respondents were unwilling to provide truthful financial information. This research was carried out in a single district, which is a small region and was not indicative of the entire nation.

5.3. Suggestion
The division of roles should take priority for SACCO to function effectively. The board must be aware of its responsibilities, as well as the management and shareholders, under the human resources policy of SACCO.

This research suggests that all interested parties should conduct independence checks to enhance the growth and operation of SACCO. According to this research, the board and management should make sure that risks are appropriately managed to prevent fraud and ensure loans are repaid. This is because risk management is crucial for the survival of every financial firm. The conceptualizations of internal controls impact in terms of segregation of duties, independent checks, and risk management add to the existing literature on SACCO performance in Rukiga District, Uganda.

Acknowledgment
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