CHAPTER 6

FINANCIAL ANALYSIS

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1) FINANCIAL ANALYSIS

2) CURRENT RATIO

3) ACID TEST RATIO

4) GROSS MARGIN RATIO

5) NET MARGIN RATIO

6) RETURN ON INVESTMENT RATIO

7) RETURN ON CAPITAL EMPLOYED RATIO

8) INVENTORY TURNOVER RATIO

9) DEBTORS TURNOVER RATIO

10) DEBT EQUITY RATIO

11) PROPRIETARY RATIO

FINANCIAL ANALYSIS

An entity communicates its financial information to the users through financial statements and reports. The end product of the financial accounting process is a set of reports which are called financial statements. The information contained in financial statements is used by various users for decision-making process.

According to Metacaff and Titard, "Analysing financial statements is a process of evaluating relationship between component ports of financial statements to obtain a better understanding of firms position and performance."

Analysis of statements consists in separating facts according to certain characteristics and then presenting them in a convenient and easily understandable form. Interpretation and analysis are closely connected because interpretation is not possible without analysis and analysis without interpretation is meaningless. Financial statements are " reports by management". These can be made reports on management with the help of analysis and interpretation. Ratio analysis is one of the methods of analyzing financial statements.

Ratio is the numerical or quantitative relationship between two variables which are connected with each other in one way or the other. Significance of ratio analysis is that the performance and financial position can be properly judged by the ratios. Accounting ratios taken at different intervals show how much is the change and whether the change is for the better or worse.

Ratios are of different types.

1] Financial or Liquidity Ratios

a) Current Ratio

b) Acid Test / Quick Ratio

c) Debt Equity Ratio

d) Proprietary Ratio

2] Profitability Ratios

a) Gross Profit Ratio

b) Net Profit Ratio

c) Return on Investment Ratio (ROI)

d) Return on Capital Employed Ratio (ROC)

3] Turnover or Activity Ratios

a) Inventory Turnover Ratio

b) Debtors Turnover Ratio

Financial ratios are calculated to examine the financial position of the business. Financial position examined for short term period is liquidity whereas long term financial position is known as solvency.

Activity ratios are concerned with measuring the efficiency of the management. Efficiency implies effective utilization of available resources. The term `turnover' refers to the rotation or utilization of a resource or an asset in the process of business activity.

Profit is the excess of total revenue over total expenses over a period of time . Existence, continuance and growth of every unit depends upon as to how much profit has been earning.

BALANCE SHEET

A) SOURCES OF FUNDS

Particulars	2004-2005		2005-2006		2006-2007	
	Amount (In Lacs)	Percentage	Amount (In Lacs)	Percentage	Amount (In Lacs)	Percentage
Capital A/C	19.20	13.2%	23.54	15.4%	32.79	31,6%
A.B. Kale	5.11		5.84		7.51	
J.B. Kale	3.90		4.31		6.97	
P.B. Kale	3.78		4.36		5.82	
S.A. Kale	6.41		5.64		12.49	
Profit & Loss A/C	(-) 2.83		1.75		3.40	
Subsidy –Agri. Dept.	-		3.39		15.55	
Subsidy –MFPI Backward Linkage	-		-		10.00	
Subsidy –MFPI for expansion	-		-		5.55	
Loans	85.14	58%	75.27	50%	73.86	48%
Deposits from farmers	4.90		4.08		4.79	
Deposits from friends and relatives	12.81		14.02		15.02	
Bank OD A/C	54.80		49.10		47.60	
Secured Loans	12.03		8.07		6.45	
Total	**101.51**		**103.95**		**125.60**	

B) APPLICATION OF FUNDS

Particulars	2004-2005		2005-2006		2006-2007	
	Amount (In Lacs)	Percentage	Amount (In Lacs)	Percentage	Amount (In Lacs)	Percentage
Fixed Assets	39.06	28.6%	40.18	26%	37.80	23%
Bore well	0.38		0.40		0.31	
Building	19.25		18.25		17.77	
Computer	0.40		0.70		0.29	
Crates	0.60		0.62		0.56	
Dead Stock	0.04		0.08		0.07	
Dust Bins	0.02		0.02		0.01	
Electrical and Electronic equipment.	-		3.00		2.45	
Fax Instrument	0.05		0.10		0.11	
Fire Extinguisher	0.02		0.02		0.01	
Furniture	0.10		0.22		0.18	
Grading Sieves	0.01		0.01		0.01	
Instruments	0.20		0.20		0.20	
Intangible Assets	-		1.30		1.89	
Leasehold Land	0.83		1.00		1.03	
Machinery	9.00		8.00		7.02	
Reliance Mobile	0.10		-			
Storage Cans	0.54		1.00		0.44	
Upgradation Equipments	0.40		0.40		0.30	

Vehicles	7.08		6.23		5.12	
Water Tank	0.04		0.13		0.03	
Add : Investments	5.00	3.5%	1.37		1.00	
Interest Receivable	0.17					
SBI TDR	4.80					
NSC	0.03					
Add : Current Assets	99.17	68%	114.12	74%	117.25	77%
Closing Stock	43.00		66.00		57.14	
Deposits	0.26		-		-	
Loans and Advances(Asset)	5.07		0.32		0.35	
Sundry Debtors	50.00		46.20		58.53	
Cash in Hand	0.76		1.39		1.09	
Apron & Mask	0.05		-			
TDS Receivable	0.03		-			
VAT Refund receivable	-		0.21		0.13	
Prepaid Expenses	-		-		0.01	
Less : Current Liabilities	41.72	28.6%	52.22	34%	30.45	19.9%
Provisions	2.59		2.21		2.59	
Sundry Creditors	39.13		49.91		27.68	
Duties & Taxes	-		-		0.18	
Total Working Capital	57.45		60.90		86.80	
Total	**101.51**		**103.95**		**125.60**	

PROFIT & LOSS A/C

Particulars	2004-2005		2005-2006		2006-2007	
	Amount (In Lacs)	Percentage	Amount (In Lacs)	Percentage	Amount (In Lacs)	Percentage
Sales A/C	188.27	81.4%	157.99	70.8%	235.10	79%
Export Sales	79.67		73.95		96.76	
Fresh Corn Sales	73.12		31.71		73.27	
Fresh Gherkin Sales	2.35		-		-	
Fresh Sweet Corn Sale	0.21		-		-	
Product Sales	32.92		23.67		-	
Fruits and Vegetables	-		16.27		-	
Interstate Sales	-		5.87		37.24	
Processing charges a/c	-		2.99		0.14	
Product Sales Exemption	-		3.53		2.98	
Sales @ 4%	-		-		21.06	
Sale of Import Licence	-		-		3.65	
Add : Direct Incomes	-		-		3.52	1.19%
Excise Refund A/C	-		-		2.95	
Subsidy – APEDA Transport	-		-		0.57	

Assistance						
Less : Cost of Sales	154.82		127.80		194.35	
Opening Stock	17.46	7.5%	43.00	19.3%	65.02	22%
Additive Purchases	-		0.56		1.50	
Agro Extension	-		4.09			
Finished Goods	-		30.25		51.04	
Fruits and Vegetables	-		0.28		0.48	
Fuels.	-		0.14		0.72	
Fertilizers	-		-		0.99	
Packing Material	-		7.22		6.15	
Semi Finished Goods	-		0.46			
Fungicide	-		-			
Gherkin (Drum)	-		-		0.58	
Micro Nutrients	-		-		0.99	
Pesticides	-		-		0.03	
Seeds Purchase	-		-		2.53	
Add : Purchases	157.99		127.41		159.59	
Purchase A/C	157.99	68%	127.41	57%	159.59	54%
Agro Extension	3.94		0.14			
Fruits and Vegetables	101.98		80.19		92.21	

Additive Purchases	3.63		-		-	
Gherkins	0.37		-		-	
Packing Material	48.07		-		2.61	
Purchases	-		47.08		64.77	
Add : Expenses on purchase	22.37		22.40		26.87	
Clearing Agent charges	0.30		-			
Consumables	0.36		0.77		0.59	
Corn Purchase Expenses	1.25		0.91			
Corn Collection Expenses	-		-		1.38	
Fresh Corn Packing Exp.	-		0.73		2.86	
Export Exp.	1.56		-			
Fuel – Diesel	5.00		2.50			
Labels	0.64		1.70		1.53	
Labour charges	1.61		2.52		3.69	
Maintenance Expenses	0.27		1.93		0.81	
Power charges	0.62		0.67		0.73	
Transportation a/c	5///.20		4.60		7.63	
Transportation Export	2.24		2.55		3.19	
Vehicle Rent	0.45		-		-	
Wages	2.43		2.15		3.01	

Water Charges	0.44		0.98		1.04	
Bonus	-		0.38		-	
Building Repairs Exp.	-		-		0.33	
Cleaning and Sanitation Expenses	-		-		0.02	
Uniform and Caps Exp.	-		-		0.07	
Less : Closing Stock						
Closing Stock	43.00	18.6%	65.01	29.2%	57.13	19.3%
Additive Purchases	-		1.47		1.20	
Agro Extension	-		4.54		-	
Fertilizers	-		-		0.66	
Finished Goods	-		50.43		46.86	
Fruits and Vegetables	-		1.06		0.45	
Fuel	-		0.72		0.08	
Packing Material	-		6.18		5.70	
Semi Finished Goods	-		0.61			
Fungicide	-		-			
Gherkin (Drum)	-		-		0.14	
Micro Nutrients					0.81	
Pesticides	-		-		0.02	

Seed Purchase	-		-		1.21	
Gross Profit	33.46		30.20		44.28	
Add : Indirect Incomes	0.29		2.84		-	
Gifts & Prizes	0.01		-		-	
Interest Received	0.28		0.11		1.09	
Excise on Packing material refund	-		-			
Less : Operating expenses	36.59	100%	31.40	94%	40.88	92%
Interest paid Bank	2.63		7.28		6.67	
Advertisement a/c	-		0.02		0.04	
Audit Fees	0.10		0.12		0.14	
Bank Charges	1.22		0.58		0.54	
Bank Interest	4.69		-		-	
Bonus	0.38				0.40	
Bank Cash Transaction Tax	-		0.03		0.05	
Certification Audit Fees	1.51		-		-	
Certification Expenses	0.44		-		-	
Consultancy Charges	0.39		0.36		0.37	
Clearing Agency Charges	-		0.26		0.28	
Calibration Charges	-		-		0.05	

Computer Repairs	-		-		0.03	
Conveyance Expenses	-		-		0.04	
Depreciation	8.39		6.26		5.23	
Donations	-		-		0.02	
Duties and Taxes	-		0.08		0.52	
Discount	-		-		0.10	
Bad Debts Written Off	-		-		3.16	
Exchange Rate Difference	-		0.71		0.13	
Export Exp. A/C	-		1.24		1.33	
Electrical Equipment	-		-		0.06	
Export Commission and Postage	-		-		0.39	
FPO License Fees	-		-		-	
Farmers Training Exps.	-		0.26	-	0.42	
Fringe Benefit Tax	-		0.15		0.40	
Gardening Expenses	0.16		0.03		-	
Income Tax	1.28		0.28		0.45	
Inspection Charges	0.08		-		-	
Insurance	0.66		0.69		0.70	
Interest on Capital	2.32		2.11		2.80	
Interest on Deposits	-		0.07		0.90	

Interest on TDS	-		0.02		-	
Labour Welfare A/C	0.13		0.01		0.21	
License Fees	0.01		0.02		0.04	
Legal Charges			0.03		0.04	
Krushi Upay Yojana Exp.	-		-		0.06	
Maintenance Labour	-		-		0.24	
Newspapers and Periodicals	0.02		0.02		0.04	
Partners Remuneration	3.12		0.74		-	
Pest Control	0.12		0.13		0.15	
Pooja Expenses	0.02		0.05		0.04	
Postage Expenses	0.03		0.09		0.32	
Printing and Stationery	0.50		0.69		0.48	
Photography Expenses	-		0.09		-	
Product Exp. Charges	-		-		0.02	
Repairs	0.71		-		0.13	
Salary	4.46		4.01		5.20	
Sales Promotion	0.15		0.38		0.17	
Salary to Partners	-		-		3.72	
Subscription and Donation	0.11		0.05		-	
Sundry Expenses	0.14		0.14		0.05	

Surveillance Audit Fees	-		0.12		0.12	
Octroi Expenses	-		-		0.12	
Sales Tax Expenses	-		-		0.01	
Telephone Fax charges	0.89		1.20		1.22	
Testing charges	0.40		-		-	
Testing Fees	0.14		-		-	
Traveling and Conveyance	0.86		2.06		0.75	
Tea bill expenses	-		0.10		0.13	
Trademark Registration	-		-		0.06	
Traveling Partners Expenses	-		-		1.73	
Vehicle Expenses	0.53		0.79		0.57	
Valuation Charges	-		0.04		-	
VAT Credit disallowed	-		-		0.03	
Uniform Purchases A/C	-		0.08		-	
Water Tank Cleaning	-		0.04		0.06	
Xerox expenses	-		-		0.07	
Net Profit	-	-	1.75	5.3%	3.40	7.7%

1) CURRENT RATIO

The Current Ratio is a liquidity ratio. It measures the short term solvency of a firm i.e. the firms ability to meet short term obligations. As a measure of short term / current financial liquidity, it indicates the rupees of current assets available for each rupee of current liability / obligation.

Formula :

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

Computation of Value

	2004-2005	2005-2006	2006-2007
Current Assets / Current Liabilities	98.86 / 41.72	113.02 / 52.12	117.25 / 52.12
Current Ratio	2:1	2:1	4:1

The current ratio of 2:1 is considered satisfactory i.e. current assets twice current liabilities is a standard situation. The logic underlying this rule is that even with a drop out of 50% (half) in the value of current assets, a firm can meet its obligations i.e. a 100% margin of safety is assumed. Thus higher the ratio, better for the firm.

Nina Foods has a satisfactory current ratio throughout 2006-2007 shows a very sound position. In the initial years 2004, 2005 & 2006 the position of Nina Foods is satisfactory as it matches with the standard.

2) ACID TEST RATIO / QUICK RATIO

The Acid Test Ratio is a rigorous measure of a firm's ability to service short term liabilities. It is a measurement of a firms ability convert its current asses quickly into cash in order to meet its current liabilities. It excludes prepaid expenses and inventory.

Formula :

$$\text{Acid Test Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

Computation :

	2004-2005	2005-2006	2006-2007
Quick Assets	50.84	47.68	59.85
Current Liabilities	41.72	52.12	30.45
∴ Acid Test Ratio	$\frac{50.84}{41.72}$	$\frac{47.68}{52.12}$	$\frac{59,85}{30.45}$
	1.22 : 1	0.91 : 1	1.96 : 1

Generally on acid test ratio of 1:1 is satisfactory as a firm can easily meet all the current claims.

Acid test ratio of Nina Foods is satisfactory in the years 2004-2005 and 2006-2007, but it is a bit less in the year 2005-2006.

3) GROSS MARGIN RATIO

Profitability ratios indicate public acceptance of the product and shows that the firm can produce competitively. The profitability ratios can be determined on the basis of either sales or investments.

Formula :

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

Computation :

	2004-2005	2005-2006	2006-2007
Gross Profit	33.46	30.20	44.28
Sales	188.27	157.99	235.10
∴ G.R. Ratio	$\frac{33.46}{188.27} \times 100$	$\frac{30.20}{157.99} \times 100$	$\frac{44.28}{235.10} \times 100$
	17.8%	19%	19%

The gross margin represents the limit beyond which the sales price should not be allowed to fall. A high ratio of gross profits to sales is a sign of good management as it implies that cost of production of a firm is relatively low.

A reasonable gross margin to ensure adequate coverage for operating expenses of the firm and sufficient returns to the owners is satisfactory.

In the case of Nina Foods a fairly good G.P. ratio is noticed. In the year 2004-2005 the ratio is nearly 18%, and in any industry such ratio is fair enough as it covers the cost successfully. The years 2005-2006 and 2006-2007 show 1% rise which is also a good sign.

4) Net Profit Ratio

This ratio measures the relationship between net profits and sales of a firm.

Formula :

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Sales}}$$

Computation :

	2004-2005	2005-2006	2006-2007
Net Profit	Loss	1.75	3.40
Sales	-	157.99	235.10
Net Profit Ratio	-	$\frac{1.75}{157.99} \times 100$	$\frac{3.40}{235.10} \times 100$
	-	1.11%	1.45%

A high profit margin is always a good sign as it would ensure adequate return to the owners as well as enable a firm to withstand adverse economic condition.

Nina Foods were unable to withstand in the year 2004-2005 . But in the two successive years 2005-2006 and 2006-2007 they have been fairly successful in managing the sale price and costs.

5) RETURN ON INVESTMENT RATIO (ROI)

Return on Investment ratio is calculated to measure the profitability in terms of invested capital and invested in assets.

Formula :

$$ROI = \frac{\text{Net Profit}}{\text{Total Assets}} \times 100$$

Computation :

	2004-2005	2005-2006	2006-2007
Net Profit	-	1.75	3.40
Sales	-	152.83	152.65
ROI Ratio	-	$\frac{1.75}{152.83}$	$\frac{3.40}{152.65}$
	-	0.01 : 1	0.02:1
		1%	2%

Return on Investment concept can be divided into 3 categories i.e. (1) Return on assets, (ii) Return on capital employed and (iii) Return on shareholders equity.

In this case, being loss incurred in the year 2004-2005 it is out of question. In 2005-2006, 1% ratio is observed which is not satisfactory. Also 2006-2007 shows an increase of 1% ratio which is also not much appreciable. But a steady rise in this way would bring the concern in a desired sound position.

6) RETURN ON CAPITAL EMPLOYED (ROC)

Return on capital employed is a profitability measuring ratio. The term capital employed refers to long term funds supplied by the creditors and owners of the firm.

Formula :

$$ROC = \frac{\text{Net Profit}}{\text{Total Capital Employed}} \times 100$$

Computation :

	2004-2005	2005-2006	2006-2007
Net Profit	-	1.75	3.40
Total Capital Employed	-	23.54+77.17	48.34+73.86
ROC	-	$\frac{1.75}{(23.54+77.17)}$	$\frac{3.40}{(48.34+73.86)}$
	-	$\frac{1.75}{100.71}$	$\frac{3.40}{122.2}$
		0.01	0.03
		1%	3%

The capital employed basis provides a test of profitability related to sources of long term funds. A comparison of this ratio with that of similar firms provides sufficient insight into how efficiently the firms funds are being used. Higher the ratio, more efficient use of capital employed.

In the case of Nina Foods, 2004-2005 shows loss. Therefore if 2005-2006 is considered the ROC is quiet poor. 2006-2007 shows improved position of the concern.

ACTIVITY RATIOS

7) INVENTORY TURNOVER RATIO

The ratios used to examine the liquidity by determining how quickly certain assets are converted to cash are known as turnover ratios. These are the activity ratios.

Formula :

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of goods sold}}{\text{Average Inventory}}$$

Here cost of goods sold = Sales – Gross Profit

$$\text{Average Inventory} = \frac{\text{Opening Stock + Closing Stock}}{2}$$

Computation :

	2004-2005	2005-2006	2006-2007
Cost of goods sold	154.81	190.82	127.79
Average Inventory	30.23	61.07	54
Inventory Turnover Ratio	$\frac{158.81}{30.23}$	$\frac{190.82}{61.07}$	$\frac{127.79}{54}$
	5.12 :1	3.12 :1	2.37:1

This ratio indicates how fast inventory is sold. A high ratio is good from the view point of activity. A low ratio signifies that inventory does not sell fast and remains on shelf for long time. Inventory turnover ratio can be used to calculate inventory conversion period.

In the case of Nina Foods Inventory turnover ratio is good. It indicates 90 days credit on an average. Specifically speaking the ratio 5.12 nearly 5:1 is too good showing fast turnover. The year 2005-2006 shows a bit increased credit given. In 2006-2007 the position is still more credit facility providing year. But still 90 days on an average is satisfactory.

8) DEBTORS TURNOVER RATIO

It is a supplementary measure of the liquidity of the firm. It shows how quickly debtors are converted into cash To solve the difficulty arising out of non-availability of the information in respect of credit sales and average debtors, the ratio of total sales and closing balance of debtors is used.

Formula :

$$\text{Debtors Turnover Ratio} = \frac{\text{Total Sales}}{\text{Debtors (closing)}}$$

Computation :

	2004-2005	2005-2006	2006-2007
Total Sales	188.27	157.99	235.10
Debtors (cl.)	49.79	46.18	58.53
Debtors Turnover Ratio	$\frac{188.27}{49.79}$	$\frac{157.99}{46.18}$	$\frac{235.10}{58.53}$
	3.78 times per year	3 times per year	4 times per year

A small collection period is more profitable for a firm because a long collection period reflects that payment from debtors are delayed.

In Nina Foods the debtors turnover ratio indicates a credit period of not more than 3 months to the debtors which is reasonable. The thing observed here is that the turnover ratio is increasing satisfying in the 2004, 2005, 2006, 2007.

9) DEBT EQUITY RATIO :

The relationship between borrowed funds and owners capital is a useful measure of the long term financial solvency of a firm. This ratio indicates the relative claims of creditors against assets of the firm.

Formula :

$$\text{Debt Equity Ratio} = \frac{\text{Long term debt}}{\text{Capital (owned)}}$$

Computation :

	2004-2005	2005-2006	2006-2007
Long term loans	84.71	77.17	73.86
Capital (owned)	19.20	23.54	48.34
Debt Equity Ratio	$\frac{84.71}{19.20}$	$\frac{77.17}{23.54}$	$\frac{73.86}{48.34}$
	4.4:1	3.2:1	1.5:1

An organization benefits if the debt to equity or owned funds ratio is low i.e. borrowed funds should be less than the owned founds to prevent payment of heavy interest.

In Nina Food's case it is seen that percentage of borrowed funds is more as compared to own capital which is not sound practice. But comparing the years 2004-2005 the percentage of borrowed funds has decreased and finally the management of Nina Foods has been successful in increasing owned funds in the year 2006-2007.

10) PROPRIETARY RATIO

Proprietary Ratio is also known as Equity ratio. It established relationship between proprietor's funds to total resources of the unit.

Formula :

$$\text{Proprietary Ratio} = \frac{\text{Proprietors fund}}{\text{Total Assets}}$$

Computation :

	2004-2005	2005-2006	2006-2007
Proprietors funds	19.20	23.54	48.34
Total Assets	145.62	152.83	152.65
Proprietary Ratio	$\frac{19.20}{145.62}$	$\frac{23.54}{152.83}$	$\frac{48.34}{152.65}$
	0.13:1	0.15:1	0.31:1

Proprietory ratio establishes relationship between proprietor's funds to total resources of the unit.

In the year 2004-2005 the proprietary ratio is 13% i.e. 87% funds are supplied by outside creditors. It is a poor proprietory ratio. The year 2005-2006 shows a bit rise in the proprietory ratio. But in the year 2006-2007 31% proprietory ratio indicates 69% of funds supplied by outside creditors. Though the ratio has shown a rise, a more higher ratio is expected and desired.