Internal Control System and Financial Performance of Saving and Credit Cooperatives

Asst. Prof. Tulshi Prasad Bhusal

Abstract

The study aims to assess the effect of the internal control system on the perceived financial performance of saving and credit cooperatives. Internal controls were measured using four elements (i.e., control environment, risk assessment, control activities, and information and communication) as prescribed by the Tedway Committee of Sponsoring Organizations (COSO) framework. Perceived financial performance has been measured through the increase in ROA, ROE, deposit and lending, liquidity and EPS. A descriptive and casual comparative research design was adopted to describe the relationship and effect between the elements of internal control system and financial performance. Out of 86 saving and credit cooperatives registered under the legislative area of Butwal Sub-Metropolitan city, only 38 has been considered as sample. A structured questionnaire on 5 point likert scale ranging from strongly disagree to strongly agree has been adopted. The findings of the study has revealed that the SACCOs (Shaving and Credit Co-operative enjoy a sound financial performance partly because of implementing and maintaining effective internal control system.

Keywords: SACCOs, COSO Framework, Internal Control System, Financial Performance

I. Introduction

A cooperative is a voluntary association of individuals or groups who come together to address common goals through a shared enterprise. An independent group of individuals who have come together voluntarily to support each other’s economic, social, and cultural needs and aspirations through a business that is jointly owned and democratically run (ICA, 1995).

Savings and Credit Cooperatives are considered as voluntary associations where members are encouraged to make regular savings, and subsequently obtain credit for use in their different activities (Benson et al., 2016).

There are 29,886 different types of cooperatives and 73,07,462 members are in Nepal. Around 90000 people are being directly employed by different types of cooperatives. Lumbini Province is one of the centrally located province in Nepal where there are 109 local bodies including 12 district, 4 Sub-metropolitan, 32 municipalities, 76 village-municipality. In this province there are 3755 cooperatives and 898611 members associated. There are 6989 employees are directly employed by these cooperatives (DoC, 2021).

Internal control is a procedure used by a company’s management, board of directors, and other employees. Its purpose is to provide a company with a reasonable level of assurance that its objectives will be met with regard to the dependability of financial information, the effectiveness and efficiency of operations, and other factors.¹

Board of directors, managers, and other functional staffs are all involved in the internal control process to provide reasonable assurance regarding the achievement of the goals of effective and efficient operations, accurate financial reporting, and adherence to applicable laws and regulations (COSO, 1992).

¹Mr. Bhusal is currently working in Lumbini Baniya Campus. Neonal and he can be reached by <bhusaltulshi@gmail.com>
Intosai (2004) stressed that internal controls adjust to the organization's change along with organizational structure. The effective management of risks and the provision of rationality and assurance of achieving the mission and broad objectives of an entity are all aided by management and employee participation in the process of setting controls at all levels.

Dickins and Fay (2017) states that as per COSO 2013 framework, internal control is affected by a board of directors of an entity, managers as well as other relevant personnel to give reasonableness in assurance regarding the realization of effective and efficient operations, reliable financial reporting and adherence to the relevant laws and regulations as the objectives.

COSO (2013) acknowledges the five different types of control systems that exist in a company, including information and communication systems, risk analysis, monitoring of operations, and control environment.

All business entities must comply these internal control elements, although cooperatives may apply them differently than other financial institutions. Internal control systems for SACCOs may be less structured and formal but nonetheless quite effective.

The study aims to explore the internal control system practice and its impact on the performance in the context of saving and credit cooperatives in Nepal.

II. Theoretical Framework

This study mainly incorporates two variables; internal control systems and performance of SACCOs. Internal control system is assessed by control environment, risk assessment, control activities, communication and monitoring. Financial performance, which is assessed by profitability, liquidity, and asset quality, served as the study's main guiding factors.

Internal Control System

Internal control system includes all the policies and procedures adopted by the management of an entity to assist in achieving their objectives, including adherence to internal policies, the safeguarding of assets, the prevention and detection of fraud and error, the accuracy and completeness of the accounting records and the timely preparation of reliable financial information (Denise, 2016). Management establishes internal control systems to ensure that the firm is running effectively (Abiola & Oyewole, 2013) and to attain the overall organizational goal (Ayagre et al., 2014).

Internal control systems, as defined by the COSO, are a procedure created, put into place, and maintained by management, governance, and other staff members who can be expected to give the entity's management and board only a reasonable amount of assurance regarding the accomplishment of business objectives in terms of the effectiveness and efficiency of operations, the dependability of financial reporting, and compliance with applicable laws and regulations (IFAC, 2012).

The successful installation of internal control systems can assist an organization’s profitability and growth by preventing losses by safeguarding resources and other assets (Bett & Memba, 2017). Internal audit, which is a component of internal control, helps the organization’s data users and data suppliers be more accountable, which directly or indirectly improves the consistency of financial performance (Odek & Okoth, 2019). Chaudhary and Chaudhary
(2022) revealed that Internal control is a set-up of internal management effectiveness that results in the development of a system that will create the financial stability and check needed to support the corrective actions the company anticipates taking to ensure the achievement of its goals. A system of tools known as an internal control system is set up to motivate an individual or group of individuals to achieve corporate goals (Odunko, 2022).

In both wealthy and developing nations, accounting scandals and faked financial reporting make internal control systems a newsworthy topic (Omar & Yussuf, 2021). The five interconnected parts that make up the internal control systems are the control environment, risk assessment, information & communication, and monitoring (Ayagre et al., 2014).

**Control environment**

The control environment aims to ensure that all business operations are founded on the adoption of best practices used in the industry. This can support ensuring that the company is managed responsibly. If a company can demonstrate that every step of its business operations is based on accepted industry standards, it may also lessen its risk of legal trouble. The control environment can also assist in ensuring that a business complies with legal and regulatory standards (COSO, 2013).

The control environment serves as the cornerstone for all other internal control mechanisms that offer discipline and structure. It also sets the tone of an organization by influencing its employees’ levels of control consciousness (Ratcliffe & Landes, 2009). Dickins and Fay (2017) further asserts that control environment often defines as the “tone at the top” which means that the components should get more attention from the people in the organizations.

For each cooperative, control system includes the integrity, ethical values and commitment of employees. The philosophy of management, operating style and organizational structure, division of responsibility and authority, policies for human resource management and the activities of audit committee towards organizational objectives (Mary et al., 2014; Mendoza, 2012).

**Risk Assessment**

The foundation of risk management and assessment is the notion that risk is an essential component of conducting business. However, same risks might occasionally have unfavorable effects on a corporation. As a result, businesses frequently implement risk management strategies that enable them to recognize risks and either mitigate or remove those that they believe pose a threat to their survival (COSO, 2013).

The process of identifying and analyzing internal and external risks that could have an impact on management, financial reporting, and legal compliance is known as risk assessment (Takahiro & Jia, 2012). Risk assessment is used in cooperative organizations to identify and analyze pertinent risks to the attainment of the objectives and to decide how the risks should be resolved (Mendoza, 2012).

**Control Activities**

Control activities are essentially internal controls set up to ensure that company operations are carried out in a way that assists an organization in achieving its business objectives without posing unneeded risks (COSO, 2013).
Control operations take place across all organizational levels and across all functions. The policies and practices used in diverse organizations to guarantee management instructions are followed and required steps are taken to address risks to the achievement of various objectives are known as control activities (Ratcliffe & Landes, 2009). Mendoza (2012), in his research listed out that the control activities of internal control systems in cooperatives governance can be divided into nine different activities. Those activities include authorization and segregation of duties, processing of information, adequacy of documents, verification and reconciliation, performance review and supervision. The desired objectives of an entity can be obtained through betterment of control activities executed with the aim to manage risks and uncertainty.

Information and Communication

Communications is an important component of internal and external control in an organization. The rules and regulations are communicated followed by legal requirements, ethical values and industry practices. Identifying, capturing, and disseminating crucial information is a requirement for all firms so that employees may fulfill their duties. This system is authoritative for entity to obtain and exchange the relevant information in order to manage and control the operation (Frazer, 2012). Information and communication system also imperative to monitor overall organization operation process (Wardiwiyono, 2012). For example, the study conducted by Fadzil et al. (2005) suggest that the greater is the information and communication, the better is the performance. For cooperative organizations, sufficient and reliable information are required mainly to obtain and convey important cooperative strategies for decision making regarding customer service and business operations (Weber, 2009).

Monitoring

Monitoring is another foremost important component of internal control system. It include the periodic assessment of internal control system by its managers and auditors (Dickins & Fay, 2017). In the study made by Wardiwiyono (2012), it is concluded that monitoring activity must be implemented in financial system of organization from start to end of each process. Monitoring system, therefore must be implemented in both corporate and cooperative organization to monitor the performance of management. Long-term strategic plans, are to be monitored to evaluate plan presented by management and to detect the financial and strategic movements undertaken by them (Keeling, 2005). Implementing monitoring components can be done after evaluating the effectiveness of overall internal control systems since it completes a circle that enhances control environment, information systems, and control activities (Noorvee, 2006).

Financial Performance

A company’s overall financial health is measured by its financial performance over a given time frame. It can be used to compare businesses in the same industry or to compare distinct marketplaces and industry sectors. Financial performance is the process of putting a monetary value on the outcomes of a company’s policies and operations depending on how resources are allocated among various promising investment ideas (Collins, 2014). Similarly, Korir (2022) defined financial performance as the critical process by which the results of operational plan and policies of any firm are measured in terms of money’s worth. Given that these companies deal with complex issues when providing their services, measuring financial performance is an essential process for improving work. It is possible to use profitability or liquidity to measure an organization's financial performance.
Empirical Evidences and Research Gap

Different scholars have conducted different investigations in order to set the association between the internal control system and its financial performance of bank and other financial institutions. In the study of 122 deposit taking SACCOs in Kenya, (Magara, 2013), revealed that the internal control system as independent variables has positive and strong association with the financial performance as an dependent variable. In this study the researcher had used multiple linear regression analysis to establish the effect of independent variable over dependent variable. The researcher used both primary and secondary data for the study purpose. In this study the researcher used only four component of internal control i.e. control environment, risk assessment, control activity and monitoring leaving out one component as information and communication.

Collins (2014), in a study of 35 respondent of 7 different microfinance of Kenya, concluded that the internal control system positively and significantly affect the financial performance. The researcher in the study, considered 3 element of control elements of control system as; control environment, control activities and information and communication. Other two elements i.e. monitoring and risk assessment were not included in the study.

Shabri et al. (2016) had conducted a qualitative study of a cooperative society using case study method, with the aim to measure the effect of internal control system on cooperative’s profitability using all component of COSO framework. From the study the researcher established the result that the internal control system significantly affects the profitability of the cooperative. An interview method was used to conduct the study.

Denise (2016) conducted the study to measure the effect of internal control system on the performance of saving and credit cooperatives of Kigali, Rawanda. In this study 28 employees’ responses was analyzed using regression analysis. All five elements of internal control system were used as independent variable and ROA and ROE were used as dependent variable. From the study a positive relationship of dependent and independent variable was established. The study concluded that the firms’ investment on effective control system helped to improve their financial performance in terms ROA and ROE.

Another study of 53 respondent of 21 microfinance institution in Kenya by Ngari (2017) was conducted to measure the impact of internal control system over financial performance. In the study internal auditors were involved as respondent selected by the use of stratified and random sampling method. The study’s results provided a solid foundation for drawing the conclusion that MFIs can boost financial performance by strengthening internal audit functions, authorization and approval of accounting operations, and task segregation. The findings supported the relevance of internal audit functions, authorization and approval of accounting transactions, and the division of labor in achieving MFI goals.

Sewanyina (2018) executed a research to determine the relationship of risk assessment control activities and control environment with financial performance of saving and credit cooperative societies of Busheniy, Ishaka Municipality and concluded that there is a significant relationship between risk assessment, control activities, & control environment and financial performance of SACCOs.

Chaudhary and Chaudhary (2022) studied the contribution of internal control system towards financial performance of Nepalese Commercial Bank. Total 280 employees of 7 largest bank interns of their capital were studied as a sampling unit. With the help of regression analysis, the effect was measured and concluded that Control Environment and internal audit have
significant impact on the financial performance in Nepalese context. Control activity and Internal auditing were taken as control elements and Liquidity and profitability were considered to measure financial performance. Korir et al. (2022), in his study of the effect of internal control system on financial performance of selected commercial bank in selected countries in Kenya, found that all the components of internal control system as per COSO framework significantly affect the financial performance of selected commercial banks. Under this study the researcher used correlation research design and multiple linear regression analysis to analyze the response of 86 respondent of 15 commercial banks in Kenya.

From the above literature internal control system has significant positive impact in the performance and efficiency of the cooperative societies.

Internal control systems in cooperative societies in Nepal are put in place to ensure the proper functioning of the organization and to prevent fraud and mismanagement. These systems include procedures for financial reporting, internal audits, and risk management.

A study by Bhandari and Shrestha (2019) found that internal control systems in cooperative societies in Nepal are generally weak and ineffective due to lack of proper training and resources. The study found that many cooperative societies in Nepal struggle with issues such as financial mismanagement, embezzlement, and lack of transparency.

Most of the previous study does not include all the component of COSO framework of control system in a integrative way. For example, Magara (2013); Sewanyina (2018), only included risk environment, control activity and control environment , Collins (2014) included control environment, control activity and information and communication. Likewise, Chaudhary and Chaudhary (2022) included control activity and internal auditing as the variable for internal control system.

This study aimed to fulfil the empirical gap on how is the practice of internal control system in Nepalese saving and cooperative and to test the impact of internal control system on their financial performance. Since there are some mixed outcomes over the study of internal control system and its impact on financial performance, this study tried to fill the gap in the context of Nepal.

III. Research Methodology

This study applied the descriptive and casual comparative research design with deductive approach. The variables used were described and explained to analyze the effect of internal control system on financial performance of saving and credit cooperative organizations in Butwal Sub-Metropolitan City. The descriptive design summarized the large amount of data collected through structured survey questionnaire in a meaningful way. Similarly the casual comparative research design assessed the effect of internal control system on financial performance.

The population for this study constituted the CEO or Managers or Chairmen of SACCOs in Butwal Sub-metropolitan city. The total number of SACCOs in Butwal Sub-Metropolitan City is 86(DoC, 2021) which is considered as the target population for this study. The characteristics of population in terms of memberships, board of directors, and the employee is heterogeneous.

Mugenda and Mugenda (1999) suggested that a sample size about 10% of population is suitable for discipline studies. Similarly, Warwick and Lininger (1975) emphasize that the main
The factor considered in determining the sample size is the need to keep it manageable enough. The researcher sampled 44% percentage of the population i.e., 38 respondents for this study. This sample size, the researcher believes, deemed to be well representative of the target population.

**Nature and Sources of data**

The data were collected through self-administered close ended questionnaire. Using a five point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), respondents’ knowledge and perception regarding the use of internal control system and financial performance were captured. The questionnaire was developed on two part. Part one represents demographic information like gender, age, qualification, working experience, etc of the respondent and second part is related to the information about the current status of different control elements in the cooperative organizations. In total 22 items are included in questionnaire. The responses were collected through e-mail and direct field visit.

**Method of analysis**

The data collected through the questionnaire were analyzed and interpreted with the help of Statistical Program for Social Science, SPSS 21. Under descriptive data analysis, Mean, Standard deviation, maximum, minimum are used whereas under inferential statistics, Multiple Linear Regression method was also used. Similarly Pearson’s correlation is used to show the correlation among the variables in the study.

**Reliability and Validity**

The most commonly used measure of internal consistency is Cronbach’s alpha, popularized by Lee Cronbach in 1951. McKinley et al. (1997) conclude that the questionnaire has satisfactory internal validity, if >0.7. The Cronbach alfa of all the variable is above 0.7 justify the internal consistency (CE 0.863, RE 0.793, I&C 0.7 Monitoring 0.74, FP 0.84).

In order to maintain the instrument’s validity, the researcher therefore frequently sought advice from the experts.

**Model Formulation and Hypothesis**

**Figure 1**

*Research Framework*

- Control Environment
- Risk Assessment
- Information and communication
- Monitoring

Financial Performance
(ROA, ROE, Liquidity, Profitability, Deposit and Lending)

*Note.* COSO Framework, 1992
The following regression model is used to identify the impact of internal control system on financial performance of cooperative organization.

Where, \( Y \) = dependent variable i.e. Financial performance

\[ X_1 = \text{Control environment}, \quad X_2 = \text{Risk assessment}, \quad X_3 = \text{Information and communication} \]

\[ X_4 = \text{Monitoring}, \quad \beta = \text{intercept of the regression line}, \quad \beta_1, \beta_2, \beta_3, \beta_4 = \text{partial slope coefficient}. \]

The following four alternative hypotheses has been formulated to test the significance of the effect of independent variables over dependent variable.

H1: There is a significant effect of control environment on financial performance of SACCOs.

H2: There is a significant association of risk assessment on financial performance of SACCOs.

H3: There is a significant influence of information and communication on financial performance of SACCOs.

H4: The effective monitoring significantly affect the financial performance of SACCOs.

H5: There is a positive and significant impact of internal control system in financial performance of the SACCOs.

**IV. Results and Conclusion**

The descriptive statistic of Risk Environment as one of the independent variable is calculated with the help of SPSS. The output shows that factors measuring the practice of risk environment has positive Means of between 3.53 and 3.82 and Standard Deviations between 0.495 and 0.830. The practice of risk environment in cooperative seems at satisfactory level since all the mean value of the response are more than 3.5. “the management has implemented measures to reduce significant risks that could be brought on by fraud” has highest level of response (mean=3.82 and SD= 0.609). Similarly the demand of valid income source document while granting loan seems weaker in compare to other factor of risk assessment (mean 3.53 and SD =0.83), however, it is above the average.

The descriptive statistic of the control environment as one of the explanatory variable is calculated with the help of SPSS and shows that factors measuring the practice of control environment has positive Means ranging between 3.74 and 4.47 and Standard Deviations between 0.557 and 0.758. The practice of control environment in cooperative seems satisfactory since all the mean value of the response is more than 3.8. The separation of role and responsibility of staff has highest mean among the control environment factors (mean=4.47; SD =0.557) and proper supervision of staff has the lowest practiced control environment evidenced with lowest mean of response (mean = 3.47 SD=0.73).

The descriptive statistic of the Information and communication as one of the independent variable is calculated with the help of SPSS and that factors measuring the practice of information and communication has positive Means ranging between 3.50 and 4.13 and Standard Deviations between 0.662 and 0.673. The practice of information and communication in SACCOs is satisfactory at all evidenced by the mean value above 3.5 in all component of information and communication. The respondent agreed that communication help to evaluate
how well guidelines and policies of organization are working and being implemented (mean = 3.92, SD = 0.673).

The descriptive statistic of the Monitoring as one of the independent variable is calculated with the help of SPSS and the result shows that the monitoring activities in SACCOs seems above satisfactory level (mean range with 3.13 to 3.87 and Standard deviation between 0.702 to 0.793).

The descriptive statistic of the Financial Performance as dependent variable is calculated with the help of SPSS and the result shows that the mean value lies between 4.24 to 4.63 and Standard deviation of 0.490 to 0.620. The lending and deposit of the SACCOs is increasing every year evidenced by highest mean (i.e. mean = 4.63, SD= 0.589). The lowest mean of 4.24 with SD of 0.490 indicates the increment in EPS but lower than other indicators of financial performance indicators. Similarly return on equity, return on assets and profitability are also being increased and evidenced by higher level of mean i.e. 4.32, 4.37 and 4.37 respectively.

The descriptive analysis about the practice of internal control system seems satisfactory which is inconsistent with the findings of Bhandari and Shrestha (2019).

**Correlation and regression**

The relationship between the explanatory and dependent variables during the study period is attempted to be explained by Pearson correlation coefficients. This study attempted to derive the significant relationship among the variables prior to performing the regression analysis. The calculated value of correlation of all independent variable with dependent variable are significant at 1% level. The Control Environment with other three independent variable, and Information and Commination with Monitoring are not significant as the calculated correlation value are less than the significance level of 5%.

A regression was used to analyze this impact of internal control system on financial performance of SACCOs. From the regression analysis, it is depicted that all four component of internal control system has the positive and significant effect on financial performance.

**Table 1**

Regression Result

<table>
<thead>
<tr>
<th>Model</th>
<th>Constant</th>
<th>CE</th>
<th>RE</th>
<th>IC</th>
<th>MO</th>
<th>R²</th>
<th>F</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>0.080</td>
<td>0.251</td>
<td>0.284</td>
<td>0.339</td>
<td>0.267</td>
<td>0.588</td>
<td>11.753</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>(0.130)</td>
<td>(2.623)*</td>
<td>(2.059)*</td>
<td>(2.182)*</td>
<td>(2.212)*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. Figures in parentheses are t-values.*

** significance at 1 percent level
*significant at 5 percent level

CE= Control Environment, RE = Risk Environment, IC = Information and Communication, Mo= Monitoring

The results of different alternative specifications fully support the summary statistics for the
The resulting regression equation for full model is as follows:

\[ FP = 0.08 + 2.51 \times CE + 0.284 \times RE + 3.339 \times IC + 0.267 \times Mo \]

The overall explanatory power of the model seems significant which is 58.8%. This model also suggest that the information and communication has the highest impact on financial performance (B=0.339) and control environment has the lowest impact on financial performance of SACCOS. All the beta coefficient are also statistically significant at 5 % significance level and positively impact the financial performance. The model indicates that the proper implementation of control environment, risk environment, information and communication and monitoring have positive impact on financial performance of SACCOS.

In overall the effective control system has positive and significant impact on financial performance. The result of this study is consistent with the findings of previous study such as Sewanyina (2018); Ngari (2017); Shabri et al. (2016);Kumari and Weerasooriya (2019);Habineza and Mulyungi (2018), etc.

Conclusion

This study is conducted to analyze the impact of internal control system on the financial performance of saving and credit cooperative organization in Butwal Metropolitan City. A descriptive cross sectional study was carried out to conduct this study. Out of 143 SACCOS in Butwal Sub-metropolitan City, 38 SACCOS were taken as sample representing 26.5% of total population. The response of chief manager of each sample organization were collected by using self-administered 5 point likert scale questionnaire. On the basis of various research problems, five research objectives were developed and further on five hypotheses were formed to analyze the impact on financial performance. To examine the practice of internal control system in sampled SACCOS, descriptive statistic was used to show mean, standard deviation, maximum and minimum.

The relationship between dependent and independent variables was examined with the help of Pearson’s correlation analysis. Further regression analysis was performed to analyze the impact of explanatory variable on response variable.

This study concluded that financial performance of cooperatives is largely depends upon the practice of internal control system within an organization. The financial performance can be greatly improved by the appropriate implementation of control environment-related activities, accurate risk assessment, efficient information and communication systems, and regular and efficient activity monitoring. Thus the cooperatives who perform better practice of internal control system can achieve the better financial performance.

Implication and suggestion for further research

This study has theoretical as well as practical implication. From the findings of this study the SACCOS might formulate policies in some critical area to sustain their financial position. This study has also some policy implication that cooperatives need to implement a strong mechanism for internal control system for the betterment in its financial position. In this study some limited tools of financial performance are taken and the researcher can use further tools of measure of financial performance.
References


