

# Effect Of Capital Structure On Performance Of Listed Telecommunication Sector Firms At The Nairobi Securities Exchange, Kenya

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**Abstract-** The main purpose of the study was to examine the effect of capital structure on financial performance of listed telecommunications sector firms at the Nairobi securities exchange, Kenya based on two specific objectives namely; to assess the effect of equity financing on financial performance of listed telecommunication sector firms at the Nairobi securities exchange, Kenya and to determine the effect of asset tangibility on financial performance at the Nairobi securities exchange, Kenya. The study was anchored on the pecking order theory and agency theory respectively. The study employed a correlation research design by collecting secondary data from the audited financial statements for each financial period. Since the telecommunications sector at the NSE comprised only one firm, the firm constituted the target population of the study which led to the firm to adopt a census method in data collection. A pilot test was carried out on the three preceding years to the period under review being 2012-2014 and pilot results presented. The study analyzed the collected data using the Statistical Package for Social Sciences Version 26. both descriptive and inferential statistical techniques were used for data analysis and presentation to describe and depict the results (Mean, Standard Deviation, Correlation, Regression and ANOVA). The study findings revealed the existence of a statistically significant effect for independent variables on financial performance of the listed telecommunications firm. The findings revealed a statistically significant effect of specific variables on the dependent variable. The dependent variable was predicted using the F-test which revealed a significant

relationship between the independent and dependent variables. The study further made recommendations on each of the variables for management consideration in future decision making processes. The findings are expected to be of great assistance to management of other firms listed or not listed in relation to capital structure and profitability/financial performance. The study will also be expected to add to existing literature in the finance field.

**Index Terms-** Asset Tangibility, Capital Structure, Equity Financing and Financial Performance

## Background of the Study

The primary goal of a company is to maximize profits while minimizing costs. When corporations look for resources to finance their investments, they keep this goal in mind. According to Mutegi (2016), when firms demand funding to finance their operations and other capital expenditures, they employ financial decisions where debt and equity are traded off (capital structure). The two main areas where a company makes decisions are funding and investment. The manager must determine the best capital structure or financing mix for the company when making a financing choice. (Ogenche, Githui and Omurwa, 2018).

Capital structure decisions are seen as critical managerial decisions because they influence shareholder risk and return (Kubai, 2016). According to Muthama, Mbaluka, and Kalunda (2013), capital structure consists of debt, preferred stock, and shareholder equity. The concept of capital structure can also be defined as the link between various types

of funding. As a result, the definition refers to the ratio of equity to debt capital that a company strives towards as part of its goals (Naveed *et al.*, 2010; Kubai, 2016).

The capital structure of a firm comprises common shares and debt and therefore, a larger portion of cash ought to be held in by the firm in form of debt and equity capital because the majority of businesses strive to preserve their capital structure in order to maximize their profitability and sustainability. Liquidity positions are tied to daily operations, while capital structure is typically a decision made over a lengthy period of time. The capital structure is decided by the board of directors and top finance executives. Sharma, Mithas, and Kankanhalli (2014) contend that a firm maximizes its value by decreasing its cost of capital. The optimal capital structure influences investors' investment decisions by minimizing the firm's cost of capital and thereby maximizing the firm's profitability and market value.

Relevant and irrelevant theories are crucial in determining the best capital structure. According to pertinent or relevant theory, an optimal debt-to-equity ratio maximizes business value while minimizing the overall cost of capital. On the other hand, the founded by Modigliani and Miller, maintained that the firm's value is a function of underlying profitability and investment risk and is unaffected by financing decisions while making a number of implausible assumptions (Abata and Migiro, 2016). According to Benson, Oluwafolakemi, and Monisola (2013), the Modigliani and Miller model was viable conceptually. According to Omukaga (2017), bankruptcy costs proportional debt levels of the firm depict a positive relationship between capital structure and financial performance of the firm..

Ongombe (2017) opined that organizational capital composition decisions are crucial in determining or dictating the financial performance of the firm. Studying the effects of a company's finance and capital arrangement plan is crucial to understanding how organizations raise money to support their business operations. Choosing how to fund an organization's activities involves a variety of policy decisions (Ongombe, 2018).

### **Statement of the Problem**

Since the adoption of the incorrect financial mix combinations negatively and irrevocably affects the survival of the organizations' performance, choosing

the ideal capital structure has remained a challenging decision for many firm managers (Noreen, 2013). From a strategic management perspective, the capital structure, or mix of stock and debt, sets the funding profile of the company and is extremely important because it is linked to the firm's ability to satisfy the needs of various stakeholders (Obiero, 2016). A company's ability to compete advantageously in the market is directly and significantly impacted by a good capital structure decision. When equity and debt funding are used effectively, they can greatly improve the financial performance of Kenya's listed telecommunications sector firms.

There is still no consensus among scholars, both theoretically and empirically, on the effect of capital structure on financial performance of the firm. These differences have led to the need for more research on this topic and this study carried out the study with a keen focus on the telecommunications sector listed firms at the NSE, Kenya..

### **General Objective**

The overall objective of the study was to examine the effect of capital structure on financial performance of listed telecommunications sector firms at the Nairobi Securities Exchange, Kenya.

### **Specific Objectives**

1. To examine the effect of equity financing on financial performance of listed telecommunication sector firms at the Nairobi Securities Exchange, Kenya.
2. To examine the effect of asset tangibility on financial performance of listed telecommunication sector firms at the Nairobi Securities Exchange, Kenya.

### **Research Questions**

- i. Does equity financing have an effect on financial performance of listed telecommunication sector firms at the Nairobi Securities Exchange, Kenya?.
- ii. How does asset tangibility affect financial performance of listed telecommunication sector firms at the Nairobi Securities Exchange, Kenya?

### **Theoretical Framework**

#### **Pecking Order Theory**

Developed by Myers (1984) and Myres and Majluf (1984), the pecking order theory rational idea is based on the notion of asymmetric information that exists between managers and the investors (Baker and Martin, 2011; Ma, 2015; Anitha, 2018). It is argued that managers have a better understanding and more

information about the firm than outsiders about the firm's future and therefore they act in the best interest of the company (Anitha, 2018).

Pecking order theory does not take an optimal capital structure as a starting point, instead the theory advocates the fact that firms prefer internal funds (i.e. retained earnings) and use external funds only when internal sourcing is insufficient, as illustrated in the figure below (Myers, 1984; Myers and Majluf, 1984). Pecking order theory assumes that this is the optimal way for firms to behave since if they issue equity to finance their operations, it signals to the outsiders that the company is lack of capital, which can result in falling stock price. In fact, empirical evidence proves that there is a relation between issuing new equity and decrease in stock price (Bongoye, 2017). However, when external financing is necessary, the theory emphasizes that the choice of different finance opportunities rely heavily on the relative costs and the lowest risk for the investment (Myers, 1984; Boadi *et al.*, 2015; Bongoye, 2017).

As such, firms issue debt as a first option and then equity as a last (Myers, 1984; Graham and Harvey, 2018).

Due to the reasoning above, pecking order theory argues that firms that are lucrative and make significant earnings are also anticipated to employ less debt. The reason is that these firms employ internal funds like retained earnings to finance their capital investments (Boadi *et al.*, 2015). Ordinarily, firms tend to be profitable and generating more earnings in normal market conditions a point of view that the pecking order theory operate on an assumption that firms have lower level of debt before a financial crisis takes place.

However, during crises firms become less profitable and often face liquidity issues (Cetorelli and Goldberg, 2016), which make firms seek external funding. Therefore, pecking order theory assumes a higher level of debt during financial crises where there is an increased probability that firms' internal funds are not sufficient. Additionally, since profitable firms are in less need of debt, pecking order theory assumes a negative relation to financial leverage and firm performance. Abor (2007) drew yet another adverse conclusion from this connection.

### **Agency Theory**

BR Professional Education (2012) defines agency costs as the shareholder costs to encourage managers

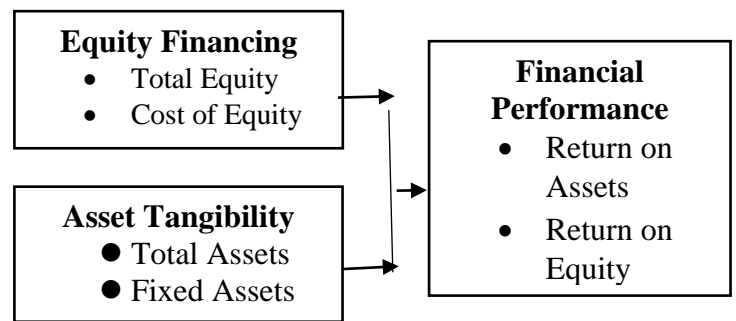
maximize shareholders' wealth instead of them behaving in their own self-interests. The author indicated that agency costs are in the form of monitoring costs, bonding costs and residual costs. Bonding costs are the agent incurred for purposes of assuring principals that the agents will take care of their (the principal's) best interest while residual costs are implicit costs that are incurred when the principals' and agents interests can't be perfectly matched after incurring both monitoring and bonding costs. According to Ogenche, Githui and Omurwa (2018), separation of ownership and control and conflicts of interest between categories of agents is what leads to agency costs. Free cash flow in a firm is one of the causes of disagreements between the management and owners. Managers prefer wealth creation for the owners (shareholders) through debt financing as opposed to their own interests (Hassan, Samour and Holmstedt, 2016). Hassan, Samour and Holmstedt (2016) opined further that in high cash flow and profitability firms, increasing debt reduces the scope of managers on resources which eventually avoids wastage emanating from individualistic decisions. According to Papa and Speciale (2017), agency costs can very well be mitigated through a proper choice of a firms' capital structure. Since managers prefer use of debt/leverage to equity, they can be well motivated when the firm is highly geared hence reducing the agency costs and enabling them to be more responsible towards shareholder interests by the reduction of cash flows available for their spending. High debt ratios lead to expectations of high earnings in the firm.

Agency conflicts are the product of differences between the owners of the firm and the management of the firm. Thus, higher agency costs are likely to be incurred in firms that that restrict the shareholders rights to a high extent, allowing managers to take advantage of weaknesses in the shareholder rights by giving priority to their own interests at the expense of shareholders' (Tindi, 2022). Ngacho, Wafula and Oyugi (2021) noted that firms making regular payments encourage institutional investors to invest with them. This frequent monitoring comes with a cost referred to as monitoring cost. According to BR Professional Education (2012), monitoring costs are principal incurred costs in monitoring or limiting agent actions. BR further gives an example as being the implicit costs incurred shareholders decision-

making powers limitation of managers. Other examples cited include the consultancy costs and time input during the preparing of periodic audited accounting reports sent to shareholders for periodical reports. Ogenche, Githui and Omurwa (2018) self discipline in the firm can be imposed through making increased payouts to investors/owners for purposes of reducing unnecessary cash in the firm. Jensen (1996) agreed that shareholders can agree to management spending or investment in negative NPV projects. Payment of dividends is a clear form of transferring wealth from debt holders to shareholders (Jain and Kini, 1999) and according to Ogenche, Githui and Omurwa (2018), dividend payment to shareholders reduces debt holders claim in cases where the firm experiences difficulties in meeting financial obligations. However, debt holders in such cases, enter in to debt covenants with the firm to avoid or protect themselves from expropriations of wealth that may adversely affect them as a result of shareholder actions. According to Ogenche, Githui and Omurwa (2018) while quoting Jensen and Meckling (1996), agency problems can be reduced by firms through acquisition of more debt and making higher debt repayments to reduce cash flow since undistributed firm earnings, in form of dividends, may increase the management appetite to invest in unprofitable projects that wont maximize shareholder wealth but serve their own interests. Payment of dividends avoids excess cash held by the firm and hence solve agency conflicts through avoidance of holding excess cash in the firm. This retention ratio of the firms' earnings is envisaged to be paramount in exploring on the retained earnings component of capital structure in this study.

### Conceptual Framework

It depicts the relationship between the study variables i.e the independent variables (Equity financing and asset tangibility) and the dependent variable (financial performance). The figure below was a graphical display of the study's variables:



### Equity Financing on Financial Performance

This is where money is raised through sale of shares either to the existing shareholders or to other interested investors. Equity shareholders (also called ordinary shareholders) are the real owners of an organization with voting rights and hence exercise a great control over matters management (Pandey, 2015). This aids in enhancing an organization's financial performance.

Ogebe (2019) conducted a study to assess the effect of capital structure on firm performance in Nigeria for the period 2009 to 2018 by employing the regression model towards the determination of the association between the performance for each firm and its leverage for the ten year period. The firms were classified into lowly and highly geared categories using comparative analysis. It was revealed that firm performance and leverage had a significant negative relationship. He concluded that firms should use more of equity than debt in financing their operations. He noted that debt capital can be used to increase the value of a firm up to a certain limit after which it becomes detrimental (Ghazouani, 2018). Githire and Muturi (2015) concurred with Ogebe's study that use of equity to finance a business positively contributed to a financial growth of a firm.

### Asset Tangibility on Financial Performance

Asset tangibility has been an important determinant of capital structure choice and finance performance of firms as evidenced by various literature reviews. A firm that has a greater composition of tangible assets in its total assets will have higher ability to raise debt since the fixed assets can be used as security. Empirical review from the previous studies have evidenced a positive correlation between asset tangibility and leverage (Kamau, 2014). Drobotz and Fix (2020) did a study to evaluate the impact of asset tangibility on leverage on 124 large listed firms at the Swiss Stock Exchange. Their study revealed a positive

and significant correlation of asset tangibility on leverage which agrees with the results of Pandey (2017) in Malaysia.

When the financial manager of a firm determines the capital structure of their firm, the asset structure plays an important part. According to Hovakimian *et al.*, (2016), businesses with a higher level of asset tangibility are likely to have higher liquidation values. Companies that invest heavily in tangible assets will have increased financial leverage since they can borrow at low interest rates when they utilize the tangible nature of their assets as collateral to obtain debt financing. By promising the company's tangible assets as security, the costs that come with moral hazards and adverse selection are reduced (Gathogo & Ragui, 2014). As a result, businesses with more tangible assets and higher liquidation values tend to have easier access to funding, which increases the amount of debt financing.

Some other previous studies have shown a negative correlation between asset tangibility and leverage like Daskalakis and Psillaki (2020). They did a study to establish the effect some factors in which asset tangibility was one of the independent variables on the capital structure decision of firms listed in France and Greece. They measured asset tangibility; they found that asset tangibility had a negative correlation to leverage in both countries. This result of a negative correlation between asset tangibility and leverage agrees with the pecking order theory (Daskalakis & Psillaki 2020). Hence, the firms that have greater tangible assets have already found income stability and therefore they do not need external financing (Kamau, 2014).

### **Research Design**

A research design is a framework or a blue print for conducting a research. It provides a clear plan on how to carry out the research and how the researcher can stick to the laid down plan (Bongoye, 2017). a correlation research design was adopted through the stages of data collection for the study.

### **Target Population**

According to Kothari and Garg (2014), population constitutes the units, items or objects from which a study sample is selected. The target population of the study comprised of a firm (Safaricom Ltd) listed at NSE under the telecommunications sector for the 7 year period from 2015 to 2021. A census method was

used since only Safaricom Ltd is the listed telecommunications firm at the NSE, Kenya.

### **Data Collection Method**

The study applied secondary data collection method for the period under study. The audited and published financial reports and statements helped in provision of the secondary data for all the study variables covering the period 2015 to 2021. The annual NSE published hand books provided the data for the study. The data gathered provided all the information on the dependent and the independent variables for analysis.

### **Data Analysis and Presentation**

The collected data from the NSE handbook was subjected to correlation analysis, descriptive statistics and finally multiple regression analysis to examine the correlation between the explanatory and dependent variables. Both Microsoft excel and SPSS Version 26 software were used in data analysis to provide the required information for presentation. Equity ratio was used to measure equity financing, calculated by equity as a percentage of total asset while Asset Tangibility was measured as non current assets divided by total assets.

Financial performance was measured by ROA. Return on Assets ratio is calculated by dividing the firm income with total assets (Kemosi, 2018). ROA is a ratio that indicates whether the firm resources are acclimated to engender the firm income together with revealing management efficiency towards net income generation from all the firm resources (Chinaemerem and Anothy, 2020). A higher ROA is a reflection of efficiency in the utilization of the resources by the firm.

The multiple regression model was adopted with full understanding of the key assumptions that hold the model true which are that; there must exist a linear relationship between the independent variables and the outcome variable, Scatter plots can show whether there is a linear or curvilinear relationship, the residuals are distributed normally, the independent variables are not highly correlated with each other and finally, the error terms variance is similar across the independent variables values.

Baryman and Bell (2017) argues that multiple regression is the most suitable for studies that involve two or more explanatory variables. A general equation model was adopted that The researcher to flexibly examine the collected data. The model used in the study assumed the following format:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon_i$$

Where:

Y -Financial Performance

$\beta_0$  -A constant representing Financial Performance when all other independent variables are zero.

$\beta_1, \dots, \beta_4$  - Are coefficients whose marginal change affects Financial Performance correspondingly.

$X_1$  - Equity Financing

$X_2$  - Asset Tangibility

$\epsilon_i$  - The error term or Noise

### Correlation of Variables

The study Pearson correlation matrix was extracted as shown in the table below;

Correlation is significant at .1 level (2-tailed).

The correlation matrix table demonstrated the dependent variable (Financial Performance) and the independent variables (Equity Financing, and Asset Tangibility) had a positive relationship. The findings indicated the relationship, in a descending order, among the variables with equity financing being the highest, perfect and at statistically significant correlation at  $r=.542$ ;  $p<.01$ , while asset tangibility at  $r=.469$ ;  $p<.01$ . The independent variables were used to predict the dependent variable accordingly.

### Significance Testing

#### Goodness of Fit Model

The study used the F-statistic (ANOVA) as a measure of the model goodness of fit. The ANOVA results were extracted from the analyzed data and presented as shown below;

Model	Sun of Squares	df	Mean Square	F	Sig.
Regression	10.172	1	10.172	4.518	.005 <sup>b</sup>
1 Residual	11.258	5	2.2516		
Total	21.430	6			

a. Dependent variable: Financial Performance

b. Predictors: (Constant); Equity Financing, and Asset Tangibility.

The ANOVA results above indicated that the regression model was statistically significant and therefore used to predict the dependent variable. This was evidenced by the F-statistic value of 4.518 which was greater than the F-critical value at a significance level of .05 indicating that the model application was

significant enough in predicting financial performance

	Equity Financing	Asset Tangibility	Performance
Equity Financing	1		
Asset Tangibility	.154	1	
Performance	.542**	.469*	1

using the independent variables; Equity Financing, and Asset Tangibility.

### Model Summary

The study used the coefficient of determination (R\_Square) as a measure of the explanatory power of the independent variables explaining the dependent variable.

Table 4.7: Model Summary

Mo del	R	R_Square	Adjusted R_Square	Std Error of the Estimate
1	.816 <sup>a</sup>	.776	.783	.025

a. Predictors: (Constant), Equity Financing and Asset Tangibility

According to the model's summary results, financial performance had an  $R^2$  (coefficient of determination) of 0.776, meaning that the independent variables (equity financing and asset tangibility) explained 77.6% of financial performance (dependent variable) where the variables had a positive association as per the R\_Square value. The corrected R-square of 0.783 demonstrated that independent variables, excluding the constant variable, described the change in financial performance by 78.3%; the remaining percentage to 100% (i.e., 21.7%) can be accounted for by other factors not included in the model.

### Multiple Regression Analysis

Because of the diagnostic tests carried out, whose results indicated the absence of the unit root for the study variables ( i.e financial performance, equity financing and asset tangibility), the researcher decided to adopt a multiple regression model to measure the relationship among the variables (Audax, 2018).

The association between the independent variables and the dependent variable was depicted in the following model from the analysis:

$$Y = 1.5432 + .6819X_1 + .5558X_2$$

The regression analysis table above indicated that Equity Financing with a p-value of .002 was a more influential variable of the study to the dependent variable. The table further revealed that holding other variables constant, financial performance of the listed telecommunications firm had a constant or intercept value of 1.5432.

The regression results also indicated that a single unit increase in equity financing would increase financial performance by .6819 factor, and asset tangibility by .5558 factor in the dependent variable.

**Conclusions**

Each predictor variable’s conclusions were as follows:

**Equity Financing**

On the second explanatory variable, equity financing, which was measured using the equity ratio, it was concluded that the listed telecommunication sector firms are conservative firms because the equity ratios are above 0.50 which implied that the companies accessed more funding from shareholder equity than

Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	β	Std. Error	beta		
(Constant)	1.5432	.0465		3.5182	.000*
1 Equity Financing	.6819	.0843	.6761	2.1850	.002
Asset Tangibility	.5558	.0243	.5536	1.3268	.011

they did from debt in their management structure. Pandey (2015) averred that a high equity ratio implies that the firm is all round i.e is stronger financially and has a longer term positional edge on solvency than firms with lower equity ratios.

**Asset Tangibility**

When compared to the equity financing variable, the findings revealed a substantial effect of asset tangibility on financial performance with a statistically significant and positive correlation. The correlation coefficient of asset tangibility was also discovered to be significant. It was determined that

asset tangibility is a significant component of the firm's capital structure.

In reference to Irungu *et al* (2018), and going by the study findings, the conclusion was that asset tangibility significantly and favorably affected the financial performance of listed telecommunication sector firms. If management blend tangible and intangible assets effectively and efficiently, the sector could be very competitive.

**Recommendations**

The study findings led to the following recommendations:

**Equity Financing**

The study findings on the relationship between equity financing variable and financial performance was statistically significant. The firms had equity ratios above 0.50, the level for determining whether the company financed its activities mostly from debt or equity Pandey (2015). From the findings, the listed telecommunications firms accessed equity more than debt in the capital structure management. According to Annitta (2018), the managers of a firm have a better understanding and more information about the firm than outsiders about the firm’s future and therefore they act in the best interest of the company. However, Pecking order theory assumes that issuing equity to finance firm operations signals to the outsiders that the company lacks capital which may adversely affect stock price (Bongoye, 2017). The study recommended that, in cases where external financing is required, management should base its decision on the finance option with the lowest investment risk and proportional costs. This proposal was consistent with the pecking order hypothesis, which in this case suggests issuing debt as the first alternative and stock as the last option. (Graham and Harvey, 2018).

**Asset Tangibility**

From the findings of the study, the element of the fixed asset on the total assets owned by the firm were considered. The research findings revealed that the listed telecommunication firms needed to closely monitor the amount of tangible assets in the total assets of the firm critically to ensure that there is no holding of excess or less fixed asset within the firm to ensure optimal financial performance since the firm seemed to be performing well on this front and is also

a key contributor to the Kenyan economy and achievement of the millennium goals of development and Vision 2030.

### Areas for Further Study

The study specifically centered on the effect of just one sector in the Nairobi Securities Exchange, a sector with just one listed firm. Therefore, it was suggested that additional non-listed enterprises receive the same treatment in the telecommunications sector in order to have an idea on how the entire sector is fairing on. It was also suggested that more research should be carried out focusing on other variables not covered by this study in order to draw conclusions comparably as regards other non listed and small scale firms.

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