

# Influence of Investment Opportunity Set on Dividend Payout among Deposit - Taking Saccos in Kenya

Solomon Munyoki Kathuo<sup>1</sup>, Oluoch Oluoch<sup>2</sup>, Agnes Njeru<sup>3</sup>

Department of Economics and Finance, Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya

Email address: [skathuo\[at\]yahoo.com](mailto:skathuo[at]yahoo.com)<sup>1</sup>, [josephat.oluoch\[at\]jkuat.ac.ke](mailto:josephat.oluoch[at]jkuat.ac.ke)<sup>2</sup>, [agnes3198\[at\]gmail.com](mailto:agnes3198[at]gmail.com)<sup>3</sup>

**Abstract:** *This study explored the influence of investment opportunity set on Deposit - Taking Saccos in Kenya. The study was motivated by inconsistency in the ability of Saccos to live up to their promise of paying dividends to members consistently. Many of them pay dividends from unforeseen profits and/or while highly leveraged. These unhealthy dividend practices leave Saccos unable to pay dividends in the long term sustainably, besides exposing them to insolvency. Existing studies on the factors of dividend payout in Kenya mainly used unidimensional variables and/or were limited in sectoral scope. The present study targeted all registered DTSaccos in Kenya (n=179) over an eight - year period (2012 - 2019). A cross sectional design was used. Panel data modelling was used, which was a departure in methodology from previous studies. Descriptive results showed that investment opportunity set was below industry standards at 3%. During the panel period, Saccos failed to improve their ability to generate resources from equity yet, they sustained a high dividend payout. To maintain their dividend payout, the DT - saccos borrowed funds to pay dividends. The findings deepen our understanding of the interplay of factors influencing dividend payout in DT - Saccos in Kenya. Small saccos have higher dividend payout compared to large ones. Indeed, small saccos use dividends as a business strategy to retain and attract new members, thereby augment their investment opportunity.*

**Keywords:** Saccos, Dividends, Performance, dividend payout, Investment opportunity set

## 1. Introduction

Corporate earnings relates to the whole pie, which gets split into two parts: distribution to shareholders /dividends and the amount retained for reinvestment. The decision on how much and the mode of payment mechanism of earnings is referred to as the dividend policy. Dividend payout ratio is often known as a measure of dividend policy. The most fundamental question is whether the dividend should be paid. The corporate finance theory is yet to prefer answers to this basic question. That is why dividend policy is considered a dark area in corporate finance theory. In corporate finance theory, the bottom line of every decision is to analyze its effect on the Dividend payout and is one of the most puzzling areas in research that has always gained attention of management of companies, researchers, financial analyst and investors alike. Making dividend policy is one among the controversies which remain unresolved in the field of corporate finance that require further research (Brealy et. al, 2008). Dividend payout decision oscillates around distribution of corporate profits as a whole or holding some part of it.

Black (1976) states that “the harder we look at dividends picture, the more it seems like a puzzle, with pieces that just don’t fit together. The problems with dividend policy is having one that has an impact that is very significant. This is because the dividend policy adopted will always have two opposite effects and different interests. On one hand, companies need to fund for improvement on their capital structure to increase their growth, on the other hand, they also have an obligation to maximize shareholders wealth with distribution of dividends. To strike a balance of these two opposing effects, a company has to come up with an optimal dividend policy.

An optimal dividend policy is a policy that creates a balance between the current dividend payable to the shareholders and the company's funding of growth opportunities available to the company in future so as to maximize the company's stock price (Margaretha, 2005). Among various studies that have been, no general consensus has been arrived at; Franco Modigliani and Merton Miller (1961) find, in their very much celebrated paper, that payment of dividend has no relevance to the value of the firm. Clearly pointing to the fact that in perfect capital market investors are more interested in the investment policy of the company rather than the dividend policy in place. However, numerous studies find that perfect markets do not exist and hence the dividend payout policy by a firm is influenced by various real world factors (Nuhu, 2014, Maladjan & Houry, 2014).

## 2. Problem Statement

SASRA Regulations of 2010 require SACCOs to formulate a dividend policy taking into consideration: institutional capital adequacy, liquidity position, investment prospects and earnings stability and growth prospects. This may explain the higher percentage of SACCOs that are able to pay dividends. However, studies find inconsistencies in the rates of dividend payout by SACCOs in Kenya. Mbuki (2010) finds that there is inconsistency in the rate at which dividends are paid to members of SACCOs. Oswendo, (2017) finds that most SACCOs in Kenya distribute 7 - 12% of their profits as dividends; a situation portraying that inconsistency has persisted in dividend payout. Ngui and Jagongo, (2017) find that many SACCOs seem to be more concerned with using available cash resources to pay dividends, rather than investing in available positive net present value projects. These findings may further explain the high percentage of SACCOs paying dividends and at the

same time the high spread in the rate of dividend payout that could be contributing to the inconsistency.

Most of the studies undertaken have used the following variables as determinants of dividend payout: profitability, financial leverage, cash flow structure and SACCO size as either a moderating variable or a determinant of dividend payout. However, this study has additionally used investment opportunity set as a determinant of dividend payout, SACCO size as a moderating variable to help in ascertaining the determinants of dividend payout among Deposit Taking SACCOs in Kenya. This is the knowledge gap the study fills.

### **Objective of this study**

The purpose of this study is therefore to determine the effect of investment opportunity set on dividend payout among deposit taking SACCOs in Kenya.

### **3. Literature Review**

The capital market provides an opportunity for Saccos to compete fairly in order to attract investors to invest in the Saccos, so investors need information to assess the capability and performance of a company. One source of basic information necessary for investment decisions are financial report (Adiwiratama, 2012). The financial report can be used by investors to determine which Sacco has capacity and better performance in the operations. One component in the financial report under consideration for investors in making investment decisions is book value of assets because information in the report is used by investors to consider and evaluate performance of Saccos.

Myers (1977) views the value of a firm as the sum of the value of assets in place and the value of options to make future discretionary investments in positive NPV projects. The component of firm value resulting from options to make future investments are referred to by Myers (1977), and Smith and Watts (1992) as the investment opportunity set.

The conventional notion of the investment opportunity set is of new capital expenditures made to introduce a new product or expand production of an existing product. For example, the option to make expenditures to reduce costs during a corporate restructuring as has been the case in many SACCOs is a component of the IOS. The "investment" in this case consists of such costs as severance pay, lease termination penalties, rather than capital expenditures.

Conceptually, the value of this type of investment option is the difference between estimated restructuring costs and the estimated present value of the resulting periodic cost savings. The market value of the firm would reflect the value of the option to restructure to the extent that the market expects the option to be exercised. Christie (1989) argues that the primary determinants of the IOS are industry factors such as barriers to entry and product life - cycles. These factors allow firms to make investments that increase barriers to entry (e. g. substitution of capital for labor which results in economies of scale.

Myers (1977) views the value of a firm as the sum of the value of assets in place and the value of options to make future discretionary investments in positive NPV projects. The component of firm value resulting from options to make future investments are referred to by Myers (1977), and Smith and Watts (1992) as the investment opportunity set.

The conventional notion of the investment opportunity set is of new capital expenditures made to introduce a new product or expand production of an existing product. For example, the option to make expenditures to reduce costs during a corporate restructuring as has been the case in many SACCOs is a component of the IOS. The "investment" in this case consists of such costs as severance pay, lease termination penalties, rather than capital expenditures.

Conceptually, the value of this type of investment option is the difference between estimated restructuring costs and the estimated present value of the resulting periodic cost savings. The market value of the firm would reflect the value of the option to restructure to the extent that the market expects the option to be exercised. Christie (1989) argues that the primary determinants of the IOS are industry factors such as barriers to entry and product life - cycles. These factors allow firms to make investments that increase barriers to entry (e. g. substitution of capital for labor which results in economies of scale.

Growth refers to the ability of the firm to increase in size, while investment opportunities are options to invest in positive net present value projects. While some investment opportunities may result in increases in the size of the firm, not all growth opportunities have positive net present value. The firm may often have opportunities to grow which have no potential to increase the market value of the firm.

The value of the option to make an investment in expanded capacity depends on the likelihood of future demand increases. When the investment is actually made, it cannot be withdrawn if anticipated demand increases do not materialize.

Opportunities for growth is explained by the gap between market price per share and book value per share (Kuzuku, 2015; Gill, Bigger & Tibrewala, 2010). A firm's growth opportunity is hypothesized to be inversely related to dividend payout and proxied by Market to book ratio (MTB). The opportunities for growth for business mean availability of investment opportunities that promise a positive net present value. In this study, growth opportunity is measured by the ratio of market price per share to its book value per share (MTB).

Higher growth opportunities would lead to reduced dividend payout as retention rate increase in order to finance expected growth hence a negative relationship is anticipated between MTB and dividend per share (DPS). Alber et al. (2017) concluded in their study involving Saudi listed firms that investment opportunity has a significantly negative relationship with current dividends. However Issa (2015) arrived at a different conclusion in his study of Malaysian firms listed at the Kuala Lumpur Stock Exchange. In his study, Market - to - book ratio was positively related to

dividend payout as Abbas et al. (2016) also made similar conclusion for Pakistan Manufacturing firms.

Kanwal and Kapoor (2008) studied dividend payout ratio of Indian information technology sector using pooled data over seven years 2000 - 2006. Their result indicates that market - to - book value did not explain dividend payout pattern of the sector but liquidity and beta (risk) were significant predictors of dividend policy.

Conversely, Gill, Bigger and Tibrewala (2010) realized that for American manufacturing firms, dividends are a function of profit margin, tax and market - to - book ratio.

Conversely Kuzuku (2015) in his study of Turkish firms' dividend policy tested growth opportunities using price - to - book ratio and his findings are that growth prospects positively and significantly influence dividend payout. The implication is that increased opportunities for investment lead to increased retention of earnings and consequently decreased payout and vice versa.

In developing markets, factors that influence dividend policy for publicly quoted companies in Jordan were current, past and expected earnings. Dividend payment has largely been seen to be a residual decision (paid after all investment needs are fulfilled) so that these firms that pay dividend are likely to have less investment. Low investment would be signified by a low market - to - book ratio and low price - earnings ratio (high risk).

The market - to - book ratio (MTB) is the ratio of market price of a share to the book value of a share. It is a proxy for growth opportunities so that a direct relationship is hypothesized between MTB ratio to growth opportunities and so to firm value measured by market price per share. However in the study, the relationship with dividend payout is expected to be negative because better opportunities require additional resources to finance investments and consequently reduced need to pay dividends. Olantundun (2000) in a study of Nigerian firms using Lintner - Brittain model using pooled/cross section and time series data between 1984 - 1994 concludes that the behaviour of Nigerian firms did not conform to Lintner - Brittain model but rather on growth prospects, level of gearing and firm size. Musiega et al. (2013) in their study of non - financial firms at NSE realised that dividend policy was influenced positively and significantly by growth prospects. Conversely, a study by Waswa et al. (2014) of the dividend payout by agricultural firms at the NSE found that growth prospects negatively affect dividend payout. This supports theory on the inverse relationship between growth opportunities and cash dividend payout all else remaining the same.

#### 4. Methodology

A cross sectional design was adopted in this paper. Information was obtained from many Saccos at a similar time frame. Regression analysis was used to generate correlation and predictive statistics. Regression analysis is valuable for quantifying the effect of various simultaneous influences upon a single dependent variable.

The model seeks to estimate the influence of the independent variable on dividend payout among the DT - SACCOs in Kenya. The model is articulated in the equation below, which shows the panel regression model of the independent variable against the dependent variable. This was used to establish the influence of the independent variable on the dependent variable.

$$Y = \beta_0 + \beta_1 X_{1,t} + e \dots \dots \dots \text{(Equation i)}$$

Where:

Y = the value of the dependent variable of Dividend payout at time t

$X_1$  - Investment opportunity set at time t

e is the error term which is assumed to be normally distributed with mean zero and constant variance.

Moderator is a variable that affects the direction and the strength of the relationship between an independent or predictor variable and a dependent criterion variable (Clayton & Hills, 2013). This variable may reduce or enhance the direction of the relationship between a predictor variable and a dependent variable, or it may change the direction of the relationship between the two variables from positive to negative (Clayton & Hills, 2013). This study used multivariate analysis to establish the moderating influence of size (z) on relationship between investment opportunity set and dividend payout among DT - SACCOs in Kenya. To determine the direction, and the effect of the moderating variable, on the independent variable and the total effect on the dependent variable, equation (ii) was used while equation model (iii) was used to test the joint moderating effect.

$$Y = \beta_0 + \beta_1 X_{1,t} + \beta_{1z} X_{1z,t} + \epsilon, \dots \dots \dots \text{Equation (ii)}$$

$$Y = \beta_0 + \beta_1 X_{1,t} + \beta_{1z} X_{1z,t} + \epsilon, \dots \dots \dots \text{Equation (iii)}$$

Where:

Y is the value of Dividend payout (Dependent variable),  $X_1$  is investment opportunity set and

Z is the hypothesized moderator (size).  $Z_{1z}$  is the interaction term of the size with the independent variable.

$\beta_{1z}$  is the coefficient of  $X_1 * Z$  the interaction term between investment opportunity set and the independent variable

$\beta_0$  is constant (Y - intercept) which represent the value of Y when  $X = 0$

e is the error term which is assumed to be normally distributed with mean zero and constant variance.

#### 5. Findings

Investment opportunity set was measured using parameters of Core capital/ Total deposit liabilities, Core capital/ Total risk weighted assets and Total capital/Total risk weighted assets. Study findings on measure of size are shown below in Table 1 for the deposit taking saccos.

Table 1: Measures of investment opportunity set

Measure of investment opportunity set	2012	2013	2014	2015	2016	2017	2018	2019
Core capital/Total deposit liabilities	41%	34%	27%	20%	25%	22%	19%	16%
Minimum Statutory core capital/total deposit	8%	8%	8%	8%	8%	8%	8%	8%
Core capital/Total risk weighted assets	27%	26%	25%	24%	26%	26%	29%	20%
Minimum statutory core capital/ total assets	8%	8%	8%	8%	8%	8%	8%	8%
Total capital/ Total risk weighted assets	28%	27%	26%	25%	28%	27%	21%	15%
Minimum statutory total capital/ total assets	12%	12%	12%	12%	12%	12%	12%	12%

The study findings in Table 1 shows that in 2014 the average ratio of core capital/total deposit liabilities was at 41% in 2012, then decreased to 34% in 2013, 27% in 2014 and decreased to 20% in 2015. It increased to 25% in 2016 then declined in 2017, 2018 and 2019 to 22%, 19% and 16% respectively. The ratio was highest in 2012 and lowest in 2019. The saccos maintained a minimum statutory ratio of 8%.

The average ratio of core capital/total risk weighted assets declined from 27% in 2012, 26% in 2013, 25% in 2014 to 24% in 2015. It however increased to 26% in 2016 and 29% in 2018 before declining to 20% in 2019. The ratio was highest in 2018 and lowest in 2019. All the deposit taking saccos were above the minimum statutory ratio of 8%.

The average ratio of total capital/total risk weighted assets declined from 28% in 2012, 27% in 2013, 26% in 2014 then decreased gradually in 2015 to 25%. The ratio then increased to 28% in 2016 then decreased gradually in 2019 to 15% before decreasing further in 2018 to 21%. All deposit taking saccos were above the minimum statutory ratio of 12%.

This demonstrated that funds were on a downward trend and therefore negatively affected investing activities. This in turn meant that SACCOS could not pay dividends as projected.

The dividend payout does seem to have responded to changes in the investment opportunity set in a negative direction as depicted in Figure 1.

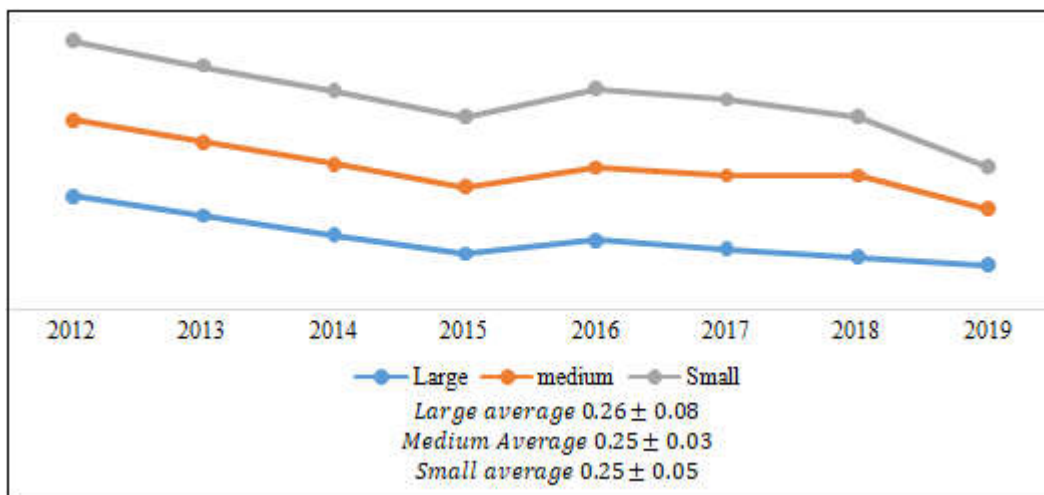


Figure 1: Depiction of Median Scores of investment opportunity set as against Dividend Ratio

As indicated in Figure 1, for small SACCOS, the average investment opportunity set was 225%, a figure that fell by 5% over the panel period. For medium size DT - SACCOS, the average investment opportunity set was 225%, which fell by 3% between 2012 - 2019. For large scale SACCOS, the average investment opportunity set was 226%, a figure that decreased by 8% over the 2012 - 2019 period. Thus, large SACCOS had the highest investment opportunity set.

The researcher hypothesized that investment opportunity set and dividend payout would not have a significant relationship. The findings of panel modelling is depicted in Table 2.

Table 2: Model Summary for Causal Relationship between investment opportunity set and Dividend payout

Fixed - effects GLS regression	Number of obs = 1253
Group variable: SACCOS	Number of groups = 179
R - sq: within = 0.4570	Obs per group: min = 6
between = 0.5357	avg = 7.0

overall = 0.5721	max = 8
	Wald chi2 (1) = 909.88
corr (u <sub>i</sub> , X) = 0 (assumed)	Prob > chi2 = 0.0000

	Coefficient	Std. Error	z	p - value
const	0.739279	0.00107151	689.9	<0.0001
IOS	0.0178515	0.00148728	12.00	<0.0001

The study tested the hypothesis that there is no significant relationship between investment opportunity set and dividend payout among deposit - taking SACCOS in Kenya against the alternative hypothesis that there is a significant relationship between investment opportunity set and dividend pay - out among deposit - taking SACCOS in Kenya. The study sought to establish the effect of SACCO lending rate on dividend payout.

To determine the relationship, the model  $y = \beta_0 + \beta_1 x_3 + \varepsilon$  was fitted. The regression results were as shown in Table 3. The model fitted was  $y = 0.74 + 0.018IOS$

Since the p - value was  $p=0.000<0.05$ , the relationship between investment opportunity set and dividend payout was significant ( $z=12$ ,  $p=0.000$ ). Accordingly, investment opportunity set can be deemed as a factor that helps explain variation in the dividend payout of deposit - taking SACCOs (Edet, Atairet & Anoka, 2014). If so, examining the role of size as a moderating variable was tenable. In addition, the larger the size of SACCO the more it can borrow funds from commercial banks, which gives it greater capacity to lend to members. Larger SACCOs are better placed to pay dividend in financial constraint compared to small ones, the reason being that they have large operational base, capital and assets to back any financial decision (Were & Wambua, 2014). Larger SACCOs are better placed to generate resources from internal sources, making them depend less on lending rates that are influenced much by commercial bank lending rates.

## 6. Conclusions

There is a big positive correlation between investment opportunity set and dividend payout of deposit taking saccos in Kenya. Managers of the SACCOs should increase their allocation of resources towards long term investments and funds in order to improve on profitability of SACCOs. Investment in current assets and intangible assets should be guided by other considerations since they do affect the dividend payout of SACCOs. Based on the findings the study concluded that investment opportunity set influenced the dividend payout of deposit taking saccos. This can be explained by the regression results which showed that the influence was positive and also showed the magnitude by which assets influenced the dividend payout of saccos.

## 7. Recommendations of the Study

Deposit - taking SACCOs are underperforming in profitability terms. There is need for greater emphasis on increasing both return on assets and equity. The findings suggest higher investments would reduce dividend payout. Deposit - taking SACCOs should establish optimal cash levels. This would ensure that a SACCO does not have too low or too high levels of cash because either level has cost implications. Optimal cash levels would reduce the impact of borrowing for operations. Through the Ministry of Trade and Industrialization, the Government of Kenya should create a framework, including terms of reference, for dividend payout to SACCOs funded by government venture capital.

There is a need for further studies, preferably qualitative ones, on the incentive structure that informs the behavior of management vis a vis dividend payout policy in DT - SACCOs. In particular, it would be fitting to understand better how managers interpret profitability and leverage considerations in determining dividend payout policies and practices in SACCOs. Qualitative interviews would be useful in this connection.

The study recommends that management need to be cautious in setting up a credit policy that will not negatively affects dividend payout and also they need to know how credit policy affects the operation of their saccos to ensure

judicious utilization of deposits and maximization of profit. The study also recommends credit information sharing between SACCOs. This will play a significant role in determining performance of deposit taking SACCOs. SACCOs should also avoid excessive lending, maintain high credit standards and limit lending to un - hedged borrowers.

Dividend payout is affected by many components of cash flow. This study did not exhaust all these components. It might be helpful to examine further the relationship between dimensions of cash flow of interest in relation to dividend payout, specifically the effect of cash flow from operating activities as against cash flow from investment activities.

From this study the following directions for future research in growth of SACCOs dividend payout are recommended:

- 1) Study to be done on effects of board members decisions on Growth of SACCOs dividend payout
- 2) Study on capital structure methods and Growth of SACCOs dividend payout.

## References

- [1] Kombo D. K, & Tromp DLA. (2011). *Proposal and Thesis Writing: An Introduction*. Nairobi: Pauline Publications.
- [2] Maude A, Ojojo J. I & Okpanachi J. (2015). Dividend Payout Pattern: Nigeria Deposit Money Banks In Perspective. *Journal of Accounting, Auditing and Finance Research*, Vol.3, No.10, pp.58 - 66,
- [3] Kothari C. (2004). *Research Methodology: Methods and Techniques*. New Delhi: New Age International Publishers.
- [4] Kuckartz U., 2014, *Qualitative Text Analysis: A Guide to Methods, Practice and Using Software*, Thousand Oaks, CA: Sage
- [5] Kumar B, Sujit K, & Vivian A. (2018). Determinants of dividends among Indian firms - An empirical study. *Cogent Economics and Finance*, 6 (1), 1 - 18.
- [6] Kuzucu N. (2015). Determinants of Dividend Policy: A Panel Data Analysis for Turkish Listed. *International Journal of Business and Management*. Vol.10, No.11 (2015)
- [8] Lang. (2014). *Dividend Payment and Earnings Quality: Evidence from Indonesia*.
- [9] Linter J. (1962). Dividends, earnings, leverage, stock prices and the supply of capital to corporations. *The review of Economics and Statistics*, 243 - 269.
- [10] Lintner J. (1956). Distribution of Incomes of Corporations among Dividends, Retained Earnings, and Taxes. *American Economic Review*, 46 (2), 97 - 113.
- [11] Lintner J. (1963). Optimal Dividends and Corporate Growth under Uncertainty.
- [12] Lintner J. (1964). The Dividend - Retention Decision of the Firm
- [13] Llyoid W, J. Jahera, & DPage. (1985). Agency costs and Dividend Payout Ratio. *Quarterly Journal of Business and Economics* 24, 19 - 29.
- [14] Lola - Ebueku. (2016). Does dividend policy affect firm earnings? Empirical evidence from
- [15] Nigeria. *International Journal of Financial Research* 7 (5), 77 - 86

- [16] López Salazar, A., Contreras Soto, R., & Espinosa Mosqueda, R. (2012). The impact of financial decisions and strategy on small business competitiveness. *Global Journal of business research*, 6 (2), 93 - 103.
- [17] Maladjian C, & REI Khoury. (2014). Determinants of the dividend policy: An empirical study on the Lebanese Listed Banks. *International Journal of Economics and Finance*, 6 (4), 240 - 256.
- [18] Malkawi H. A, Twairish A, & Harery K. (2013). Determinants of the Likelihood to Pay Dividends: Evidence from Saudi Arabia. *Journal of American Science*, 9 (12), 518 - 528.
- [19] Mamaro L, & Tjano R. (2019). The Relationship between Dividend Payout and Financial Performance: Evidence from Top 40 JSE Firms. *Journal of Accounting Management* 9 (2), 5 - 19.
- [20] Margaretha, F. (2005). *Manajemen Keuangan Investasi dan Sumber Dana Jangka Panjang*. Jakarta: Grasindo
- [21] Matendechere A. (2014). *The Relationship Between Dividend Payout and Performance of Savings and Credit Co - Operative Societies in Nairobi County* Unpublished Master of Business Administration Project University of Nairobi; Kenya
- [22] Matz. (2011) *Liquidity risk measurement and management*. USA: Xlibris.
- [23] Mbuki, C. (2010). *Factors that determines dividends payout among SACCOs in Kenya*. University of Nairobi.
- [24] Mehta A. (2012). An Empirical Analysis of Determinants of Dividend Policy - Evidence from UAE Companies. *Global Review of Accounting and Finance*, 3 (1).
- [25] Mehta, A. (2012) 'An empirical analysis of determinants of dividend policy - evidence from UAE companies', *Global Review of Accounting and Finance*.
- [26] Miller M. H, & Modigliani F. (1961). Dividend Policy, Growth, and Valuation of Shares. *Journal of Business*, 34, 411 - 433.