

Financial Analysis of a Small Scale Mining Organization

M. M. Manyuchi

Department of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

mercy.manyuchi@gmail.com

T. Mudamburi

Department of Technopreneurship, School of Business Sciences and Management, Harare Institute of Technology, Zimbabwe

tmudamburi@hit.ac.zw

N. Sukdeo

Department of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

nsukdeo@uj.ac.za

Abstract

In this study a financial analysis of a small scale gold producing and selling company was done to determine the liquidity of the organization. The gearing ratio was found to be as high as 44.5% with a company equity of \$412 000. The debtor's collection period was 34.7 days with debtor's turnover ratio of 5.73. The creditor's turnover ratio was 1.67 with an inventory turnover of 0.83 and a net profit margin of 6.3% was realized. The analysis indicated that the organization's liquidity was depressed.

Keywords: Debtors, creditors, gearing, inventory, profit margin

1. Introduction

The process of Financial Analysis involves identifying the financial weaknesses and strengths of an organization by thoroughly analyzing the financial statement (Ghergina, 2009). An organization's financial statement shows the financial data in an organized manner and is used to measure the financial position of an organization.

A registered company small scale gold mining company incorporated under Companies Act Chapter 24:03 in Zimbabwe. Its sole business is to mine and sell gold under small scale operations. The Managing Director of the company received the summarized Statements of Comprehensive Income and Financial Position from his Accountant as indicated in Annexure 1. The Managing Director was very much pleased with the results especially the huge profits before tax of \$45 200-00. He however told his Accountant that he could not understand why the company has been struggling to pay its operational expenses during the course of the year and was also worried about the negative bank balance. There was then need to undertake the financial analysis of the organization so as to map the way forward for the organization.

2. Financial Analysis

The financial analysis of the company was done through evaluation of the gearing ratio, company equity, debtor's collection period, debtor's turnover, creditor's payment period, credit turnover, inventory turnover, profit margin, net profit margin, return on capital employed and the interest cover ratio.

2.1 Gearing Ratio

The gearing ratio measures the leverage of an organization. The gearing ratio is calculated in accordance to Equation 1. Gearing measures the financial stability of a company and a low gearing ratio of less than 40% is acceptable (Pandy, 2010).

$$\begin{aligned} \text{Assets} &= \text{Capital} + \text{Liabilities} \dots \dots \dots (1) \\ (A) &= (C) + (C) \\ &= \$412,000 + \$331,000 \\ &= \$743,000 \end{aligned}$$

∴ *Gearing Ratio of the company:*

$$\begin{aligned} &= \frac{\text{Liabilities}}{\text{Assets}} \\ &= \frac{\$331,000}{\$743,000} \\ &= 44.5\% \end{aligned}$$

The company is highly geared since gearing ratio > 40%. This means that The Company have high debts to service. The accountant and the executives must come up with decisions on how to lower the gearing ratio.

2.2 Company Equity

Equity is defined as the value of an asset after deduction of liabilities (Soliman, 2008). The net worth of an organization is calculated in accordance to Equation 2.

$$\begin{aligned} \text{Equity (Net worth)} &= \text{Assets} - \text{Liabilities} \dots \dots \dots (2) \\ &= \$743,000 - \$331,000 \\ &= \$412,000 \end{aligned}$$

The company equity is equal to \$412,000

2.3 Current ratio

The current ratio refers to the ability of a company to meet its short term obligations and is defined as the ratio between the current assets to the current liabilities in accordance to Equation 3 (Sinha, 2010).

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \dots \dots \dots (3)$$

$$\text{Current Ratio} = \frac{\$325,000}{\$331,000}$$

$$\text{Current Ratio} = 0.98$$

The current assets for The Company are less than the current liabilities. This means that the company is not in a desirable financial situation as the current assets must always be greater than the current liabilities for a company to be in a desirable financial situation.

2.4 Debtors Collection Period

The debtor's collection period gives an indication of how long the company has been taking to collect money from debtors (Altfest, 2007). The debtor's collection period is calculated in accordance to Equation 4.

$$\text{Debtors collection period} = \frac{\text{Debtors}}{\text{Creditors} + \text{Sales}} \dots \dots \dots (4)$$

$$= \left(\frac{\$75,000}{\$215,000 + \$575,000} \right) \times 365 \text{ days}$$

$$= \left(\frac{\$75,000}{\$790,000} \right) \times 365 \text{ days} = 34,7 \text{ days}$$

The debtor's collection period for The Company was quite high, giving the organisation a hard financial time in terms of liquidity.

2.5 Debtors Turn Over

The debtor's turn over ratio is also called the receivables turn over ratio. This ratio shows how quickly the credit sales are converted into cash (Harness et al., 2008). The debtors Turn Over ratio measures the efficiency of a firm in managing and collecting the credit issued to the customers. The Debtors Turnover Ratio is calculated in accordance to Equation 5.

$$\text{Debtors Turnover Ratio} = \frac{\text{Credit sales}}{\text{Debtors}} \dots \dots \dots (5)$$

$$= \frac{\$430,000}{\$75,000}$$

$$= 5.73$$

The debtor's turnover ratio is very high, indicating that there is less efficiency by the Company in collections and Zvicherwa creditors.

2.6 Creditors Payment Period

The creditors' payment period indicates the time in days during which the current liabilities remain outstanding and the determination of the creditor's payment period is shown in Equation 6 (Cleverly et al., 2011). This giving the organization time to settle its debts. A business that wants to maximise its cash flows must take long as possible to pay its bills.

$$\begin{aligned} \text{Creditors payment period} &= \left(\frac{\text{Creditors}}{\text{Credit purchases}} \right) \times 365 \text{ days} \dots \dots \dots (6) \\ &= \left(\frac{\$215,000}{\$360,000} \right) \times 365 \text{ days} \\ &= 217.7 \text{ days} \end{aligned}$$

The company is doing well in terms of the Creditors Payment Period.

2.7 Credit Turn Over

Credit turnover is the net credit purchases to average trade auditors and this is calculated in accordance to Equation 7. This indicates the speed at which the payments are made to the trade creditors.

$$\begin{aligned} \text{Credit Turnover} &= \frac{\text{Credit Purchases}}{\text{Creditors}} \dots \dots \dots (7) \\ &= \frac{\$360,000}{\$215,000} \\ &= 1.67 \end{aligned}$$

The speed at which the Company is making payments to creditors is very high and this has a negative effect on the company's liquidity and cash flows.

2.8 Inventory Turnover (Stock Turnover)

The inventory turnover refers to the rate at which our company is spinning its stock and is calculated in accordance to Equation 8. A higher inventory stock turnover is better as holding more stock may improve customer service and allow the business to meet its demand.

$$\begin{aligned} \text{Inventory Turnover} &= \frac{\text{Cost of sales}}{\text{Average stock}} \dots \dots \dots (8) \\ &= \frac{\$390,000}{(\$220,000 + \$250,000)} \\ &= \frac{\$390,000}{\$470,000} \\ &= 0.83 \end{aligned}$$

The inventory turnover for the Company is < 1; hence the rate at which they are spinning their stock is low, resulting in low profitability and liquidity

2.9 Profit Margin

The profit margin gives an indication of profit and the capital invested in the business and is calculated in accordance to Equation 9 (Fama and French, 2000). The profit margin measures the degree at which a company is making money for every dollar.

$$\begin{aligned} \text{Profit margin} &= \frac{\text{Gross profit}}{\text{Sales}} \times 100 \\ &= \left(\frac{\$184,000}{\$575,000} \right) \times 100 \\ &= 32.1\% \end{aligned}$$

This means that the Company achieved a profit margin of 32.1%. This means \$0,32 for each dollar of Sales generated.

2.10 Net Profit Margin

Net profit margin is the measure of profitability and is calculated in accordance to Equation 10 (Frankel and Lee, 1998). The net profit margin reveals the amount of profit a business can extract from its total sales.

$$\begin{aligned} \text{Net profit margin} &= \left(\frac{\text{Net profit}}{\text{Sales}} \right) \times 100 \\ &= \left(\frac{\$36,200}{\$575,000} \right) \times 100 \\ &= 6.3\% \end{aligned}$$

The net profit margin of 6.3% indicates that the company earns 6 cents in profit for every dollar it collects. Zvicherwa is realising low net profit margins which overall affects its liquidity.

2.11 Return on Capital Employed

Return capital employed is an accounting ratio that is used to measure the relative profitability if an organisation taking into account the amount of capital used. The ratio measures how well a company is generating profits and is calculated in accordance to Equation 11.

$$\begin{aligned} \text{Return on capital employed} &= \left(\frac{\text{Profit before (Interest and tax)}}{\text{Capital employed}} \right) \times 100 \\ &= \left(\frac{\$45,200 + \$12,000}{\$332,000} \right) \times 100 \\ &= 0,17 \times 100 \\ &= 17\% \end{aligned}$$

The return on capital for the Company is very low, hence the rate at which they are generating profits are also low.

2.12 Interest Cover Ratio

The interest cover ratio refers to the organization's ability to meet its interest payments and is calculated according to Equation 12 (Brown and Kapadia, 2007). An interest coverage ratio at least 2 is generally acceptance.

$$\begin{aligned} \text{Interest cover ratio} &= \frac{\text{Profit before (interest + tax)}}{\text{Interest paid}} \dots \dots \dots (12) \\ &= \left(\frac{\$45,200 + \$12,000}{\$12,000} \right) \\ &= 4.8 \end{aligned}$$

The Zvicherwa interest cover ratio is >2 hence the rate at which they are paying back their interest payments are acceptable.

3. Conclusion

The company had an overdraft inspite of huge profits due to high gearing ratio. In addition from the financial analysis, the company has low current ratio, low inventory turnover, low debtors collection period, low profit margin and low return on capital employed. These ratios must be maximised on by the organisation so that they improve on their profitability and liquidity. The company must engage competent finance people to manage the debt capital portfolio as well as continuous monitoring and review of the finance statement.

References

- Altfest, L. J., *Personal Financial Planning*. New York, McGraw-Hill, 2007.
- Brown, G. W., and Kapadia, N. Firm-Specific Risk and Equity Market Development. *Journal of Financial Economics*, vol. 84, pp. 358–388, 2007.
- Cleverley, W., Cleverley, J., and Song, P., *Essentials of Health Care Finance*. Sudbury, MA: Jones and Bartlett Learning; 2011.
- Fama E. F., and French, K. R., Profitability and Earnings, *Journal of Business*, 73, 2003.
- Frankel, R., and C. M. C. Lee., Accounting Valuation, Market Expectation and Cross-Sectional Stock Returns, *Journal of Accounting and Economics*, vol. 25, pp. 283-319, 1998.
- Gherghina, R., Duca, I., Văduva, F., Maximizing Company Value – An Important Objective in Financial Management, Universitatea Tibiscus, Faculty of Economic Sciences of Timișoara, published in the Annals Economic Science Series, Vol.XV/2009,pp. 665-668, indexed journal BDI: EconLit,RePec,ISSN1582-6333.
- Harness, N. J., Chatterjee, S., and Fiuke, M., Household Financial Ratios: A Review of Literature. *Journal of Personal Finance*, vol. 6 (4), pp. 77-97, 2008.
- Pandy, I. M., *Financial Management*, 10th Edition, New Delhi, Vikas Publishing House PVT Limited, 2010.
- Sinha, G., *Financial Statement Analysis*. New Delhi: PHI Learning, 2010.

Soliman, M., The use of Dupont analysis by market participants. *The Accounting Review*, vol. 83 (3), pp. 823-853, 2008.

Biographies

Mercy Manyuchi is a Professor in Chemical and Metallurgical Engineering at the University of Johannesburg in South Africa. She holds a Doctorate Degree from Cape Peninsula University of South Africa, a Master of Science Degree from Stellenbosch University and a Bachelor of Engineering Honors Degree from Zimbabwe. Her research interests are in waste to energy technology, value addition of waste biomass and renewable energy technologies.

T. Mudamburi is a Lecturer in the Department of Technopreneurship, School of Business Sciences and Management, Harare Institute of Technology, Zimbabwe

Nita Sukdeo is the Head of Department for the Department of Operations and Quality Management, in the Faculty of Engineering and the Built Environment at the University of Johannesburg.

Annexure

STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 2019			
EMPLOYMENT OF CAPITAL			
			2003
			\$
<u>Listed Investments</u>			40000
FIXED ASSETS			
Land and Buildings			240000
Plant and Equipment			84000
Furniture and Fittings			10000
Motor Vehicles			44000
			418000
CURRENT ASSETS			
Stock	250000		
Debtors	75000		
Cash	<u>0</u>		
	325000		
CURRENT LIABILITIES			
Creditors	215000		
Dividends Proposed	6000		
Bank Overdraft	<u>110000</u>		
	331000		
Working Capital			<u>-6000</u>
			412000
CAPITAL EMPLOYED			

COMPANY BOOKS

INCOME STATEMENT FOR THE YEAR ENDING 31 DECEMBER 2019			
Sales			575000
Less Cost of sales:			
Opening stock	220000		
Add Purchases	<u>420500</u>		
	640500		
Less Closing stock	<u>250000</u>		
			<u>390500</u>
Gross Profit			184500
Add Other Income :Interest			500
			<u>7000</u>
			192000
Less Expenses:			
Administrative	15000		
Advertising	6800		
Audit fees	5500		
Bad debts	12700		
Computer services	3200		
Depreciation	24800		
General expenses	3400		
Insurance	4000		
Interest paid	12000		
Motor expenses	3000		
Salaries and wages	27000		
Sales expenses	5400		

SHARE CAPITAL AND RESERVES							
Ordinary share Capital @ \$2 each		200000		Rates and taxes	1000		
12% Preference share capital@ \$1 each		60000		Repairs and maintenance	23000		
Share Premium		20000				<u>146800</u>	
Retained Income		<u>52000</u>		Net profit before tax		45200	
		332000		Taxation		<u>9000</u>	
LONG TERM LIABILITIES							
15% Mortgage		<u>80000</u>		Net Income after tax		36200	
		412000		Preference Dividend		<u>7200</u>	
						29000	
				Ordinary Dividend		<u>12000</u>	
				Retained Income for year		17000	
				Retained Income at beginning of yr		<u>35000</u>	
				Retained Income c/fwd		52000	

ADDITIONAL INFORMATION

Credit sales	\$430 000
Credit purchases	\$360 500