

Full Length Research Paper

Determinants of profitability: A case study of listed manufacturing companies in Sri Lanka

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Accepted March 25, 2013

The main objective of the study is to determine the profitability of listed manufacturing companies in Sri Lanka. In order to meet the objectives of the study, data were collected from secondary sources mainly from financial report of the selected companies, which were published by Colombo stock exchange in Sri Lanka. The results revealed that the profitability of manufacturing companies is less satisfactory. On the basis of result and analysis, selected manufacturing companies has different ranking based on each profitability indicators such as Gross Profit Ratio (GPR), Operating Profit Ratio (OPR), Net Profit Ratio (NPR), Return on Investment (ROI), and Return on Capital Employed (ROCE). Based on the Gross Profit Ratio, Operating Profit Ratio, Net Profit Ratio, ROYAL CHERAMIC PLC is at first whereas CHEVRON LUBRICANTS PLC is at first based on ROI, ROCE. Outcome of the study is beneficial to academicians, policy makers, practitioners and so on.

Keywords: Determination, Profitability, Manufacturing Companies.

INTRODUCTION

Profit is the primary objective of a business (Nimalathanan, 2009). In point of view of the heavy investment which is necessary for the success of most enterprises. Profit in the accounting sense tends to become a long term objective which measures not only the success of the product, but also of the development of the market for it. It is determined by matching revenue against cost associated with it. Only those costs are placed against revenue, which have contribution in the generation of such revenue. An enterprise should earn profits to survive and grow over a long period of time. It provides evidence concerning the earnings potential of a company and how effectively a firm is being managed. If the enterprise fails to make profit. Capital invested is

eroded and if this situation prolongs the enterprise ultimately ceases to exist.

Profit and profitability are two different terms. Profit means as an absolute measure of earning capacity, while profitability is relative measure of earning capacity. Profit is defined by Iyer (1995) as "excess of return over outlay" (Nimalathanan, 2009) while profitability is defined as "the ability of given investment to earn a return from its use". The words profitability is composed of two words profit and ability. The word profit has already been defined but the meaning of profit differs according to the use and purpose of the enterprise to earn the profits. Thus the word profitability may be defined as the ability of given investment to earn a return from its use.

Profitability ratios measure the firm's ability to generate profits and central investment to security analysis, shareholders, and investors. Profitability is the primary measure of the overall success of enterprise. The analysis of profitability ratios is important for the

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Shareholders, creditors, prospective investors, bankers and government alike.

Literature review

Nimalathan (2009) mentioned that the profit is the primary objective of a business, which measures not only the success of a product, but also of the development of the market for it. Further profit is the report card of the past, the inventive gold star for the future.

Weidenfeld and Nicholson (1970) concerned that the profit as a reward to owner of the capital but with the return to capital as an objective of a firm's activities. Velnamby and Nimalathan (2009) noticed the profitability will provide more accurate view of the firm's performance. Pandey (1979) indicated that recent experience in countries with totally planned economies indicated that economists are probably right in emphasizing the importance of overall profitability as a criterion for the efficient operation of an enterprise.

Weston (1978) declared that the profit is used to test the efficiency and use to measure the control and worth of the investment to the owners, margin of safety to the creditors, source of extreme benefits to the employees, to the Government a measure of taxable capacity and the basis of legislative action, to the country profits are an index of economic progress, national income generated and rise in the standard of living.

On the other hand, Welstedt (1980) in his book entitled "state manufacturing enterprises in a Mixed Economy: Turkish case" stated that profitability of an enterprise can be ascertained, if profit is analyzed in terms of sales and investment. Schmalensee (1987) mentioned that to determine the determinacy of systematic changes in intra-industry profitability occurred over time so as to distinguish between an efficiency story and collusion story about why concentrated industries had higher profit rates than other industries, and also he found that large firms in general were higher profitable than small firms within the same industry.

Velnamby and Nimalathan (2007) pointed out that sales are positively associated with profitability ratios except return on investment, and numbers of depositors are negatively correlated with the profitability ratios except return on equity, likewise number of advances to the return on investment, and return on average assets in Bank of Ceylon. Sexton and Kasarda (2000) found that firm profitability was correlated with sustainable growth, while Chandler and Jensen (1992) found that sales growth and profitability were not correlated.

Based on the above literatures, we can say that various studies have been done on this area, but a detailed and comprehensive study has not yet been conducted in manufacturing companies in Sri Lanka. Hence, the present study is initiated to determine the profitability of listed manufacturing companies in Sri

Lanka with five (05) year accounting period from 2006 to 2010.

Objectives

The main objective of the study is to determine the profitability of manufacturing companies. To achieve main objective, the following specific objectives are taken for the study purpose.

- To compare the profitability.
- To recognize the profitability.

MATERIAL AND METHODS

Scope

The scope of the study is listed manufacturing companies on Colombo stock exchange (CSE), Sri Lanka. Thirty one companies are listed under manufacturing sectors. Hence, out of thirty one, only ten companies are selected for the study purpose as purposively such as:

1. Abans Electricals Plc
2. Acme Printing and Packing Plc
3. Central Industrial Plc
4. Acl Cable Plc
5. Acl Plastic Plc
6. Lanka Aluminum Industrial Plc
7. Chevron Lubricants Lanka Plc
8. Kalani Cables Plc
9. Lanka Ceramic Plc
10. Royal Ceramic Lanka Plc.

Data sources

In order to meet the objectives of the study, data are collected from secondary sources mainly from financial report of the selected companies, which were published by Colombo stock exchange in Sri Lanka.

Measures

Secondary data are used to measure the indicators which are related to profitability. Here indicators of profitability such as Gross profit ratio (GPR); Operating profit ratio (OPR); Net profit ratio (NPR); Return on investment (ROI); Return on equity (ROE); Return on capital employed (ROCE) are taken into account for the study.

Reliability and validity of the Data

Secondary data for the study are drawn from audit accounts (i.e., income statements and balance sheets) of the

Table 1. Gross profit ratio of the selected companies (in %)

Name Of The Company	2006	2007	2008	2009	2010	TOTAL	AVG	SD
ABANS	11.33	9.74	11.31	11.83	13.78	57.99	11.60	1.45
Acme	21.08	21.4	23.18	25.3	24.01	114.97	22.99	1.77
Central Industrial	25.48	23.94	26.89	26.15	30.00	132.46	26.49	2.24
ACL Cable	25.13	26.72	17.36	14.64	15.8	99.65	19.93	5.58
ACL Plastic	12.13	7.95	9.14	7.93	16.06	53.21	10.64	3.48
Lanka Aluminium	8.99	9.72	8.34	9.17	10.05	46.27	9.254	0.66
Chevron Lubricants	26.47	23.87	23.89	35.62	32.15	142.00	28.40	5.26
Kalani Cables	20.31	23.69	16.46	16.56	20.93	97.95	19.59	3.09
Lanka Cheraic	25.47	24.56	23.01	23.17	24.33	120.54	24.11	1.02
Royal Cheraic	40.25	40.06	42.37	43.92	47.59	214.19	42.84	3.10

concerned companies therefore; these data may be considered reliable for the purpose of the study.

RESULTS AND DISCUSSION

Comparison of profitability of the manufacturing companies is measured in terms of the important ratios such as

Gross Profit Ratio (GPR)

Operating Profit Ratio (OPR)

Net Profit Ratio (NPR)

Return on Investment (ROI)

Return on Capital Employed (ROCE)

Gross profit ratio

Gross profit percentage that can be earned from the net sales. That is the relationship between the sales and the gross profit. It depicts the purchasing efficiency of an enterprise. The higher the gross profit ratio, the better the purchasing efficiency of the enterprise and also a high ratio of gross profits to sales is a sign of good management as it implies that the cost of production of the firm is relatively low. But a relationship low gross margin is definitely a danger signal. The gross profit ratios of the companies for the study period have been shown in the table 1.

Table 1 shows that the gross profit of the Abans, Acme, Central Industrial, Acl Cable, Acl Plastic, Lanka Aluminium, Chevron Lubricants, Kalani Kebles, Lanka Cheraic, and Royal Cheraic during the period 2006 to 2010. This showed an upward trend of Abans, Acme, Central Industrial, Chevron Lubricants, Lanka Cheraic, and Royal Cheraic during the period from 2007 to 2010; at the same time rest of the companies' shows downward and flexible trend. It is not a good sign for the company. This is perhaps due to competition in the market and slow growth in the economy of the country. The average gross profit ratio of Royal Cheraic is

42.84%, which is high percentage compare with other companies, which shows about the companies' high performance of gross profit earning, on the other hand Abans, ACL Plastic, ACL Cable, Lanka Aluminium and Kalani Cables have to improve their performance immediately in future. ACL Cable, Chevron Lubricants have highest variation of gross profit over the years (highest variation over the year is 5.59%). It is the good sign for these companies, because which is in safety position that mean both companies showing increasing trend after 2008, which speaks about the stability of gross profit earning of this companies.

Operating profit ratio

Operating profit ratio is important ratios that explain the changes in the net profit margin ratio. Operating profits refers to the profit of an enterprise. This is obtained after deducting all operating expenses from gross profit. Operating expenses include all administration, selling and distribution expenses but not the expenses borrowing funds and taxes paid to the government. Therefore it represents the overall earnings of an enterprise and one can get a clear idea about the efficiency of an enterprise from its operating profit ratio. The operating profit ratio, the better is the overall efficiency of the enterprise. Weaton and Brigham (1969) suggested that 4% - 6% of operating profit is considered norm for the purpose of comparison and control. The operating profit ratios of the sample companies are shown in table 2.

According to the table 2, many companies out of selected company's operating profit other than Lanka Cheraic, Central Industrial showed a downward and more complex flexible trend. This showed effort of the management to control operating expenses had been more or less successful, but in Lanka Cheraic's operating profit suddenly decrease from 2007 to 2008, and then showed upward from 2008 to 2010, at the same time Central Industrial showed an increasing trend from 2006 to 2008 then suddenly decrease to

Table 2. Operating profit ratio of the selected companies (in %)

Name of the company	2006	2007	2008	2009	2010	TOTAL	AVG	SD
ABANS	4.34	4.84	5.16	4.67	8.44	27.45	5.49	1.68
Acme	11.85	12.55	10.67	15.12	0.89	51.08	10.22	5.46
Central Industrial	9.76	9.85	10.03	9.63	12.99	52.26	10.45	1.43
ACL Cable	19.34	20.21	10.73	6.05	6.44	62.77	12.55	6.86
ACL Plastic	11.68	6.63	9.23	7.72	15.67	50.93	10.19	3.61
Lanka Aluminium	4.34	5.57	4.65	4.48	4.53	23.57	4.71	0.49
Chevron Lubricants	16.96	15.94	15.56	25.83	23.94	98.23	19.65	4.86
Kalani Cables	12.79	16.42	7.41	6.79	9.11	52.52	10.50	4.05
Lanka Cheramic	14.21	15.56	11.26	13.38	17.15	71.56	14.31	2.23
Royal Cheramic	23.69	22.22	28.56	25.63	31.08	131.18	26.24	3.60

Table 3. Net profit ratio of the selected companies (in %)

Name of the company	2006	2007	2008	2009	2010	Total	AVG	SD
ABANS	1.38	1.2	0.39	1.36	2.79	7.12	1.42	0.86
Acme	2.23	2.98	-0.1	-0.67	0.84	5.28	1.05	1.54
CENTRAL INDUSTRIAL	6.15	5.38	5.7	5.04	7.68	29.95	5.99	1.02
ACL Cable	12.43	11.33	3.69	2.02	0.76	30.23	6.05	5.44
ACL Plastic	7.41	2.92	2.37	2.76	9.64	25.1	5.02	3.30
Lanka Aluminium	1.17	2.4	1.47	1.35	1.31	7.7	1.54	0.49
Chevron Lubricants	12.59	10.48	10.97	17.2	15.85	67.09	13.42	2.98
Kalani Cables	10.23	10.64	3.86	16.56	4.26	45.55	9.11	5.25
Lanka Cheramic	8.57	10.5	8.16	6.25	17.15	50.63	10.13	4.207
Royal Cheramic	24.03	12.68	17.58	13.84	21.66	89.79	17.96	4.88

9.63% in 2009 after then in 2010 increase to 12.99% but all the companies average operating profit ratios highest percentage than suggested in above (4%-6%). ACL CABLE shows the highest standard deviation of 6.85% of operation profit than other companies operating standard deviation. And also Chevron Lubricants, Lanka Cheramic, Royal Cheramic, Acl Plastic, Acme indicate convenient standard deviation of operation profit. It indicates extremely desirable position. It helps to ascertain the operating efficiency of the management.

Net profit ratio

This ratio shows the final result or net profit after making a sale. The earnings in terms of sales can be assessed through the profit margin ratio which is calculated by dividing the earnings before interest and taxes by sales. This ratio is widely used as measure of overall profitability and is very useful to proprietors. There is also no fixed norm of judging the net profit ratio. But Mohsim (1970) considered that a profit margin ratio which 4% to 6% is termed as the standard norm for any industrial enterprise.

The net profit ratios of the sample companies are shown in table 3.

According to the table 3 the net profit ratio of Central Industrial and ACL Plastic showed increasing trend during the year from 2007 to 2010. At the same time ACL Cable and Lanka Aluminium showed decreasing trend. On the other hand other companies within selected companies shows flexible trend from 2006 to 2010, even though average net profit ratio of ROYAL CHERAMIC was 17.96%. It was a higher value compare than others and also standard deviation of 4.88% indicate extremely attractive position. ACL Cable's standard deviation was 5.44% while showing increasing trend over the years it indicates that the companies stable position. However other companies have to improve their performance in future.

Return on investment

The most commonly used measure of profitability is to relate the profit output with the capital input and thus compute the rate of return on capital investment. This

Table 4. Return on investment of the selected companies (in %)

Name of the company	2006	2007	2008	2009	2010	TOTAL	AVG	SD
ABANS	8.69	9.38	9.32	8.07	13.34	48.80	9.76	2.07
Acme	13.52	14.24	8.49	13.70	0.82	50.77	10.15	5.71
Central Industrial	43.19	16.01	16.46	13.51	16.49	105.66	21.13	12.39
ACL Cable	19.46	24.67	13.07	6.89	5.80	69.89	13.98	8.09
ACL Plastic	15.25	7.23	10.27	9.03	18.96	60.74	12.15	4.83
Lanka Aluminium	10.30	14.8	12.33	12.04	9.89	59.36	11.87	1.95
Chevron Lubricants	37.60	48.18	43.66	88.68	67.18	285.3	57.06	20.85
Kalani Cables	14.60	23.19	9.77	9.77	11.64	68.97	13.79	5.61
Lanka Chericamic	14.61	15.70	11.96	12.41	15.92	70.6	14.12	1.84
Royal Chericamic	16.65	14.91	17.47	15.47	21.33	85.83	17.16	2.59

Table 5. Return on capital employed of the selected companies (in %)

Name of the company	2006	2007	2008	2009	2010	TOTAL	AVG	SD
ABANS	26.22	46.82	31.07	31.26	83.98	219.35	43.87	23.73
Acme	50.39	45.5	19.59	34.32	2.27	152.07	30.41	19.69
Central Industrial	20.45	23.98	19.94	17.32	19.43	101.12	20.22	2.41
ACL Cable	38.78	52.36	29.15	13.68	11.32	145.29	29.05	17.23
ACL Plastic	18.11	11.15	20.19	15.08	23.89	88.42	17.68	4.86
Lanka Aluminium	24.33	30.41	30.98	25.21	26.67	137.6	27.52	3.02
Chevron Lubricants	74.36	81.5	64.38	91.75	91.34	403.33	80.66	11.64
Kalani Cables	25.2	35.53	17.28	13.6	19.93	111.54	22.30	8.51
Lanka Chericamic	56.72	60.85	18.7	20.49	23.19	179.95	35.99	20.92
Royal Chericamic	23.92	21.61	24.56	23.74	30.36	124.19	24.84	3.28

rate is the end profit of a series of quantitative variables representing different interconnected and interdependent factors of business operations. The return on investment is equal to the profit margin on sales multiplied by the investment. Weston and Brigham (1969) suggested that a return of 13% to 15% on net worth should be considered as standard for industrial enterprises. The return on investment of the selected companies is given in table 4.

Above table 4 shows that Abans, Acme, ACL Plastic, Lanka Aluminium were not satisfactory level during the period from 2006 to 2010, which showed a flexible trend. It indicates remarkable in the stability position of these companies. From the above table we can found that all companies ROI's trends are not in a stable position out of Lanka Chericamic and Royal Chericamic. Chevron Lubricant's standard deviation is 20.85%. It was high percentage with compare than other companies. It expresses the companies' volatility position. It is the noteworthy in the stability position.

Return on capital employed

This is an important ratio. It shows how much return is

being generated for every rupee invested in the business. This is calculated by dividing net profit after interest and taxes by capital invested and quotient is expressed in terms of percentage. Capital employed represents the sum of net tangible fixed assets and net current assets. A return of 1% to 12% on capital employed may be considered standard norm for industrial undertaking. Return on capital employed of selected companies is given in table 5.

From the table 5 it is found that ROCE of selected companies of various years was not satisfactory but it showed a decreasing trend of ACL Cable, Acme for the period from 2009 to 2010 and an upward trend in other companies. Still all selected companies have not maintained a satisfactory rate of ROCE. According to the variation all companies shows diverse rate of variation so, companies may be considered tolerable. It is not a good one to these companies, to prevail over these; the companies should take good trial. Then only they can improve in future.

Table 6 shows that average of profitability indicators for selected companies. Royal Ceramic indicates high percentage of industry average than other companies' industry average except average ROI and average ROCE. And also Chevron Lubricants shows higher

Table 6. Average profitability ratio of the selected companies (in %)

Name of the company	Average gross profit ratio	Average operating profit ratio	Average Net profit ratio	Average return on investment	Average return on capital employed
ABANS	11.59	5.49	1.42	9.76	43.87
Acme	22.99	10.21	1.05	10.15	30.41
Central Industrial	26.49	10.45	5.99	21.13	20.22
ACL Cable	19.93	12.55	6.04	13.97	29.05
ACL Plasic	10.64	10.18	5.02	12.14	17.68
Lanka Aluminium	9.25	4.71	1.54	11.87	27.52
Chevron Lubricants	28.40	19.64	13.41	57.06	80.66
Kalani Cables	19.59	10.50	9.11	13.79	22.31
Lanka Cheramic	24.11	14.31	10.12	14.12	35.99
Royal Cheramic	42.84	26.23	17.95	17.16	24.83
Industry Average	21.58	12.43	7.16	18.18	33.25

industry average than other companies' industry average in average ROI and average ROCE. Chevron Lubricants should be considered as satisfactory as its indicators of profitability higher than the industry average. ACL Plastic and Lanka Aluminium have not been able to attain the industry average. On the other hand another companies out of Chevron Lubricants from selected companies, have not been able to attain the industry average in any one or more than one profitability indicators. But these companies have succeeded to attain the standard norm for any one or more than one ratios, as a result its profitability may be considered to some extent satisfactory.

CONCLUSION

According to Walker (1974) the return on Investment should be considered as the best measure of profitability, father In view of above, it can be concluded that the profitability of manufacturing companies is less satisfactory. On the basis of result and analysis, selected manufacturing companies has different ranking based on each profitability indicators such as GPR, OPR, NPR, ROI, and ROCE? Based on the GPR, OPR, NPR, Royal Cheramic is at first whereas Chevron Lubricants is at first based on Return on Investment, Return on Capital Employed.

Limitation of the study

The study covered 10 manufacturing companies, which is listed under CSE in Sri Lanka, in order to measure and compare the profitability.

The study has been conducted during the period from 2006 to 2010. Any change made after this period has not been covered in this study.

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