

Effect of Liquidity on Financial Performance of the Sugar Industry in Kenya

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Abstract

Liquidity is one of the most important goals of working capital management and central task of revenue optimization and company's financial performance. Equally, aggressive liquidity management is associated with higher corporate value, despite differences in structural characteristics or in the financial system of a firm. Given the recurrences of liquidity management in sugar industry this study sought to investigate the effect of liquidity management on firm performance using a sample of five sugar firms over the period 30th June 2005 to 2016. We estimate a random effects regression model where the results suggest that a negative relationship exists between liquidity management on firm performance. Based on the study findings the following policy recommendations are proposed and if implemented will help resuscitate the overall financial performance of factories in the sugar industry and hopefully reverse their financial performance fortunes. The study recommends that careful consideration and planning of funding liquidity management is one of the ways to financial performance and as such this study recommends that there is need for the sugar industry firms to increase their operating cash flow, to positively influence their financial performance.

1.1 Background of the Study

The sugar industry sector is one of the most important contemporary economic sectors. Because of their role and high impact in the development of the economy at the local and global level. In fact, it is relied upon by most national economies of industrialized advanced countries where the manufacturing industries sector plays a significant role and hence cannot be ignored in the process of economic development in any state and because this sector occupies an increasing importance in developing countries' development plans as they seek to improve firms' financial performance through managing its liquidity.

Liquidity is one of the most important goals of working capital management and central task of revenue optimization and company's financial performance. Efficient working capital management leads to an improved in the operating performance of the business concern and it helps to meet the short-term liquidity (Maness and Zietlow, 2005; Samiloglu and Demirgunes, 2008). Increased use of overdrafts, lateness in payments of trade creditors, and decreasing cash balances may all signal a

weakening liquidity position and a potentially increased probability of default. Current liability coverage ratio, a measure of a firm's liquidity position provides a litmus test for firm's solvency. It is considered the most accurate method as cash used to pay off dividends is subtracted thus giving a truer picture of the operating cash flow. GARP (2015) contended that liquidity is essentially a short-term problem caused by short-term unexpected liabilities and the funding requirements of long-term liabilities that have adverse effect on firm financial performance. Liquidity risk therefore arises from the variability in short-term assets and liabilities and short-term components of long-term assets and liabilities.

According to Podilchuk (2013), financial optimisation of a company is usually performed along two basic dimensions: long-term and short-term analysis. The former is aimed at capital structure optimisation, which is the balance of debt and equity maximising the value of the firm. Short term optimisation focuses on liquidity management. Basically, current assets management is the major tool for capital structure optimisation. Therefore, the task of the company's chief financial officer (CFO) is to conduct effective liquidity management to maximise the value of the company and its financial performance. The key factor in identifying firms in liquidity is their inability to meet contractual debt obligations due to poor revenue. This has a negative effect on firms' financial performance (Elloumi and Gueyie, 2001).

Halling and Hayden (2006) explain that an institution should define and identify its liquidity risk. A Company's liquidity needs and the sources of liquidity available to meet those needs depend significantly on the company's business and product mix, balance sheet structure and cash flow profiles of its on- and off-balance sheet obligations. As a result, an institution should evaluate each major on and off-balance sheet position, including the effect of embedded options and other contingent exposures that may affect the institution's sources and uses of funds, and determine how it can affect liquidity risk (Jeanne and Svensson, 2007).

A company should recognise and consider the strong interactions between liquidity risk and the other types of risk to which it is exposed. Various types of financial and operating risks, including interest rate, credit, operational, legal and reputational risks, may influence company's liquidity profile. Liquidity risk often can arise from perceived or actual weaknesses which may affect the company's financial performance (Akhtar, 2007). The study on the effect of liquidity on financial performance of the sugar industry Kenya will strongly be anchored on this theory.

Depending on organisational goals, different methods are adopted by different firms to measure their performance. This performance indicator can be measured in financial and non-financial terms (Darroch, 2005; Bagorogoza and Waal, 2010; Bakar and Ahmad, 2010). According to Grant, Jamine, and Thomas (1988) firms, prefer to adopt financial indicators to measure their performance Return on assets. However, financial elements are not the only indicator for measuring performance of a firm. It needs to combine with non-financial measurement to adapt to the changes of internal and external environments (Krager and Parnell, 1996).

Kegode (2005) argued that threat to the sugar sector is real and it arises from uncompetitive position that characterises the sector. The sector requires a total of KSh50 billion to bail it out from total collapse. The industry needs at least KSh20 billion to clear all debts on sugar factory balance sheets. Shilita (2015) stated that Mumias Sugar Company was temporarily closed to allow for

urgent maintenance work, but it was also facing liquidity problems. The company owes farmers and creditors an estimated KSh6 billion, which it found difficult to repay in the face of dwindling production and low profitability. This is attributed to cane shortage, frequent breakdown of machines and low sales. Sugar farmers welcomed the change of guard at the company and expected the new CEO to address challenges surrounding development of raw materials and poor management of the company.

Kenya's sugar industry is dying a slow but painful death, the largest miller, Mumias sugar company is now living from hand to mouth, waiting for Government bailouts to stay afloat. Five other publicly owned sugar millers are either in receivership or choking under the burden of debts. Nzoia sugar is the most indebted and owes the Government and the Agricultural Food Authority at least sh28 billion in total. Muhoroni Sugar Company owes sh8 billion while Miwani has sh3 billion debts sitting on its books. Sony Sugar Company and Chemelil owes each sh1 billion. The factories cannot pay farmers on time, the taxman and other suppliers are also on the queue. Mumias Sugar Company, a once vibrant and largest miller in country, is collapsing under the mountain of debt and acute shortage of raw material, raising questions whether public funds given to the firm as bailout have been useful. There is little to show since the bailout began as the company has been making losses with production declining drastically. There are lapses in management and corporate governance, which have led to losses or being locked into unfavorable trading arrangements. The company has been brought to its knees by bad management decisions, rising from debts and cheaper imports from coming into the country (Makokha, 2017).

1.2 Statement of the Problem

As argued by Eljelly (2004), managing liquidity is important when firms are in a good situation, but is most important during troubled times of firms' performance. When a firm is unable to pay its obligations, it is illiquid. Furthermore, aggressive liquidity management is associated with higher corporate value, despite differences in structural characteristics or in the financial system of a firm. Liquidity management is important for all firms in all situations.

From the literature on liquidity and financial performance efficient working capital management leads to an improved funding liquidity (Maness and Zietlow, 2005; Samiloglu and Demirgunes, 2008; Howells and Bain, 2005; Rahaman, 2010; Akhtar, 2007). Stein and DeMuth (2003) stated that liquidity ratios are used to compare firms' performance contrary to Podilchuk (2013) who argued that financial optimisation of a company is performed along two basic dimensions: long-term and short-term analysis. Ramana and Hari (2013), Obado (2005), Odindo (2018), Makokha (2017) and KNAEP, 2015 agreed that indebtedness affect negatively the financial performance of the company however, Gongera, Barrak and Jane (2013), Atieno (2009) and Murgor (2008) stated that financial risk exposure affects negatively company's financial performance.

The studies indicated above discussed how company liquidity affects financial performance of companies without applying current liability coverage ratio to test solvency in sugar industry in Kenya, which is also a better indicator of the company's ability to pay current liabilities and includes the current maturing portion of long term debts. These authors reviewed did carry out empirical reviews on current liability coverage ratio as one of the cash flow ratios acts as a reliable indicator of liquidity which was applied in the current study. These researchers also failed to explain the class of debts that affect liquidity (long term or short-term debts). Short term debts

affect liquidity management. The study proposed adopted cross-sectional panel data, from a methodological level the study had many strengths as it was conducted using sixty elements. The recurrences of liquidity management problem in sugar industry indicate that there is a real need to study the effect of liquidity and corporate governance on the financial performance of the sugar industry in Kenya.

1.3 Objective of the Study

The objectives of the study are;

- i). To determine the effect of liquidity on the financial performance of sugar industry in Kenya.
- ii). To determine the effect of firm size on the financial performance of sugar industry in Kenya.

1.4 Hypothesis of the Study

Based on the above objectives we set to investigate the following hypothesis;

- i). A firm's liquidity position does not affect its financial performance.
- ii). Firm size does not affect its financial performance.

2.0 Literature Review

This study is anchored on the liability management theory of Markowitz (1952). According to Markowitz (1952) argued that the liability management theory holds that financial institutions can meet their liquidity requirements by building in the market for additional funds to meet loans and deposit withdrawal. The potential requirement for funds can be met by asset liquidity and liability liquidity. The firm can use these liquid assets to finance its activities and investments when external finance is not available.

Empirical literature on the nexus between liquidity and firm performance abounds. Pandey (2008), Eljelly, (2004), in their studies found out that, Working capital management affect company' liquidity. Palepu, Healy and Bernard (2000) recommended financial ratios and cash flow analysis as methods of measuring financial performance and Shilitsa (2015) agreed that debts of the companies increase companies' illiquidity and impairs the companies' financial performance..

Al-khatib and Al-Horani (2012) investigated the role of a set of financial ratios in predicting liquidity of publicly listed companies in Jordan. The authors used logistic regression and discriminant analysis a comparison to determine which is more appropriate to use as well as which of the financial ratios are statistically significant in predicting the liquidity of Jordanian companies. During the period between 2007 and 2011, the results show that both logistic regression and discriminant analysis can predict liquidity, and that Return on Equity (RoE) and Return on Assets (RoA) are the most important ratios, which help in predict the liquidity of public companies listed on Amman Stock Exchange.

In his study, Eljelly (2004) found that there was a significant negative relationship between a firm's profitability and its liquidity level. When firms have more assets than liabilities, this might be a sign that they are losing investment opportunities that could return in profits for the company. Having fewer current assets is risky. However, in the long term, it is profitable. This retains more cash leads to lower profit due to missing profitability investment opportunities. Illiquid firms are risky, yet profitable. However, this cannot be the case in all situations, as other factors can affect these propositions. The size and age of the firm affects the effect of liquidity on profitability. Small firms with high liquid assets might be more profitable than larger firms in the short term. Conversely, larger firms with illiquid assets might be more profitable than smaller firms in the long term.

Sur, Maji and Banerjee (2013) made a comparative analysis of liquidity management of four major companies in Indian power sector, covering a period from 1987-88 to 1996-97. The techniques of radio analysis, Motaal's comprehensive rank test, and simple statistical techniques like measures of central tendency and spearman's rank correlation analysis have been used for the analysis. The liquidity ratios such current ratio, quick ratio, current assets to total assets ratio, inventory turnover ratio and debtors' turnover ratio have been used for comparison and suitable interpretations have been made Motaal's comprehensive test is used to analysis the liquidity more precisely. To measure the closeness of association between liquidity and financial performance of the companies, Spearman's rank correlation co-efficient has been applied. The study has revealed that the inventory turnover ratio has a positive impact on firms' financial performance whereas the liquidity ratio, working capital turnover ratio and working capital to total asset have negatively influenced the profitability.

Margolis and Walsh (2001) found that, in 95 studies, financial performance was measured in 70 different ways. They found that there were 49 accounting performance measures (such as RoE and RoA) and 12 market performance measures such as earning per share [EPS] and price-earnings ratio [P/E] used in those studies. Five studies tended to use a mix of accounting and market measures, and four other measures entailed outcome performance. Most of accounting measures and marketing measures have focused on measuring return, rather than risk.

Bentzen *et al.* (2012) reported that new firms are anticipated to earn less profit than older ones because they are less experienced in the market and because they are trying to establish their own presence; in addition, they are usually trying to cover their cost structure.

Khidmat and Rehman (2014) analysed the relationship between the liquidity, solvency and performance which plays a vital role in the Return on Assets of the chemical sector in Pakistan. The analysis explained the relationship between liquidity and solvency with RoA and is conducted on the data of 10 chemical companies for the past nine years (2000-2009) in the chemical sector of Pakistan. Conclusions drawn were that liquidity ratio affects RoA positively while it impacts negatively on solvency.

Rehman (2013) investigation on relationship between financial leverage and financial performance: empirical evidence of listed companies of Pakistan. The study sample size was 35 food companies listed on Karachi Stock Exchange. Financial performance was the dependent variable measured using five indicators of: ROA (%), ROE (%), EPS after tax (%), NPM (%) and sales growth. The researcher identified gaps that would require further studies in following areas: by extension period

and take all food companies on the Karachi Stock Exchange, consider comparative studies by taking data from different sectors to check the relationship between the variables studied.

Amalendu (2007) in his study on Liquidity Management of Sponge Iron India: A Case Study an attempt was made to examine and evaluate the liquidity management of the public enterprise as a factor responsible for poor performance in the iron and steel industry in India, covering a period from 1991-92 and 2002-03, he compared the various liquidity ratios and concluded that the liquidity management of sample companies were important for the firm's financial performance.

According to Shen and Rin (2012), cited by Mule, Mukras and Nzioka (2015) in their study found that firm size had a positive relationship with performance, implying that bigger firms are expected to achieve better performance. However, in the case of UK firms, size had a negative and significant effect on performance of the companies. This implies that, small companies sometimes suffer less from agency problems and more flexible structure to fit the change. They further argued that management efficiency reflects the capability of the management to deploy its resources efficiently and can be measured by financial ratios. The higher the ratio, the more the efficient management is in terms of operational efficiency, income generation and asset utilisation. Borghesi et al. (2014) and Audra et al. (2007) indicated that older firms are incapable of quick response to any changes in the environment and thus does not easily adapt to changing business environments which affects their financial performance.

Research by Mugenda, Momanyi, and Naibei (2012) focused on the implications of risk management practices on financial performance of sugar industry in Kenya using exploratory design and survey research methodology that included structured questionnaires and interviews. The empirical results of the study indicated that variation in risk management practices within firms is significant. Further, the study indicated a more than average positive relationship between risk management practices and performance ($r = 0.67$). Since this theory is more based on ownership structure, it will not be strongly applied in the present study.

3.0 Research Methodology

A cross-sectional retrospective research design was used for this study where the effect of liquidity was assessed in relation to financial performance of sugar industry in Kenya. This research design enables the researcher to observe two or more variables at one point in time and was useful for describing a relationship between two or more variables (Breakwell, Hammond, Fife-Schaw, and Smith (2006). In this study the population of the study, comprised 11 sugar firms as by Kenya Sugar Board 2010.

However not all firms were considered and thus we adopted a purposive sampling technique which is used in cases where the specialty of an authority can select a more representative sample that can yield more accurate results than by using other probability sampling techniques. The total sample thus considered for this study consists of five sugar firms registered with Kenya Sugar Board that were in operation and availability of firm's secondary data.

The data were extracted from secondary sources that included the financial reports of the five selected sugar manufacturing firms for the period for years ended 30th June 2005 to 2016. The

period of study was long enough to avoid the firms' effects. Therefore, the panel data had sixty elements. The sugar factories were selected based on availability of data. They are Chemelil, Mumias, Nzoia, Muhoroni and South Nyanza. To study the effect of liquidity on sugar industry financial performance in Kenya, the study adopted the estimation model used by Kuznetsov and Muravyev (2001) which is modified and estimated in the following form:

$$ROA_{it} = \beta_0 + \beta_1 CLCR_{it} + \beta_2 FirmSize_{it} + \beta_3 Z_{it} + \varepsilon_{it}$$

Where ROA_{it} is return on assets and is used as a measure of a firm's financial performance, $CLCR_{it}$ is the Current liability coverage ratio, $FirmSize_{it}$ is firm size and Z_{it} is a vector of control variables that includes firm age and monetary policy that based on the literature also influence firm performance. The adopted control variables help to capture heterogeneity or individual effects as constants. Therefore, it contains a set of individual or group specific individuals which may be unobserved or observed all of which are taken to be constant over time resulting in a more effective model that is linear and fit by least sequences (Greene, 2008). β_0 , β_1 , β_2 and β_3 are regression to be estimated.

Table 1: Measurement of variables in the study

Variables	Definition	Measurement
Dependent Variable		
ROA	Return of assets	Dividing profit after tax (net income) by net reliable value of the asset
Independent Variable		
Liquidity	Funding Liquidity	Current Liability Coverage Ratio
Firm size	Firm size	Natural logarithm of book value of total assets
Control Variables		
Monetary policy	Basis rate	Central Bank rate
Firm age	Years of establishment	Natural logarithm of years since establishment

Source: Author (2017)

4.0 Descriptive and Correlational Analysis

The current liabilities coverage ratio for the firms under consideration had an average of 3.418 percent with a reported standard deviation of 2.07 suggesting that the ratio across firms oscillates around the mean. The averages of 3.418 percent mean imply that current cash flows can pay 3.418 percent the current liabilities. On average, we establish that the sugar industry is underperforming as indicated by the return on assets (ROA).

The companies have a ROA of -0.32 an implication that their they have not been financially stable over time with the dip in financial performance for some companies being -6.92 percent. The variation in financial performance between the firms in the sugar industry is also low with the standard deviation from the mean being 1.19. ROA, an indicator of what management has accomplished with the given resources (assets) is directly related to management's ability to efficiently utilize firms' assets, which ultimately belong to shareholders. A lower return on assets will indicate inefficiency hence poor financial performance.

On liquidity, we establish that it averages 3.418 percent with a reported standard deviation of 2.07 suggesting that the ratio across firms oscillates around the mean. The averages of 3.418 percent mean imply that current cash flows can pay 3.418 percent the current liabilities, an indication that cash flows from these firms are not sufficient to pay the current liabilities as and when they fall due (Jun, 2017; Joy, 2008). This is also consistent with liquidity management theory.

Table 2: Summary statistics

Variable	Mean	Std. Dev.	Min	Max
ROA	-0.318	1.188	-6.920	1.320
Monetary policy	9.519	2.281	6.420	15.750
Firm size	21.970	1.832	15.860	24.180
Firm age	3.866	0.124	3.610	4.110
Current liabilities coverage	3.418	2.003	-0.095	7.683

The correlation findings reveal that there is a negative relationship between current liabilities coverage ratio and firm performance, that is ($r = -0.165$). This finding implies that a higher score current liabilities coverage ratio has a negative effect and an increase current liabilities coverage ratio is associated with a decline in profitability (ROA) an indication that cash flows from these firms are not sufficient to pay the current liabilities as and when they fall due (Jun, 2017; Joy, 2008). This is also consistent with liquidity management theory.

Table 3: Pearson correlation analysis

	ROA	MPI	Size	Age	CLCR
Return on assets	1				
Monetary policy	-0.035	1			
Size	0.625	0.046	1		
Age	-0.087	0.111	0.155	1	
Current Liabilities to Coverage	-0.165	0.063	0.130	0.222	1

Notes: ROA represents return on assets, CLCR is the current liabilities coverage ratio, CGI is the corporate governance index, MPI is monetary policy innovations, while Size and Age are firm size and age respectively.

4.1 Diagnostic Tests

In order to ensure robustness of the results we conducted tests of multicollinearity, Stationarity Tests, heteroskedasticity, autocorrelation and the Hausman test to test for the appropriate model to estimate between a fixed and random effects model. In testing for multicollinearity, we adopted the variance inflation factor (VIF) tests where we established that VIF were less than 5 and in the spirit of Montgomery (2001) and Gujarati (2003) who indicated that VIF values should not as a rule of thumb be more than either 5 or 10 respectively we conclude that the model did not suffer from multicollinearity. The test for unit root was undertaken using the Im-Persaran-Shin (IPS) test which allows for heterogeneous coefficients. The results of the Im-Persaran-Shin (IPS) test indicated that the variables were non-stationarity at level but stationary at level and thus the model incorporated variables at first difference. In testing the spherical disturbances assumption, we adopted the Breusch-Pagan LM test of independence whose null hypothesis states that the spherical disturbances are homoscedastic or tests the null of poolability (Gujarati, 2003; Wooldridge, 2003).

The Breusch-Pagan LM test with a $\chi^2(10) = 8.004$ is statistically insignificant (p-value = 0.6285) at all levels of significance and thus in line with Gujarati (2003) and Wooldridge (2003) we conclude that the spherical disturbance assumption has been met as the Breusch-Pagan LM test affirms that the cross-firm residuals are not correlated. In addition, using the Wooldridge (2002) test for serial correlation which is a F-test under the null hypothesis of no first-order autocorrelation. The F-test statistic i.e. $F(1,4) = 3.514$ is found not be statistically significant (p-value = 0.1341) at all levels of significance and thus we conclude that there is no first-order serial correlation. In choosing between the fixed and random effects model we employ the Hausman test which is a χ^2 test which yield a $\chi^2 1.36$ with a p-value = 0.84 which is more than 0.05 thus this study applies the random effects regression model.

4.2 Regression on the effect of liquidity management on ROA

The regression results for the random effects model reveals that the relationship between current liabilities coverage ratio and financial performance is negative ($\beta = -0.0962$, p-value = 0.138) though insignificant at 5% level of significance. This therefore invariably means that as a firm's current liabilities coverage goes up ratio (liquidity deteriorates) the financial performance of a firm deteriorates. The results are consistent with many researchers who concluded that liquidity management would improve the firm is worth and its operating performance (Khidmat and Rehman, 2014; Amalendu, 2007). The results differed with Eljelly (2004) who found a significant negative relationship between a firm's financial performance and its liquidity level. He argued that When firms have more assets than liabilities, this might be a sign that they are losing investment opportunities that could return in profits for the company.

We also note that firm size has a significant positive effect on firm performance ($\beta = 0.5184$, p-value = 0.000) which conforms to theoretical expectations that the larger the firm is the more market share it commands and thus the higher her financial performance. On the controls, we observe that changes in monetary policy is also seen to have a negative effect on a firm's financial performance ($\beta = -0.009$, p-value = 0.849) though the relationship that exists is insignificant. From this relationship we infer that changes in the monetary policy, proxied by central bank rate alters a firm's financing structure as debt becomes more expensive to repay as interest rates increases and thus a toll on the firm's financial performance.

With respect to a firm's age, a control variable adopted in the study, we establish that there exists a significant negative relationship ($\beta = -3.683$, p-value = 0.012) with financial performance. This supports the proposition that older firms are contemporaneously reaching the end of their life cycle. Black et al. (2006) suggest that older firms are more likely to have finished their high-growth stage, while younger firms are faster growing. Accordingly, younger corporations, as measured by a shorter incorporation history, are more likely to have better growth opportunities. Shen and Rin (2012), cited by Mule, Mukras and Nzioka (2015) in their study also found that firm size had a positive relationship with performance, implying that bigger firms are expected to achieve better performance. Similarly, Borghesi et al. (2014) and Boone et al. (2007) indicated that older firms are incapable of quick response to any changes in the environment and thus does not easily adapt to changing business environments which affects their financial performance. However, it is in conflict with the findings of Bentzen *et al.* (2012) who reported that new firms are anticipated to earn less profit than older ones because they are less experienced in the market and because they are

trying to establish their own presence; in addition, they are usually trying to cover their cost structure.

Table 4: Random Effects regression results on the effect of liquidity and corporate governance of firm performance

Dependent Variable: ROA	Coef.	Std. Err.	t-stat	P>t	[95% Conf. Interval]
Constant	2.962	6.114	0.48	0.628	-9.0213 14.946
Current Liabilities Coverage Rate	-0.096	0.065	-1.48	0.138	-0.223 0.0308
Monetary Policy	-0.009	0.046	-0.19	0.849	-0.099 0.0816
Firm Size	0.518	0.069	7.52	0.000	0.384 0.653
Firm Age	-3.683	6.114	0.48	0.628	-9.021 14.946
<i>wald</i> χ^2 (4)					77.16
Prob > χ^2					0.00
Overall Adjusted R-square					0.4445

5.0 Summary, Conclusions and Recommendations

The results of the data analyses undertaken to empirically test the nexus between liquidity management and financial performance of the sugar industry. The results have indicated support for the hypotheses linking liquidity and factory financial performance. Essentially, this study has used the random effects empirical model to examine the relationship between liquidity and firm performance of sugar industry in Kenya using data for the period June 2005-2016. The results reveal that liquidity current liability coverage ratio is negatively correlated with firm performance, indicating that a higher value of liquidity current liability invariably influences a firm's financial position. The regression results affirm that current liability coverage ratio negatively affects firm performance a suggestion that the firms in Kenya's sugar industry operate on low or negative cash flows, highly geared and lack of asset and liability strategies that could improve their financial performance.

Based on the study findings the following policy recommendations are proposed and if implemented will help resuscitate the overall financial performance of factories in the sugar industry and hopefully reverse their financial performance fortunes. First, the study recommends that careful consideration and planning of funding liquidity management is one of the ways to financial performance and as such this study recommends that there is need for the sugar industry firms to increase their operating cash flow, to positively influence their financial performance. Secondly, factories were highly geared and were incurring heavy financial costs, hence the variations in the determination of return on assets. Thus, debt financing, which is rampant among sugar factories need to be minimized and equity-based financing be introduced. The costs, especially financial costs need to be put under control if the financial performance of the industry is to be improved. Thirdly, the sugar firms under study are heavily indebted and near insolvent as brought out by the results from secondary data analysis. The sugar factories should implement appropriate capital structure, sound business premise, reasonable cash flow, and statement of financial position leverage combined with supported forecasts. Fourthly, the management should

develop asset and liability strategies, management needs policy guidelines for cash flow to maximize the profit potential, while minimizing the liquidity risk in the financial statement.

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