EFFECTS OF CAPITAL STRUCTURE ON AGENCY COSTS IN COMMERCIAL AND SERVICES COMPANIES LISTED AT THE NAIROBI SECURITIES EXCHANGE IN KENYA

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Abstract:
Academic and business research has focused on the competing interests of shareholders and managers, as well as the resulting agency fees. It is well known that managers have a strong desire to advance their own interests, such as their pay, the size of their companies, and the value of their securities. According to agency theory, shareholders will pay agency costs in order to reduce these conflicts. According to the free cash flow principle, when a company creates considerable free cash flow, there are significant agency conflicts between stockholders and executives. A number of empirical studies have proposed solutions to this problem, one of which is the use of a capital structure. Numerous studies on the effect of capital structures on agency costs have been conducted, with varying degrees of success. However, the majority of these studies took place in industrialized nations. The primary goal of this study, which lasted from 2012 to 2018, was to determine how capital configuration affected agency expenses in Kenyan commercial and service firms that were listed on the Nairobi Securities Exchange. The study's specific goals included investigating the effects of equity on agency costs, retained earnings on agency costs, long-term debt on agency costs, and firm size as a moderator of the effects of investment configuration on agency costs. A descriptive research method was used in this study to provide a thorough examination of the relationship between capital structure and agency costs. To collect the required seven-year panel data from the entire population of firms, the Nairobi Securities Exchange, the Capital Market

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Authority's data banks, and the firms' websites were used. These data were then examined at two levels of statistics: descriptive statistics and inferential statistics. In Kenyan commercial and service firms, variations in equity capital, retained earnings, and long-term debts jointly accounted for 65.9% of the variations in agency costs, according to the regression results.

JEL: E22; G31; L10

Keywords: agency costs, capital structure, commercial and services firms, equity capital, firm size

1. Introduction

According to Berle and Means (1932), listed companies strive to increase their effectiveness and efficiency while also lowering agency costs and mitigating the effects of the agency problem. They also argue that in order to do so, the roles of the firm's owners and managers should be separated. The fundamental issue with agencies, according to Jensen and Meckling (1976), is the separation of roles between owners (principals) and managers (agents). As a result, when the incentives of the principals and agents are not perfectly aligned, a conflict of interest arises. Jensen and Meckling (1976) defined corporate management expenses as the sum of stockholder oversight, executive bonding, and residual losses. These costs manifest themselves when managers want to increase their pay while shareholders want the company's value to increase (Jensen & Meckling, 1976).

Jensen and Meckling (1976) distinguish two types of corporate management support divergences: those that arise between outside equity holders and owner-managers and those that arise between equity holders and debt holders. According to their findings, there are significant payout policy divergences between shareholders and managers, which are frequently exacerbated in specific business situations, particularly when the firm generates significant free cash flows (FCFs). The costs of these agency disputes, however, may be borne by the company.

Atumwa (2013) asserts that agency costs can appear in a variety of ways, including executive benefits, a decline in output, an increase in free cash flow inefficiencies, and a decline in firm value. Baker and Powel (2009) differentiated between two types of corporate management costs: absolute costs borne by stockholders to mitigate potential conflicts with managers and indirect costs borne by managers. These expenses include bonuses, stock option plans, accounting quality, managerial incentive schemes and infrastructure. Second, there are indirect costs associated with managers' inability to make profitable investments as a result of poor free cash flow management. To address this issue, several projects have been launched. The use of investment formations being one example (Margaritis & Psillaki, 2010).

A company's capital structure describes how it uses equity, debt, and blended equities to fund all of its investments, operational processes, and economic growth (Saad, 2010). As a result, "capital structure" describes the configuration of a company's capitalization, which includes all long-term investment funds like advances, reserves, stock, and bonds (Mekha, Lakshmi, & Suresha, 2019). Tirole (2003) defines long-term debts as the proportion of capital financed by borrowed funds rather than owner funds. Debt financing, according to Harris and Raviv (1991), comes in a variety of forms with varying maturity and priority structures. Secured, unsecured, or subordinated debt includes lease agreements, convertible loans, bank borrowings, bills, and notes payable. Equity finance is the sale of a company's ownership interests in order to raise funds for operations and growth. Ross, Westerfield, and Jordan (2008) state that if a corporation raises funds from the shareholders, they get no fixed returns but they hold the stocks of the company and are therefore entitled to its future profits and cash flows. Habib, Khan, and Wazir (2016) noted that equity financing is the last option firms have in raising finance because it may dilute management and control. Equity, as defined by Nawaz et al. (2011), is contributed money that is initially invested in a business in exchange for shares. It is capital that at any point during the company's existence, cannot be refunded. Reserved revenues are a fraction of a firm's net profit that it chooses to keep rather than distribute to investors as dividends in order to re-invest in corporate development opportunities available in an economy (Chasan, 2012). Retained earnings, also known as earned equity, self-financing, or profit ploughing back, is a major source of finance for potentially high-growth firms because it is associated with no transaction or bankruptcy costs (Mohamed, 2010).

To determine the firm size, empirical studies have used manufacturing sales, number of employees, amount of raw materials consumed, or total assets in the capital market (OECD, 2020). Size, on the other hand, refers to the proportion of owned and borrowed capital to total assets (Baumol, 1959). The size of the firm, according to Margaritis and Psillaki (2007), has a significant impact on its relationship with its stakeholders. For a variety of reasons, firm size and capital structure are inextricably linked, including economies of scale that reduce communication lopsidedness, operation expenses, and market entry (Krasauskate, 2011). The firm's cash flow sensitivity to investments, according to Kubai (2016), is also determined by its size. Large corporations are more likely to diversify their financing sources because they can obtain external financing at a lower cost per unit borrowed.

An organization that offers non-financial services to commercial and retail customers is considered a commercial and service business (NSE, 2018). According to Armstrong (2017), a unique characteristic of these companies is that they fulfil an intermediary function and are not involved in the transformation of raw materials to completion. They therefore operate in a largely diversified, competitive, and deregulated environment. Lemein (2018) noted that commercial and service firms have a greater need for capital raised through debt or equity due to the nature of their business.

The agency problem is a global threat that has piqued the interest of both international and local researchers. According to Haris and Raviv (1991), the developed market has seen a lot of research on the agency problem, but the emerging market has seen relatively few. Despite the importance of this topic, empirical studies remain inconclusive and contradictory, necessitating additional research. Many studies have discovered that the capital structure chosen can assist shareholders in lowering agency costs and have therefore agreed that capital structure and agency costs are inversely related.

Various studies, however, found either no or a weak relationship between capital structure and agency costs. Wang (2010) discovered, for example, that as debt is added to the capital structure, the costs of the agency rise. According to Zheng (2013), there is no statistically significant relationship between capital structure and agency expenses. Other regional studies conducted on a local level have produced contradictory results. In contrast, Kittony (2014), discovered no significant relationship between capital structure and agency costs. According to Onsomu (2014), agency costs and capital structure are linked. As a result, research is being conducted on how investment configuration affects agency costs in Kenya's NSE-listed commercial and service firms.

1.1 Statement of the Problem

To avoid unnecessary conflict with company executives, shareholders pay both direct and indirect monitoring costs. These costs are borne by shareholders to ensure that managers act in their best interests by increasing the company's value. Corporate finance researchers have discovered that a proper mix of capital structure components can help shareholders reduce agency costs. This decrease can be attributed to a decrease in the firm's free cash flows, which helps limit managers' overinvestment. Second, as a result of increased lender monitoring, managers can improve management efficiency in meeting debt payment obligations in order to avoid bankruptcy.

Despite the ongoing efforts by firms to adopt optimal capital structure decisions, many firms have been delisted, declared bankrupt, or engaged as insolvent companies as a result of agency issues, both locally and globally. These firms include global firms like Enron Energy Co, Goldman Sachs Investment Co, Halliburton Oil Company in Nigeria, and Steinhoff debacle in South Africa among others. In Kenya, Uchumi supermarket chain tops the list, the National Carrier Kenya Airways and CMC Motors among others. Furthermore, a lot of research on agency problems has been carried out in developed markets but little in developing or emerging markets like Kenya.

More research was therefore needed in a market where there have been some de-listings, failures, and wind-ups due to agency conflicts to determine the extent to which capital structure affects agency costs and to contribute to the scant literature in emerging markets like Kenya. Furthermore, capital structure theories developed in advanced economies must be tested in the context of emerging market economies.

The following hypotheses were tested in the study:

H_{01}: There is no statistically significant effect of equity capital on agency costs in commercial and services firms listed in Kenya.

H_{02}: There is no statistically significant effect of retained earnings on agency costs in commercial and services firms listed in Kenya.

H_{03}: There is no statistically significant effect of long-term debts on agency costs in commercial and services firms listed in Kenya.

H_{04}: There is no statistically significant moderating effect of firm size on the effect of capital structure and agency costs in commercial and services firms listed in Kenya.

2. Literature Review

2.1 Theoretical Review of Literature

This section discusses the fundamental ideas underlying the research and how they relate to the variables, capital structure, and agency costs. The evaluation of the relationships in this study was heavily influenced by first, the agency theory. A combined field of economists and institutional theorists, including Stephen Ross and Barry Mitnick, advanced this theory in the 1970s as an economic theory of agency. According to the theory, conflicts of interest occur when one person, known as the agent, has the power to decide or take actions on behalf of or that may have an impact on another person, known as the principal. The theory's underlying premise emphasizes that people can act in their own self-interest, leading to actions that directly contradict the firm's interests. The theory also assumes that a firm is a collection of contracts between individuals and corporations. The most notable conflict, according to Wolk, Dodd, and Rozycki (2008), is that between shareholders and managers.

Ross (1973) asserts that there are two potential issues that could result from the assumptions that define agency and risk-sharing problems. The first is adverse selection which arises when the objectives of the agents and the principals diverge. The second potential issue is the challenge of determining whether the agents have correctly completed the task they were given (moral hazard) or whether they possess the necessary skills to do so. To address these concerns, the theory proposes a variety of capital structure mechanisms, including increasing managers' ownership stakes in the firm to align their interests with those of the shareholders, as well as using debt to penalize managers (Jensen, 1986; Stulz, 1990; Gui & Tsui, 1998). The study's goal was to see if different capital structure mechanisms, such as increasing managers' ownership stakes and using debt, motivated managers to act in the best interests of the owners.

Secondly, by the Free Cash Flow concept (FCFs). According to Jensen's 1986 financial theory, FCFs are the funds left over after a company has invested in all projects with a positive net present value. Diltman (2010) noted that FCF is the net cash flow that managers can manage for a variety of purposes without interfering with business operations. Firms that generate free cash flows, according to Jensen (1986), are more likely to have agency problems because shareholders and managers have more competing interests. While shareholders prefer to distribute excess cash to members as dividends,

managers prefer to keep it in order to invest in value-reducing projects, increasing agency costs. Because shareholders cannot compel dividend payments, their primary concern is compelling managers to distribute excess cash rather than keep it. In contrast, the FCF theory has flaws in its financial application. Its opponents argue that the theory encourages short-termism by discouraging long-term investments. As a result, as companies rely more on debt, they become more vulnerable to interest rate increases beyond management's control. Furthermore, debt financing may make the projects of the company riskier. This study looked into whether adding debt to the capital structure could help businesses solve Jensen's free cash flow problem.

2.2 Empirical Review of Literature

This section's organization focuses on relevant empirical studies conducted in both developed and developing contexts, as directed by the objectives regarding the relationship between capital construction and agency expenditures in publicly traded companies.

Chechet and Olayiwola (2014) investigated the impact of capital structure on profitability for 70 Nigerian companies listed on the Nigerian Stock Exchange between 2000 and 2009. The debt-to-equity ratio was used as an independent variable to represent the capital structure. Using Hausman's chi-square estimations and a fixed-effect random model, it was discovered that there was a precise association between profitability, equity financing, and lower intervention expenditures. In a related study conducted between 2008 and 2012, Aderemi, Foyeke, and Olusola (2016) investigated the relationship between the financial makeup and profitability of Nigerian-listed manufacturing companies. The Nigerian Stock Exchange's publicly traded manufacturing companies were studied using regression analysis and the product-moment correlation coefficient. Their findings supported Chechet and Olayiwola's (2014) observation of a significant and advantageous relationship between profitability and equity financing. In contrast to those studies, the current study focused on commercial and service-oriented firms, with firm size serving as a moderator variable.

In their 2012 study, Gul, Malik, Fakhra, Faisal, and Razzaq (2013) examined the relationships between proprietorship configuration, CG, and agency costs on the Karachi Stock Exchange between 2003 and 2006. In this study, the asset deployment ratio was used to represent the agency cost. This study validated Marietta's (2012) findings when a fixed effect model and regression analysis were used. According to the study's findings, low council numbers, high institutional ownership, and director ownership all contributed to lower agency costs. Independent directors, on the other hand, had a positive relationship with agency expenses. The current study aimed to contribute to the body of knowledge by conducting additional research on these findings using publicly traded commercial and service firms, with firm size acting as a moderator in the analysis. Nwedi and Anyalechi (2018) investigated the impact of capital structure on the operations of Nigerian commercial banks. The Hausman test results revealed a different model from Chechet and Olayiwola's (2014) empirical findings, which found that equity

financing had a positive but insignificant impact on profitability. The investigation discovered that equity financing had no significant impact on agency costs. By conducting comparable investigations on Kenya's regulated firms and using firm size as a moderating variable, the findings of this study added to the scant body of knowledge.

Ronoh (2015) looked into the financial implications of Kenyan commercial banks that went public between 2009 and 2013. Regression analysis and a descriptive research design were both employed. The findings revealed a shaky but positive relationship between the corporate profitability metrics of retained earnings and ROA. Thuranira (2014) conducted a second study in Kenya to investigate the impact of retained earnings on NSE-listed company performance. The sample of this study was expanded to include all 61 listed companies using a descriptive research design. The findings back up Ronoh's (2015) discovery of a shaky link between retention and security returns. This result was obtained in contrast to the FCF theory. In contrast, the current study used a descriptive study design and focused on only commercial and service firms listed on the NSE, with firm size acting as a moderating factor.

Javed and Shah (2015) investigated how retained earnings affected the stock returns of seven companies that operated eateries and private upkeep products and were listed on the Karachi Securities Exchange between 2009 and 2014. Their findings contradicted those of Ronoh (2015), who used linear regression and Spearman's correlation analysis to discover a moderately positive and significant relationship between reserved income and securities values. According to their findings, managers paid large dividends because stock returns were not increased by employee retention. Both the FCF theory and the agency concept predicted that firm retention would increase agency expenses. The current study, on the other hand, sought to determine whether Kenyan consumers could reach the same conclusions.

Atif and Quaiser (2015) investigated how company proportions affected the relationship between company progression and profitability in their study of companies listed on the Karachi Securities Market. The analysis relied on secondary cross-sectional data from 50 publicly traded companies. The regression analysis found that company size had a moderating effect on the relationship between listed firm growth and performance.

Mu'azu (2016) investigated the relationship between board composition and the financial success of Nigerian banks between 2005 and 2015, controlling for firm size. Ordinary least squares regression and fixed effect regression were used in the analysis to account for time series and cross-section effects. The findings indicated that firm size had a positive moderating effect on the relationship between director size and financial success. The current study aims to fill a knowledge gap by investigating the role of firm size in moderating the relationship between investment configuration and agency expenses.

Robert and Jane (2017) examined the investment structure of registered companies between 2006 and 2015, controlling for firm size and financial distress. The study concentrated on the NSE's 40 non-financial companies. Using a fixed-effects regression

model, this study discovered that firm size significantly moderated the association between investment structure and financial distress. Non-financial firm managers, according to the study, should consider firm size when making financial decisions. Regardless of these findings, the current study focused on companies that were listed on the Nairobi Securities Market and provided both goods and services. The size of publicly traded companies influences their capital structure and financing decisions, according to the empirical literature review presented. The study discovered an important moderating function in a wide range of capital structures and financing relationships. In any case, little research has been conducted on how firm size affects the relationship between capital configuration and agency costs. The primary goal of the current study was to attempt to close this gap.

Khan, Kaleem, and Nazir (2012) investigated the effects of debt-to-capital ratios on FCF prices in publicly traded Pakistani manufacturing firms between 2006 and 2010. The investigation concentrated on the 54 companies listed on the Pakistan Securities Exchange. In assessing leverage, debt-to-capital proportions, and durable debt ratios were used, and free cash flow was substituted for agency costs. Using generalized least squares, panel data were used to test hypotheses. The findings backed up the agency theory's claim that capital structure leverage significantly reduced the costs of free cash flow agencies. This was due to a reduction in the free cash flows managed by the listed companies. The current study used actual debt amounts rather than a proxy for debt/equity ratio to test the predictions of the agency theory on Kenyan listed commercial and service firms.

Nazir and Saita (2013) examined the effect of debt on total capital composition on agency costs using data from 265 non-financial companies listed on the Karachi Stock Exchange between 2004 and 2009. These findings supported Khan, Kaleem, and Nazir's (2012) empirical finding that total short-term, long-term, and contractual debt ratios were negatively correlated with agency costs. These studies suggest that a tool for lowering agency costs could be the length of the debt contract. In other words, how the agency issue could be resolved was significantly impacted by the debt maturity period. This study incorporated both immediate and long-term debt, but it concentrated on lengthy debt in Pakistani non-financial firms rather than commercial and service firms listed on the NSE. By including variables not included in Nazir and Saita's (2013) study, the current study filled a gap in the literature.

Kittony (2014) calculated leverage for 28 companies listed on the Nairobi Securities Market between 2005 and 2009 using borrowing to investments, assets for firm size, and return on assets for profitability. The study investigated the connection between agency costs and capital structure. The debt-to-asset ratio served as a proxy for leverage, while the operating expense-to-total-asset ratio served as a proxy for agency costs. Contrary to Khan et al. (2012), Kittony (2014) found a weakly positive but insignificant correlation between agency costs and long-term liability rate, as well as a weakly negative but insignificant correlation between agency costs and debt-to-assets ratio. The current study

only used 12 commercial and service companies that were listed on the NSE between 2012 and 2018 to determine whether the same conclusions would hold true.

From the aforementioned studies, the researcher concluded that empirical research in this area produced contradictory results, with some findings supporting both the agency and the FCF theories while others rejected the theories' predictions.

3. Materials and Methods

Since this was a quantitative study, a descriptive design was used to thoroughly investigate the capital structure and agency costs of the NSE's commercial and service firms. Twelve (12) business and service firms listed at the NSE between January 1, 2012, and December 31, 2018, made up the study's target population. In order to improve the accuracy of the study, Census method was employed. Secondary data for this study, gathered using the data collection sheet came from financial statements of commercial and services companies listed on the NSE during the study period. The study's data were examined using STATA software. Inferential statistics, according to Moore (2015), enable the researcher to infer meaning from the data or predict future outcomes. This study made inferences using hypothesis tests to address the research objectives.

Correlation statistics were used to assess the magnitude of the inter-variable interactions. To investigate the causal relationship, regression analysis was used to test the equation $y = a + bX1$. The relationship between the predicated and study variables was established using a multivariate regression model, and the research hypothesis was tested. The dependent variable, Y, which represented agency costs, was included in the multiple linear regression model, as were the following explanatory variables: X1 (equity capital), X2 (retained earnings), and X3 (debt capital). The summary of the regression model was arrived at as under:

$$Y = \alpha + \mho_1 X_1 + \mho_2 X_2 + \mho_3 X_3 + e \tag{1}$$

Before the regression analysis was conducted, diagnostic checks were performed to ensure that the fundamental assumptions of the traditional linear regression model were correct (Brooks, 2019). The diagnostic tests applied include the tests for multicollinearity, normality, serial correlation, heteroscedasticity, and stationarity.

4. Results and Discussion

4.1 Summary of Descriptive Results
We used descriptive data analysis before moving on to statistical analysis to gain a general understanding of the data and identify data variability. The mean, standard deviation, minimum, and maximum values of the variable were all examined as summarized in Table 4.1.

Table 4.1: Statistical Description of Capital Structure and Agency Costs

	N	Mean	Std. Deviation	Minimum	Maximum
Equity Capital	70	1099.19	1888.39	58.50	7482.0
Retained Earnings	70	1115.12	12025.65	-51734.00	7076.20
Long Term Debt	70	3270.72	14405.96	0.00	120606.00
Firm Size	70	3.6440	0.8324	2.5064	5.2602
Agency Cost	70	3.70	0.712	0.3581	12.1553

Key: N = the sample size

The average equity capital was 1099.19, with a standard deviation of 1888.39, This infers that the variable fluctuated little through the investigation phase, implying that it stood largely stable during that time. As a result, the majority of businesses in the commercial and services sectors did not purchase new shares during the time period and thus did not use equity capital to finance their assets. The lack of effect of the new shares on the return on equity suggests that agency costs were high as a result of the lack of external oversight. The findings also highlight the high variability of retained earnings, which had a mean of 1115.12 and a standard deviation of 12,025.65 during the study period. This lends credence to the notion that businesses and service providers fund their own operations and assets. The internal financing of a company's assets and operations results in higher agency costs due to increased cash flows and decreased external oversight. Long-term debts had an average value of 3270.72. This revealed that the average amount of equity capital was roughly three times the amount of debt that commercial and service firms accumulated to finance their assets. The variable's standard deviation was discovered to be 14405.96. This value was clearly above the mean, indicating that the variable was extremely volatile throughout the study. This proved further that, over the course of the study period, commercial and service firms used debt more frequently than equity capital. This implies that since there was external oversight, agency costs were reduced.

The average firm size was 3.6440 with a standard deviation of 0.8324 revealing that they were all large corporations with above-average total assets. Larger firms had better access to debt markets because of their larger asset bases, allowing them to raise significant amounts of long-term debt at true prices. This explains why these companies' debt-to-equity ratios were higher throughout the research period. The asset employment ratio, which served as an alternative for agency expense, had an average value of 3.70 over a seven-year period and the lowest and highest values of 0.3581 and 12.1553 respectively. This demonstrated that during the study period, agency costs were significant for both commercial and service firms. High agency costs are therefore feasible in this sector. Furthermore, the wide range between the highest and lowest values of the asset utilization ratio raises the possibility that the managers employed by these businesses are underutilizing their assets, which could lead to increased agency costs.

4.2 Summary of Inferential Results

To determine the extent to which each independent variable influenced the dependent variable, the data was subjected to partial regression analysis. The findings revealed that changes in equity capital accounted for 35.2% of the variation in agency costs according to the calculated R-value of 0.593, the R^2 value of 0.352, and the adjusted R^2-value of 0.350. Unaccounted for factors accounted for 64.8% of the total. With a significant F-value of 53.67 and a p-value less than 0.05, the model was able to accurately predict changes in agency costs. As a result, the study disproved the null proposition, and confirmed that equity capital had a positive, statistically considerable impact. The resulting regression equation was given as;

$$Y = 1.5342 + 0.4496X1 \tag{2}$$

Where X1 stood for equity capital and Y stood for agency costs. This shows that agency costs and equity capital have a direct relationship, with the latter increasing by 0.4496 units for every unit that equity capital increases.

For retained earnings, the calculated R^2 value of 0.2285 was nearly equal to the adjusted R^2 value, and R was 0.478, indicating that a change in retained earnings could account for 22.85% of the variation in agency costs. This demonstrated that the remaining 77.15 percent of the explanation was due to unaccounted-for factors. The analysis of variance (ANOVA) demonstrated that the model accurately described the data. With a significant F-value of 57.732 and a p-value of 0.000, less than 0.05, the model as a whole successfully predicted changes in agency costs. This empirical finding which showed that retained earnings had a statistically significant positive impact on agency costs, contradicted the null assumptions. Retained earnings (X2) and agency cost (Y) are the variables in the regression equation, which reads;

$$Y = 3.413 + 0.439X2 \tag{3}$$

The model depicts that retained earnings and agency costs were directly correlated, the variation in agency costs can be attributed to a change in long-term debt at a rate of 27.9%, based on the adjusted R2 of 0.2788 and the calculated R of 0.5281. The remaining 72.1% may be explained by variables that the model did not account for. The results of the analysis of variance (ANOVA), displayed that the overall model was significant in forecasting variations in agency costs, as evidenced by an F-value of 45.18 and a p-value of 0.033, less than 0.05. As a result, the study rejected the null hypothesis and supported the finding that long-term debts had a statistically significant positive effect on agency costs. According to the regression model coefficient analysis, the positive beta coefficient was 0.538 with a p-value of 0.0000, and the constant was 3.678 with a p-value of 0.000, both less than 0.05. As a result, long-term debts aided the model significantly, and it could provide the data required to forecast agency costs. The regression equation was;

$$Y = 3.678 + 0.538X3 \tag{4}$$

Where Y represented the agency cost and X3 represented the impact of long-term debts. The findings revealed that in the absence of the long-term debt effect, the agency cost was positive at 3.678 units and that when the company's long-term debt increased by one unit, the agency cost increased by 0.538.

The combined impact of independent variables on agency costs was determined using a traditional multiple linear regression analysis as shown in Table 4.2. The R-value was 0.812, and the adjusted R2 was 0.657. As a result, equity capital, retained earnings, and long-term debts have the potential to account for 65.9% of the variation in agency costs. Other factors that were not considered in the model could account for the remaining 34.1%. The model accurately described the data because the combined effect of the autonomous variables was greater than their individual effects. The results of the analysis of variance (ANOVA) provided further evidence that the model accurately reflected the data. As evidenced by the F-value of 19.892 and p-value of 0.000, less than 0.05, the overall model was significant in predicting changes in agency costs of Kenyan commercial and service firms listed on the Nairobi Stock Exchange.

The regression model coefficient analysis demonstrated that Long-term debt, retained earnings, and equity capital all had beta coefficients that were positive and significant, with values of 0.383, 0.449, and 0.537, respectively. The regression equation was denoted by the notation;

$$Y = 3.343 + 0.383X1 + 0.449X2 + 0.537X3 \tag{5}$$

Where Y stands for the agency cost, X1 for equity capital, X2 for retained earnings, and X3 for long-term debts. The agency cost was 3.343 units after the three capital structures were removed, indicating that there are additional factors influencing this cost.

Table 4.2: Beta Coefficients of Variables of the Multiple Regression Model

	Coefficients			
	B	**Std. Error**	**T**	**Sig**
Constant	3.343	0.1391	24.03	0.000
Equity Capital	0.383	0.0173	22.14	0.030
Retained Earnings	0.449	0.0668	6.722	0.000
Long-term Debts	0.537	0.0131	40.99	0.000

a) Dependent Variable: Agency Costs
b) Independent Variables: (Constant), Equity Capital, Retained Earnings, Long Term Debts

4.3 Moderating Effect of Firm Size

The study's fourth goal was to see if firm size had any moderating effects on the relationship between capital structure and agency costs. A regression analysis was performed after including the interaction term (X4) to determine the nature and significance of the moderating effect of firm size. The R2 change value of 0.479 indicates

that the firm size moderated the model significantly. The R2 value explained more variation after moderation than it did before, as shown in Table 4.3. The study found a significant moderating effect between capital structure and agency costs in Kenyan-listed commercial and service firms, ruling out the null hypothesis.

Table 4.3: Model Summary of Moderating Effects
of Firm Size on Capital Structure and Agency Costs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	Sig. F Change
1	.817	.668	.665	.53286	.479	11.589	.000

The model is fit for these data and capable of providing adequate information on the agency cost, as evidenced by the F-value of 11.589 and p-value of 0.000 < 0.05 from the analysis of variance.

When the moderation effect was examined, all of the independent variables in the study had positive and significant beta coefficients of 0.087, 0.090, and 0.962, respectively. The p-values were all less than 0.05, indicating a moderate relationship. This meant that firm size moderated the relationship between capital structure and agency costs in Kenyan commercial and service firms listed on the NSE. The statistical model was given as:

$$Y = \alpha + \mho_1 X + \mho_2 Z + \mho_3 X*Z + \varepsilon \text{ (Model 2)} \tag{6}$$

Where;
Y = Agency cost,
Z = Firm size (moderator),
α is the least squares estimates of the intercept,
$\mho_1$ is least squares estimates of the population regression coefficient for Z,
$\mho_2$ is the coefficient of Z,
$\mho_3$ is the coefficient of X*Z,
ε is the error.

5. Recommendations

The study's conclusions have wide-ranging policy ramifications for each company operating in these industries as well as the entire financial system. The following recommendations were made:

1) That managers should develop and put into practice financial strategies to reduce equity capital issuance in light of the study's first conclusion. In order to cut costs associated with agency, managers should also implement corporate governance strategies that support institutional ownership, block shareholders, managerial shareholdings, concentrated equity holders, and concentrated ownership.

2) That companies should create and follow a dividend policy that ensures retained profits are distributed to shareholders as dividends. As a result, by reducing the available surplus cash flow that cannot be used to fund projects with a positive net present value, agency costs can be reduced.

3) That managers develop and implement financial strategies that reduce debt appetite above the ideal capital structure level. Ideal capital structure can be achieved by obtaining optimal long-term debt sources, such as loans, bonds, leases, convertible loans, bank loans, bills, and notes payable.

4) That future research should incorporate qualitative data to evaluate the qualitative properties of the factors under consideration because the current study was largely dependent on numerical data. Managers' qualitative approaches to investment configuration decisions that may affect the agency costs of Kenyan-listed commercial and service firms should be taken into account.

6. Conclusions

Equity capital had a statistically significant positive impact on the agency costs of Kenyan-listed commercial and service firms, according to the study. This meant that as firms increased their ownership investment, their expenses increased as well. There was also discovered a link between increased equity capital and less external oversight, which could result in higher agency costs.

This study found that as retained earnings rose, agency costs increased for Kenyan-listed commercial and service firms. This bolsters the free cash flow theory, which maintains that excess cashflows made available to managers can be used to fund initiatives with a negative net present value, pay for perks, or increase agency costs. The study found that the agency costs of commercial and service firms listed in Kenya increased as long-term debt increased. This result ran counter to agency theory's assertion that managers are disciplined by capital structures' leverage, which lowers the costs of agencies. However, it had been found that increased debt also increased the firm's risk of insolvency, increasing the cost of bankruptcy and consequently, agency costs. Additionally, empirical research has shown that debt capital providers prefer to protect their funds with the help of external auditors, which raises agency fees.

The study discovered that Kenyan commercial and service companies' size significantly moderated the interaction between capital structure and agency costs. The changes in agency costs of businesses in this sector were thus adequately explained by firm size. This supported the finding that a firm's size had an impact on both the capital structure it chose and how it interacted with its stakeholders.

Conflict of Interest Statement
The authors declare no conflicts of interest.

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