# Influence of Capital Structure on Growth in Wealth of Investment Groups in Kenya

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# Abstract

Investment groups are formed with the aim of growing and maximizing wealth for the members. However, some have failed making it difficult for them to be sustainable. The main objective of the study is to establish the influence of capital structure on growth in wealth of investment groups in Kenya, and to establish the moderating effect of group size on the relationship between capital structure and the growth in wealth of investment groups in Kenya. The study used cross sectional survey research design. The population of interest was 4020 investment groups registered by Kenya association of Investment groups. Stratified random sampling method was used and 364 investment groups were selected proportionate to the size of the strata. The survey instrument was a questionnaire administered to the group members and their officials. Pilot test was done using 36 respondents who were drawn from target population but not be included in the main study sample. Cronbach alpha was used to test reliability of the instrument, factor analysis was used in the testing of construct validity by considering average variances extracted and squared correlations of the constructs. Analysis of the data was done using descriptive statistics and inferential statistics. Descriptive statistics involved computations measures of central tendency and presented in frequency tables, pie charts and graphical charts. Inferential statistics was done using the multiple regression. Inferential analysis involved fitting of regression models. The regression analysis results obtained from the study show capital structure had a significant influence on growth in wealth. A moderated multiple regression was fitted to test the moderating effect of size on the relationship between capital structure and growth in wealth. The Moderated Multiple regression model results showed that size has a significant influence on the relationship between capital structure and growth in wealth. The findings and conclusions of this study are of significance to the investment groups. They are able to appreciate how growth in wealth of their groups is influenced by the study variables. Based on the findings the management can be able to understand the strategies to be taken in order to improve the growth of the respective investment groups.

Keywords: capital structure, firm size, growth, investment groups

## 1. Introduction

Globally, Cooperation among human societies can be traced back to the ancient times when people started to work together to enhance their efficiency in hunting, gathering, shelter construction and other activities. Historians today have discovered evidence indicating cooperation among people in ancient civilizations like Greece, Rome and Egypt. Anthropologists have also uncovered evidence suggesting that Babylonians had practiced cooperative farming, while informal saving and loan associations had been practiced in ancient China (Bisrat et al., 2012). Investment groups are known by different names all over the world. They are referred to as Rotating savings and credit organization (ROSCAS), Merry go rounds and "Chama" in most parts of Africa, solidarity groups in Europe and South America, Christmas clubs and saving circles in the USA (Brown et al., 2011). An investment group is defined as "Any collection of individuals or legal persons in any form whatsoever including but not limited to; societies registered under the Societies Act, Partnerships and Limited Liability Companies, whose objective is the pooling together of capital or other resources with the aim of using the collated resources for investment purposes" (Kenya Association of Investment Groups, 2012).

Studies done by (Grayson et al., n. d.) and Measuring the Wealth of Regions (2014) showed that investment groups plays an important role in sustaining growth and development of any country. They noted that high rates

of investments depend on high rates of saving and that investing in groups and social organizations is a critical component of long-term economic growth. Harrington (2010) in his book noted that among the most important structural conditions that facilitated the stock market boom of the 1990s was the ease with which individuals who were not finance professionals could form investment associations. According to Green et al. (2006) the saving and investment groups involve between 50% to 95% of the adult population in several African countries. Anderson et al., 2003) noted that informal groups which investment groups are part of act as channels by which substantial amount of economic and social activities are carried out.

Investment groups play a vital role in the development of the capital markets and property development besides helping to cultivate a savings culture among the members which is essential to improve the capital base of the country (Ndege, 2012). This leads to financial inclusion. Financial inclusion leads to financial deepening which drives investment, growth, poverty reduction and total factor productivity in the economy. The growth of investment groups would hence lead to financial inclusion and financial deepening (Agoba et al., 2017). In Kenya of late, there has been a huge uptake of the Investment groups concept by the government, youth, men and women in Kenya. Investing in groups' concept is a model that has been embraced by the Government of Kenya for sustainable development as indicated by Uwezo fund, Youth Enterprise Fund, Women Enterprises Fund. The state through the department of social security and services promoted sustainable development by registering community development groups to enable them access government development funds (Ogutu, 2016).

Pandey (2010) the best optimal capital structure is the one that yields the minimum weighted average cost of capital (WACC). In the investment group, capital is mainly from the contribution of members to the pool to be able to invest together. Disposal of assets is also a source of funds to the investment group. Debt capital is fund borrowed from other institutions or individuals such as banks, non-bank financial institutions and well-wishers. It normally carries a fixed rate of interest payable at specified times of the year. Debt capital requires some prudent management and the purpose of the loan must be clear. Importantly, debt capital is a cheaper source of finance though it involves a considerable risk in case the investment group is unable to meet the set obligations of repayment and financial commitment (Olando, 2012). The investment group may also get finances from other avenues like the government agencies.

#### 1.1 Statement of the Problem

Investment groups make up the backbone of the Kenya's economy and play a vital role in the development of the capital markets and property development, creation of employment amongst other things (FSD Kenya, 2012). In the Vision 2030 under the financial services sector of the economic pillar, capital mobilization to raise funds for investment is expected to play a critical role in the anticipated economic growth. Investment groups play a critical role in resource mobilisation and experience has shown that group approaches to saving can help members save more efficiently and get quicker access to a larger amount of pooled resources than if one saves on their own (Onyuma, 2020). Investment groups are such realistic, credible vehicles that can lead individuals to collectively save, mobilise local capital, invest and generate wealth (Wainaina, 2013).

In Kenya Lately, there has been a huge uptake of the Investment groups concept by the government, youth, men and women in Kenya (Ogutu, 2016). Investing in groups' concept is a model that has been embraced by the Government of Kenya for sustainable development as indicated by Uwezo fund, Youth Enterprise Fund, Women Enterprises Fund and Matatu SACCOs. The ministry of labour, Social security and services continued to improve livelihoods and social economic empowerment of the people of Kenya by registering 35,000 self- help groups that continue to benefit from funding opportunities. The ministry of interior and coordination of national government facilitated disbursement of Ksh 3.2 Billion from Women enterprise fund to all 290 constituencies. The Ministry of devolution through the Uwezo fund issued interest free loans to 14,986 youth groups, 26,838 women groups and 977 groups of persons with disability in 290 constituencies totalling to Ksh 5,354,400,000 (GOK, 2015). The purpose of forming investment clubs according to Malkamaki (2008) study was business orientation 72.6%, to buy assets 35%, to exchange business ideas and network 26% and to receive lump sum finance 17.2%. Capital Markets Authority (CMA 2012) observed that Investment groups have morphed into financial machines that have initiated multi-billion-shilling projects in various sectors of the economy and that Chamas and SACCOs control an estimated Kshs.100 Billion in bank deposits. Despite this importance, most of these groups have failed to grow their wealth which has threatened their sustainability. According to (Wainaina, 2013), many Investment groups that are not successful and will fail within their first year or so of operation. The reasons for this according to Gichane (2012) include among others; lack of member commitment, failure to come up with new investment strategies, inadequate capital, lack of trust among members, lack of proper guidance in investing and discord amongst members on the running of group, the lack of investing knowledge, differences over investment strategy and risk appetite, lack of managerial skills and dispute resolution mechanisms.

Ogutu (2014) did a study on Influence of Investment Groups on Creation of Small and medium Size Enterprises in Nairobi County and found that investment groups highly influence the formation of small and medium enterprises (SMEs). Gakigi and Njeru (2015) did a study on performance of investment groups, their study focused on challenges affecting their performance specifically organisation structures, goal setting and legal frame work as the variables of study. (Johnson et al., 2010) focused on the role played by informal savings groups in the financial markets in Kenya. FSD Kenya (2008 and 2010) studies highlighted the role of played by investment groups in poverty alleviation and their untapped potential. Icharia (2014) did a study on factors influencing wealth creation in investment groups in Kenya, this study only focused on strategic planning and management as factors influencing wealth creation. Agrawal et al. (2002); Adeyemo and Bamire (2005); Deji (2005); Asher (2007); Ogsi (2001) observed that lack of growth in wealth threatens sustainability. Gichuru (2014) did a study on investment groups that focused on strategic planning aspects only. From the reviewed empirical literature, it is evident that lack of growth in wealth threatens sustainability. Factors contributing to success or failure of investment groups are multifaceted. Moreover, these studies evaluated just a handful of determinants of growth. This study therefore will focus on the conceptual gap by focusing on determining the influence of capital structure and moderating effect of group size on growth in wealth of investment groups in Kenya. The specific objectives of the study were; To establish the influence of capital structure on growth in wealth of investment groups in Kenya and To determine the moderating effect of group size on the relationship between the capital structure and growth in wealth of investment groups in Kenya.

#### 1.2 Theoretical Review

Modigliani and Miller (1963) The trade-off theory which clearly dominates the literature on capital structure claims that a firm's optimal financing mix is determined by balancing the losses and gains of debt financing. By accepting that taxes exist in the real-world arbitrage activities are not always sustainable, the authors showed that capital structure indeed affected the corporate market value. By incorporating the effects of corporate taxes and relaxing the assumption on existence of arbitrage, they argued that interest on debt; being tax deductible provides extra cash flows to the levered firm in form of interest tax savings; that increases the market value of the firm. The theory therefore contended that in situations of permanent debt, constant cost of debt and static marginal tax rate, leveraged firms have more market value than unlevered firms. This is attributed to the present value of interest tax shield associated with debt financing. Jensen and Meckling (1976) introduced the agency costs dimension to this hypothesis by suggesting that although debt brings forth specific advantages to the firm, it also increases the associated agency costs. The author opined that agency costs emanate from the principal-agent conflicts that exist between the debt-holders, shareholders and managers. They argued that on one hand, the managers may not be fully dedicated to maximizing shareholders wealth but rather may serve their own interests; resulting to wastage of the free cash flow through perquisites and sub-optimal investments. On the other hand, shareholders may engage in unprofitable investment on account of their limited liability status to the firm. To mitigate upon the potential losses that may result from these activities, debt-holders constantly engage the services of professional analysts and introduce debt covenants and restrictions. These mechanisms constitute additional agency costs to the firm that offsets the benefits occasioned by debt financing and reduces the firm value.

Myers (1977) introduced the costs of bankruptcy dimension by suggesting that although debt financing benefits the firm through tax-shield cash flows, the benefits from use of debt are not infinite. The author argued that other than the agency costs, debt introduces the risk of bankruptcy which is associated with the possibility of defaulting on debt repayment. He theorized that as a firm uses more debt, the financial risk increases and equity-holders become less motivated to provide more capital to the firm. Further, stockholders demand higher rate of return in terms of dividends pay-out ratios as a compensation for bearing more risk. Similar to equity-holders, debt holders become are less enthusiastic to provide additional capital or demand high rates of interest on debt; which further increases the rate of cash outflow on the firm. By combining the theoretical effects of agency costs and bankruptcy risk, the theorist concluded that the tax-shield benefits afforded by debt to the firm are offset by the present values of bankruptcy and agency costs.

Effectively, the theory postulates that as debt levels increases, the firm value also increases proportionately until a certain point where further increase in debt use increases both agency costs and bankruptcy costs and reduces the firm value. In contrast to the irrelevance theory, the trade-off theory proposes moderate gearing levels. Furthermore, it plausibly substantiates the existence of an optimal or target capital structure that firms gradually try to achieve and maintain in order to increase shareholder wealth (Brounen, De Jong, & Koedijk, 2006). The relevance of this theory to the study is that it provides for explicit understanding of how debt financing increases

the firm value through the tax-deductibility feature associated with borrowing. In addition, the theory introduces the of agency costs as well as costs of financial distress the capital structure concept and shows how capital structure may negatively influence the firm by increasing the agency costs associated with borrowing.

Studies on capital structure have erupted since Modigliane and Miller theorized in 1958 (Flannery & Hankins, 2007) in M-M theory. The most popular theories are trade-off theory, pecking order and market theory (Small Stocks, 2008). The first theory, trade off theory encourages borrowing for the firm to enjoy the tax advantage. The trade-off theory takes a common-sense approach by encouraging firms to gain from the tax advantage in debt financing (Small Stocks, 2008; Ahmed & Hisham, 2009). The second theory, Pecking order theory, encourages debt financing for the capital structure (Ahmed & Hisham, 2009). In fact, the internal financing is preferred to external financing and debt financing is preferred to other external options. The theory supports the suggestion that debt is cheapest and most attractive of the external sources of financing (Flannery &Hankins, 2007 and Small Stocks, 2008). The third theory, market theory emphasizes that a firm would prefer equity financing when the perceived cost of equity is low and prefer debt financing when cost of debt financing is low. The financial managers should make security issuance decisions based on the cost of equity capital and cost of debt capital (Huang & Ritter, 2008). Modigliani and Miller (1963) suggests that capital structure can alter the value of a firm in the world of corporate tax and a firm can maximize its value by the use of debt which provides an interest tax shield. A firm has more value if it uses debt financing because debt reduces the corporate tax. The savings due to the use of debt adds to the value of the firm. The firm that uses more debt saves more in the form of corporate tax shield.

Hall et al. (2004) also posit that "growth is likely to put a strain on retained earnings and push the firm to borrow and thus be positively related to leverage". On another side, Myer (1977) counter-argued that if a company, with high growth prospect, borrows, it will lead to wealth-transfer from equity investor to debt financer. Thus, companies with growth opportunities will try to avoid the profit generated from its high growth prospect to be taken away by loan providers through restraining on using debt. Small firms are managed by their owners who would not be willing to lose their control as the exchange of loan from outside financers. According to Pandey (2010) the best optimal capital structure is the one that yields the minimum weighted average cost of capital (WACC). In the investment group, capital is mainly from the contribution of members to the pool to be able to invest together.

Growth in wealth can be based on endogenous growth theory or neo-classical growth model. The neo-classical growth theory argues that the rate of growth is exogenously determined using the Harrod Damar model or Solow model. Solow-Swan class growth theory focuses on capital and labour indicates that capital is added when the investors invest but is lost due to the depreciation. This model is strongly supported by Harrod Damar (1946) Model of development economics which explains the growth rate in terms of saving and productivity of capital. It explains that increase in investment leads to accumulation of capital which leads to growth in wealth. Wainaina (2014) states that wealth can be created through compounding. Compounding works through re-investing all your profits to generate more returns. This creates a long- term return on wealth. It is also possible for an investment group to outlive the investor and benefit the next generation especially if it is a limited company. Wickham (2008) views business growth from four interdependent perspectives: financial, strategic, structural and organisational. These are contained in Wickham's model of the dynamics of business growth (see Figure 1). A business owner has to consider all of them when planning for growth. The neglect of one element could cause business failure or lead to other problems (Nieman & Nieuwenhuizen, 2009). Strategic growth relates to changes that take place in the way in which the organisation interacts with its environment as a coherent strategic whole. Primarily, this is concerned with the way the business develops its capabilities to exploit the market. According to Wickham (2006) it is associated with the profile of opportunities which the business exploits and the assets, both tangible and intangible, it acquires to create sustainable competitive advantages. Structural growth relates to the changes in the way the business organises its internal systems, in particular, managerial roles and responsibilities, reporting relationships, communication links and resources control systems (Wickham). This study utilises measures of structural growth as proposed by Wickham (2006), that is Changes in the size of a business.

## 1.3 Conceptual Framework

Mugenda (2008) adds that it is a concise description of the phenomena under study accompanied by graphic or visual depiction of the major variables of the study. The conceptual framework developed for this study was drawn from various theoretical perspectives which include capital structure, size of the group and growth in wealth of investment groups. The conceptual framework in the Figure 1 below shows the conceptualization of all the variables.



Olando (2012) posits that the capital structure which optimizes the requirements of the shareholders and the financial requirement of the organisation needs to be maintained and should be compatible with the interest of other stakeholders. He adds that capital structure should be in a position to maximize returns without additional costs. Capital structure constitutes the mix of the different forms of financing employed by the firm to fund operations (Fabozzi & Drake, 2009). According to Pandey (2009), equity and debt comprise the principal components of capital structure and represents the major claims on the corporations" assets. Capital structure is the mix of the long-term sources of funds used by the firm (Shim & Siegel, 2007). They further explain that the capital structure decisions aim at maximizing the market value of the firm through employment of the optimal capital structure which minimizes the firms' overall cost of capital and maximises the market price per share of the firm.

Abor (2005) examined connection amid of capital structure and profitability of registered companies on the Ghana Stock Exchange. The research used descriptive research. Panel data for a period of ten years was used, this covered between (1995-2004). The regression results concluded that there was affirmative connection amid the proportion of short-term debt to total assets and ROE and negative connection amid proportion of long-term debt to total assets and ROE. Chiang et al. (2009) piloted research on the effect of capital structure on profitability of registered companies in Hong Kong. The research adopted a descriptive research design. The study used as sample of 35 firms and panel data was used for investigation. The consequences of the investigation found there was a significant connection amid capital structure and profitability of non-financial registered companies on Islamabad Stock Exchange. Gill and Nahum (2013) examined the influence of capital structure on profitability of the American service and manufacturing firms. A sample of 272 American listed companies on New York Stock Exchange for a period of 3 years from 2005-2007 was selected. The correlations and regression analyses were used to approximate the purposes connecting to profitability (measured by return on equity) with measures of capital structure. The consequences display affirmative connection among short-term debt to total assets and profitability and between total debt to total assets and profitability in the service industry. The results of this paper illustrate, long-term debt to total assets and profitability, and among entire debt to total assets and profitability in the manufacturing industry.

Kuria (2013) studied on the effect of capital structure on the financial performance of commercial Banks in Kenya. The study was piloted on 35 commercial banks in Kenya which were in operation in Kenya for five years of study from 2008 to 2012. The various ratios of these commercial banks were computed from the various data collected from the data extracted from their financial statement for the period. The data was analyzed using a linear regression model using to establish if there is any significant relationship of capital structure and the financial performance of these commercial banks. The finding of the analysis concluded that there was no significant relationship between the capital structure and the financial performance of commercial banks in

Kenya. Debt capital is fund borrowed from other institutions or individuals such as banks, non-bank financial institutions and well-wishers. It normally carries a fixed rate of interest payable at specified times of the year. Debt capital requires some prudent management and the purpose of the loan must be clear. Importantly, debt capital is a cheaper source of finance though it involves a considerable risk in case the investment group is unable to meet the set obligations of repayment and financial payments Olando (2012). The investment group may also get finances from other avenues like from government agencies which they have to apply as a group.

Empirical results on the impact of the size of an organisation on growth in wealth yield mixed findings. A positive relationship is expected from this relationship because large organisations are able to develop financial, human and technical capacities that can enhance efficiency and foster growth in wealth. From the wider asset base, it can be argued that organisations can be able to source funds at competitive rate and lend it to its customers at favourable interest rates enabling them make high returns. Pasiouras and Kosmidou (2007) contend that larger organisations might have a wide range of products and loans diversification than smaller banks leading to improved returns and performance. In this study the size of group is used as the moderating variable. For a firm to grow, it means that its assets have to generate income which is important for investments and meeting short-term financial responsibilities. There exists substantial evidence that firm size is instrumental in contributing towards firm profitability.

Mugenda and Mugenda (2012) define moderating variable as a variable that has an effect on the relationship between the independent and dependent variables, but is not related to or affected by the independent variable. Studies on the impact of size on performance yield mixed findings. A positive relationship is expected from this relationship because large oranisations are able to develop financial, human and technical capacities that can enhance efficiency and foster performance. From the wider asset base it can be argued that large organisation interms of size like banks can be able to source funds at competitive rate and lend it to its customers at favorable interest rates enabling them make high returns (Wepukhulu, 2016). This position was also supported by Pasiouras and Kosmidou (2007) who posit that larger banks might have a wide range of products and loans diversification than smaller banks leading to improved returns and performance. The investment groups in this study are operationalised into the large investment groups, Medium investment groups and small investment groups. The large investment groups are the ones with an asset base of over 20 Million, the medium are the ones with an asset base of over 1 million and below 20 million and the small are the ones with an asset base of below 1 million (KAIG, 2010)

The dependent variable of the study was growth in wealth. One of the objectives of any business organization is to maximize shareholders wealth. Pandey (2010). All firms, including Investment groups, are established to achieve certain goals which mainly are to maximize wealth for the shareholders. Investment groups' wealth is the accumulation of enough capital (retained earnings) to finance non withdrawable capital funded assets, provide cushion to absorb losses and impairment of members' savings. Specifically, institutional capital is intended to absorb their operational losses (Ndiege et al., 2013). Pender (2012) define wealth comprehensively, as the stock of all assets, net of liabilities, that can contribute to the well-being of an individual or group. The research hypothesis of the study were ;  $H_{03}$ : Capital structure has no significant influence of on growth in wealth of investment groups in Kenya and  $H_{05}$ : Group size has no significant moderating effect on the relationship between the determinants of growth and growth in wealth of investment groups in Kenya.

## 2. Research Methodology

A cross-sectional survey research design was used which provides a quick and accurate means of accessing information about the population and more appropriate where there is a lack of secondary data as observed by (Oso & Onen, 2005). The design also adopted a descriptive and correlational approach that aided on drawing conclusions on the research objectives. This research strategy was preferred because it allows for the collection of data through questionnaires administered to the respondents and that the data collected by this design can be used to suggest possible reasons for particular relationships between variables and produce models for these relationships (Saunders & Thornhill, 2007)

#### 2.1 Population

Population consists of all members of a real or hypothetical set of people, events or objects from which a researcher wishes to generalize the results of their research while accessible population consists of all the individuals who realistically could be included in the sample (Borg & Gall, 2007). The population for this study comprised of all investment groups registered by KAIG as at December 2015. For purposes of establishing a more comprehensive population register of investment groups, KAIG database was used. This enabled to draw a representative sample since Kenya Association of Investment groups is the body that brings together investment

groups in Kenya. The population comprised of the 4020 groups registered by the Association as at December 2015.

#### 2.2 Sample Size

While generally, the larger the sample, the more representative the scores on the variables were with regard to the population scores, researchers, as a rule of thumb, recommend a minimum sample size of 15 in experimental/exploratory research, 30 in correlational research and 100 in survey research (Borg & Gall, 2007; Scott & Wild, 1986; Lenth, 2001; Ader, Mellenbergh, & Hand, 2008). A minimum sample size of 10% for large populations or 20% for small populations is considered adequate for descriptive surveys (Sekaran & Bougie, 2011). The list of investment groups availed by KAIG (2012) was comprehensive as it contains all relevant details of the group including size, type of investment, physical and telephone contacts. The sample size of this study was calculated using the formula for finite population as proposed by Israel (2009). Since the population was not homogenous, stratified random sampling was then be used in allocation of samples proportionate to size of the strata. The Table 1 below shows sampling Distribution

$$n = \frac{N}{1 + N(e^2)}$$

Where:

n= desired sample size

N= Population

e = margin of error at 5% (standard value of 0.05)

The sample size for the study was calculated as:

$$n = \frac{4020}{1 + 4020(0.05^2)} = 364$$

The proportionate sample size of each stratum was computed using the following formula

$$Pn = n\frac{N_1}{N}, n\frac{N_2}{N}, \dots, n\frac{N_n}{N}$$

Where: N=Number of investment groups (population)

 $N_1...N_n$  = proportionate population in each strata

Pn= proportion of sample to be selected in each strata

Strata	Source	N <sub>1n</sub>	Pn
Small IGs	KAIG	3136	284
Medium IGs	KAIG	552	50
Large IGs	KAIG	331	30
Total		4020	364

Table 1. Sampling distribution

# 2.3 Sampling Technique

Sample selection from each cluster was done using simple random sampling after stratified method was done to determine the stratas. This entailed first assigning consecutive numbers to the groups in each of the clusters, then selecting random numbers for the sample. Since the population was heterogeneous, the random numbers were selected in each stratum. This sampling technique was an appropriate technique because it ensured that groups of different sizes sampled had an equal chance of being included in the samples that yielded the data that was generalized within minimal margin of error and determined statistically Borg (1987); Mugenda and Mugenda (2003).

#### 2.4 Pilot Study

Pilot study is carried out in order to establish the accuracy and appropriateness of the research design and data collection instruments (Saunders et al., 2009). Sekaran (2008) notes that pilot test is necessary for testing the reliability of instruments and the validity of a study. Tests of validity and reliability of the study instrument were

undertaken. In this study, 10% of the sample that is 36 (thirty-six) questionnaires were used in the pilot test. The questionnaire pre-testing was done using randomly selected investment groups which were not included in the final data collection.

## 2.5 Data Analysis and Presentation

The data collected was analyzed, with respect to the study objectives, using both descriptive and inferential statistics. According to Zikmund et al. (2010) data analysis refers to the application of reasoning to understand the data that has been gathered with the aim of determining consistent patterns and summarizing the relevant details revealed in the investigation. Kombo and Tromo (2009) adds that data analysis refers to analyzing what has been collected and making deductions, and interferences. Both descriptive and inferential statistics were used to analyze the data collected from Investment groups.

#### 2.6 Statistical Model

$$Y = \beta_0 + \beta_1 X_1 + e$$

Where Y = Growth in wealth of Investment Group

 $\beta_0$ =Intercept

 $\beta_1$  = Slope coefficients representing the influence of the associated Capital structure on growth in wealth of the investment group.

 $X_1 = Capital structure$ 

e = Error term

To draw conclusions on the moderating influence of group size on the relationship between determinants of growth and growth of wealth, a moderated multiple regression model was fitted and tested for significance. The model included interaction variables of the moderating variable and the determinants of growth. The change statistics (R-square change and F-change were calculated on a step wise regression to determine the effect of addition of the interaction variables to the equation. The hypothesis on the moderating variables was tested based on the significance of the change statistics. The MMR model equation is given by;

$$Y = \beta_0 + \beta_1 X_1 + \beta_M Z + \beta_{M1} Z * X_1 + e$$

Where Y = Growth in wealth of Investment Group

 $\beta_0$ =Intercept

 $\beta_1$  = Slope coefficients representing the influence of the associated Capital structure on growth in wealth of the investment group.

 $X_1 = Capital structure$ 

Z = Group size

 $Z * X_1$  Interaction variable between group size and Capital structure

e = Error term

#### 3. Results

#### 3.1 Response Rate

In Table 1, it is shown that the response rate was 87% of the targeted sample. Orodho (2009) stated that a response rate above 50% contributes towards gathering of sufficient data that can be generalized to have sufficient representation of the population.

Strata	Sampled	Response	Response rate
Small IGs	284	251	88%
Medium IGs	50	43	86%
Large IGs	30	21	70%
Total	364	315	87%

Table 2. Response rate

# 3.2 Pilot Study Tests

Pilot analysis was done using factor analysis, sampling adequacy using KMO and Bartlett's tets, construct validity using convergent validity and Discriminant validity and reliability tests to test the reliability of the instrument of data collection.

## 3.3 Factor Analysis

Factors are a smaller set of underlying composite dimensions of all the variables in the data set, while loadings are the correlation coefficients between the variables and the factors (Mugenda & Mugenda, 2012). The idea in factor analysis is finding a set of latent variables that essentially contain the same information with the manifest variables. According to Hare (1998), factor analysis helps in grouping variables with similar characteristics together. Factor loading assumes values between zero and one, of which loadings of below 0.3 are considered weak and unacceptable (Nachmias & Nachmias, 2008). The pilot study assumed factor loadings of 0.4 as acceptable. The indicators that had factor loadings less than 0.4 were expunged.

# 3.4 Sampling Adequacy

To measure the sampling adequacy of the data, Kaiser-Meyer-Olkin test (KMO) and Bartlett's test of sphericity were used. The KMO is a statistic that indicates the proportion of variance in variables that might be caused by underlying factors. A value of zero indicates that the sum of partial correlation is large relative to the sum of correlations indicating diffusions in the patterns of correlations, and hence, factor analysis is likely to be inappropriate (Costello & Osborne, 2005). A value close to 1 indicates that the patterns of correlations are relatively compact and so factor analysis should yield distinct and reliable factors (Cooper & Schindler, 2011).

Bartlett's test of sphericity tests whether the relationship among indicators is significant or not. It tests the hypothesis that a correlation matrix is an identity matrix, which would indicate that variables are unrelated and therefore unsuitable for structure detection. Small values (< 0.05) of the significance level indicate that factor analysis may be useful with one's data. The obtained Kaiser-Meyer-Olkin measures of sampling adequacy shows that the value of test statistic is 0.914 which is greater than 0.5 (see Table 1) implying that factor analysis should yield distinct and reliable factors.

For a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000). The test results also show that the scales had values above the threshold of 0.7 as established by Williams et al., 2012). Bartlett's test of sphericity is used to test whether the data is statistically significant or not. With the value of test statistic and the associated significance level, it shows that there is a relationship among variables.

Test	Value		
Kaiser-Meyer-Olkin measure of sampling adequacy.		0.914	
Bartlett's test of sphericity	Approx. Chi-square	3535.7	
	Df	465	
	sig.	0	

# Table 3. KMO and Bartlett's tests

## 3.5 Construct validity

To measure construct validity, the pilot study used factor analysis results to measure both convergent and discriminant validity. Convergent validity tests if constructs that are expected to be related are related while discriminant validity tested to confirm that constructs that are expected to have no relationships are actually not related.

## 3.6 Convergent Validity

Convergent validity was tested by measuring the average extracted variance within each construct. Convergent validity is implied if constructs have average variance extracted above 0.5. The table 4 results on the average variance extracted for this pilot study shows that from the retained factors, all the constructs have an average variance extracted above 0.5 implying convergent validity Fornell and Larcker (1981).

Table 4. Average variance extracted

Construct	AVE
Capital Structure	0.556
Group size	0.773

#### 3.7 Discriminant Validity

To measure discriminant validity, a comparison of the average variance extracted for each construct and the squared correlations were computed and tabulated. The table 5 shows the correlations and then in Table 6 the comparison of the correlations with the AVE is done on the diagonal and is highlighted. On comparison, all the AVEs are greater than the squared correlations between the constructs implying that the instrument exhibits discriminant validity Segars (1997).

#### Table 5. Correlations

	Capital Structure	Growth in Wealth
Capital Structure	1	0.389
Growth in Wealth	0.389	1

#### Table 6. Squared correlations and AVE

	Capital Structure	Growth in Wealth
Capital Structure	0.556	0.151
Growth in Wealth	0.151	0.541

#### 3.8 Reliability Test

Reliability of the questionnaire was assessed based on Cronbach's Alpha where values greater than 0.7 indicate that the construct is reliable otherwise it is unreliable. According to George and Mallery (2003), Cronbach Alpha value greater than 0.7 is regarded as satisfactory for reliability assessment. Results for the reliability test are presented under this section for Capital structure, and growth in wealth and perceived relation were all reliable as shown below. The reliability alpha statistics all the variables was obtained as 0.754. All the constructs were reliable as shown in Table 7 below.

Variable	Number of Items	Cronbach's Alpha	Comment
Capital Structure	5	0.829	Accepted
Growth in Wealth	5	0.758	Accepted
Group size	3	0.748	Accepted

#### Table 7. Reliability Test Results

#### 3.9 Descriptive Analysis of Growth in Wealth

The study sought to investigate the growth in wealth in the investment groups as a dependent variable influenced by determinants of growth. The respondents' perception on their groups' performance in relation to wealth growth was sought by asking the respondents their level of agreements to various items as shown in Table 8

#### Table 8. Perception in growth in wealth

	Strongly	Disagree	Neutral	Agree	Strongly	Modal
	Disagree (1)	(2)	(3)	(4)	Agree (5)	class
Profits have been growing steadily since the group began	0%	35%	11%	47%	7%	4
Total assets have been growing steadily since the group began	1%	9%	15%	67%	8%	4
Retained profits have grown steadily since the group began	1%	43%	10%	38%	8%	2
The amount of loans borrowed by the group have increased since	12%	45%	7%	29%	7%	2
the group began						
The number of employees have increased since the group begun	7%	18%	30%	36%	9%	4

To further measure growth in wealth the respondents were asked to state actual measures of profits after tax, retained profits, total assets, capital, borrowed loans and number of employees for the years 2010 to 2015 presented in Table 9. The actual entries per year were then used to calculate annual growth rates for the indicators and further used to calculate the mean growth rates for each indicators growth. The results for the descriptive analysis for the averages are presented in table 4.9 below.

#### Table 9. Growth in wealth

	Minimum	Maximum	Mean	Std. Deviation
Mean growth in Profit after tax	-0.571	199.241	1.505	11.997
Mean growth in retained profits	-0.908	3541.001	14.406	217.918
Mean growth in total Assets	-0.333	499.250	2.745	31.991
Mean growth in capital	-0.321	26.865	0.445	2.178
Mean growth in loans borrowed	-0.977	29.498	1.040	2.945
Mean growth in Number of employees	-0.117	0.667	0.061	0.105

## 3.10 Descriptive Analysis for Capital Structure

The researcher sought to find out the principal source of funds used to finance assets in the groups.

#### Table 10. Principal source of funds

	Frequency	Per cent
Group members contribution	284	92.21%
Government agency Uwezo Fund, Women Enterprise Fund, Youth Fund	21	6.82%
Non-governmental organization	1	0.32
Commercial bank	2	0.65
Total	308	100.0

The study also sought to find out why the investment groups had not applied for a loan as shown in Table 11 below.

#### Table 11. Capital structure

	Strongly	Disagree	Neutral	Agree	Strongly	Mode
	Disagree (1)	(2)	(3)	(4)	Agree (5)	
In the last one year their group has borrowed a loan for						
investment purposes	19%	2%	6%	28%	45%	5
their group has a documented policy on debt finance	18%	21%	10%	39%	11%	4
their group reinvest a portion of the profits made	28%	5%	1%	36%	29%	4
The decision to borrow a loan for financing an						
investment is based on the expected return on						
investment	3%	2%	8%	41%	46%	5
The group relies only on members savings to invest	19%	5%	2%	17%	57%	5
The members of the group share all the profits made						
every year	5%	2%	0%	19%	74%	5

The findings obtained in this study are in line with those posited by Modigliani and Miller (1963), who recommend that capital structure can modify the estimation of a firm in the realm of corporate tax and a firm can augment its esteem by the utilization of debt which gives an interest tax shield. A firm has more esteem in the event that it utilizes debt financing since debt lessens the corporate tax. The firm that utilizes more debt spares more as corporate tax shield. This debt is a best wellspring of financing for less taxation is laid on debt. Olando (2012) alluded that the capital structure which streamlines the necessities of the shareholders and the financial prerequisite of the organization should be kept up and ought to be good with the enthusiasm of different partners. These findings are similar to the findings obtained in the study.

## 3.11 Descriptive Analysis Group Size

The study sought to determine the size of the group in terms of the total assets base. The findings are as shown in

## Figure 2 below.



Figure 2. Total Assets Base

#### 3.12 Inferential Analysis

Under inferential analysis, the study used a set of statistical techniques to explore the nature of the relationship that exists between the independent variables and the dependent variable. The study used correlation and regression analysis where a model was of the form to explore the influence that the determinants had on wealth creation. The model fitted was of the form given below;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

where

 $\beta_0 = \text{constant}$ 

 $\beta_i$  = coefficient of X<sub>i</sub> for  $i = \{1, 2, 3, 4\}$ 

 $X_1$ = financial literacy,  $X_2$ = portfolio diversification,  $X_3$ = capital structure,  $X_4$ = group governance simultaneously affected the dependent variable Y= growth in wealth

e = error term

#### 3.13 Diagnostic Tests for Model Assumptions

The model fitted was based on classical assumptions of Ordinary least squares which assume that the residuals follow a normal distribution, are not autocorrelated and are homoscedastic and that the model predictors do not exhibit multicollinearity. Diagnostic tests were therefor carried out to ensure that the model used met the assumptions.

#### 3.13.1 Test for Normality

The regression model is fit based on the assumptions that the residuals follow a normal distribution. The Figure 3 clearly shows a normal distribution curve. The curve is not skewed to either side of the plot implying a normal distribution with a mean of 0.000 and a standard deviation of 0.994.



For further normality histogram, Table 12 represents key statistics for this test. The Kolmogorov-Smirnov normality test for the standardized residuals is significant with a significance of 0.200 which is greater than 0.05 hence fail to reject the null hypothesis that data is not normally distributed. This implies that the residuals follow a normal distribution as required for a linear regression.

#### Table 12. Normality test

	Kolmogorov-Smirnov	Df	Sig.
Standardized Residual	0.033	308	.200*

\*. This is a lower bound of the true significance.

#### 3.13.2 Test for Autocorrelation

It is also required that the residuals should not be auto correlated. Autocorrelation implies that adjacent observations are correlated. If the regression model violates the assumption of no autocorrelation, then the predictors may be significant even though the model will have underestimated the standard errors of the predictors. The Durbin Watson results are shown in Table 13 below.

#### Table 13. Autocorrelation

Durbin-Watson statistic	Tabulated lower limit	Tabulated Upper limit		
1.968	1.788	1.874		

## 3.13.3 Test for Homoscedasticity

The fitting of OLS models assume that the residual terms of the model has constant variance thereby exhibit homoscedasticity. A situation where the variance of the error term is not constant is referred to as heteroscedasticity. The fitted model was therefore examined to confirm that it meets the assumption of homoscedasticity of OLS models. A presentation of the residuals of the model showed on a scatter plot against the predicted values shows a virtual position of homoscedasticity as in Figure 4. The residuals are randomly distributed and do not depict any pattern of increase or decrease implying constancy. The line of best fit is constant at zero with a zero gradient which shows that the residuals are constantly equal to zero with increasing predictions of growth in wealth.



Figure 4. Standardized residual scatter plot

To test the existence of either hetero or homoscedasticity with statistical significance, a Breusch-Pagan test was performed on the residual terms of the overall model. This test tries to find out equality in the variance of the residuals. It tests the null hypothesis that there is a constant variance of the residual terms form an OLS regression where a small p-value of the Chis-quare indicates Heteroscedasticity. Table 14 presents the results of

the homoscedasticity test on the residuals of the overall regression model. From the results the P-value of the Breusch-pagan Chi-square statistic is 0.081 which is greater than 0.05 thus we fail to reject the null hypothesis and conclude that the error terms exhibit homoscedasticity.  $H_0$ : The Residuals exhibit homoscedasticity.

## Table 14. Homoscedasticity

	Breusch-Pagan statistic	P-value	Conclusion
Residuals	8.311	0.081	Fail to reject H0

## 3.13.4 Test for Multi-Collinearity

Multicollinearity was tested by computing the Variance Inflation Factors (VIF) and its reciprocal, the tolerance. A situation in which there is a high degree of association between independent variables is said to be a problem of multi-collinearity which results into large standard errors of the coefficients associated with the affected variables. According to Mugenda and Mugenda (2012) multi-collinearity can occur in multiple regression models in which some of the independent variables are significantly correlated among themselves.

In a regression model that best fits the data, independent variables correlate highly with dependent variables but correlate, at most, minimally with each other. The multicollinearity assumption has a VIF threshold value of 10 maximum (Robinson et al., 2009). A variance inflation factor of greater than 10 is an indication that there is concern of multicolinearity problem (Myers, 1990) Multi-collinearity can also be solved by deleting one of the highly correlated variables and re-computing the regression equation. The model was tested for multi-collinearity. From the Table 15 the tolerances are all above 0.2 if a variable has collinearity tolerance below 0.2 implies that 80% of its variance is shared with some other independent variables. This is an indication that there was no concern of multicollinearity problem. The Variance Inflation Factors (VIFs) are all below 5. The VIF is generally the inverse of the tolerance. Multi-collinearity is associated with VIF above 5 and tolerance below 0.2. The accepted variables were therefore determined not to exhibit multi-collinearity and acceptable for collection and analysis.

#### Table 15. Multicollinearity

	Tolerance	VIF
Capital Structure	0.620	1.614

## 3.14 Correlation Test Results

The study sought to establish correlation between the dependent variable and the independent variable. The dependent variable for the study was growth in wealth while the independent variables was capital structure. Correlation which is a statistical technique employed to show the strength of pairs of variable is used to examine the association between the independent variables above with the dependent variable. Correlation analysis results give a correlation coefficient which measures the linear association between two variables (Crossman, 2013). In this study, correlation test was conducted at the 5% level of significance with a 2-tailed test. Thus, the significance critical value is 0.025 above which the association is deemed to be insignificant and vice versa. The strength of the correlation is measured based on the Pearson correlation scale. The correlation coefficient ranges from -1.0 to +1.0 and the closer the coefficient is to +1 or -1, the more closely the two variables are related. A correlation of +1 implies that there is perfect positive linear relationship between variables (Sekran, 2003). The findings illustrated in Table 14 below

		Growth in wealth	<b>Capital Structure</b>
Growth in wealth	Pearson's $\rho$	1	0.389**
	Sig		0.000
	Ν	308	308
Capital Structure	Pearson's $\rho$	0.389**	1
	Sig	0.000	
	Ν	308	308

# Table 16. Correlation test results

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

## 3.15 Influence of Capital Structure on Growth in Wealth

Table 17 present a summary of regression model results. The value of r and  $r^2$  are .389 and .151 respectively. This shows that there is a positive linear relationship between capital structure and growth in wealth. The  $r^2$  is the coefficient of determination which indicates that explanatory power of the independent variables is 0.151. This means that 15.1% of the variation in the variable growth in wealth is explained by the variation of the variable capital structure in the model  $y = \beta_0 + \beta_1 x_1$ . The remaining 84.9% of the variation in the dependent variable unexplained by this one predictor model but by other factors.

Table 17. Model summary table for growth in wealth and capital structure

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.389ª	0.151	0.148	0.930

a. Predictors: (Constant), capital structure.

Table 18 shows the results of the Analysis of Variance ANOVA on the variables capital structure and growth in wealth. The test reveals that capital structure has significant effect on the growth in wealth. The P value is actually 0.000 which is less than 5% level of significance implying that the coefficient of capital structure is at least not equal to zero.

#### Table 18. ANOVA table growth and capital structure

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	46.637	1	46.637	54.780	0.000b
	Residual	261.363	307	0.851		
	Total	308	308			

a. Dependent Variable: Growth.

b. Predictors: (Constant), capital structure.

The study further determined the beta coefficients of capital structure. Table 19 shows the results of coefficient of capital structure as 0.389 which helps to generate the model  $y=0.000+0.389X_1$  for growth in wealth versus capital structure this model implies that every unit increase in the measure of capital structure leads to a 0.389 increase in the level of the growth in wealth. Since the p value of the t statistic of capital structure is equal to zero which is less than 0.05, it implies that the coefficient of capital structure is statistically significant.

Table	19.	Coefficients	table for	growth and	capital	structure

Model		Unstandardized β	Std. Error	Standardized <b>B</b>	t	Sig.
1	(Constant)	-0.002	0.055		-0.032	0.975
	Capital structure	0.389	0.054	0.389	7.181	0.000

a. Dependent Variable: Growth.

## 3.16 Hypothesis Testing

Hypothesis testing is a process by which the researcher infers the result of sample data on the larger population based on a presupposition made prior to commencement of research (Gujarati, 2003). The study performed hypothesis testing by determining statistical significance of the coefficients of explanatory variables. Test-of-significance method is meant to verify the truth or falsity of a null hypothesis by using sample results, showing that the means of two normally distributed populations are equal. The results from the multiple regression analysis were used to test the null hypotheses of the study and conclusions drawn for the objectives. The hypotheses were tested at 5% level of significance basis to either accept or reject them.

## $H_{03:}$ Capital structure has no significant influence of on growth in wealth of investment groups in Kenya.

The analysis estimated the coefficient of capital structure on performance with a t-statistic of 2.055. The statistic is greater than 1.968 which is the critical t statistic from the students t-distribution at 0.05 level of significance and 304 degrees of freedom. This is an implication that the coefficient is significant at 5% level of significance.

The p-value of the t-statistic for capital structure was found to be 0.041. This p-value is less than 0.05 therefore the null hypothesis was rejected and the alternative accepted thus drawing a conclusion that capital structure has a significant influence of on growth in wealth of investment groups in Kenya. These findings are in line with a study conducted by Vincent (2013) on the effect of capital structure and the value of companies listed at the NSE which showed that value of firms and capital structure have a positive relationship. These results are also agreed with modigliani and miller theorem that suggest that 'capital structure is relevant in determining the value of the firm. This however differs with Maina and Kondongo (2013) who investigated the effect of capital structure on performance of firms listed at the NSE and found that it was negative.

## 3.17 Moderating Effect of Group Size

To draw conclusions on the objective regarding the moderating effect of group size on the relationship between the determinants of growth and growth in wealth of investing companies in Kenya. Other studies measure firm size by sales or market capitalization (Baptista, 2010) and the number of employees (Richarda et al., 2009). The moderated multiple regression model was adopted. This model involved generating a transformation variable as an interaction variable between group size and the determinants of growth. The interaction variables were generated as intersections between the independent variables and groups size. The interaction variables were then used in the hierarchical moderated multiple regressions.

Table 20 presents the summary of the analysis of the moderating effect from the moderated multiple regression analysis of determinants of growth and growth in wealth. The results agree with the findings of Kuria (2013) who found that firm size was significant.

Model	R	R Square	Adjusted R Square	Std. Error	R Square Change	F Change	df1	df2	Sig. F Change
1	.389a	.151	.148	.930	.389	54.780	1	307	.000
2	.408b	.166	.163	.691	.015	5.560	1	306	.019
3	.438c	.192	.189	.663	.026	9.717	1	305	.002

Table 20. Moderated	multiple re	egression Mod	lels Summary
	1	0	

a. Predictors: Capital Structure, size.

b. Predictors: (Constant), Capital Structure Size.

c. Predictors: (Constant), Capital Structure, Capital Structure intersection Group size.

The coefficients of the three models are presented in table 20. Model one results show that capital Structure had a significant influence on growth in wealth. The coefficients also showed a positive relationship between all the variables and growth in wealth. This is according to the significance values and the coefficients obtained against each variable. The result of the model generates an equation given as:

$$Y = 0.389X_1 + e$$

Model two results show that addition of the moderating variable to the initial model doesn't improve the model. It however found that in the joint model with the determinants of growth, the moderating variable group size also had significant influence on growth in wealth. The p-value of the t-statistic for the variable group size was found to be 0.019 which is less than 0.05. The result of the  $2^{nd}$  model generates an equation given as:

$$Y = 0.115X_1 + 0.012Z + e$$

The results for the third model show that addition of the interaction variables significantly improves the model on the influence of the determinants on growth of wealth. The change statistics show a p-value of 0.000 which is less than 0.05. The individual interaction variables were also found to all have significant influence on wealth growth. The interaction variables between each independent variable and group size were all found to be have p-values less than 0.05 implying significance at 0.05 level of significance. The final model generated an equation given by;

$$Y = 0.115X_1 + 0.013Z * X_1 + e$$

Model	Variable	Unstandardized β	Std. Error	Standardized β	Т	Sig.
1	(Constant)	-0.002	0.055		-0.032	0.975
	Capital Structure	0.389	0.054	0.389	7.181	0.000
2	(Constant)	0.030	0.047		0.651	0.516
	Capital Structure	0.098	0.049	0.108	2.013	0.045
	Size	0.012	0.005	0.118	2.362	0.019
3	(Constant)	0.053	0.050		1.066	0.287
	Capital Structure	0.115	0.053	0.127	2.154	0.032
	Group Size	-0.015	0.010	-0.149	-1.551	0.122
	Capital Structure intersection Group size	-0.031	0.010	-0.515	-3.128	0.002

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a. Dependent Variable: Growth in wealth.

The fitted MMR model also shows that the relationship between capital structure and growth in wealth is influenced by the moderating variable group size. Increasing the group size would increase the rate of influence that capital structure has on wealth growth. A graphical presentation from the model is shown in figure 5. It shows that with high group size, increases in capital structure results into higher and faster influence to increase growth in wealth than in cases of low group size.



Figure 5. Moderating influence of size on capital structure and growth

Table 22.	Hypothesis	test summary	table
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Objective	Hypothesis	Estimate	P-value	Conclusion
<b>Objective 3</b> To establish the influence of	H <sub>03</sub> : Capital structure has no significant	$\beta_1 = 0.389$	0.000	Reject H <sub>03</sub>
Capital Structure on growth in wealth of	influence of on growth in wealth of			
investment groups in Kenya	investment groups in Kenya.			
Objective 5 To determine the moderating	H <sub>05</sub> : Group size has no significant	$R^2$ Change =	0.002	Reject H <sub>05</sub>
effect of group size on the determinants of	moderating effect on the determinants	0.026		
growth in wealth of investment groups in	of growth in wealth of investment			
Kenya	groups in Kenya.			

Table 22 presents the results of hypotheses where the study made the following conclusions:

Hypothesis: There is no dependence between capital structure and growth in wealth of investment groups in Kenya, the study accepted the alternative hypothesis and concluded that capital structure is an important determinant of growth in wealth of investment groups in Kenya. WOCCU (2007) concluded that organisations should be funded by pre-determined financing mix. Agrawal et al. (2002) found out that, members' funds had a central role in performance. These findings are in line with a study conducted by Vincent (2013) on the effect of capital structure and the value of companies listed at the NSE which showed that value of firms and capital structure have a positive relationship. These results are also agree with modigliani and miller theorem that suggest that 'capital structure is relevant in determining the value of the firm.

## 4. Discussion

The summary is done in line with the objectives of the study based on the output of the descriptive and

inferential statistical analyses guided to test the research hypothesis of the study.

## 4.1 Influence of Capital Structure on Growth in Wealth of Investment Groups in Kenya

The objective was to examine the influence of capital structure on growth in wealth of investment groups in Kenya. Capital structure had three dimensions retained earnings, savings and deposits and debt capital in the capital structure. Various methods analytical methods were used to arrive at the findings. These methods included descriptive statistics, correlation analysis and regression analysis. The overall model revealed a statistically significant relationship between capital structure and growth in wealth of the investment groups in Kenya. The findings indicated that capital structure contributed to growth in wealth of investment groups in Kenya. This observation was arrived since data showed that groups obtained their capital from members own contribution, borrowed loans and had a mixture of sources of their funds.

Having a mix of sources of capital for investment was also found to grow more wealth for the group. For the objective to determine the influence that capital structure has on growth in wealth of investment groups in Kenya, the study concluded that capital structure positively influences the growth in wealth of investment groups in Kenya. The study found that the members of the group share all the profits made every year and the groups reinvested a portion of the profits made. The study also concluded that the groups relied mainly on the members' savings to invest and they had borrowed a loan for investment purposes. The study further concluded that the decision to borrow a loan for financing an investment is based on the expected return on investment and that the groups had documented policy on debt finance.

The results revealed that capital structure was statistically significant in explaining growth in wealth of investment groups in Kenya. This implied that the null hypothesis that capital structure does not influence growth in wealth of investment groups in Kenya failed to be accepted and the alternative hypothesis failed to be rejected.

## 4.2 Moderating Effect of Group Size

Testing the influence of size of group as well showed a significant influence to the relationship between determinants of growth and growth in wealth as indicated by the coefficients. Adding the interaction variables between group size and the determinants of growth resulted into a significant improvement of the model. The change statistics results on the model including the interaction terms we found to be significant.

## 4.3 Moderating Influence of Group Size and Growth in Wealth

From the results of the study, it was concluded that group size moderates the relationship between determinants of growth and the growth in wealth of investment groups in Kenya. From the study all the determinants of growth have positive influence on the growth in wealth of investment groups in Kenya. Increasing the size of the group in terms of the number of members, the asset base and the number of employees in the group would positively moderate and increase the strength of relationship between the determinants and growth. A larger group would experience faster growth from increases in the levels of determinants of growth.

## 4.4 Recommendations

The recommendations were made regarding the influence of the independent variables; capital structure and moderating influence of size on the relationship between the predator variables and growth in wealth of the investment groups in Kenya based on the findings of the study. Since the groups experienced irregular savings by some group members, there should be effective savings plans in the investment groups. The investment groups should apply proper financing mix in their capital structure. This is due to the fact that capital structure showed a strong insignificant relationship with Growth in wealth. There should therefore, be optimum mix between share capital, institutional capital, savings and debt capital since any improper mix does not contribute significantly to the Growth in wealth of investment groups. Since the groups relied mainly on the members' savings to invest, they should be educated on the importance of borrowing and how to translate it into success.

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