

INFLUENCE OF WORKING CAPITAL ON THE FINANCIAL PERFORMANCE OF SUGAR INDUSTRY IN KENYA

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Abstract: Proper financial planning ensures that maximization of profit and wealth creation for shareholders is achieved. The purpose of this study was to determine the influence of financial planning on financial performance of sugar industry in Kenya. The objective of the study was to determine the influence of working on financial performance of sugar industry in Kenya. The study used quantitative research design that involved computation of financial ratios to arrive at the conclusion. Secondary data was appropriate for this study because of easy access of information, involves low cost and readily available information. The study showed that there was a strong influence of working capital on financial performance of firms in sugar industry. From the study findings, it was concluded that working capital was positively related to financial performance of sugar industry in Kenya. The study concluded that Muhoroni had highest amount of working capital. Also, the study found that working capital influenced highly on financial performance of sugar industry in Kenya. Hence, the study recommended that West Kenya should employ more working capital management planning in order to improve financial planning.

Keywords: sugar industry, working capital, financial performance, financial planning.

1. INTRODUCTION

Financial planning is a continuous process that seeks to direct and allocate financial resources towards the attainment of strategic goals of an enterprise. Maintenance of optimal cash levels sets the foundation on which the business can minimize liquidity risks while maximizing on its income generating abilities by minimizing idle financial resources (Gerber, 2001). However, sugar industry in Kenya has been experiencing poor cash management for many decades and this industry had failed to predict the cash inflows and outflows, cash budgeting to alert the management to resource needs, and help keep payments on time. According to the Kenya sugar board (2015) established that the industry do not have strong internal control systems for managing cash. For example, lack of proper tools and techniques for credit and collection polies, procedures, and lack of separation of duties, whereby staffing levels do not permit separation of duties, compensating controls such as strict individual accountability and thorough management review and supervision. Also, the sugar industry in Kenya is one the sectors that has been experiencing so many challenges to the extent that Ramisi sugar factory collapsed in 1988, Miwani sugar factory and Muhoroni were put under receivership and Mumias sugar factory has failed to break even. The government of Kenya had pumped money to revive the company but the attempt failed to yield any tangible result. The poor state of sugar companies in Kenya together with conflicting results from other scholars on financial performance prompted this research work.

Majority of studies that exist had focused on financial planning on different sectors such as cooperatives societies, commercial banks and other sectors such Mohammed (2008), Kalimalwendo, (2015) and Oduor (2013). Thus, this study intended to fill these pertinent gaps by studying the influence of working capital on performance of sugar industry in Kenya.

2. LITERATURE REVIEW

Working capital is the resource base that is required by the entity to finance operations on a day-to-day basis. Working includes; cash, accounts receivables and just-in-time inventory (JIT). JIT is part of a production system whereby a company greatly reduces its investment in inventory and the costs associated with carrying inventory so that utilization of production inputs, storage of inventory, and delivery of finished products are accomplished without incurring significant holding costs. Firms must ensure sufficient cash to keep an entity vital. The entity should determine its own appropriate cash level not too little and not too much, but enough to cover interest, expenses, capital expenditure and emergencies (griffin, 2009).

A good working capital ratio is considered anything between 1.2 and 2.0. A ratio of less than 1.0 indicates negative working capital, with potential liquidity problems, while a ratio above 2.0 might indicate that a company is not using its excess assets effectively to generate possible revenue. If a company's current assets do not exceed its current liabilities, then it may have trouble paying back creditors or go bankrupt. A declining working capital ratio is a red flag for financial analysts.

The current ratio is a measure of liquidity of the firms' ability to meet its short-term obligations. The formula for calculating a company' s current ratio is:

$$\text{Current Ratio} = \text{Current Assets} / \text{Current Liabilities}$$

Interpreting the Current Ratio

A higher current ratio indicates a greater degree of liquidity. Factors such as firm' s size, access to short-term financing sources like bank credit and volatility of business determines the liquidity a firm needs.

A ratio under 1 indicates that a company's liabilities are greater than its assets and suggests that the company in question would be unable to pay off its obligations if they came due at that point. While a current ratio below 1 show that the company is not in good financial health, it does not necessarily mean that it will go bankrupt.

The higher the current ratio, the more capable the company is of paying its obligations, as it has a larger proportion of asset value relative to the value of its liabilities. However, a high ratio (over 3) does not necessarily indicate that a company is in a state of financial well-being either. Depending on how the company's assets are allocated, a high current ratio may suggest that a company is not using its current assets efficiently, is not securing financing well, or is not managing its working capital well <https://www.investopedia.com/terms/w/workingcapital.asp>

critique of the existing literature

According to Oduor (2003), commercial banks applied financial planning techniques and strategies in its operations leads to high financial performance of the bank. He carried out a study on the effect of financial planning strategies on the financial performance of the local commercial banks in Kenya where he analyzed the manner in which financial strategies have influenced the high financial performance of the local commercial banks in Kenya. He carried out a survey study on the commercial banks in Kenya where he wanted to identify which strategies were the banks applying that were bringing about the high financial performance they were achieving.

Cooperative societies that applied very little financial planning in managing its finances resulted in poor management of the cooperative finances and poor financial performance of the cooperative sector. He carried out a study on the weak application of financial planning and budgeting in the development of the co-operative sector analyzing how financial planning was not been applied. He wanted to investigate as to the reasons why financial planning was not been applied in the co-operative sector in East Africa. He carried out his study in Tanzania and Kenya where he wanted to know why the cooperative societies were not keen on applying financial planning in managing its financial resources. He observed that many cooperative societies in East Africa were mismanaging its finances to the extent that some were either dissolved or shut down altogether (Kalimalwendo, 2005).

Firms which adopt financial planning techniques in managing and allocating resources achieved high efficiency, growth and minimized costs and firms that apply little or no financial planning techniques in managing and allocating of resources had lower efficiency and slower financial growth. He carried out a study to determine the importance of financial planning in micro finance firms The study was addressing the need for such firms to apply financial planning in the management of its resources to enhance efficiency and minimize costs in the micro finance firms in Kenya. He carried

out his study on micro finance firms among them been Kenya women finance trust which is one of the fastest growing micro finance firms specializing on providing finances to women intending to start or expand their business ventures. He wanted to identify which financial planning techniques the firms were applying in managing, allocating its financial resources to enhance efficiency, expand, and minimize its costs (Mohammed, 2008).

From the foregoing review of relevant literature, it was evident that no research in the area of sugar industries has been done. Most of the literature reviewed indicated that previous researchers only concentrated on financial institutions for example cooperative sector, micro finance and banks leaving out the sugar industry sector. The sugar industry in Kenya is one the sectors that has been experiencing so many challenges to the extent that Ramisi sugar factory collapsed in 1988, Miwani sugar factory was put under receivership and Mumias sugar factory has failed to break even. The current study had wider scope by covering important aspect of financial planning in order to determine how financial performance can be improved in sugar industry. The study therefore, fills pertinent gaps in literature by studying the influence of financial planning on performance of sugar industry in Kenya that involved analysis of ratios.

3. METHODOLOGY

The study used descriptive research design. The financial ratios were computed for each firm during the period of study. The researcher used existing data from KSB and government statistics where financial reports during the period 2009-2018 were analyzed to arrive at the conclusion. The target population of the study comprised of six sugar companies licensed by KSB that had been in operational from the year 2009 to 2018. According to KBS (2018) report, there were only six companies (Chemelil Sugar Muhoroni Sugar Mumias Sugar Nzoia Sugar South Nyanza Sugar and West Kenya). The sample size for study was drawn simple random from six sugar companies in Kenya registered by KSB. Secondary data was adopted because it contains huge amount of information obtained from government reports, statistical bases, and experts' articles the information helped the researcher to arrive at the right findings and conclusion. The collected data was analyzed using descriptive and inferential statistics. The data was presented on tables. Multiple regression model was used to establish the relationship between variables.

4. RESEARCH FINDINGS

The study sought to determine the influence of working capital on the financial performance of sugar industry in Kenya as presented in the table below.

Influence of working capital on the financial performance

Company	Mean	Std Dev
Muhoroni	-9809270.7	5938025
Chemelil	-1328872.7	767279.8
Mumias	-5385283.5	8467981
Nzoia	-19694049	17005477
South Nyanza	-978129.9	510293.8
West Kenya	389209.4	92366.27
Total	-6134399.40	10475778

The study showed that West Kenya had a mean of 389209.4 with standard deviation of 92366.27, Chemelil had a mean of -1328872.7 with standard deviation of 767279.8, Nzoia had a mean of 19694049 with standard deviation of 17005477, Mumias had a mean of -5385283.5 with standard deviation of 846798, South Nyanza had a mean of -978129.9 with standard deviation of 510293.8, and Muhoroni had a mean of -9809270.7 with standard deviation of 5938025.

The study also determined financial performance of companies as presented in table below.

Financial performance by net profit

Company	Mean	Std Dev
Muhoroni	-1463167.2	1444724
Chemelil	-341655.6	569229.3
Mumias	-3901893	5494267
Nzoia	-1466938.2	1230227
South nyanza	-432039.6	427416.8
West Kenya	816400.9	106448.3
Total	1131548.78	2720921

The study showed that West Kenya had a mean of 816400.9 with standard deviation of 106448.3 Mumias had a mean of -3901893 with standard deviation of 5494267, Nzoia had a mean of -1466938.2 with standard deviation of 1230227, South Nyanza had a mean of -432039.6 with standard deviation of 427416.8

Regression analysis

A regression model was calculated to establish the influence of working capital on financial performance of sugar industry in Kenya.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.662 ^a	.438	.426	.55656

a. Predictors: (Constant), Working Capital

The study indicated a positive strong relationship between working capital and financial performance of sugar industry in Kenya shown by R .662 (66.2%). R Square stated that a unit change in working capital led to a 33.8% increase financial performance of sugar industry in Kenya. The rest of the financial performance by net profit of sugar industry in Kenya (33.8%) can be contributed by other factors outside the scope of the study.

ANOVA test was conducted to test the model fitness and the result was as shown in table below.

ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1952356049516.736	1	1952356049516.736	.720	.044 ^b
	Residual	10852660171828.791	4	2713165042957.198		
	Total	12805016221345.527	5			

a. Dependent Variable: Net profit

b. Predictors: (Constant), Working Capital

The study indicated that the ANOVA coefficient F (.720) was higher and the significant level of 0.044. Hence the model was found to be fit and accepted in determining the relationship between working capital and financial performance (net profit) of sugar industry.

Regression analysis was used to establish the relationship between variables. Multiple regression models established the relationship between financial planning (working capital) and by net profit (financial performance) of sugar industry through computation of the regression coefficients of linear function as given in this model as presented in table below.

$$Y = .165 + .505X_1 + \epsilon$$

Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.165	.080		-.701	.522
	Working Capital	.505	.084	.390	.848	.044

a. Dependent Variable: Net profit

Table shows the result of the regression analysis. The study revealed that; when other factors were held constant, working capital and financial performance by net profit was at .165. An increase in working capital by a unit led to a increase in financial performance by net profit by 50.6%.

5. CONCLUSION AND RECOMMENDATION

From the study findings, it was concluded that working capital was positively related to financial performance of sugar industry in Kenya. Based on means and standard deviations, study concluded that West Kenya had highest mean of working capital and Muhoroni had a mean amount of working capital. Based on the influence of working capital on the financial performance of sugar industry in Kenya, The study concluded that Muhoroni had highest amount of working capital. The study found that working capital influenced highly on financial performance of sugar industry in Kenya. Hence, the study recommended that West Kenya should employ more working capital management planning in order to improve financial planning.

REFERENCES

- [1] Argyris, C. (1973). Some limits of rational man organizational theory. *Public Administration Review*, 33, 253-267.
- [2] Babbie, E. (2001). *The Practice of Social Research*. Belmont: Wadsworth.
- [3] Beith, C. & Goldreich, M. (2000). Profit planning and strategic management, *Journal of Finance* 3:12-15.
- [4] Bhosale, V. (2010, October). Sakhar utapadakanchi ki grahakanchi. *People's Politics*, p. 6 & 13.
- [5] Black, F., and M.B. Scholes (1973) ' The pricing of options and corporate liabilities, *Journal of Political Economy*, vol 81, May/June.
- [6] Capon et al., (1994). *Towards an integrative explanation of corporate financial performance*, Kluwer academic publishers
- [7] Davies, P. (2005). *The Governance of Co-operatives under Competitive Conditions: Issues, Processes and Culture*. *Journal of Corporate Governance*, 1, 28-29.
- [8] Donaldson, L., & Davis, J. H. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of management*, 16(1), 49-64.
- [9] Eisenhardt, M, K. (1989). Agency theory: An assessment and review. *Academy of Management Review*, 14(1), 57).
- [10] Fama, E. F. (1980). Agency problems and the theory of the firm. *The Journal of Political Economy*, 88(2), 288-307.
- [11] Farley J.U., Hoenig S. (1996) What Determines Corporate Financial Performance?. In: *Toward an Integrative Explanation of Corporate Financial Performance*. Springer, Dordrecht
- [12] Frank, W. & sangster, (2008). *Frank wood' s business accounting 2 IFRS* prentice hall ed.11th
- [13] Ghauri, P. N. (2005). *Research methods in business studies: A practical guide*. Pearson Education
- [14] Gitman, L. (1997). Welfare effects of financial planning in incomplete markets economies with several consumption goods, *Journal of Economic Theory* 65:43-78.
- [15] Glautier, E. & Underown, B. (2001). *Accounting theory and practice* ed.7th
- [16] Griffin, P. (2009). *MBA fundamental accounting & finance: business basics for the real world*
- [17] Hogsett, RN. (1981). *Profit planning for small business*, New York, Van Nostrand Reinhold Publishing Ltd.
- [18] Kalimalwendo, E. (2005). Masters Project, " Weaknesses of financial planning and budgeting in the co-operative sector in East Africa" , University of Dar Es Salaam. Kenya Sugar Industry Strategic Plan 2010-2014.
- [19] Kenya National Assembly (2015). Report of the departmental committee on Agriculture, livestock and cooperatives on the crisis facing the sugar industry in Kenya.
- [20] Kombo, D. K., & Tromp, D. L. A. (2006). *Project and Thesis Writing: An Introduction*. Pauline" s Publications Africa.
- [21] Kraus, A. & Litzenberger, R.H. (1973). "A State-Preference Model of Optimal Financial Leverage", *Journal of Finance*, September 1973, pp. 911-922.
- [22] Kothari, C. R. (2011). *Research Methodology; Methods and Techniques*. New Delhi: New Age International Publishers.
- [23] Kute, Y. (2010, July 17). ' Sakharecha Bhav Tharato kasa' *Saptahik Sakal*, pp. 8-12.
- [24] Markowitz, H.M. (March 1952). "Portfolio Selection". *The Journal of Finance* 7 (1): 77– 91. 58

- [25] Meckling, W. H., & Jensen, M. C. (1994). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure.
- [26] Miller, M.H (1977). "Debt and Taxes" , The Journal of Finance, Vol 32(4):1151.
- [27] Mishkin, F. (2007). Housing and transmission mechanism. Federal Reserve Bank of Kansas City, 359-413.
- [28] Mohammed, A. (2008).MBA project, " The importance of financial planning in micro finance firms in Kenya" , Kenyatta University.
- [29] Mugenda, O. M., & Mugenda, A. G. (2012). Research methods dictionary. Nairobi: Arts Press.
- [30] Mugenda, O., & Mugenda, A. (2003). Research Methods: Quantitative and Qualitative Approaches. Nairobi: Acts Press.
- [31] Nathanson M.J. et al. (2018) The Goals of Executive Financial Planning: Peace of Mind and the Five Pillars. In: Personal Financial Planning for Executives and Entrepreneurs. Palgrave Macmillan, Cham
- [32] Oduor, G. (2003).MBA Project, Impact of financial planning strategies in the growth of the banking industry in Kenya" , Kenyatta University.
- [33] Pandey, I. N. (1985). Financial management, India, New Print India Ltd.
- [34] Pawar, S. (2011, April 24). ' Sahakar Vikane Aahe' . Sakal Saptarang, pp. 4-5.
- [35] Robert, C. (1994). Modern business administration ed.6th Report of the departmental committee on Agriculture, livestock and cooperatives on the crisis facing the sugar industry in Kenya (2015).
- [36] Report of Maharashtra State Sugar Cooperative Federation 2007.
- [37] Ross, S., Westerfield, R. & Jordan, B. (2000). Fundamentals of corporate finance, Mexico: Ed. Mc-Graw Hill.
- [38] Shleifer, A., & Vishny, R. (1997). Equilibrium short horizons of investors and firms,