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MODERATING EFFECT OF DIVIDEND DECISIONS ON THE RELATIONSHIP BETWEEN BOARD LEVEL OF EDUCATION AND FINANCIAL PERFORMANCE OF DEPOSIT TAKING SACCOS IN NAIROBI, KENYA

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Abstract

The study aims at evaluating the moderating effect of dividend decisions on the relationship between board level of education and the financial performance of deposit taking SACCOs in Nairobi, Kenya. It is anchored on Modigliani & Miller's Dividend Irrelevance Theory. The cross-sectional survey design was used. The study population comprised of all the 43 Deposit Taking SACCOs (DTS) having their registered office based in Nairobi, Kenya, licensed and published by SACCO Society Regulatory Authority (SASRA) for the year 2020. The study relied on secondary data. A data collection form was used to collect the data from SACCO records, reports, and audited accounts as filed by the SACCOs for the period 2016 to 2020. Data analysis was presented using descriptive statistics and two step panel regression analysis, conducted using Stata 13 software. Findings of the study are that board dividend decisions moderated the relationship between board level of education and the financial performance of DTS which was found to be significant. The study therefore concludes that dividend decisions

influence the effect of board level of education on the financial performance of deposit taking SACCOs in Nairobi, Kenya. Therefore, care should be taken when making dividend decisions to safeguard the financial performance of DTS. It is recommended that future studies should focus on other board characteristics beyond that covered by this study, so that we can have a wider understanding on how the financial performance of DTS is influenced by board characteristics.
Keywords: Financial performance, dividend decisions, board level of education, SASRA, Return on Equity

INTRODUCTION

In Kenya, SACCOs are regulated by SACCO Societies Regulatory Authority (SASRA). It ensures that through legislation, SACCOs are well structured in their operations and that they have adopted conventional ways of measuring their performance such as profitability, Return on Assets and Return on Equity. On 21st January 2020, SASRA published names of 174 no. deposit taking SACCOs licensed to operate in the financial year ending 31st December 2020. Out of these licensed Deposit Taking SACCOs, 43 no. SACCOs have their registered office in Nairobi. SACCOs are usually formed and run by members that have a common goal and vision. Olweny & Kivuvo (2014), posited that the cooperative sector plays a crucial role in a country's socio-economic development, significantly contributing to a Nation's Gross Domestic Product. Among the known functions of SACCOs is provision of a savings vehicle to members and provision of affordable and easily accessible loans to them. Savings and loans have been known to foster investments which translate to economic growth on the global level. According to Ribaj & Mexhuani (2021), countries with higher rates of savings have had a faster economic growth than those with lower saving rates as capital accumulation creates greater opportunities for production and the productivity of a country by providing an additional income stream. It therefore goes without saying that the success of the SACCO sub sector is critical to the economy of a country. The rate of success can be measured by the SACCOs financial performance, as a financially performing SACCO is expected to be able to carry on with its operations smoothly and as a going concern, because it will be able to meet its objectives while at the same time meeting its obligations as they fall due. It is therefore important to understand how the financial performance of a SACCO is influenced.

A survey conducted by SASRA in 2015 revealed that SACCOs in Kenya were under performing due to issues of technology, competition, change of regulations and management issues. In a study on the effect of liquidity management on the financial performance of deposit taking SACCOs in Kenya, Njeru (2016) noted that SACCOS seem to be paying dividends that are more than the market rate which in the short run may look very lucrative but in the long run it

will have a negative effect on the financial performance and stability of the SACCOS. His position was supported by Ochieng (2018) when he posited that SACCOs have not been able to perform effectively in Kenya due to financial instability in their operations.

The objective of this study is to establish the moderating effect of dividend decisions on the relationship between board level of education and the financial performance of Deposit Taking SACCOs in Nairobi, Kenya.

LITERATURE REVIEW

Financial performance of Deposit Taking SACCOs

Various researchers have used various metrics to measure the performance of SACCOs and its relation to dividend decisions. Shibutse, Kalunda & Achoki (2019) studied the effect of two capital structure determinants i.e., liquidity and dividend payout, on the financial performance of deposit taking SACCOs in Kenya, measuring performance by Return on Assets of the SACCOs. The study was grounded on the Pecking Order and Free Cash Flows Theories. Their findings were that liquidity and dividend payout decisions had a significant and positive effect on the financial performance of deposit taking SACCOs in Kenya. Nguta & Ndegwa (2021) studied the moderating effect of firm revenue on the relationship between board characteristics and financial distress of Deposit Taking SACCOS in Nairobi County, Kenya. The study which was guided by the upper echelons theory adopted the descriptive research design. They carried out a census on deposit taking SACCOs in Nairobi County. Secondary data was collected from SASRA using a data collection sheet and thereafter panel data analysis performed using STATA software. The conclusion of their study was that firm revenue does not moderate the relationship between board characteristics and financial distress of Deposit Taking SACCOs.

Ademba (2019) evaluated the determinants of financial performance of deposit taking savings and credit cooperative societies in Nairobi County. His study was guided by Capital Asset Pricing Model Theory, Liquidity Preference Theory and Agency theories and used panel research design. The study conducted a census of all the 39 SACCOs in Nairobi County. The researcher used secondary quantitative data from SASRA registry, which comprised of data contained in audited financial statements and filed monthly reports. The findings of the study were that there is a strong positive correlation between capital adequacy, asset quality, operational efficiency and liquidity and financial performance of deposit taking SACCO in Nairobi.

Board level of education and financial performance of deposit taking SACCOs

In a study on the influence of board characteristics on financial distress of Deposit Taking SACCOs in Nairobi County of Kenya, Munene, Ndegwa, Senaji, & Mugambi (2020)

established that there is a relationship between board characteristics and financial distress of Deposit Taking SACCOs, where they found out that board composition, board level of education and board tenure have statistically significant and negative influence on financial distress. Byabashaija, Muhangi, Basemera & Okello (2017) conducted a study on the correlation between Board members educational levels and financial performance of Kyamuhunga cooperative societies, Bushenyi, Uganda. The research study employed a descriptive research design which was both quantitative and qualitative in nature. A structured questionnaire and an interview schedule were utilized to garner data from the participants. The findings were that there is a positive relationship between board members educational levels and financial performance of cooperatives in Bushenyi district, western Uganda. Ong'ure (2021) conducted a study on how DTS's financial performance in Siaya County, Kenya was affected by board diversity. The study sought to determine how deposit taking SACCO's financial performance in Siaya County in Kenya, was affected by gender diversity, educational diversity, age diversity and board size. The theories guiding the study were: balance Scorecard Model, Agency Theory, Stakeholders' Theory and Human Capital Theory. Descriptive research design was employed, with the study population being all the 57 no. deposit taking SACCOs within Siaya County and the unit of analysis being 5 board members from each SACCO, making up 285 respondents. Data was collected using questionnaires. Using stratified random sampling, they selected 50% of the board members from each SACCO. The study established that education diversity among the SACCO boards of management significantly and positively influenced their financial performance of the DTS. It concluded that education diversity among board members improves the management of SACCO resources, promotes innovativeness among the board members, promotes quality of decision making, promotes accuracy in planning and promotes effective communication in the SACCO, among others.

Dividend Decisions and financial performance

The relationship between dividend decisions and SACCO performance can be attributed to the issue of liquidity as payment of cash dividends reduces liquidity, which is much needed in advancing loans to members and making profitable investments. This view was supported by Githaka (2017) in the observation that liquidity is considered as one of the most serious concerns and challenges for the modern era SACCOs. He said that a SACCO having good asset quality, strong earnings and sufficient capital may fail if it is not maintaining adequate liquidity. Njeru (2016) also opined that SACCOs face risks arising from liquidity shortage. He said that shortage of liquidity has been a major cause of failure of many financial cooperatives in Kenya as SACCOs don't have access to the lender of last resort, the Central Bank of Kenya.

Koduk (2016) investigated the relationship between financial performance and dividend payout of SACCOs registered by SASRA, using Secondary data for 164 SACCOs, for the period 2011 to 2015. The results showed that financial performance which was measured by Return on Equity, firm size and leverage are positively correlated with dividend payout. A study to establish the effects of dividend policy on profitability of SACCOs with FOSAs in Kenya by Malombe (2011) found out that there is a positive relationship between dividend policy and the profitability of SACCOs with FOSAs in Kenya.

RESEARCH METHODOLOGY

This study used descriptive research design. The study population comprised of all the 43 DTS registered in Nairobi, and which are under the regulation of SASRA as per their notice dated 21st January 2020. Census method was used, whereby secondary data was collected from all the 43 DTSs using a data collection form, for the years 2016 to 2020. The data was collected from yearly audited accounts and other relevant SACCO records. The data was then input into an excel sheet template where ratios were computed before being transferred into Stata 13 for analysis.

Board education level (BLE) was measured by an average of the highest level of education attained by the directors. The education level was categorized into three aspects i.e., postgraduate, undergraduate, and diploma & below qualifications with awarded scores of 3, 2 and 1 respectively. The scores were then summated, and the total divided by the total number of directors in the SACCO to get an average for that SACCO for each year under study. Financial performance (FP) was represented by Return on Equity (ROE), which was obtained by dividing Net Income (NI) by the shareholders equity as reported in the income statements and balance sheet respectively. Lastly, board dividend decisions (BDD) were represented by Dividend Payout Ratio (DPR) which was measured by Total Dividends / Net Income for each SACCO for each period.

This study employed a two- step regression approach to test for moderation. First, regression was performed excluding the moderator and then regression was performed including the moderator with the aid of the two models below

i) $Y_{it}=\beta_{oit}+\beta 1X1_{it}+\varepsilon$

ii) $Y_{it}=\beta_{oit}+\beta 1X1_{it}+\beta 2X2_{i}+B3X1_{it}*X2_{it}+\varepsilon$

In selecting the best suitable model, the Hausman test was used to choose between the fixed effects model (FE) and the random effects model (RE). According to the Hausman test, the null hypothesis (Ho) that difference in coefficients is not systematic, is rejected if $p < 0.05$,

and since from the Hausman test results, computed p = 0.0498, the null hypothesis was therefore rejected, and the FE model was adopted.

RESULTS AND FINDINGS

Diagnostic tests

Several tests and analyses were run on the data as follows

Correlation analysis

To conceptualize the intrinsic relationship between the dependent, independent, and moderating variables, correlation analysis was undertaken. This procedure was also done to evaluate the strength of linear interrelationships between these variables, thereby precluding the problem of multicollinearity. Results of correlation analysis are shown in table 1 below:

Table 1: correlation matrix

	Board level of Education	Board Dividend Decisions
Board level of Education	1.0000	
Board Dividend Decisions	-0.0306	1.0000

From the table 1 above, it is evident that there was low correlation between the variables thus they can all be jointly fitted.

Test for normality of data

This was done to determine if the data is normally distributed in line with the requirements of linear regression.

Table 2: Shapiro Wilk test for normality

Variable	Obs	W	V	Z	Prob>Z
Financial performance	215	0.87635	19.647	6.877	0.00000
Board level of Education	215	0.98967	1.642	1.145	0.12605
Board Dividend Decisions	215	0.53120	74.491	9.954	0.00000

From table 2, p value for board level of education was not significant meaning data is normally distributed. However, p value for board dividend decisions is significant meaning data is not normally distributed. The researcher therefore deemed it fit to transform the data using natural logarithms. A log-log transformation was therefore done on the data.

Test for multicollinearity

Multicollinearity is a phenomenon in which one predictor variable in a multiple regression model can be linearly predicted from the others with a substantial degree of accuracy. This creates redundant information and thereby skewing the results in a regression model.

Table 3: VIF test for multicollinearity

Variable	VIF	1/VIF
Board level of Education	1.09	0.917727
Board Dividend Decisions	1.04	0.964695
Mean VIF	1.12	

From table 3, it is evident that multicollinearity is very low since VIFs for all variables are less than 5. This is further corroborated by the tolerance of close to 1

Test for homoscedasticity

Heteroscedasticity happens when the standard deviations of a predicted variable, monitored over different values of an independent variable or as related to prior time periods, are non-constant. Heteroscedasticity means unequal scatter. Consequences of heteroscedasticity in linear regression are the variability of Y values larger for some X values than for others.

Table 4: White's test for homoscedasticity

chi^2 (14) = 21.04			
Prob > chi^2 = 0.1006			
Cameron & Trivedi's decomposition of IM-test			
Source	chi^2	df	P
Heteroskedasticity	21.04	14	0.1006
Skewness	14.5	4	0.0059
Kurtosis	4.6	1	0.032
Total	40.14	19	0.0031

From figure 4., data has been deemed to be homoscedastic since p = 0.1006, which is greater than 0.05.

Descriptive statistics

Descriptive analysis of the data was undertaken by the researcher to capture the general depiction of the raw data.

Table 5: descriptive statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
Financial performance	215	0.15579	0.11145	0.00465	0.59596
Board level of Education	215	2.20041	0.32089	1.55556	2.88889
Board Dividend Decisions	215	0.61998	0.79583	0.01461	6.09921

Table 5 shows that our panel is balanced, as we are analyzing 5 years data for 43 SACCOs, which translates to 215 observations. It is evident that on average, DTS are performing fairly with a fair financial performance as depicted by the average ROE of 15.6%. However, there is a huge variation as evidenced by the big difference in financial performance as operationalized by ROE, with the maximum being 59.5% while the lowest is 0.5%. Dispersion from the mean is low, as shown in the table by the low standard deviation of 0.11

The mean of 2.2 and standard deviation of 0.32 for board level of education implies that the average education level of SACCO directors is degree level. The maximum of 2.9 means that the SACCO with highest score of board level of education has its directors an average post graduate degree while the one with minimum level of education across its directors has an average education level of diploma and below, as shown by the minimum of 1.6.

Board dividend decisions, which is operationalized by dividend payout ratio has a mean of 0.61 and standard deviation of 0.79 which implies that on average, the SACCOs pay out slightly over half of their income in dividends, with the remainder being retained. The low standard deviation is an indicator of low dispersion from the mean. The SACCO that paid the least dividend payout had a DPR of 1.5% while the one that paid the most had a DPR of 600% as shown by the minimum and maximum of 0.146 and 6.09 respectively. This generally implies that in some instances, some SACCOs went beyond current profits and dipped into retained earnings in paying the dividends.

Inferential Statistics

First, a regression between the dependent and independent variables was run, while ignoring the moderator. Thereafter, the moderating variable was included.

Table 6: FE Regression results before moderation of the relationship between board level of education and financial performance of DTS.

R-sq: within = 0.0630, between = 0.0350, overall = 0.0059
corr (u_i, xb) = -0.2927

log_fp	Coef	Std. Err.	t	p>[t]	(95% Conf. Interval)	
log_ble	0.5375677	0.4263632	1.26	0.209	-0.304116	1.379251
_cons	-2.9876740	0.2874407	-10.39	0.000	-3.555111	-2.420238
sigma_u	0.7388197					
sigma_e	0.3754882					
Rho	0.7947264	(fraction of variance due to u_i)				
F test that all u_i = 0		F(42,169) = 16.07			Prob > F = 0.000	

From table 6, it can be seen that p value for the variable board level of education (ble) is greater than the significance level of 0.05. This essentially means that the relationship between board level of education and the financial performance of DTS is not statistically significant. Its regression coefficient is 0.54 which is interpreted to mean that the relationship between these two variables is positive and therefore a unit percentage change in board level of education will translate to an increase of 0.54% in financial performance of the deposit taking SACCO. Additionally, the table 6 shows R^2 overall is 0.0059 which means that less than 1% of the variability in financial performance is explained by the model and therefore further investigation to determine what else influences the financial performance is required.

Table 7: FE Regression results upon moderation of the relationship between board level of education and financial performance of DTS.

R-sq: within = 0.4768, between = 0.4412, overall = 0.4479
corr (u_i, xb) = 0.0445

log_fp	Coef	Std. Err.	t	p>[t]	(95% Conf. Interval)	
log_ble	0.929667	0.419882	2.21	0.028	0.100632	1.7587
log_bdd	-0.645717	0.208858	-3.09	0.002	-1.058095	-0.233339
log_bddlog_ble	0.577829	0.257262	2.25	0.026	0.069879	1.08577
_cons	-3.307435	0.314777	-10.51	0.000	-3.928945	-2.68593
sigma_u	0.526652					
sigma_e	0.283965					
rho	0.774759	(fraction of variance due to u_i)				
F test that all u_i = 0		F(42,165) = 13.68			Prob > F = 0.000	

From table 7, the p- value for the variable board level of education (ble) is less than the significance level of 0.05. This essentially means that the relationship between board level of education and the financial performance of DTS is now statistically significant. Its regression coefficient has increased from 0.54 to 0.93 which not only means that the relationship between these two variables has remained positive but the level of association has increased. Further, the coefficient can be interpreted to mean that a unit percentage change in board level of education will translate to an increase of 0.93% in financial performance of the deposit taking SACCO.

The moderator i.e., board dividend decisions has also been found to have a significant effect on financial performance of a DTS since its p value of 0.002 is also less than the test's significance level of 0.05. However, the relationship is inverse as evidenced by the negative coefficient of 0.645, which means that a percentage increase in dividend decision will result in a 0.065 percentage reduction in financial performance.

Additionally, the table 7 shows R^2 overall is 0.45 which is an increase from the previous 0.0059. The coefficient of determination of 0.45 means that about 45% of the variability in financial performance of deposit taking SACCOs is now explained by the model again demonstrating that dividend decisions have moderated the association between board level of education and financial performance of deposit taking SACCOs.

CONCLUSION

The objective of this study was to establish the moderating effect of dividend decisions on the relationship between board level of education and the financial performance of Deposit Taking SACCOs in Nairobi, Kenya. Based on the results, the study concludes that dividend decisions have a moderating effect on the relationship between board characteristics and the financial performance of Deposit Taking SACCOs. They amplify the association, by making the relationship more significant while remaining positive. Overall, board dividend decisions was able to increase the explaining power of board level of education on variations in financial performance of DTS as was shown by the improvement of R^2 from less than 1% to 45%. Due to their evidenced inverse association with financial performance, dividend decisions should be made cautiously as an overpayment of dividends can adversely affect the financial performance of a DTS.

LIMITATIONS OF THE STUDY

i) Some of the SACCOs did not have an organized way of storing historical records. Therefore, it took quite some time to gather the various categories of historical information spanning five years.

ii) Some SACCOs felt that the study was somehow invasive on their operations and were initially not very comfortable with granting access to stored records and information. However, the researcher was able to reassure the SACCO officials with the help of an introduction letter from the university.

iii) It required quite a significant amount of effort and resources in money and time to be able to visit all the 43 SACCOs that are spread across the city of Nairobi, with some requiring several visits. The researcher worked around the limitation by, creating flexible time plan, a cash budget and also to seek the help of a data collection assistant.

However, it is worth noting that the aforementioned limitations did not undermine the quality of the findings of the study in any way. The study design used is scientific and is based on sound theoretical and empirical literature framework.

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