



RISK MANAGEMENT AND FINANCIAL REPORTING QUALITY OF ORGANISED COOPERATIVE SOCIETIES IN SOUTH-WEST, NIGERIA

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Abstract

Cooperative societies have shown evidence of resilience as a result of the pooled nature of funding, this has enhanced its prominent role in financial inclusion and economic development globally. However, despite these roles, cooperative societies in Nigeria still experience challenges such as poor financial reporting quality, high loan default rate and inadequate risk management strategies. Effect of risk management on financial reporting quality of organised cooperative societies in South-west, Nigeria is examined in this research. Longitudinal research design was employed. 812 and 152 were population and sample respectively which was achieved through purposive sampling technique. Data were sourced from audited financial reports of sampled cooperative societies for twelve years (2012-2023). And analysed with aid of regression analysis techniques. The result revealed that leverage { $z=0.598(p=0.004)$ } and rate of loan default { $z=0.304(p=0.044)$ } have affirmative statistically significant effect on discretionary accrual while cash flow volatility { $z=-0.0088(p=0.924)$ } has adverse statistically insignificant effect. The study then concludes that the measures of risk management have positive statistically significant influence on financial reporting quality. In accord with the results of this research, the study then recommends that management committee of cooperative societies have to put in place strategic policies such as periodic evaluation of loan schedule to ensure members repay their loans as at when due in line with the loan contract agreement and defaulters are adequately penalise.

Keywords: Cooperative societies, financial reporting quality, leverage, loan default rate, risk management

JEL Classification: P13, M41, G32

INTRODUCTION

The economic crunch of the early 21st century experienced worldwide had adversely affected most firms resulting in liquidity contractions, partial failure, damages, and collapses. (Nthaga, 2018; Olayinka et al., 2019). These problems are accelerated from lapses resulting from risk management procedures of most firms. In a bid to cushion this inadequacy, there are interest in development of framework on risk management to strengthen its procedures on firm (COSO, 2009, 2017). Notably is the Nigerian Code of Corporate Governance published in year 2018 by the Financial Reporting Council which place emphasis on sound framework in respect of risk management so as to aid the achievement of organisational objectives. (Nigerian Code of Corporate Governance, 2018). Efficient risk management strategy is assumed to enhance the value of accounting information since firm's annual financial report is expected to portray the performance as well as the risk (Cohen et al., 2017; Olayinka et al., 2019). Also, the adverse effect of 21st century economic crunch affected financial institutions as they could not rescue the deficit units of the economy since liquidity level dropped as a result of crisis. This causes

attention to be shifted to the non-banking sector of which cooperative society is a paramount example. Cooperative societies have shown evidence of resilience as a result of the pooled nature of funding, this has enhanced its prominent role in financial inclusion and economic development globally. However, despite these roles, there are cases of cooperative societies with presentation of excellent audited financial reporting performance at annual general meeting (AGM) only to collapse after few months of AGM. This has put the financial reporting quality and risk management strategies of such cooperative societies in question.

Furthermore, there are recorded cases of ethical and governance scandals affecting several firms of which cooperative societies are inclusive. The process of financial reporting effectively depicts the associated risks and performance. The risk management affects the cash flow volatility, loan default rate, financial leverage which influence the internal control system and financial reporting quality process (Olayinka et al., 2019; Ouko & Atheru, 2022). Cooperative societies were in a state of anarchy with incidences of borrowing loan from money deposit bank to give credit and pay annual dividend to members. This is usually to cover their financial inadequacy which may not be obvious in the financial statement presented to members at annual general meeting. Also, cooperative societies with record of high loan default rate and cash flow volatility, and cases of non-conformance to risk management strategies of cooperatives (Nthaga, 2018). These have led to high leverage, lack of safety of members' deposits, liquidity problems, low membership growth, poor credit management, cash mismanagement, embezzlements, and inability to meet the credit needs of members (Oyerogba & Oseni, 2021). These emanated from lack of ability of leaders (executive members) to install adequate risk management strategies, and ability to provide quality financial reports to its members and other stakeholders of cooperative societies (Ouko & Atheru, 2022, Salaton et al., 2020). These challenges put members' savings at risk, discourage public confidence and drastically reduce the members' savings which hinders the growth and sustainable development of cooperative societies (Wainaina, 2019; Oyerogba & Oseni, 2021).

The south-west geo-political zone of Nigeria has the highest number of registered cooperative societies (Ministries of Commerce, Industry). Therefore, this study use this zone as the geographical scope which enhanced the collection of secondary data used for this study. Moreover, reasonably number of extant research investigation from scholars for instance Cohen et al. (2017), Ewers (2017), Olayinka et al. (2019), Salaton et al. (2020), Madu and Hassan (2021), Ntoiti and Jagongo (2021) have contributed immensely to the global knowledge on risk management and quality of financial reporting. Greater number of existing studies had their contextual scope in financial services, manufacturing firms, oil and gas sectors etc. Thereby creating a lacuna for studies on cooperative societies which according to Cooperative Rating and Award Society of Nigeria (CRASON), confirmed that cooperative societies contribute about ₦1.2 trillion annually to the Gross Domestic Product in Nigeria (Oyerogba & Oseni, 2021). Results of studies from scholars on risk management and financial reporting quality ranges from positive, negative to no effect. This disparate results and the need to reduce the lacuna of low research on cooperative societies in Nigeria heightens the curiosity of the researcher for further study. In this vein, effect of risk management on financial reporting quality of organised cooperative societies in South-west, Nigeria is examined in this research.

LITERATURE REVIEW

Financial Reporting Quality

Financial Reporting quality is the procedure of producing comprehensive reports by the management of firms through the provision of economic and non-economic information in

order to meet the requirements of various stakeholders. Abed et al. (2022) and Chang et al. (2019) define financial reporting as the aptitude to present excellent, accurate, reliable, and timely economic data to various users and stakeholders to enable decision-making. Martínez-Ferrero (2014) in multi-national research adopted discretionary accruals, accounting conservatism, earnings quality, accounting conservatism as measurement of financial reporting quality which made the result robust according to different measurements adopted. Also, measurement of financial reporting quality was measured using 20-item questionnaires on a 5-point scale based on relevance, clarity, reliability, faithful representation, transparency, understandability, and comparability dimensions (Rashid, 2020; Abed et al., 2022). Salvador de Souza et al. (2019) adopted discretionary accrual as measurement for financial reporting quality. Abeysekera et al. (2012) used earnings quality of accrual, predictability, persistence, and smoothness. Biddle et al. (2009) and Al-Shaer (2020) computed the index of financial reporting quality by taking three proxies; performance-matched, real earnings, and discretionary accruals estimated. The benefits of financial reporting quality is to essentially to boost transparency and confirm the effectiveness of risk management strategies of cooperatives through increased efficiency through the adoption of prudential standards provided. This improved governance, increased protection of members' savings, and increased level of savings and credit (Abeysekera et al., 2021; Al-Shaer, 2020). Financial reporting quality is essentially is to boost transparency, accountability, and financial soundness of cooperatives through increased efficiency through the adoption of prudential standards provided. This is enhanced through improved risk management strategies to improve low financial leverage, low loan default rate for the protection of members' savings, and increased level of savings and credit (Abeysekera et al., 2021; Al-Shaer, 2020). The effect of poor financial reporting quality is an indication of weak risk management strategies of the management to various stakeholders of cooperative societies.

Risk Management

Risk management is defined as the all-inclusive, sequential, and strategic framework that is adopted throughout the operational process of firms which aims to ensure compliance with organization policies, bring threats and hazards to its barest minimum, and make best use of opportunity to attain firms' goals and objectives. Risk management are sequential, effectual procedures aimed at analysing and pinpointing perils, threats hazards, and jeopardies that can hinder the firm from achieving its goals, and objectives and serves as a foundation that are designed on how these threats should be assessed, directed and fixed (Madu & Hassan, 2021; Ouko & Atheru, 2022). Risk management is technique effected by the management team and employees for setting of strategies to identify potential threats that may have adverse effects on the business entities, be able to reduce these threats to its barest minimum and provide realistic assurance concerning the achievement of firm goals and objectives (COSO, 2017). Risk management is also described as the administrative way of assessing potential alterations in the external environment in addition to the firm's business model that may prevent the ability of the company to attain its mission and objectives (Ewers, 2017; Ouko & Atheru, 2022).

The value relevance of risk strategies in improving managerial skills of cooperative societies which can be evidence with low financial leverage, low rate of loan default and adequate cash flow volatility are crucial for financial reporting quality, sound governance and cooperate success (Madu & Hassan, 2021). These risk management strategies provide benefits to firms through the techniques effected by the management team and employees for setting of strategies to identify potential threats that may have adverse effects on the business entities, and its ability reduce these threats to its barest minimum and provide realistic assurance

concerning the achievement of firm goals and objectives (COSO, 2017). Risk management is modern governance elements that captures initiative strategically for managing the total range of hazards and threats confronting the cooperative societies in a proactive, cohesive, and tailored way in order to create benefits for the firm (Olayinka, et al., 2019; Madu & Hassan, 2021). Risk management offers a new paradigm shift in managing risk factors holistically leading to market leadership, organizational growth, and enhancement of investor confidence (Flora & Leoni, 2016). Risk management have global recognition as a result of its aptitude in improving corporate reporting through reliable financial statements, facilitate compliance with regulatory frameworks, reduction in earnings management, and fortify the internal strategies and processes of companies (Olayinka et al., 2019; Uwuigbe, et al., 2020; COSO, 2017).

Existing studies have widely studied and discussed risk management using qualitative and quantitative research methods. The research studies were conducted using qualitative approach to risk management and financial reporting quality comprises of (Cohen et al., 2017; Luo, 2017; Wadesango et al., 2017). Furthermore, research that adopted the quantitative approach consists of (Ewers, 2017; Flora & Leoni, 2016; Kibui & Moronge, 2014; Madu & Hassan, 2021; Olayinka, et al., 2019; Ouko & Atheru, 2022; Uwuigbe et al., 2020;). Kibui and Moronge (2014) posited the use of computerised risk management methods helps detect loan default in short period thereby avoiding credit risk and leading to economic development of the cooperative societies. Ouko and Atheru (2022) measured risk management with variables e.g. risk mitigation, identification, and evaluation while Madu and Hassan (2021) use management committee, board risk, cashflow volatility, and risk value as proxies for measuring risk management.

Financial Leverage

Financial leverage is composition of firm's economic structure that involves the substitution of fixed-charge financing for equity shares. Financial leverage of the firm is the non-compliance risk or default of debt and is ratio of non-current and current liability with respect to market value of equity fund (Olayinka et al., 2019; Sohail & Aziz, 2019). Leverage is one of the vital means of funding the firm with a view to increasing its earnings. Cooperative societies also tend to seek funds from other financial institutions just to meet the loan requirements of its members and thereafter charge interest on the loan with a view of making more profit which in the long run and increase the dividend of its members. Firms focusing more on debt financing than the dividend payment as a result of high leverage may make investors lose trust in the firms.

Loan Default Rate

Loan default is incapability of a debtor to repay its credit obligation at the right time in agreement with the terms of contract. Loan default rate is the proportion at which the debtor is not capable to pay back the debt obligation when expected in accordance with the debt contract and is measured as the proportion of loan defaulted by loan dispersed. Loan default is inability to repay loans, and other debt obligations thereby violating the loan covenant of the debt obligation contract (Salaton et al., 2020). Cooperative societies are to take the lending policy of paramount importance in developing nations because when the default rate is high, it has negative impact on its financing. Defaulted loan comes with extra servicing fees such as recovery cost, finance cost and other fee related to external borrowing which is high in cost to cooperative societies and other firms.

Cash flow Volatility

Cash flow is firms' money at hand in the form of income and expenditure measured daily, weekly, monthly, annually, or other time periods, which could be generated from external sources and internal sources. Douglas et al., (2020) stated that cash flow is the means by which firms source and expense fund, which can be traced to its changes in cash and equivalent in statement of financial position. Cash flow Volatility is the degree of a company's currencies distribution index in order for investors to assess information on entity's ability to source for finance and utilize it. Rahmadani (2016) stated that information on moderately constant cash flow with low volatility is required for the measurement of firm's earnings. High rate of cash volatility specify ambiguity of firm's operating cycle since existing earnings may not be a yardstick for the forecast the forthcoming earnings.

Theoretical Development

The Reliability theory was propounded by John Von Neumann in 1944. The theory describes the chances for system to perform as expected during specified period (Gavrilov & Gavrilova, 2001). The reliability theory provides theoretical basis for ascertaining risk management and financial reporting quality since the main assumption is that firms' system is expected to perform as strategically structure. This implies that the efficiency of risk management strategies of cooperative can be seen through the actualisation of low rate of loan default and adequate fund to offer credit to members. And payment of annual dividend and other incentives to members adequately. When the aforementioned attributes are achieved in cooperative societies which is in accordance with the planned risk management strategies, it is worthy of note that the system is dependable and consistent. This is in consonance with the reliability theory which deals with the effect of efficiency of overall systems and firms' strategies on the financial reporting quality. The idea is that firms are likely to have greater risk when there is a lack of control system which may lead to more substantive work, thus higher costs and eventually impair the sustainability of the firm (Kinney, 2000; Ouko & Atheru, 2022).

The general management of business, insurance, and life assurance firms utilized the idea of reliability theory as a model for assessing the risk and calculating lucrative rates of premium to charge their consumers (Ouko & Atheru, 2022). Also, the management executives of cooperative societies utilize the application of the theory of reliability in evaluation the dependability of economic performance with structures, procedures and strategies on the firm's income risk. The main advantage of the reliability theory is its ability to measure the stakeholders' expectation in relation to firms' strategic procedures with risk evaluation (Kinney, 2000). The analysis and modelling tools in reliability theory are in discrete time stated separately. Reliability theory modelling plays an important role in life distributions and its various properties which are of interest in risk management strategies (Nair & Balakrishnan, 2018).

Empirical Review

Cohen et al. (2017) examined the influence of three participants; (chief financial officers, audit committee members and audit partners) on enterprise risk management (ERM). Semi-structured interviews were conducted on experienced individuals from 11 public companies. It was discovered that the respondents lay emphasis on risk identification, assessment and efficiency of the sampled firms' operation with respect to enterprise risk management. Ewers (2017) investigated ERM and reporting of financial matters. The aim of the study was to use high-reliable constructs in identifying factors of efficient ERM and financial reporting. The result revealed that leadership culture found in highly reliability organisation constructs improve reporting of risk management which enhance the goals of the firm. Olayinka et al.

(2019) examined risk management and quality of financial accounting in certain listed Nigerian banks with samples from firms for; (pre-period from 2007 to 2011) and (post-period from 2013 to 2017) to determine ERM disclosure index and accounting quality. Results discovered that no statistically momentous effect of ERM and reporting of financial matters in the period of pre-ERM.

Madugba et al. (2020) studied committee on risk management, financial reporting quality on performance and liquidity of banks in Nigeria. Results revealed that committee on risk management has no influence on liquidity level, while financial reporting quality have significant affirmative effect on net assets value per share in Nigerian banks. Salaton et al. (2020) examined loan default frequency on economic performance of SACCO in Narok, Kenya. The research discovered that loan default frequency had statistically affirmative impact on financial performance. Madu and Hassan (2021) conducted research on the influence ERM and value relevance of financial reporting quality in listed Nigerian non-financial firms. Population which is also the sample were seventy-four (74) non-financial firms listed and actively listed in Nigeria as of 31st December, 2019. Source of data were from audited financial report from 2010-2019 and analysed with panel regression analysis. Results revealed that ERM has affirmatively significant effect on financial reporting quality. Ntoiti and Jagongo (2021) investigated the influence of loans that are not performing and economic stability of cooperative societies in Kenya. Findings recognized the influence of loans that are not performing on various aspects of economic performance. However, there is lacuna in investigating the pooled effect financial leverage, loan default rate and cash flow volatility (proxies of risk management) on financial reporting quality of organised cooperative societies in South-west, Nigeria. The aim of the study was to fill the lacuna with the followings hypothesis formulated in null form.

H₁: Risk Management has no momentous influence on financial reporting quality of organised cooperative societies in South-west, Nigeria.

METHODOLOGY

Design, Data, Population and Sample

Longitudinal research design was used on data sourced from audited reports of sampled cooperative societies in south-west, Nigeria covering from 2012 to 2023. The details of population and sample size from each state as compiled from the Directorate for the cooperatives under each State Ministry of Commerce, Industry and Cooperatives are stated in table 1. The purposive sampling technique was employed for this study.

Table 1: Sample size determination

S/N	State	Population size	Newly Registered cooperative societies after 2012	Cooperative Societies with less than 100 members	Inactive/Suspended cooperative societies as of 31st December 2023	Cooperative societies with no audited annual report as at 31 st December 2023	Sample size
1.	Lagos	155	34	30	37	32	22
2.	Ogun	121	27	20	22	28	24
3.	Oyo	104	19	23	20	22	20
4.	Osun	106	22	18	24	21	21
5.	Ondo	161	34	32	31	35	29
6.	Ekiti	165	37	31	28	33	36
	TOTAL	812	173	154	162	171	152

RESULTS AND DISCUSSION

Descriptive Statistics

This is spelt out in Table 3 with detailed explanation after the table..

Table 3: Descriptive Statistics

Variables	DAC	LEV	LDR	CFV
OBS	1762	1762	1762	1762
Mean	0.7975	0.0654	0.1505	0.2901
S.D	0.8685	0.080	0.1826	0.2121
S.E.(mean)	0.0212	0.0020	0.0044	0.0051
Min	-1.6914	0.01	0.017	0.0210
Max	3.5778	0.4941	0.8699	0.95
Sum	1333.473	109.3732	251.6521	485.2074
Skewness	0.4414	4.1088	2.6983	1.3359
Kurtosis	4.5638	19.6918	9.7868	4.3086
J.B Stat	223.9736	24248.5192	5264.3321	618.9093
P-Value	0.0000	0.0000	0.0000	0.0000

Source: Author's Computation (2025)

It was observed that discretionary accruals have mean of 0.7975, standard deviation (SD) of 0.8685 which infer high dissimilarity in discretionary accruals of the sampled organized cooperative society in Nigeria considering its distance to mean. The standard error (mean) of 0.0212 indicate 2.12% variance of the sample mean from population mean and the organized cooperative societies with the minimum firm value has -1.6914 and the maximum is 3.5778. The total sum of discretionary accruals is 1333.473. It is shown that data for variable is definitely skewed with abnormally peaked indicating 0.4414 for skewedness as well as 4.5638 for kurtosis. The Jarque Berra test for normality of the data shows the data is abnormally spread as the statistics of 223.9736 as well as P-value of 0.0000 that indicates importance of null hypothesis of the test which assumes data deviation at $P < 0.05$. The result shows that leverage have mean value of 0.0654 with SD of 0.0850 indicating moderate deviation in leverage of the sampled organized cooperative societies considering its nearness to the mean value. The standard error of mean shows 0.0020 which imply 0.20% variance of sample mean and population mean. Organized cooperative societies with the least leverage scored 0.01 and the maximum is 0.4941. The total sum of leverage is 109.3732. Data for variable is certainly skewed as well as unusually peaked indicating 4.1088 for skewedness and 19.6918 for kurtosis. The Jarque Berra test for normality of the data shows that the data is abnormally spread as the statistics of 24248.5192 and P-value of 0.0000 indicating importance of null hypothesis of the test which assumes data deviation by $P < 0.05$.

Likewise, from Table 3, descriptive statistics of loan default rate shows that on the average, organized cooperative societies have disclosure of 0.1505, SD of 0.1826 indicating high deviation in loan default rate of the sampled organized cooperative societies as its distance to mean value. The standard error of mean shows 0.0044 which imply 0.44% difference amongst sample mean and population mean. Organized cooperative society with the least loan default rate scored 0.017 and the maximum is 0.8699. The total sum of loan default rate is 251.6521. Variable's data is certainly skewed with unusually peaked indicating 2.6983 for skewedness and 9.7868 for kurtosis. The Jarque Berra test for normality of the data shows the data is abnormally spread as the statistics of 5264.3321 as well as P-value of 0.0000 indicating insignificance for the null hypothesis of the test which assumes data deviation of $P < 0.05$.

Table 3 shows that cash flow volatility have mean value of it 0.2901 with SD of 0.2121 indicating moderate deviation in cash flow volatility of sampled organised cooperative societies as its nearness to mean value. The standard error (mean) shows 0.0051 which imply 0.51% variance concerning sample mean and population mean. Organized cooperative society with the least cash flow volatility scored 0.0210 and the maximum is 0.95. The total sum of cash flow volatility is 485.2074. Variable's data is absolutely skewed as well as unusually peaked indicating 1.3359 for skewedness as well as 4.3086 for kurtosis. The Jarque Berra test for normality of the data shows the data is unusually spread as the statistics of 618.9093, P-value of 0.0000 which indicates importance for the null hypothesis of the test which assumes data deviation of $P < 0.05$.

Pairwise Correlation Matrix Analysis

This is well spelt out in Table 4.

Table 4: Pairwise Correlation Matrix Analysis

	OBS	DAC	LEV	LDR	CFV
DAC	1672	1.0000			
LEV	1672	-0.0705* (0.0039)	1.0000		
LDR	1672	-0.0242 (0.3235)	0.1699* (0.0000)	1.0000	
CFV	1672	-0.0162 (0.5091)	-0.0098 (0.6896)	-0.0048 (0.8433)	1.0000

Source: Author's Computation (2025). * 5 percent; ** 10 percent

The link concerning financial reporting quality (FRQ) as well as leverage (LEV) is adverse with figure -0.0705* implying both are in reverse direction movement. A single increase in LEV amounted to of 7.05% decrease in FRQ of the organized cooperative society, value of 0.0039 as probability which is lower than 5% level of significance indicating that link is important. Also, link between FRQ and loan default rate (LDR) is adverse with -0.0242 implying both variables had inverse link as they have opposite directional movement. A single increase in LDR will cause 2.42 % decrease in the FRQ of the organized cooperative societies, value of 0.3235 as probability indicate an insignificant relationship. From Table 4, it is shown that cashflow volatility (CFV) and financial reporting quality have inverse and negative relationship having a value of -0.0162 with 0.5091 as probability which is insignificant at 5%. A single increase in cashflow volatility of the cooperative societies, financial reporting quality will decrease by 1.62 percent. Furthermore, on Table 4, the link among all independent variables of the model which are leverage (LEV), loan default rate (LDR), cashflow volatility (CFV) shows a negative coefficient except the relationship between leverage and loan default rate. It is observed that none of the link among the explanatory variables depicts multicollinearity problem as they are less than 0.7 which is evidence of a strong link.

Test of Variables

Tables 5 to 9 present the various tests of variables, from panel unit root test, multicollinearity test, heteroscedasticity test, Serial Auto-Correlation Test to Pesaran's test of Cross-Sectional Independence. The result of each of test were presented immediately after the table.

Table 5: Panel Unit Root Test of the Variables

Variable	Levin, Lin & Chu t*		Harris-Tzavalis unit-root test	
	Test-statistics	P-value	Z-Statistics	P-value
Discretionary Accruals	-2.5e+02	0.0000	-27.2654	0.0000

Financial Leverage	-3.5e+03	0.0000	-19.9842	0.0000
Loan Default Rate	-8.0917	0.0000	-31.2416	0.0000
Cash flow Volatility	-79.8740	0.0000	-34.2302	0.0000

Source: Author's Computation (2025)

Variables used for panel unit root test is likely not to be stationary at level which may possibly affect the consistency and stability of the parameter of the model. This study employ Levin test, Lin & Chu t^* , and Harris-Tzavalis unit-root test to identify the variables' stationary conditions. The basic assumption of null hypothesis of unit root test indicate the whole panels comprise unit roots, while some panels are at stationary level for the alternate hypothesis. From the result of panel unit root test observed in Table 5, indicate all variables are united in order of zero which is 1(0) at 5% level of significance. Hence, the null hypothesis is rejected and conclude that the series is stationary. As a result, it is not required to conduct the test of co-integration to determine the relationship between variables in the long-run. The test of panel least square is able to appraise how effective a model is, and that is less spurious.

Table 6: Multicollinearity Test: Tolerance and VIF Value

Variable	VIF	1/VIF
Risk Management		
LEV	1.04	0.962119
LDR	1.04	0.963880
CFV	1.00	0.996476
Mean VIF	1.03	

Source: Author's Computation (2025)

Multicollinearity serve as one of the test of post estimation to check for validity of regression model's assumption. Problem of multicollinearity arises where two or more variables show evidence of high correlation which imply that one variable can be predicted linearly with high degree of accuracy. The value of variance inflation factor (VIF) is considered for this purpose to determine the independence of the explanatory variables. The result of test in table 6 show that no problem of multicollinearity exist, since value of VIF are less than 10 as well as tolerance values are greater than 0.10 for all variables. Consequently, the regression coefficient can be rely upon in order to predict the effect of independent on dependent variables as well as the conclusion of this study.

Table 7: Breusch-Pagan / Cook-Weisberg test for Heteroscedasticity

Null Hypothesis	Statistics	Probability
Constant variance across the variables residuals (P>0.05)	1023.93	0.0000

Source: Author's Computation (2025)

The test of heteroscedasticity was carried out to confirm how valid the assumption of homoscedasticity which indicate that variance in the residuals are constant. As the absence of homoscedasticity violate the basic assumption which might lead to wrong conclusion. This study made use of Breusch-Pagan / Cook-Weisberg test for Heteroscedasticity. From the result of the test, it was revealed that the problem of Heteroscedasticity exist since value of probability is 0.0000 which is less than 0.05, and this will be corrected with panel-standard corrected error.

Table 8: Serial Auto-Correlation Test

Null Hypothesis	Statistics	Probability
no first-order autocorrelation (P>0.05)	436.893	0.0000

Source: Author's Computation (2025)

A variable's autocorrelation denotes how closely correlated its values are over time. It measures how binary time series are similar with one current, while the second one lagged, and are related over time. Table 8 presents the test in panel data for auto-correlation with the use of Wooldridge test. The result of test show the value of probability of 0.0000 indicating its significance as well as the existence of autocorrelation problem in the panel data, therefore, null hypothesis is rejected since there is no existence of first order correlation. To correct this anomalies, this study will include autocorrelation residuals error in the model as well as AR1 model.

Table 9: Pesaran's test of Cross-Sectional Independence

Null Hypothesis	Statistics	Probability
no cross-sectional dependence ($P > 0.05$)	5.415,,	0.0000
Average absolute value of the off-diagonal elements	0.314	

Source: Author's Computation (2025)

The procedure of parametric test as proposed by Pesaran in the year 2004 was used in this study. This test also known as cross-sectional dependence test is applied so as to determine whether the residuals are related throughout the entities. When the value of outcome shows probability of 0.05, the null hypothesis is rejected and conclusion drawn is that panel data is cross-sectional dependence (correlated). Table 9 presents the cross-sectional dependence, and result show that there is no existence of cross-sectional dependence in the null hypothesis and hence rejected since the value of probability is 0.0000. The absolute mean correlation of the residuals obtained with abs parameter which indicate the value 0.314 that is consider a high figure. Therefore, enough evidence exist to infer that risk management and financial reporting in the condition of fixed effect reveals cross-sectional dependence. This anomalies will be corrected with panel corrected standard errors with the option that the standard error is independently corrected.

Regression Results

Tables 10 to 13 present the results of regression analysis, from fixed effect model, random effect model, Hausman test, to panel corrected standard errors. The result of each of the analysis were discussed immediately after the table.

Table 10: Fixed Effect Model Regression Results

DAC	Coef.	Std. Err.	t	P> t
LEV	0.1434	0.0642	2.23	0.026
LDR	0.1171	0.0513	2.28	0.023
CFV	-0.0063	0.0262	-0.24	0.810
_cons	1.8688	0.0122	152.88	0.000
R-sq (within)	= 0.0063	Number of obs	=1672	
F(3,1517)	= 3.20	Prob >	= 0.0225	
Rho	= 0.5881			

Source: Author's Computation (2025)

The results of the fixed effect on regression analysis (linear) is presented in Table 10. It shows the model depicts how linear the outcome is as well as explanatory variables' significance, and its disparity from zero with the values of 3.20 and 0.0225 for f-statistics and probability respectively. Fixed effect which is within the regression range with 6.3% as R-squared implying that the variable's outcome is low in variation caused by mutual explanatory variables. The degree of the variance is explained by the disparity across entities which is 58.81% as indicated in the rho (intraclass correlation). The results in total shows risk management has affirmative and statistical significant influence on financial reporting quality as measured by discretionary accruals (DAC). Considering the individual effect of the

variables, leverage has affirmative and statistical significant effect on financial reporting quality showing the values of 2.23 and 0.026 as t-statistics and probability respectively. Loan and default rate shows an affirmative and statistical significant effect on financial reporting quality having values of 2.28 and 0.023 as t-statistics and probability respectively. Likewise, from Table 10, cash flow volatility (CFV) has the values of -0.24 and 0.810 as t-statistics and probability respectively implying a negative and insignificant effect.

Table 11: Random Effect model Regression Results

DAC	Coef.	Std. Err.	z	P> z
LEV	0.0744	0.0590	1.26	0.207
LDR	0.0555	0.0435	1.27	0.203
CFV	-0.0077	0.0251	-0.31	0.757
_cons	1.8833	0.0173	108.46	0.000
R-sq (within) =	0.0062	Number of obs =	1672	
Wald chi ² (3) =	3.29	Prob > chi2 =	0.3488	
Rho =	0.5552			

Source: Author's Computation (2025)

The results of the random effect on regression analysis (linear) is presented in Table 11. It shows the model depicts how linear the outcome is as well as explanatory variables' significance, and its disparity from zero with the values of 3.29 and 0.3488 for Wald chi² and probability respectively. The R-square indicated 55% percent which implies that the variable's outcome is low in variation caused by mutual explanatory variables. The degree of the variance is explained by the disparity across entities which is 55% as indicated in the rho's value 0.5552 (intraclass correlation). The results in total shows risk management has affirmative and statistical significant influence on financial reporting quality as measured by discretionary accruals (DAC). Considering the individual effect of the variables, leverage has affirmative but statistical insignificant effect on financial reporting quality showing the values of 1.26 and 0.207 as z-statistics probability respectively. Loan and default rate shows an affirmative but statistical insignificant effect on financial reporting quality having values of 1.27 and 0.203 as z-statistics and probability respectively. Likewise, from Table 11, cash flow volatility (CFV) has values of -0.31 and 0.757 as z-statistics and probability respectively implying a negative effect and insignificant effect.

Table 12: Hausman Test

Null Hypothesis	Statistics	Probability
Difference in coefficients not systematic (P≤0.05)	9.78	0.0205

Source: Author's Computation (2025)

Hausman's test result is to identify the interpretation of the model's values of 9.78 and 0.0205 for chi² and p-value respectively, as well as its significance level of 5% which imply the disparity through the entities is fixed and correlated in the models with the inclusion of independent variables. This show that the superlative model to elucidate this study is the fixed-effect model.

Table 13: Panel Corrected Standard Errors Regression

Panel-corrected				
DAC	Coef.	Std. Err.	z	P> z
LEV	0.5980	0.2054	2.91	0.004
LDR	0.3049	0.1512	2.02	0.044
CFV	-0.0088	0.0929	-0.09	0.924
_cons	2.0497	0.2405	8.52	0.000
Number of obs =	1672			
R-squared =	0.1468			

$$\text{Wald } \chi^2(3) = 10.54 \quad \text{Prob} > \chi^2 = 0.0145$$

Source: Author's Computation (2025)

The results of the panel corrected standard error regression analysis indicate the way measures of risk management attributes (leverage, loan and default rate, cashflow volatility) affect financial reporting quality having satisfy the conditions the best linear un-bias estimate (BLUE) as indicated in Table 13. The Hausman test results shows that the superlative model to elucidate this study is the fixed-effect model. Nevertheless, heteroskedascity, autocorrelation and cross-sectional dependence problems were identified. All observed statistical problem with the model and data are adjusted for using the panel corrected standard error regression and the result shows that with specific that the model indicate linear effect signifying the linearity of variables as it disparity from zero. The values of 10.54 and 0.0145 for Wald χ^2 and probability respectively, implying the fitness and significance of the model. Furthermore, from Table 13, the result showed the value of 0.1468 for R-square implying that risk management attributes cause a variation of 14.68 percent in the financial reporting quality of organized cooperative societies in south-west, Nigeria

Overall result shows that measures of risk management attributes have affirmative and statistical significant influence on the financial report quality of the sampled organised cooperatives societies in Nigeria. Considering individual effect of variables as indicated in Table 13, financial leverage (LEV) has values of 0.5980, 2.91, and 0.004 as co-efficient, Z-statistics and p-value respectively and are all statistically significant at 5%. Likewise, from Table 13, loan and default rate (LDR) has the values of 0.3049, 2.02, and 0.044 for co-efficient, Z-statistics, and p-value respectively and are all statistically significant at 5% percent. This implies that loan and default rate (LDR) have affirmative and statistical significant effect on the financial report quality organized cooperative societies. Furthermore, on Table 13, it is observed that cash flow (CFV) has values of -0.0088, 0.09, and 0.924 as co-efficient, Z-statistics, and p-value which is negative and statistically insignificant at 5%.

The implication of the findings is that the composition of the economic structure of the cooperatives permits the substitution of fixed charges for equity makes the system more transparent and control cash movement which in turn is consequential on the financial reporting quality. Also, the loan default rate is very low and can be absorb without leading to the collapse of the society as the members are of capable status to repay the credit obligation as at the right time in terms of the contract. This promote the quality of the report as there is no reason to permutate the financial report to make the cooperative society healthier than it is. However, the changes in the operational cash flow are small percentage of the revenue.

Discussion of Findings

The result revealed in this study indicated that risk management attributes such as leverage and loan default rate have affirmative but statistical significant influence on financial report quality. This result is in agreement with the reliability theory which state that system of firms ought to perform as strategically planned. The result study reveals that financial reporting has more quality when efficient risk management strategies such periodic check and adequate authorisation of expenditure policies such as periodic evaluation of loan schedule are in place. These enhances sustainability of the cooperative societies in practice. Moreover, the result of this empirical provide an avenue of communicating comprehensive, strategic, future-oriented information to members of cooperatives as well as other stakeholders on relevance of reporting of economic performance and risk management of cooperative societies.

Furthermore, this finding aligned with results of Tonui and Otinga (2019) which examined financial management practices and economic performance of Savings and Credit Cooperative Societies (SACCOs) in Kenya. The findings shows that the measures of financial management; (leverage, capital adequacy, liquidity management, and capitalization) have statistically significant influence on economic performance of SACCO. It also supports the findings of Salaton et al. (2020) that investigated loan default rate and economic performance of SACCO in Kenya. The results of the findings revealed that loan default rate had affirmative and statistically significant influence on economic performance of SACCO in Kenya. Conversely, results of this study contradict the findings of Olayinka et al. (2019) that examined enterprise risk management impact and accounting quality of companies quoted in the financial services sector in Nigeria. The results discovered that no statistical significant influence exist among enterprise risk management and accounting quality.

CONCLUSION AND RECOMMENDATIONS

Emanating from the results and discussion of findings of this study it was concluded that risk factors of risk management; (leverage and loan default rate) increase discretionary accruals among cooperative societies in South-West, Nigeria. Therefore, suggesting that these risk factors reduce financial reporting quality. The implication of the findings is that the composition of the economic structure of the cooperatives permits the substitution of fixed charges for equity makes the system more transparent and control cash movement which in turn is consequential on the financial reporting quality. Also, the loan default rate is very low and can be absorb without leading to the collapse of the society as the members are of capable status to repay the credit obligation as at the right time in terms of the contract. This study recommends that management committee should put in place strategic policies such as periodic evaluation of loan schedule to ensure members repay their loans as at when due in line with the loan contract agreement and defaulters are adequately penalize. Also, cooperative societies are advice to avoid external source of finance for payment of members' loan and dividends for this contribute adverse risk factor which affect the sustainability of cooperative societies.

References

- Abed, I. A., Hussin, N., Haddad, H., Al-Ramahi, N. M., & Al-Ali, M. A. (2022). The moderating effects of corporate social responsibility on the relationship between creative accounting determinants and financial reporting quality. *Sustainability*, 14(1), 1-23.
- Abeysekera, I., Li, F., & Lu, Y. (2021). Financial disclosure quality and sustainability disclosure quality. A case in China. *Plos One*, 16(5), 1-20. <https://doi.org/10.1371/journal.pone.0250884>.
- Al-Shaer, H. (2020). Sustainability reporting quality and post-audit financial reporting quality: Empirical evidence from the UK. *Business Strategy and the Environment*, 29(1), 2355–2373. <https://doi.org/10.1002/bse.2507>.
- Biddle, G. C., Hilary, G., & Verdi, R. S. (2009). How does financial reporting quality relate to investment efficiency. *Journal of Accounting and Economics*, 48(2), 112-131.
- Chang, W. F., Amran, A., Iranmanesh, M., & Foroughi, B. (2019). Drivers of sustainability reporting quality: Financial institution perspective. *International Journal of Ethics System*, 35(1), 632–650.
- Cohen, J. R., Krishnamoorthy, G., & Wright, A. M. (2017). Enterprise risk management and the financial reporting process: The Experiences of Audit Committee Members, CFOs,

- Odugbemi, O. M. and Alade, M. E. (2025). Risk Management and Financial Reporting Quality of Organised Cooperative Societies in South-West, Nigeria. *Malet Journal of Accounting and Finance*, 5 (2), 271 - 286
- and External Auditors. *Contemporary Accounting Research*, 34(2), 1-64. www.ssrn.com.
- Committee of sponsoring Organizations of the Treadway Commission COSO. (2004). Enterprise risk management- Integrated framework COSO www.coso.org.
- Committee of sponsoring Organizations of the Treadway Commission COSO. (2009). Strengthening Enterprise risk management for strategic advantage. New York. AICPA www.coso.org.
- Committee of sponsoring Organizations of the Treadway Commission (2017). Enterprise risk management: integrating with strategy and performance (Executive Summary); Internal control from integrated framework. *Committee of sponsoring Organizations of the Treadway Commission (COSO)*, 1-10. www.coso.org.
- Douglas, Ulupui, G. K., & Nasution, H. (2020). The influence of operating cycle, cash flow volatility, and audit fee on earnings persistence (The Indonesian Cases). *Sriwijaya International Journal of Dynamic Economics and Business*, 4(1), 1-20. <https://doi.org/10.29259/sijdeb.v4i1>.
- Ewers, R. B. (2017). *Enterprise risk management in responsible financial reporting*. College of social and behavioral sciences. Minnesota, United States of America: Walden University.
- Flora, C., & Leoni, G. (2016). Enterprise risk management (erm) and firm performance: The Italian Case. *The British Accounting Review*, 49(1), 56-74. <https://doi.org/10.1016/j.bar.2016.08.003>.
- Gavrilov, L. A., & Gavrilova, N. S. (2001). The reliability theory of aging and longevity. *Journal of Theoretical Biology*, 213(4), 527-545. <http://doi.org/10.1006/jtbi.2001.2430>.
- Jones, J. J. (1991). Earnings management during import relief investigations. *Journal of Accounting Research*, 29(2), 193-228.
- Kinney, W. R. (2000). Research opportunities in internal control, quality and quality assurance. *Journal of Practice and Theory*, 19(4), 83-90.
- Kibui, N., & Moronge, M. (2014). Effects of credit risk management on financial performance of SACCOS: A case study of Harambee SACCO. *International Academic Journal of Information Sciences and Project Management*, 1(3), 157-172.
- Luo, M. (2017). Enterprise internal control and accounting information quality. *Journal of Financial Management*, 6(1), 16-26.
- Madu, M., & Hassan, S. U. (2021). Enterprise risk management and financial reporting quality: Evidence from Listed Nigerian non-financial Firms. *Journal of Risk and Financial Studies*, 2(1), 43-70, <http://www.arfjournals.com/>.
- Madugba, J. U., Ben-Caleb, E., Okpe, I. I., Fadoju, O. S., Ogochukwu, B.C. J., & Mbamara, K. I. (2020). Risk management committee, financial reporting quality and financial performance of deposit money banks in Nigeria. *Research in World Economy, Sciedu Press*, 11(5), 288-296. <https://doi.org/10.5430/rwe.v11n5p288>.
- Martínez-Ferrero, J. (2014). Consequences of financial reporting quality on corporate performance. Evidence at the international level. *Estudios de Economía*, 41(1), 49-88.
- Nthaga, L. G. (2018). *An analysis of the profitability and sustainability of savings and credit co-operatives in Botswana*. University of Cape Town, In partial fulfilment of the requirements for the degree of Master of Commerce in Development Finance. The Development Finance Centre (DEFIC), Graduate School of Business, University of Cape Town.

Odugbemi, O. M. and Alade, M. E. (2025). Risk Management and Financial Reporting Quality of Organised Cooperative Societies in South-West, Nigeria. *Malete Journal of Accounting and Finance*, 5 (2), 271 – 286

Ntoiti, R., & Jagongo, A. (2021). Non-Performing Loans and financial Stability of Deposit Taking Savings and Credit Cooperatives Societies regulated by SASRA . *International Journal of Finance and Accounting*, 6(2), 29-39.

Olayinka, A. E., Uwuigbe, U., Sylvester, E., Uwuigbe, O. R., & Amiolemen, O. O. (2019). Does enterprise risk management impact accounting quality? Evidence from the Nigerian financial institutions”. *Investment Management and Financial Innovations*, 16(4), 16-27. [http://dx.doi.org/10.21511/imfi.16\(4\).2019.02](http://dx.doi.org/10.21511/imfi.16(4).2019.02).

Ouko, J. K., & Atheru, G. (2022). Internal control system and financial performance of deposit taking savings and credit co-operative societies in Makueni County, Kenya. *International Journal of Current Aspects in Finance, Banking and Accounting*, 3(1), 1-21.

Oyerogba, E. O., & Oseni, M. (2021). Corporate governance elements and return on capital employed by cooperative societies. *Journal of Research in Business and Management*, 9(12), 6-14. <http://www.questjournals.org/>.

Oyerogba, E. O., & Oseni, M. (2021). The impact of corporate governance elements on financial performance of cooperative societies. *Quest Journal of Research in Humanities and Social Science*, 9(12), 56-65. <http://www.questjournals.org/>.

Rashid, M. M. (2020). Financial reporting quality and share price movement-evidence from listed companies in Bangladesh. *J. Financ. Report. Account*, 18(1), 425–458.

Salaton, K. E., Gudda, P., & Rukaria, G. (2020). Effect of loan default rate on financial performance of savings and credit cooperative societies Innarok, County Kenya. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 10 (2), 65-75. <http://dx.doi.org/10.6007/IJARAFMS/v10-i2/7345>.

Salvador de Souza, J. A., Flach, L., Borba, J. A., & Broietti, C. (2019). Financial reporting quality and sustainability information disclosure in Brazil. *Brazilian Business Review*, 16(1), 556-575. <http://dx.doi.org/10.15728/bbr.2019.16.6.2>.

Sohail, M., & Aziz, B. (2019). Impact of financial reporting quality on firm's financial performance. *Global Scientific Journals*, 7(7), 468-480. <http://www.globalscientificjournal.com/>.

Uwuigbe, O. R., Olorunshe, O., Uwuigbe, U., Ozordi, R., Asiriwuwa, O., Asaolu, T., & Erin, O. (2020). Corporate governance and financial statement fraud among listed firms in Nigeria. *International Conference on Energy and Sustainable Environment*, (pp. 18-20. www.researchgate.net).

Wadesango, N., Mhaka, C., & Wadesango, V. (2017). Contribution of enterprise risk management and internal audit function towards quality of financial reporting in universities in a developing Country. *Internal Governance & Control: Financial Markets & Institutions*, 7(2), 170-176.