

Effects of Leverage on the Financial Performance of Parastatals: A Case Study of Kenya Power

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Abstract: *Financing decision lately has gained greater importance in many organizations. Balancing of debt and equity can assist in achieving optimal capital structure. Financial leverage reflects the debt amount used in the capital structure of the firm. The financial leverage employed by a firm is intended to earn more on the fixed charges funds than their relative costs. The researcher carried out a research with the aim of examining the effects of leverage on financial performance. The target population for the study constituted the management staff in finance division of Kenya Power. The population size was 120 staff from which a sample of 55 respondents was drawn. Data was collected from primary and secondary sources. Primary data was collected by use of structured questionnaires while secondary data was obtained from Kenya Power's annual audited financial reports, and periodic publications. A pilot test involving 10 respondents who were exempted from the main study was carried out prior to the main study. The study applied survey research design and data was analysed by use of descriptive and inferential statistics. The study revealed that leverage has a significant effect on financial performance. The study, therefore, concluded that optimal debt financing is essential for the organization to realize better financial performance. It was recommended that organizations should manage their costs by considering cheaper sources of funding in order to improve on financial performance.*

Keywords: Leverage, financial performance, debt to equity ratio, capital structure, financial risk

1. Introduction

Optimal capital structure is the key element of any successful company especially in a current complex and dynamic times. It is one of the major ways of maximizing the value of the firm. The capital structure is a mixture of debt and equity. It explains how a firm finances its overall operations and growth by using different sources of funds. The capital structure decision of any firm there is need to determine the appropriate mix of borrowed capital and owners' capital. Firms that employ more borrowed capital than owners' capital are said to be more levered in the financial sense. Operating only with owners' capital is regarded as safe largely because it eliminates the risk of bankruptcy, on the other hand it does not allow the firm to take advantage of fixed charge financing to enhance returns to its owners, that is, shareholders therefore this is discouraged.

Concept of leverage is very crucial when making decision on capital structure. As a business term, it refers to the borrowing of funds to finance the purchase of a company's assets. The concept is closely linked to the cost of capital hence the influence on the firm's value. Generally, increase in leverage result in increased return and risk whereas decrease in leverage result in decreased return and risk. Financial managers therefore, must measure and evaluate leverage before making capital structure decision. Leverage is divided into three: operating leverage, financial leverage and combined leverage.

Operating leverage refers to the percentage of fixed costs that a company is using in its operations, example rent and salary. Stated in another way, operating leverage is the ratio of fixed costs to variable costs. If a business firm has a lot of fixed costs as compared to variable costs, then the firm is said to have high operating leverage, this in turn have negative effect on revenue. Business risk can be measured

by degree of operating leverage. DOL is the percentage change in earnings before interest and tax associated with percentage change in sales volume. It indicates the sensitivity of EBIT to change in sales. In general firm with high DOL will require high volume of sales to break even.

Financial leverage is the extent to which a firm relies on debt to finance its operations [1]. It is the use of fixed income securities like debt in financing the operations. The use of debt, in financing a firm's operations, can really improve the firm's return on equity and earnings per share. This is because the firm is not diluting the owner's earnings by using equity financing. Too much financial leverage, however, can lead to the risk of default and bankruptcy. Financial risk of the business is measured by degree of financial leverage. DFL helps to measure the sensitivity of earnings per share (EPS) to changes in EBIT.

Performance is the ability of an organization to gain and manage the resources in several different ways to develop competitive advantage [5]. Financial performance is often expressed in terms of growth of sales, turnover, employment, or stock prices [3]. There are various measures of financial performance. For example return on sales, it reveals how much a company earns in relation to its sales; return on assets it determines an organization's ability to make use of its assets and return on equity which reveals what return investors take for their investments.

2. Statement of the Problem

The subject of capital structure has received significant attention from scholars in the various areas of business and strategic management. It has also been the primary concern in many types of organizations since capital structure has implications to organization's health and ultimately its survival. High performance reflects management effectiveness and efficiency in making use of company's

resources and this in turn contributes to the country's economy at large. Primary aim of utilizing financial leverage is to increase the company's earnings per share and to increase its return-on-equity. However, with these advantages come increased earnings variability and the potential for an increase in the cost of financial distress, perhaps even bankruptcy. Bankruptcy costs can also significantly affect a company's cost of capital. When a company invests in debt, the company is required to service the debt by making required interest payments. Interest payments alter a company's earnings as well as cash flow. Firms are encouraged to have capital structure weighted towards a higher level of debt; however there is a limit to the amount of debt a firm should take. The major objective of financial management is maximizing shareholder's value, hence the interest on relationship between capital structure and the firm value. Shareholder's wealth is generally considered maximized if the market price per share of firm's stock is maximized.

KP's performance is expected to improve year by year, on the upward trend especially the organization being a monopoly. However, the recently published audited annual report and financial statements for the year ended 30th June 2013 showed that the organization earned the profit of Kshs. 4.352 billion compared to the previous year 2012 the profit of Kshs. 4.617 billion. The cash flow statement indicated a balance of Kshs. 2.097 billion compared to the previous year 2012 with a balance of Kshs.0.8 billion. The MD& CEO of Kenya Power noted in his report that borrowing cost was one of the factors contributed to the poor performance. The borrowings for the year 2013 were Kshs. 47.887 billion compared to the previous year of Ksh.27.762 billion. The study therefore, aims to establish the effect of leverage on the financial performance of Kenya Power

3. Objectives of the Study

3.1 The General Objective

To examine the relationship between leverage and financial performance of Kenya power

3.2 Specific Objectives

To establish the effect of debt to equity ratio on financial performance

4. Research Hypothesis

H₀₁: Debt to equity ratio has no significant influence on financial performance.

5. Conceptual Framework

The conceptual framework outlines the presumed relationship between the independent variable (debt to equity ratio) and the dependent variable (financial performance). Figure 1 illustrates the conceptual framework.

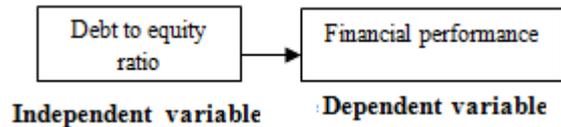


Figure 1: Conceptual Framework

6. Literature Review

The researcher reviews theories and empirical studies that relate to financial leverage. The researcher's aim is to understand the theories that can be used to explain the relationship between the variables. The literature reviewed enabled the researcher to identify key areas that have thoroughly been researched on, also helped to identify the gaps to be filled.

6.1 Theoretical Literature

6.1.1 Modigliani and Miller Theory

Modigliani and Miller illustrated that under conditions where corporate income taxes and distress costs are not present in the business environment, the use of financial leverage has no effect on the value of the company. This view, known as the Irrelevance Proposition theorem, is one of the most important pieces of academic theory. Unfortunately, the Irrelevance Theorem has a number of impractical assumptions that does not apply in a real world environment. In recognition of this problem, Modigliani and Miller expanded their Irrelevance Proposition theorem to include the impact of corporate income taxes, and the potential impact of distress cost, for purposes of determining the optimal capital structure for a company. Modigliani and Miller theorem does not provide a realistic description of how firms finance their operations, however, it influenced the early development of both the trade-off theory and the pecking order theory.

6.1.2 Trade off Theory

Modigliani and Miller came up with tradeoff theory which assumes that there are benefits to leverage within a capital structure up until the optimal capital structure is reached. Firms achieve the optimal capital structures by trading off the costs against the benefits of the use of debt. One of the benefits of the use of debt is the advantage of a debt tax shield. One of the disadvantages of debt is the cost of potential financial distress. It is postulated that, debt offers firms a tax shield, and firms, therefore, pursue higher levels of debt in order to gain the maximum tax benefit and ultimately enhance profitability [7]. However, high levels of debt increase the possibility of bankruptcy. The advantages of this approach include the possibility of deducting interest payments from company tax. Disadvantage of debt is the potential cost of financial distress. Bankruptcy costs can significantly affect the company's cost of capital. When a company invests in debt, the company is required to service that debt by making required interest payments. Interest payments alter the company's earnings as well as cash flow. This theory helps to provide information about reduced capital cost due to tax shield; however one should take care regarding risk associated with higher level of debt.

6.1.3 Pecking Order Theory

The pecking order theory does not take an optimal capital structure as a starting point, but instead asserts the empirical fact that firms show a distinct preference for using internal finance (as retained earnings or excess liquid assets) over external finance. If internal funds are not enough to finance investment opportunities, firms may or may not acquire external financing, and if they do, they will choose among the different external finance sources in such a way as to minimise additional costs of asymmetric information. The pecking order of financing is as follows: internally generated funds first, followed by respectively low-risk debt financing and share financing. In Myers and Majluf model outside investors rationally discount the firm's stock price when managers issue equity instead of riskless debt [8]. To avoid this discount, managers avoid equity whenever possible. The Myers and Majluf model predicts that managers will follow a pecking order, using up internal funds first, then using up risky debt, and finally resorting to equity. In the absence of investment opportunities, firms retain profits and build up financial slack to avoid having to raise external finance in the future. The theory assists in understanding the order and various capital funding options available to the firm.

6.2 Empirical Literature Review

Empirical studies are reviewed in line with the study variables. The review is from a global perspective, regional perspective and ultimately, the Kenyan perspective.

6.2.1 Debt to Equity Ratio and Financial Performance

It is the measure of a company's financial leverage calculated by dividing its total debts by stockholders' equity. It indicates what proportion of debt and equity the company is using to finance its assets. The extent to which a firm uses debt funding or financial leverage has implications for the firm. By raising funds through debt, shareholders are able to maintain control without having to increase investment. If a firm earns more on investments financed with debt than the interest due on debt, then shareholders returns are increased.

According to trade-off theory debt offers the benefit of a tax shield, but also increases the likelihood of bankruptcy. Creditors view a higher debt to equity ratio as risky because it shows that the investors haven't funded the operations as much as creditors have. In other words, investors don't have as much financial capability as the creditors do. Lack of performance might also be the reason why the company is seeking out extra debt financing.

A lower debt to equity ratio usually implies a more financially stable business. Companies with a higher debt to equity ratio are considered more risky to creditors and investors than companies with a lower ratio. Unlike equity financing, debt must be repaid to the lender. Since debt financing also requires debt servicing or regular interest payments, debt can be a far more expensive form of financing than equity financing. Companies leveraging large amounts of debt might not be able to make the payments.

Management has responsibility of identifying the optimal mix of financing, where the cost of capital is minimized so

that the firm's value can be maximized. One of the major considerations that managers of firms must take into account when planning out capital structure is the cost of capital. For an investment to be worthwhile, the expected return on capital must be greater than the cost of capital. There is need to calculate both the cost of debt and the cost of equity to determine a company's cost of capital.

A study was conducted to determine the relationship between capital structure decisions and the performance of firms in Pakistan. The study concluded that financial leverage has a significant negative relationship with firm performance as measured by ROA. Another study was carried out to establish the relationship between capital structure and performance of non-financial companies listed in the Nairobi Securities Exchange revealed that increased financial leverage has a negative effect on performance as measured by ROE

6.2.2 Financial Performance

Performance is essential in allowing managers to evaluate firms over time and compare them to rivals. It is used to indicate firm's success, conditions, and compliance. Financial performance refers to the degree to which financial objectives has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry.

Various stakeholders have interest on the financial performance of a firm. Analysis of the financial performance of the firm is done according to the specific interest of the party involved: Example trade creditors are interested in the liquidity of the firm, Bond holders are interested in the cash-flow ability of the firm (appraisal of firm's capital structure, the major sources and uses of funds, profitability over time, and projection of future profitability) Investors are interested in present and expected future earnings as well as stability of these earnings, Management are interested in internal control, better financial condition and better performance.

Knowing the financial position of an organisation is very important as business grows, especially if the plan is to grow the business substantially. Lack of a precise and timely knowledge of the current financial position can lead to business failure and have other consequences for the owners. The minimum financial information for any business should be periodic, financial statements consisting of at least a balance sheet, profit & loss statement and cash flow statement.

Different financial indicators are distinguished [2], accounting ratios being one of them to interpret and appraise organisational financial performance. Such comparisons may include: The current year's results compared to the previous year's, to establish whether performance is more favourable or adverse than before. Comparison can also be between similar companies in the same industry, to establish whether the company is performing better or worse than its competitors.

7. Research Methodology

The study applied survey research design. The design helped to collect detailed data from the sample. The cost of collecting data was also reasonable. Historical research design was also applied to provide understanding of past events and facts. Historical research relied on data from the past, therefore, there was no way to manipulate it. The evidence from the past records helped to provide understanding on the relationship between variables.

The study covered a sample of 55 respondents. Stratified random sampling technique was used on its sample size, since the population of interest was in different geographical region and thus not homogenous. Target population was segregated into sub populations based on four operational regions of KP. From each sub population a sample was randomly chosen. Employing this technique enabled the researcher to derive a more representative and accurate sample of the various sub populations [1].

Data was collected by use of the structured questionnaires, to capture the information of financial leverage within the organisation. The questionnaires were dispatched through emailing the soft copies. There was a follow up of the respondent through phone call. The study combined the use of primary data which was complimentary, and secondary data which was the main data, it was obtained from Kenya Power's annual audited financial reports, and periodic company's publications.

Pilot study helped to determine the suitability of the questionnaires before administering them for the research purpose. This was conducted on ten staffs working at Naivasha depot, but these staff did not feature in the final response. The pilot questionnaires were analyzed using Cronbach's alpha, where $\alpha = 0.81$ was obtained. Reliability of instruments is mostly influenced by random error. As random error increases, reliability decreases. Random error is deviation from true measurement and it is due to factor like inaccurate coding and ambiguous questions.

7.1 Data Processing and Analysis

The collected data was analysed using both descriptive and inferential statistics. Descriptive statistics involves the process of transforming a mass of raw data into tables and charts with frequency distribution and percentages which are vital in making sense out of data [9]. Correlation was applied to test the relationship between variables. Data collected was analyzed using Statistical Package for Social Sciences (SPSS) computer programme to facilitate addressing the research objectives. The results were presented in tables for better understanding.

7.2 Research Findings

The researcher targeted the management employees of KP. This is because the people in management are the most conversant with the subject matter of the study. However, out of 55 questionnaires distributed, 47 respondents completely filled in and returned the questionnaires representing 85% response rate. This is a reliable response

rate for data analysis since it is pointed out that for generalization, a response rate of 50% is adequate for analysis and reporting, 60% is good and a response rate of 70% and over is excellent [6].

7.2.1 Effects of Debt to Equity Ratio on Financial Performance.

The researcher sought to assess the effect of debt financing on the financial performance and the findings are presented in Table 1. This was measured on a five point scale. (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

Table 1: Effects of debt to equity ratio on Financial Performance

	1	2	3	4	5	Mean
High debt increase financial risks	0.0%	2.1%	8.5%	21.3%	68.1%	4.55
Financial policies help to determine cheaper source of raising funds	0.0%	0.0%	4.3%	53.2%	42.6%	4.38
The ratio of debt and equity in capital structure affects financial performance	0.0%	2.1%	10.6%	46.8	40.4	4.26

The researcher also sought to find out the effect of debt financing on financial performance. From the Table1, 68.1% strongly agree that high debt increase financial risk while 8.5% were not sure. Majority of respondent also agreed that financial policies determine cheaper source of raising funds which represented 53.2%. The ratio of debt and equity in capital structure was rated to have a significant role in financial performance with 46.8 % agreeing and 40.4% strongly agreeing. Ability of high debt increasing financial risk was ranked highest with a mean of 4.55 followed by the ability of financial policies in assisting in determining cheaper source of raising fund with a mean of 4.38 and lastly the ratio of debt and equity in capital structure and its effect on financial performance. Most respondents agreed that high debt increases financial risk, financial policies helps to determine cheaper source of funds and proportion of debt in capital structure affects financial performance.

7.2.2 Financial Performance of Kenya Power

The company's performance was measured by rating opinions' on the profits, operating expenses, revenues and liquidity. These were measured on a five point scale (5-Growing at a very high rate, 4 - growing at a high rate, 3-Growing at a slow rate, 2 - Declining, 1 - Declining at a very high rate)

Table 2: Financial Performance of Kenya Power for the Past 10 Years

	1	2	3	4	5	Mean
Profits	0.0%	7.9%	57.9%	31.6%	2.6%	3.29
Operating expenses	0.0%	2.6%	5.3%	71.1%	21.1%	4.11
Revenue for the organization	0.0%	7.9%	52.6%	00.0%	39.5%	3.32
Availability of liquidity to meet the financial obligation	2.6%	57.9	31.6	5.3%	2.6%	2.47

Profits were rated growing at a slow rate by majority (57.9%) of the respondents, while 31.6% rated it high. Operating expenses were rated high by 71.1% and very high by 21.1%, this may be due to leverage by the company toward meeting financial obligations. Revenues were growing slowly according to majority (52.6%) of the respondents. Adequacy of cash to meet organizational obligations was declining as indicated by 57.9% while 31.6% rated it growing slowly, this may be due to high level of operating expenses. Operating expenses was ranked as the highest parameter with a mean of 4.1053, followed by revenue for the organization at 3.3158, profits at 3.2895 and availability of liquidity to meet the financial obligation 2.4737 respectively. This means operating expenses was growing at a high rate than revenue, profits and liquidity.

Table 3: Spearman Rank Correlation between Debt to Equity Ratio and Financial Performance

		<i>Financial Performance</i>
Debt to Equity Ratio	Correlation Coefficient	-.480*
	Sig. (2-tailed)	.038
	n	47

* Correlation is significant at 5 % level

The results in Table 3 above revealed that there was significant negative relationship between debt financing and profits of the organization ($r = -.480$; $p < 0.05$). This implies that when the organization uses more debt in capital structure the financial performance decreases. On the other hand, when the organization minimizes the debt financing, the financial performance improves. This may be due to the high cost involved in the debt financing.

8. Summary, Conclusions and Recommendations

The section provides a summary of key study findings both descriptive and inferential. The conclusions are then drawn and recommendation suggested.

8.1 Summary

From the findings, it was observed that high debt increases financial risk with a highest mean of 4.55 followed by the ability of financial policies in assisting in determining cheaper source of raising fund with a mean of 4.38 and lastly the ratio of debt and equity in capital structure and its effect on financial performance. Spearman correlation indicated a negative relationship between the debt financing and financial performance ($r = -.480$; $p < 0.05$). This may be due to high cost involved in the debt financing.

8.2 Conclusions

The study concluded that high debt financing has negative effect on financial performance. To improve the financial performance organization need to secure optimal debt financing and to have defined financial policies to help in determining cheaper source of funds. Appropriate debt to equity ratio will help in minimizing the cost of capital, thereby enhancing the profitability of the firm.

8.3 Recommendations

It is recommended that organization and other investors should consider optimal debt financing to be able to minimize on borrowing cost, also to consider other cheaper sources of finance like retained earnings to reduce cost of financing. This will eventually improve the financial performance. The findings of this study will serve as a point of reference for other scholars in the field of finance.

References

- [1] Cooper, D. R., & Schindler, P.S. (2000). *Business Research Methods* (8th Ed.). New York: McGraw-Hill.
- [2] Dunn, W. (2004). *Public Policy Analysis*. (3rd Ed) Englewood Cliffs, NJ: Prentice Hall.
- [3] Havnes, P.A., & Senneseth, K. (2001). A Panel Study of Firm Growth among SMEs in Networks. *Small Business Economics*, 16, 293-302.
- [4] Hillier, D., Jaffe, J., Jordan, B., Ross, S., & Westerfield, R. (2010). *Corporate Finance*, First European Edition. New York: McGraw-Hill Education.
- [5] Iswatia S. & Anshoria, M. (2007) The Influence of Intellectual Capital to Financial Performance at Insurance Companies in Jakarta Stock Exchange (JSE), *Proceedings of the 13th Asia Pacific Management Conference, Melbourne, Australia*, 1393-1399.
- [6] Mugenda, O.M., & Mugenda, A.G. (2003). *Research methods: Quantitative and qualitative approaches*. Nairobi: Acts Press.
- [7] Myers, S.C. (2001). Capital structure, *The Journal of Economic Perspectives*, 15(2), 81-102.
- [8] Myers, S.C., & Majluf, N.S. (2009). Corporate financing and investment decisions when firms have information and investors do not have. *Journal of Financial economics*, 13(2), 187-221.
- [9] Saunders, M., Lewis, P., & Thornhill, A. (2003). *Research method for business students*. (3rd Ed.). New York: Prentice Hall.

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