

Performance Evaluating in the Light of Modern Manufacturing through the Integrating of the Financial Metrics and Non-Financial Metrics

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ABSTRACT

In power project are extremely capital intensive and before large resources are committed to scheme a detailed feasibility study needs to be prepared covering the need for the project, the demand projections, the alternatives of site location, the board parameters of the plant and equipment, the cost estimate and the viability of the scheme. The COMPANIES Ltd. One of the largest power sectors in the country has its objectives to manage the financial operation in accordance with sound commercial utility practices and to generate return as per government guidelines.

INTRODUCTION

Financial analysis is the process of identifying the financial strengths and weaknesses of the firm and establishing relationship between the items of the balance sheet and profit & loss account .Financial ratio analysis is a fascinating topic to study because it can teach us so much about accounts and businesses. When we use ratio analysis we can work out how profitable a business is, we can tell if it has enough money to pay its bills and we can even tell whether its shareholders should be happy !Ratio analysis can also help us to check whether a business is doing better this year than it was last year; and it can tell us if our

business is doing better or worse than other businesses doing and selling the same things. In addition to ratio analysis being part of an accounting and business studies syllabus, it is a very useful thing to know any way! The overall layout of this section is as follows: We will begin by asking the question, what do we want ratio analysis to tell us? Then, what will we try to do with it? This is the most important question, funnily enough! The answer to that question then means we need to make a list of all of the ratios we might use: we will list them and give the formula for each of them. Once we have discovered all of the ratios that we can use we need to know how to use them, who might use them and what for and how will it help them to answer the question we asked at the beginning? At this stage we will have an overall picture of what ratio analysis is, who uses it and the ratios they need to be able to use it. All that's left to do then is to use the ratios; and we will do that step- by- step, one by one

Most people in business—even those not in finance or accounting—have heard of the term **financial metrics**. And, most are aware of examples such as net cash flow, return on investment, or earnings per share.

Not everyone appreciates the strengths and weaknesses of these metrics, however And not everyone understands

their unique data requirements. As a result, financial metrics are often used blindly, or in ways that signal misleading information.

Traditional To Modern Manufacturing Environments

The main purpose of this chapter is to show you the difference between good and bad business practices, and to get you used to criticizing bad practices. Your ability to discriminate between good and bad is one of the main tools you have in advancing your career. Unless you recognize bad practices and can improve them, you will only be floating, not advancing. On this issue, we make some provocative statements that you or your professor may not agree with. We would rather have you disagree with us than provide you with the usually bland and opinion less textbook material.

Today, almost all traditional accounting and manufacturing practices can be considered bad, or obsolete. There may be a few situations where they are still useful, but they are mostly useful when the employees and managers are ill-trained and operating at the M-level of operating doctrine. This is not to say that they were not the best practices available at one time, however they have outlived their usefulness. Although it is difficult to imagine, up until recently (1950s, or so) it was not common in North America to have employees with more than elementary school education. Additionally, you could not count on all of them being fluent in English. Trying to run a business in these circumstances was extremely difficult, so, one response was to cut up job functions into small pieces and design the pieces so that there was not much communication between them. Although this worked, we now see that the lack of communication caused a large loss of efficiency. In other parts of the world the

same result basically occurred, however the reasons were not always the same. In Europe, for example class and religious differences were more important to this dynamic, although language differences were also more important than most people realize.

Before the 1970s you could work in the old cut-up way and still make money, however that has changed. As it became easier to engage in international trade, business became more competitive. One of the leaders in this competition was Japan, which has as one advantage that the culture, language and social class of employees is extremely homogeneous. So, some Japanese companies were able to improve the communication between business elements remarkably. In fact, one way to look at many Japanese techniques is to consider them to be mainly communications improvement methods. Comparing Japanese culture with current North American or European culture it is obvious that the degree of homogenization and the level of education in the western countries is now such that they can expect to equal or exceed Japanese communication effectiveness.

Since we will live our professional lives in organizations which are moving from traditional to modern methods, we must be the masters of both. We must maintain the traditional systems while moving to more modern systems in sensible ways. We must also respect the traditional systems for the value they brought to our society, and keep those parts that are still useful. It should also be obvious that if you tell people their system is bad that they will not cooperate with you! So, only in this book are you likely to see such clear identifications of these methods as good and bad.

During your career you will have the obligation to improve your work and that of others. Since the late 1960s the rate of change, and our ability to change, have

skyrocketed. We have a knowledge base of advanced accounting and production methods that is extremely large. Japanese, North American, and European methods have developed in scope to such an extent that we now have the tools to solve most problems we encounter, if we can use them effectively. In the last twenty years we have also learned to look around the world for new ideas and to use them. Many of these tools are extremely well developed and so carefully described that they, in effect, constitute independent technologies. Because of the complexity and competitiveness of commerce today, the key to consistent business success is to be effective in selecting and using combinations of these technologies. In fact, the most difficult barrier we now face is management's and workers' ability to work together and work smart.

Roughly speaking, there are 7 basic technologies that concern us here: system technologies, business technologies, cost technologies, engineering technologies, human technologies, mathematical technologies, and quality technologies. Keep in mind, however, that this list is a moving target. Each of these technologies is explained in the Competitive Advantage web site. In this book we introduce each

technology at the time and depth needed to help us focus our effort on using accounting to assist the pursuit of business goals.

In this textbook we start our look at good and bad practices with a focus on manufacturing problems for the first 12 or so chapters. The main reason for this focus is that accountants and engineers have been working very hard over the last 150 years to make manufacturing effective, and have largely succeeded. As a result we have a very deep pool of examples to share with you. We will also present examples from government and service businesses to the extent we can.

There are various manufacturing industries ranging from processors of basic metals, chemicals, paper, and oil and gas to commercial products manufacturers and consumer products companies 2. Within these industries there are a variety of manufacturing environments, as depicted in Exhibit 2-1. As this exhibit clearly indicates, no single management accounting system will fit all industries and all manufacturing environments. Cost accounting methods and various performance measurement techniques need to be adapted to be effective 3.

<i>Low-volume producers</i>	<i>versus</i>	<i>High-volume producers</i>
<i>Few products</i>	<i>versus</i>	<i>Many products</i>
<i>Long life cycle products</i>	<i>versus</i>	<i>Short life cycle products</i>
<i>Fabricators</i>	<i>versus</i>	<i>Assembler</i>
<i>Job order systems</i>	<i>versus</i>	<i>Process</i>
<i>Long lead (cycle) time</i>	<i>versus</i>	<i>Short lead (cycle) time</i>

...
 To be successful, companies can no longer compete on a single dimension, such as cost. Instead, they must excel at ... low cost, high quality, and high customer service.... Managers seeking to prosper in this environment of tightly coupled technologies are turning to their

management accounting system for new types of information....4

This chapter examines manufacturing from the perspective of two different broad environments:

- The traditional batch manufacturing environment [batch-and-queue]
- The lean manufacturing (LEAN) environment [pull]

We use these two environments as examples of good and bad practices in every chapter in the book. It is, of course, quite extreme, and not totally accurate, to use the terms good and bad, however our purpose is to provoke you into a more careful analysis of what you should do when proposing changes in your organization.

Describe the traditional batch manufacturing environment.

A traditional batch manufacturing environment is a PUSH system in which a subassembly or partially completed product is pushed to an area designated for work-in-process (WIP) to wait. Another expression is batch-and-queue, or batch-and-wait. It is also derisively called Just-in-Case inventory management. The next department takes the subassemblies or partially completed products from their WIP locations, performs an operation on them, and then pushes the resulting work into the next WIP location to wait once again. This procedure continues until the final product is completed, as shown in Exhibit 2-2.

One of the key defining features of this approach is to try and control risk of errors by creating a conceptual space between steps, normally by creating a buffer of partly completed items between stations called work-in-progress, or WIP]. This “space” separates steps in order to reduce risks. In this way there is a lot of time to fix a problem at one step before it has an impact on the next step.

Note the disjointed operations of the departments. The pipeline is not continuous between the three production departments. Each department is producing in large production runs, instead of producing just enough to meet the

demand of the next department. This PUSH approach results in batches of WIP inventory being piled between departments throughout the plant. The cost accounting system has to accumulate and assign costs for these partially completed batches, thus adding complexity to the management accounting process. Notice that management of each of the production departments is easier because there is little or no coordination between departments. As long as production is steady, this system works well. However, if customers start demanding a variety of products at irregular times, this system starts to bog down.

Four problems have become apparent in traditional batch manufacturing:

- Friction or information loss between organizational areas
 - Producing and maintaining large inventories
 - Producing products of low quality
 - Striving for efficiency at the expense of effectiveness
- **Friction Between Organizational Areas**

Traditional areas of engineering, manufacturing, marketing, logistics, and customer service operate in a disconnected manner, with little integration and communication between them. Engineering designs the product and pushes it into manufacturing, expecting manufacturing to make the product without any problems. Because of this, however, a number of engineering changes usually have to be made before the product becomes manufacturable because the design asks the production people to do things that are not reasonable possible.

Manufacturing finally makes the product in large lot sizes so that enough parts are on hand to keep everyone busy, without considering marketing, logistics, and customer service. Meanwhile, marketing personnel are out trying to sell a product that they had little say in

designing; logistics is trying to get the product to the customer on time; and service people are out trying to repair the product without input from anyone. Nor do the service people report back about the kinds of repairs they make to the engineering and manufacturing people who could correct the reasons for the repairs.

- **Producing And Maintaining Large Inventories**

Traditional PUSH-type batch manufacturing environments drive products to lower average unit costs. The more products produced, the lower the average unit costs, but many products are left unsold, stacked up on factory floors and in large warehouses. Most companies produce more and more products to PUSH them into more and more warehouses. The more products produced, the greater the inventory asset, and therefore the better the balance sheet looks. So does the income statement, which shows a bigger income figure because of the lower unit costs.

For example, when a traditional batch manufacturer buys equipment, machine utilization is the focus. If the machine costs \$500,000 and production is 100,000 units, then the machine's average unit cost is \$5.00. If production is increased to 200,000 units, the machine's unit cost drops to \$2.50. In many traditional manufacturers, minimizing the average product cost has been the key to a successful performance evaluation for managers. So, the incentive is to produce more and more units. The production people's attitude is "It's our job to make it. It's marketing's job to figure out how to sell it."

Although the financial statements may "look good," the PUSH approach results in large quantities of inventory sitting on shelves in massive warehouses. Over time, the storage of these products is

costly. Even worse, many items become obsolete, damaged, or stolen.

- **Producing Products Of Low Quality**

Although workers are encouraged to make good-quality products, rarely are they penalized for producing poor-quality work. Under the traditional batch manufacturing system, workers do not have major responsibility for quality control during their work.

Quality control is in the hands of quality control inspectors who inspect products after they have been produced. Thus, inspection does not take place in the most timely fashion, making it difficult, if not impossible, to trace where production problems arose or defects occurred. The result is excessive scrap and rework because problems cannot be identified and prevented. Instead of preventing problems, the company maintains large WIP inventories to protect against line shutdowns or work delays. The emphasis of a PUSH system is on quantity rather than quality. Thus, workers PUSH poorly produced work to the next department, which also has little incentive to make corrections or improve quality.

- **Striving For Efficiency At The Expense Of Effectiveness**

- Traditional batch manufacturers don't seem to strive for a balance between efficiency and effectiveness. Efficiency means performing tasks to produce the best yield at the lowest cost from the resources available. It is doing something right. Effectiveness is the degree to which an objective or target is met. It is doing the right thing. Being the lowest-cost producer of products that nobody wants is efficient, but not effective. Killing a fly with a sledgehammer is effective, but not efficient. Stressing efficiency over effectiveness, or vice versa, is wrong.

- The world-class manufacturing (WCM) environment is a culture of

problem prevention, continuous improvement, efficiency and effectiveness, and excellence. Through time, the term Lean Manufacturing or Lean Processes has begun to be used most often to describe what WCM means today.

- In this book we will show you a number of examples from the best companies in Japan, which is somewhat misleading in that the Japanese did not develop all of the techniques. However, the top Japanese companies were the first to pull together the established methods, innovate on them, and combine them in a way that created unique value for the companies involved. In most cases we can find earlier non-Japanese examples--even pre-1900-- however the Japanese firms brought many things together and standardized the practices in such a way that the knowledge can be easily shared. Japanese companies also tend to be willing to share their internal knowledge quite easily, so we have good descriptions of their internal processes. The practices of the top Japanese companies is in stark contrast to the bulk of companies in Japan however, which are quite inefficient. In fact, the Japanese economy is at least 40% less efficient than the US or Canadian economy, so overall the Japanese have more to learn from the west than vice versa. However at the high end of effectiveness and efficiency, the Japanese also have one of the largest pools of high performers.
- The level of international competition was very high by the late 1970s and Japanese companies were unusually successful. As early as 1985, a US presidential commission on industrial competitiveness concluded that the United States needed to drastically improve its ability to compete in world

markets. These conclusions would be echoed in most OECD countries, such as Canada and most of Europe. Their recommendations, the report stated, needed to be implemented immediately to restore the competitive edge that American manufacturing had lost. At stake was nothing less than providing an acceptable standard of living for its people. As an executive said, "American manufacturers have to automate, integrate, or evaporate." Again, these opinions were shared in most developed countries. As China has developed since the early 1990s into a major manufacturer of low-value items, we see the same concerns surfacing once again: What do we have to do to survive when the Chinese move successfully into more complex manufacturing, which they will? And, have they already? Take a look at Haier Corporation, a Chinese government owned cooperative which seems to be moving from strength to strength much like Samsung did over the last 15 years.

NON FINANCIAL ENVIRONMENT

Non-financial performance measures in recent years have been receiving growing attention among modern's organizations to provide additional information for managers. The use of non-financial performance measures in the manufacturing environment is even crucial where its normal operation is more complex than any other type of organizations. The purposes of this research are to examine the application of non-financial performance measurement system among manufacturing companies and to explore the association between size of the firm, business environment, owners/manager involvement and modern manufacturing technology and the use of non-financial performance measures. A questionnaire was sent to a random sample 500 Malaysian manufacturing firms which

resulted in 102 useable returned questionnaires. The results show that non-financial performance measures related to internal processes and customers have the highest extent of use. In contrast, techniques related to quality control have a relatively low level of use. The results also reveal that there are significant relationships between size of the firm, involvement of owner/manager, and modern technology and the use of non-financial performance measures.

In FY15, the consumption of finished steel grew to 76.99 MT while the CAGR

increased to 5.74 per cent during FY08-15

- Driven by rising infrastructure development and growing demand for automotives, steel consumption is expected to reach 104 MT by 2017
- It is expected that consumption per capita would increase supported by rapid growth in the industrial sector, and rising infra expenditure projects in railways, roads & highways, etc.
- For FY15, per capita consumption of steel in India was 60 kg against the world average of 222 kg

Steel exports and imports (in million tonnes)



Source: Ministry of Steel, JSPL Presentation, TechSci Research
Notes: FY - Indian Financial Year (April - March), FY16*-April-August 2015;
MT PA - Million tonnes per annum

FINANCIAL METRICS

LEVERAGE RATIO ANALYSES of Essen Industries Limited, Embitter Iron & Steel Company Limited and Hothur Iron & Steels Company Limited in cement sector for Financial Year 2015 to 2016:

LEVERAGE RATIOS AS FINANCIAL METRICS :

Leverage Ratios:

In terms of financing, Leverage means the relationship between the amount of money that a company owes and the value of its shares in equity. Mainly, leverage ratios are used to analyze the relationship between two components of capital: Equity & Debt. These ratios

FORMULA:

Times Interest Earned = Earning before Interest & Taxes / Interest Charges

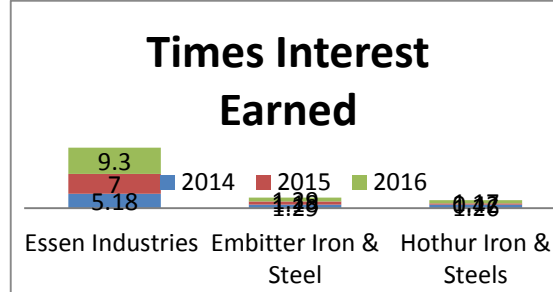
	Year 2014	Year 2015	Year 2016
Essen Industries	*6,413,972,000/ 1,236,971,000= 5.185 Times	*3,986,698,000/ 569,184,000= 7.004 Times	*4,838,309,000/ 517,788,000= 9.344 Times

measure the leverage position and long run solvency of the company. The Capital of the company should be composed of both equity & debt in a balanced order. It should neither be highly leveraged nor highly unleveraged.

TIMES INTEREST EARNED:

Times Interest Earned ratio is also called Interest Coverage Ratio. It is used to measure the ability of company to meet its debt obligations. It indicates how many times a company can cover interest charges on its debt from its Earning before Interest & Taxes (EBIT). It is calculated by Dividing the Pre Interest and Pre taxes profits with Interest charges.

Embitter Iron & Steel	3,383,258,000/ 2,606,358,000= 1.298 Times	2,261,163,000/ 1,902,760,000= 1.188 Times	2,652,870,000/ 2,051,678,000= 1.293 Times
Hothur Iron & Steels	693,901,047/ 549,902,638= 1.262 Times	276,352,096/ 658,589,707= 0.420 Times	841,027,713/ 715,246,906= 1.176 Times



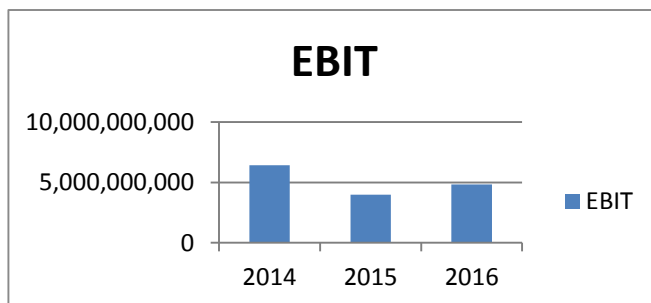
*In Profit/(Loss) Statement of “Essen Industries”, a clear figure of EBIT is not shown. So, the EBIT amount is calculated using the reverse order, as shown,

Working:

Calculation of **EBIT** of **Essen Industries**

Year 2014	Profit Before Taxation + Finance Cost=5,177,001,000 + 1,236,971,000 =Rs. 6,413,972,000
Year 2015	Profit Before Taxation + Finance Cost=3,417,514,000 +569,184,000 =Rs. 3,986,698,000
Year 2016	Profit Before Taxation + Finance Cost=4,320,521,000+517,788,000 =Rs. 4,838,309,000

Graphical Presentation:



Interpretation:

In this ratio the pre interest and pre tax earning (EBIT) of company is compared with service /Interest charges of Debt. This is done to assess the ability of company to pay off interest charges out of its earning. A higher ratio indicates that

company can easily pay off the charges of using the debt. However, a higher ratio also states that company has undesirably low level of leverage. A lower ratio states that company earned lesser income to meet the interest payments or the company is

highly leveraged and has to pay bigger amount of interest for using the debt. A negative ratio shows the chances for company of being bankrupt.

Essen Industries: Trend states that company is improving in terms of Times Interest Earned. As, in year 2014 the ratio was 5.185. In year 2015, ratio improves to 7.004 as compared to 5.185 of year 2014. In year 2016, the ratio further improves to 9.344. Trend shows that company is earning more than sufficient profit (EBIT) to meet the service charges of debt. However, about result of year 2016, it is found that company is at undesirably low leverage level and losing the opportunity to invest for better returns. The ratio of the company is very good from the perspective of lenders and investors.

Embitter Iron & Steel: Ratios and trend states that in year 2014 the tie ratio was 1.298 times. In 2015 it falls slightly and reaches to 1.188 and in 2016 it improves again to 1.293 times. In year 2014, the ratio is greater than that of year 2015 & 2016. The reason of lowest ratio in year 2015 was company earned the lowest volume of EBIT as compared to year 2014 & year 2016. The times interest earned ratios of company states that company is earning sufficient to meet service charges of debt. Moreover the debt capacity of company is satisfactory from perspective of lenders and investors.

Hothur Iron & Steels: In year 2014, the times interest earned ratio of company was

Fixed Charge = Markup on Long Term Finance + Finance Charges on Lease Liabilities

	Year 2014	Year 2015	Year 2016
Essen Industries	$(6,413,972,000+788,431,000)/(788,431,000+1,236,971,000)=$ 3.556 Times	$(3,986,698,000+21,280,000)/(21,280,000+569,184,000)=$ 6.788 Times	$(4,838,309,000+45,984,000)/(45,984,000+517,788,000)=$ 8.664 Times
Embitter Iron & Steel	$(3,383,258,000+1,210,340,000)/(1,210,340,000+2,606,358,000)=$ 1.204 Times	$(2,261,163,000+731,659,000)/(731,659,000+1,902,760,000)=$ 1.136 Times	$(2,652,870,000+778,035,000)/(778,035,000+2,051,678,000)=$ 1.212 Times

1.262. In 2015 it falls badly to 0.420 and in year 2016 it again rises to 1.176 times. Company has greatest ratio i.e. 1.262 in year 2014 as compared to year 2015 & 2016. In year 2015 company has critically lowest ratio as compared to year 2014 & 2016 because the company earned insufficient EBIT and was unable to meet the debt service charges out of pre tax earnings. In year 2014 & 2016 the debt capacity of company is satisfactory but in year 2015 its debt capacity is unsatisfactory from perspective of lenders and investors.

Comparatively, the debt capacity of Essen Industries is better of all. Embitter Iron & Steel Company can be categorized on 2nd position in terms of debt capacity and Hothur Iron & Steels stands on 3rd position.

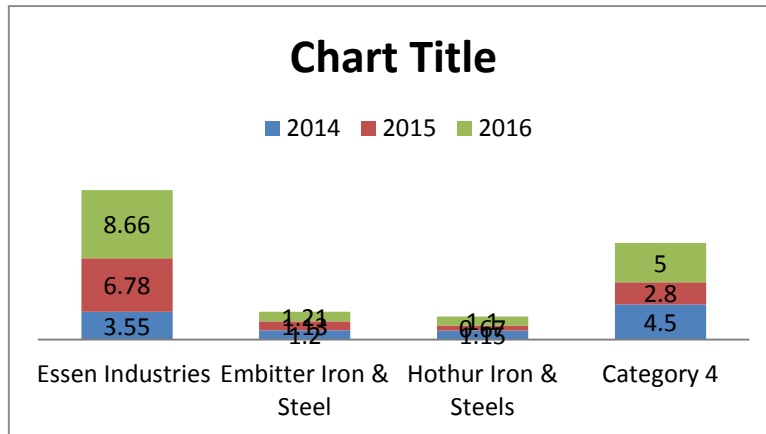
FIXED CHARGE COVERAGE:

This ratio is an important leverage ratio. It indicates the ability of company to pay its Fixed Charge. Fixed Charge is the financial cost of finance lease liabilities, bonds and fixed term loans acquired. This ratio indicates how many times a company can cover Fixed Charge out of its Profits.

FORMULA:

Fixed Charge Coverage = $(EBIT + \text{Fixed Charge or lease payment (Before Tax)}) / (\text{Fixed Charge or lease payment (Before Tax)} + \text{Interest Charges})$

Hothur Iron & Steels	$(693,901,047+400,997,535)/$ $(400,997,535+549,902,638)=$ 1.151 Times	$(276,352,096+$ $527,181,492)/$ $(527,181,492+$ $658,589,707)=$ 0.678 Times	$(841,027,713+$ $536,572,374)/$ $(536,572,374+$ $715,246,906)=$ 1.100 Times
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Working (Calculation of Fixed Charge):

Fixed Charge = Markup on Long Term Finance + Finance Charges of Lease Liabilities

Essen Industries

Year 2014	= 788,431,000+0 = Rs.788,431,000
Year 2015	= 21,280,000+0 = Rs.21,280,000
Year 2016	= 45,984,000+0 = Rs.45,984,000

Embitter Iron & Steel

Year 2014	= 1,210,330,000+10,000 = Rs.1,210,340,000
Year 2015	=731,659,000+0 = Rs.731,659,000
Year 2016	=778,035,000+0 = Rs.778,035,000

Hothur Iron & Steels

Year 2014	=40,021,0783 + 786,752 = Rs.400,997,535
Year 2015	=526,747,221 + 434,271 = Rs.527,181,492
Year 2016	= 536,417,971 + 154,403 = Rs.536,572,374

Graphical Presentation:

Interpretation:

The fixed charge coverage ratio of a company shows that how many times company can cover fixed charges or lease payments out of its income before fixed charge. The higher the ratio the better is the debt position of company and vice versa.

Essen Industries: In year 2014, company was able to meet its fixed charge 3.556

times. It improves to 6.788 times in year 2015 and further improves to 8.664 times in year 2016. The trend states that the debt position of the company is improving each year. It is a good indicator from perspective of lenders and financial institutions.

Embitter Iron & Steel: In year 2014, company had 1.204 times capacity to meet its fixed charge. In year 2015, it reaches to

1.136 times after a slight fall. In year 2016, it again improves to 1.212 times. Trend states that the debt position of company is satisfactory from the perspective of providers of long term debt and financial lease.

Hothur Iron & Steels: In year 2014, company had 1.151 times capacity to cover its fixed charge out of Income before fixed charge. The ratio declines to 0.678 times in year 2015 and in year 2016 it improves again to 1.100 times. Trend states that debt position of company remains satisfactory during year 2014 & year 2016. While in the year 2015 it is unsatisfactory because company suffered a big decline in its income during the year.

Comparatively, the debt position of Essen Industries is better of all. Embitter

FORMULA:

Debt Ratio = Total Debt / Total Assets

Here, Total Debt = Total Liabilities

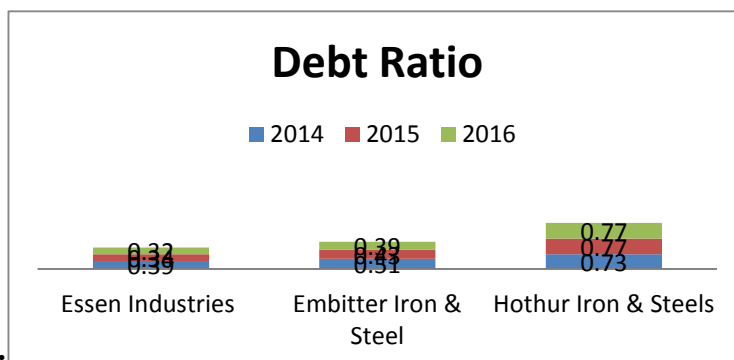
Iron & Steel Company can be categorized on 2nd position in terms of debt capacity and Hothur Iron & Steels stands on 3rd position.

DEBT RATIO:

This is an important ratio of Leverage Ratios group. It measures total debt of the company relative to the assets of the company. The greater debt ratio shows company has acquired debt more than the equity to finance its assets. The lower Debt Ratio shows company has equity more than debt to finance the assets. So, this ratio can help potential investors to know the level of risk associated with the company.

	Year 2014	Year 2015	Year 2016
Essen Industries	15,140,390,000/ 38,392,362,000= 0.394 Times	13,214,315,000 / 38,310,244,000= 0.345 Times	13,437,026,000/ 41,209,855,000 = 0.326 Times
Embitter Iron & Steel	21,804,599,000/ 42,723,041,000= 0.510 Times	20,526,823,000/ 47,046,043,000= 0.436 Times	19,455,765,000/ 49,673,050,000= 0.392 Times
Hothur Iron & Steels	6,353,347,077 / 8,624,894,242 = 0.737 Times	6,712,409,935 / 8,673,379,806 = 0.774 Times	7,021,584,704 / 9,124,400,841 = 0.770 Times

Graphical



Presentation:

Interpretation:

Debt Ratio compares total debt of the company with its total assets in order to assess whether the assets are financed through equity or debt. A lower Debt ratio shows the major part of assets is financed through equity. A greater debt ratio states the assets are financed more by debt.

Essen Industries: The ratio of the company was 0.394 in year 2014. In year 2015, it falls to 0.345 times and again in year 2016 it falls to 0.326 times. Trend states that the company is gradually decreasing its debt as compared to equity and increasing the use of equity for financing the assets. We find that company has much potential for leverage and this position is very good from perspective of lenders and investors.

Embitter Iron & Steel: The debt ratio of the company was 0.510 times in 2014. In 2015, it falls to 0.436 times and in year 2016 it again falls and reaches to 0.392 times. Trend states that the company is gradually decreasing its debt as compared to equity and increasing the use of equity for financing the assets. We find that company has much potential for leverage and this position is very good from perspective of lenders and investors.

Hothur Iron & Steels: The debt ratio of company was 0.737 in year 2014. It

increases to 0.774 times in year 2015 and declines to 0.770 in year 2016 after a slight fall. Trend states that the company depends more on debt for financing the assets. It shows that company is highly leveraged and it has less or no more potential for taking the debt. The company's situation is not attractive from perspective of lenders and investors.

Comparatively, the debt position of Essen Industries is healthier of all in terms of Long run solvency position as a very low level of risk is associated from perspective of investors and lenders. On the other hand, Hothur Iron & Steels is highly leveraged. The current position of Hothur Iron & Steels is not a good sign for potential investors because a higher level of risk is associated with the company from investors' perspective.

DEBT / EQUITY RATIO:

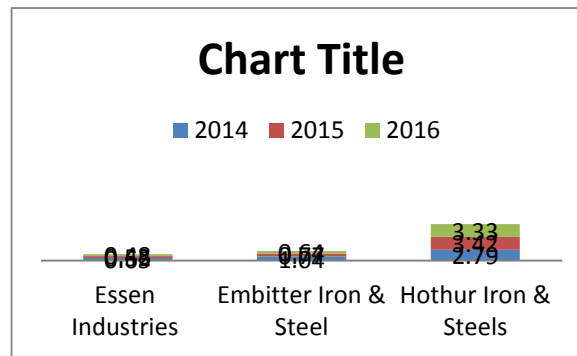
Debt / Equity Ratio measure the leverage position of the company. It indicates how much proportion of the capital of company is financed with equity and how much is debt financed. It is calculated by dividing the Total Liabilities by Total Equity.

FORMULA: Debt / Equity Ratio = Total Debt / Total Equity

Here, Total Debt = Total Liabilities

	Year 2014	Year 2015	Year 2016
Essen Industries	15,140,390,000/ 23,251,972,000 = 0.651 Times	13,214,315,000 / 25,095,929,000= 0.527 Times	13,437,026,000/ 27,772,829,000= 0.484 Times
Embitter Iron & Steel	21,804,599,000/ 20,918,442,000= 1.042 Times	20,526,823,000/ 26,519,220,000= 0.774 Times	19,455,765,000/ 30,217,285,000= 0.644 Times
Hothur Iron & Steels	6,353,347,077/ 2,271,547,165= 2.797 Times	6,712,409,935/ 1,960,969,871= 3.423 Times	7,021,584,704/ 2,102,816,137= 3.339 Times

Graphical Presentation:



Interpretation:

The total capital of a company consists of two parts. They are debt and equity. In this ratio we compare the contribution of debt and equity to the capital of company. The greater ratio shows that company is financed heavily from borrowing and the lower ratio shows that major volume of company's capital is composed of equity.

Essen Industries: The ratio of the company was 0.651 in year 2014. It declines to 0.527 times in 2015 and again a declining trend reaches it to 0.484 times. Trend shows that in major contribution to the capital of company comes from equity sources. The company has much potential for leverage. This is a good indicator for investors and financial institutions.

Embitter Iron & Steel: The ratio of company was 1.042 in year 2014. In 2015 it falls to 0.774 times and in 2016 again declines to 0.644 times. Trend states that long term solvency of the company improve over the period. In year 2014, the capital of the company was majorly contributed by debt. However, in year 2015 & 2016, the major contribution of capital is equity. As compared to standard of 1.5:1 the company has a great potential for leverage and long term financial health of company attractive for investors and lenders.

Hothur Iron & Steels: The ratio of company was 2.797 in year 2014. In 2015

it increase to 3.423 times and in year 2016 it reaches to 3.339 after a slight fall compared to previous year. The trend of ratios indicates that company is highly leveraged and about 75% of capital is contributed by debt. This is a very critical situation because the company would have to pay a major part of its earnings to meet the interest charges of debt. The company is unable to attract more investors and lenders due to this bad position of solvency.

Trend shows, during the analysis period, the solvency position of Essen Industries remains better of all and it has ability to induct more debt for its long run financing needs. The solvency position of **Embitter Iron & Steel** is also good and it has more potential for leverage. The solvency position of Hothur Iron & Steels is poor of all. If uncontrolled, company may have to suffer the situation of bankruptcy and break down of business process.

DEBT TO TANGIBLE NET WORTH RATIO:

It is a measure of physical worth of company. In a debt to tangible net worth ratio the value of intangible assets like patent and copyrights are excluded from Net Worth of company. Then debt is compared with Tangible Net Worth. It is more comprehensive measure of solvency than Debt/Equity Ratio.

FORMULA:

Debt to Tangible Net worth Ratio = Total Debt / Tangible Net Worth

Tangible Net Worth = Total Assets – Total Liabilities – Intangible Assets

	Year 2014	Year 2015	Year 2016
Essen Industries	15,140,390,000/ 23,251,972,000 = 0.651 Times	13,214,315,000/ 25,092,952,000= 0.527 Times	13,437,026,000/ 27,771,144,000= 0.484 Times
Embitter Iron & Steel	21,804,599,000/ 20,918,442,000= 1.042 Times	20,526,823,000/ 26,519,220,000= 0.774 Times	19,455,765,000/ 30,217,285,000= 0.644 Times
Hothur Iron & Steels	6,353,347,077/ 2,268,857,253= 2.800 Times	6,712,409,935/ 1,958,382,218= 3.428 Times	7,021,584,704/ 2,100,460,174= 3.343 Times

Working (Calculation of Tangible Net Worth):

Tangible Net Worth = Total Assets – Total Liabilities – Intangible Assets

Essen Industries

Year 2014	=38,392,362,000-15,140,390,000-0= Rs.23,251,972,000
Year 2015	=38,310,244,000-13,214,315,000-2,977,000= Rs.25,092,952,000
Year 2016	=41,209,855,000-13,437,026,000-1,685,000= Rs.27,771,144,000

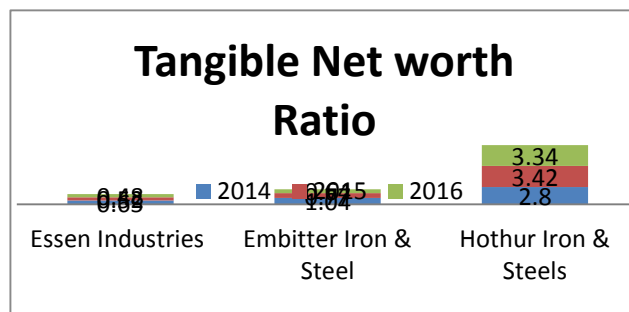
Embitter Iron & Steel

Year 2014	=42,723,041,000 -21,804,599,000 -0= Rs.20,918,442,000
Year 2015	=47,046,043,000- 20,526,823,000-0= Rs.26,519,220,000
Year 2016	=49,673,050,000 -19,455,765,000 -0= Rs.30,217,285,000

Hothur Iron & Steels

Year 2014	=8,624,894,242 -6,353,347,077 - 2,689,912 = Rs.2,268,857,253
Year 2015	=8,673,379,806 -6,712,409,935-2,587,653 = Rs.1,958,382,218
Year 2016	=9,124,400,841 -7,021,584,704-2,355,963 = Rs.2,100,460,174

Graphical



Presentation:

Interpretation:

The Debt to Tangible Net Worth ratio shows a more precise picture of debt & equity proportion of capital as compared to Debt/Equity Ratio. As, it is difficult to realize and to value the Intangible Assets. So, in order to get a fairer picture of

capital composition, value of Intangible Assets is excluded from value of capital.

Essen Industries: The ratio of the company was 0.651 in year 2014. It declines to 0.527 times in 2015 and again a declining trend reaches it to 0.484 times. Trend shows that major contribution to the

capital of company comes from equity sources. The company has much potential for leverage. This is a good indicator for investors and financial institutions.

Embitter Iron & Steel: The ratio of company was 1.042 in year 2014. In 2015 it falls to 0.774 times and in 2016 again declines to 0.644 times. Trend states that long term solvency of the company improve over the period. In year 2014, the capital of the company was majorly contributed by debt. However, in year 2015 & 2016, the major contribution of capital is equity. As compared to standard of 1.5:1 the company has a great potential for leverage and long term financial health of company attractive for investors and lenders.

Hothur Iron & Steels: The ratio of company was 2.800 in year 2014. In 2015 it increase to 3.428 times and in year 2016 it reaches to 3.343 after a slight fall compared to previous year. The trend of ratios indicates that company is highly leveraged and more than 75% of capital is contributed by debt. This is a very critical

situation because the company would have to pay a major part of its earnings to meet the interest charges of debt. The company is unable to attract more investors and lenders due to this bad position of solvency.

Trend shows, during the analysis period, the solvency position of Essen Industries remains better of all and it has ability to induct more debt for its long run financing needs. The solvency position of Hothur Iron is also good and it has more potential for leverage. The solvency position of Hothur Iron & Steels is poor of all. If uncontrolled the situation, Hothur Iron & Steels Company may have to suffer the situation of insolvency / bankruptcy.

CURRENT WORTH / NET WORTH RATIO:

The Current Worth is the amount of current Assets that is left excess if all the current liabilities are paid off. The Net Worth is the Balance amount of Total Assets left after paying all the Liabilities. This ratio used to compute the proportion of Current Worth and Net Worth

FORMULA:

Current Worth / Net worth Ratio = Current Worth / Net Worth

Current Worth = Total Current Assets – Total Current Liabilities

Net Worth = Total Assets – Total Liabilities

	Year 2014	Year 2015	Year 2016
Essen Industries	-1,240,736,000/ 23,251,972,000= -0.053	-2,770,227,000/ 25,095,929,000= -0.110	-1,252,323,000/ 27,772,829,000= -0.045
Embitter Iron & Steel	-2,547,207,000/ 20,918,442,000= -0.122	2,631,303,000/ 26,519,220,000= 0.099	5,637,836,000/ 30,217,285,000= 0.187
Hothur Iron & Steels	-1,300,716,841/ 2,271,547,165= -0.573	-1,835,304,297/ 1,960,969,871= -0.936	-856,920,994/ 2,102,816,137= -0.408

Working (Calculation of Current & Net Worth):

(A) Current Worth = Total Current Assets – Total Current Liabilities

Essen Industries

Year 2014	= 7,857,942,000-9,098,678,000 = Rs.-1,240,736,000
Year 2015	= 6,871,464,000-9,641,691,000

	= Rs.-2,770,227,000
Year 2016	= 9,444,466,000-10,696,789,000 = Rs.-1,252,323,000

Embitter Iron & Steel

Year 2014	= 13,287,592,000-15,834,799,000 = Rs.-2,547,207,000
Year 2015	= 16,417,492,000-13,786,189,000 = Rs.2,631,303,000
Year 2016	= 18,295,030,000-12,657,194,000 = Rs.5,637,836,000

Hothur Iron & Steels

Year 2014	= 1,645,675,393-2,946,392,234 = Rs.-1,300,716,841
Year 2015	= 1,407,168,642-3,242,472,939 = Rs.-1,835,304,297
Year 2016	= 1,953,618,476-2,810,539,470 = Rs.-856,920,994

(B) Net Worth = Total Assets – Total Liabilities

Essen Industries

Year 2014	= 38,392,362,000-15,140,390,000 = Rs.23,251,972,000
Year 2015	= 38,310,244,000-13,214,315,000 = Rs.25,095,929,000
Year 2016	= 41,209,855,000-13,437,026,000 = Rs.27,772,829,000

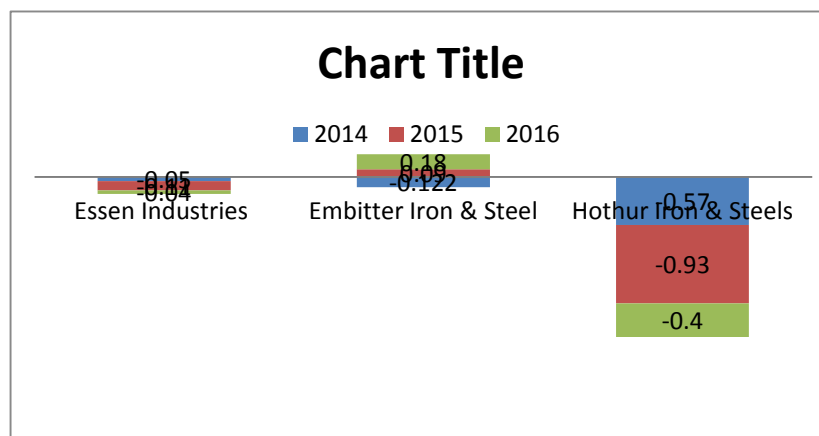
Embitter Iron & Steel

Year 2014	= 42,723,041,000-21,804,599,000 = Rs.20,918,442,000
Year 2015	= 47,046,043,000-20,526,823,000 = Rs.26,519,220,000
Year 2016	= 49,673,050,000-19,455,765,000 = Rs.30,217,285,000

Hothur Iron & Steels

Year 2014	= 8,624,894,242-6,353,347,077 = Rs.2,271,547,165
Year 2015	= 8,673,379,806-6,712,409,935 = Rs.1,960,969,871
Year 2016	= 9,124,400,841-7,021,584,704 = Rs.2,102,816,137

Graphical Presentation:



Interpretation:

In this ratio working capital of the company is compared with its permanent capital (equity). The purpose of this analysis is to indicate the percentage of net

worth that is invested in company to meet its operational / working needs.

Essen Industries: The ratio in year 2014 was -0.053 times. In year 2015, it reaches to

-0.110 & in year 2016 it reaches to -0.045. The negative sign with the ratios shows that company has to acquire running finance to meet its short term financing needs. Further, the equity portion of the company is not being used efficiently to meet the operational needs.

Embitter Iron & Steel: The ratio in year 2014 was -0.122 times. In year 2015, it improves to 0.099 & in year 2016 it again improves to 0.187. The negative sign with the ratio in year 2014 shows that company used short term loan to meet its working capital requirements. The increasing trend in year 2015 & 2016 shows that the net assets of company are being employed and used efficiently to meet of working capital requirements.

Hothur Iron & Steels: The ratio in year 2014 was -0.573 times. In year 2015, it falls and reaches to -0.936 & in year 2016

it reaches to -0.408. The negative sign with the ratios shows that company has to acquire running finance to meet its short term financing needs. Further, the equity portion of the company is not being used efficiently or is unavailable to meet the operational (working capital) needs. Comparatively, current worth/net worth position of Embitter Iron & Steel is better of all.

TOTAL CAPITALIZATION RATIO:

Total Capitalization Ratio measures the debt part of Capital of the company i.e. It shows how much proportion of permanent capital is financed by long term debt. A company is considered financially fit if its capital structure shows a low level of debt and a high level of equity. So, this ratio can help investors to find an opportunity to invest in a financially sound company.

FORMULA:

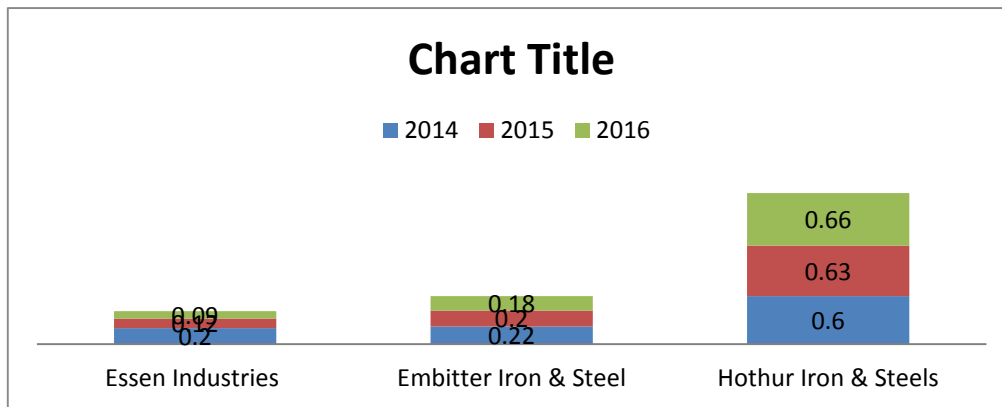
Total Capitalization Ratio = Long Term Debt / (Long Term Debt + Total Equity)
Here, **Long Term Debt** = Long Term Liabilities

	Year 2014	Year 2015	Year 2016
Essen Industries	6,041,712,000/ (6,041,712,000+ 23,251,972,000)= 0.206 Times	3,572,624,000/ (3,572,624,000+ 25,095,929,000)= 0.125 Times	2,740,237,000/ (2,740,237,000+ 27,772,829,000)= 0.090 Times
Embitter Iron & Steel	5,969,800,000/ (5,969,800,000+ 20,918,442,000)= 0.222 Times	6,740,634,000/ (6,740,634,000+ 26,519,220,000)= 0.203 Times	6,798,571,000/ (6,798,571,000+ 30,217,285,000)= 0.184 Times
Hothur Iron & Steels	3,406,954,843/ (3,406,954,843+ 2,271,547,165)= 0.600 Times	3,469,936,996/ (3,469,936,996+ 1,960,969,871)= 0.639 Times	4,211,045,234/ (4,211,045,234+ 2,102,816,137)= 0.667 Times

Working:

I picked the figures of long term debt & total equity from annual financial statements of companies for the period under consideration. So that, I didn't show calculations of long term debt & total equity.

Graphical Presentation:



Interpretation:

In Total capitalization ratio the long term debt is compared with permanent capital of company. The analysis is done in order to assess what proportion of permanent capital is financed by long term debt.

Essen Industries: The total capitalization ratio of company was 0.206 in year 2014. In 2015 it decrease to 0.125 times and reaches to lowest in year 2016 i.e. 0.090 times. It means in year 2014 the proportion of long term debt to make permanent capital was only 20.6%. In year 2015 it was only 12.5% and in year 2016 it was only 9% of permanent capital. The decreasing trend of ratios of company is a good indicator that shows the financial strength of company is increasing over the years. Moreover, the company has a greater potential for leverage. The position of the company is attractive for investors from angle of Total Capitalization Ratio.

Embitter Iron & Steel: The ratios trend shows that in year 2015 the ratio of the company declines slightly and reaches to 0.203 times as compared to 0.222 times in year 2014. In 2016, it again declines to 0.184 times. It means in year 2014 the proportion of long term debt to make permanent capital was only 22.2%. In year 2015 it was only 20.3% and in year 2016 it was only 18.4% of permanent capital. The decreasing trend of ratios of company is a good indicator that shows the financial strength of company is increasing over the years. Moreover, the company has a

greater potential for leverage. The position of the company is attractive for investors from angle of Total Capitalization Ratio.

Hothur Iron & Steels: The ratios trend shows that in year 2015 the ratio of the company increases slightly and reaches to 0.639 times as compared to 0.600 times in year 2014. In 2016, it again increases to 0.667 times. It means in year 2014 the proportion of long term debt to make permanent capital was 60%. In year 2015 it was 63.9% and in year 2016 it was 66.7% of permanent capital. The increasing trend of ratios of company is a bad indicator that shows the financial strength of company is decreasing over the years. Moreover, the company is undesirably high leveraged. The position of the company is unsatisfactory for investors from angle of Total Capitalization Ratio.

After comparison, we find that Essen Industries is more fit financially than other two companies. In terms of financial health and fitness the Embitter Iron & Steel stands on second rank and Hothur Iron & Steels stands on third position. However, the financial health of Hothur Iron & Steels is weakest due to undesirably high leverage.

LONG TERM ASSETS VERSUS LONG TERM DEBT:

This ratio indicates how much of a company’s long term assets is financed from long term debt. It is computed by dividing the Long Term Assets by Long

Term Debt. It is an indicator of long term solvency of the company.

FORMULA:

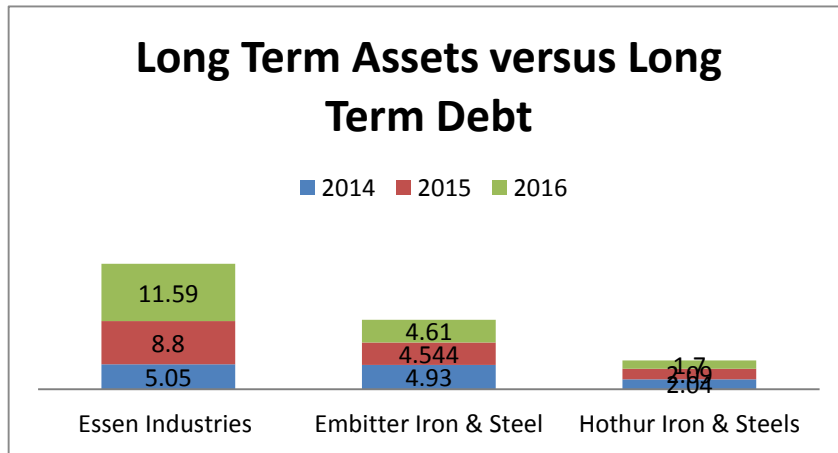
Long Term Assets versus Long Term Debt = Long Term Assets / Long Term Debt

	Year 2014	Year 2015	Year 2016
Essen Industries	30,534,420,000/ 6,041,712,000= 5.054 Times	31,438,780,000/ 3,572,624,000= 8.800 Times	31,765,389,000/ 2,740,237,000= 11.592 Times
Embitter Iron & Steel	29,435,449,000/ 5,969,800,000 = 4.931 Times	30,628,551,000/ 6,740,634,000= 4.544 Times	31,378,020,000/ 6,798,571,000= 4.615 Times
Hothur Iron & Steels	6,979,218,849/ 3,406,954,843= 2.049 Times	7,266,211,164/ 3,469,936,996 = 2.094 Times	7,170,782,365/ 4,211,045,234= 1.703 Times

Working:

I picked the figures of long term Assets & long term Debt from annual financial statements of companies for the period under consideration. So that, I didn't show calculations of long term Assets & long term Debt.

Graphical Presentation:



Interpretation :

In this ratio long term assets are compared with long term debt in order to assess how much of long-term assets is financed from long term debt.

Essen Industries: The ratio improves to 8.800 times in year 2015 as compared to 5.054 times in year 2014. In 2016 it further improves to 11.592 times. It means that in year 2014 only 19.79% of long term assets of company is being financed with long term debt. In year 2015 only 11.36% of long term assets of company is being

financed with long term debt. And in year 2016 only 8.63% of long term assets of company is being financed with long term debt. It shows that long term solvency of company is very good.

Embitter Iron & Steel: The ratio declines to 4.544 times in year 2015 as compared to 4.931 times in year 2014. In 2016 it improves to 4.615 times after a slight increase. It means that in year 2014 only 20.28% of long term assets of company is being financed with long term debt. In year 2015 only 22.01% of long term assets

of company is being financed with long term debt. And in year 2016 only 21.67% of long term assets of company is being financed with long term debt. It shows that long term solvency of company is very good.

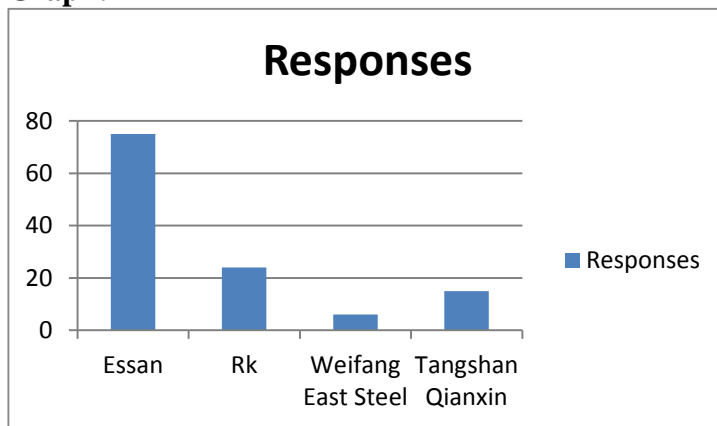
Hothur Iron & Steels: The ratio improves to 2.094 times in year 2015 as compared to 2.049 times in year 2014 after a very small increase. In 2016 it declines to 1.703 times. It means that in year 2014 48.82% of long term assets of company is being financed with long term debt. In year 2015

Estimation of Non-financial performance

1) Which brand sales are more in the Nut and blod segment in your retail out let?

Brands	Responses	In Percentage
Essan	75	63
Rk	24	20
Weifang East Steel	6	5
Tangshan Qianxin	15	12

Graph:



Statistics:

From the above table 63% of the retailers are selling Essan brand, and 24% of RK and 5 % of Weifang East Steel and 12% of Tangshan Qianxin are being sold in the 120 retails outlets on the average

2) Which size is mostly preferred in Essan?

Sizes	Respondents	In Percentage
10-mm	72	60
20mm	18	15
40mm	30	25

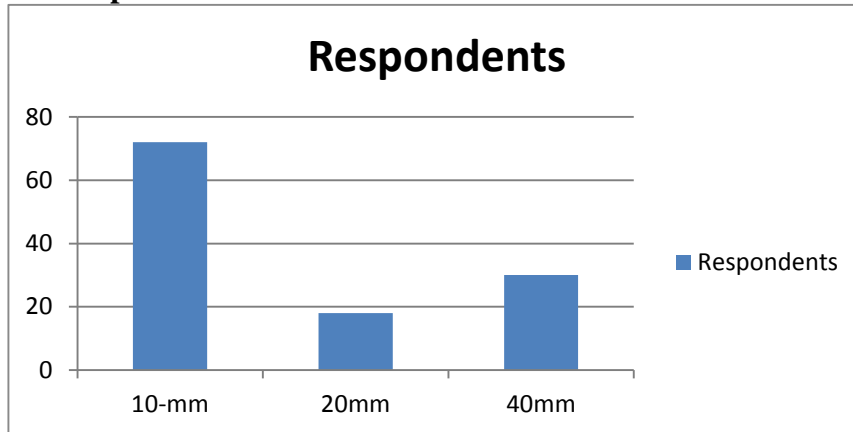
47.75% of long term assets of company is being financed with long term debt. And in year 2016 58.73% of long term assets of company is being financed with long term debt. It shows that long term solvency of company is critically low.

Comparatively, the long term solvency position of Essen Industries is better of all. The Embitter Iron & Steel stands second with a very good solvency position. But, the Hothur Iron & Steels stands third with a weakest long term solvency.

Inference:

From the above table we can see Essan brand has highest brand loyalty and sales. i.e., 63% of the retailers have no problem in selling Essan brand.

➤ **Graph :**



Statistics:

In the above table 60% of the retailers Prefer 10mm Size, 15 % of 20mm Packing and 25 % of 30mm in Essan brand are preferred by the retailers

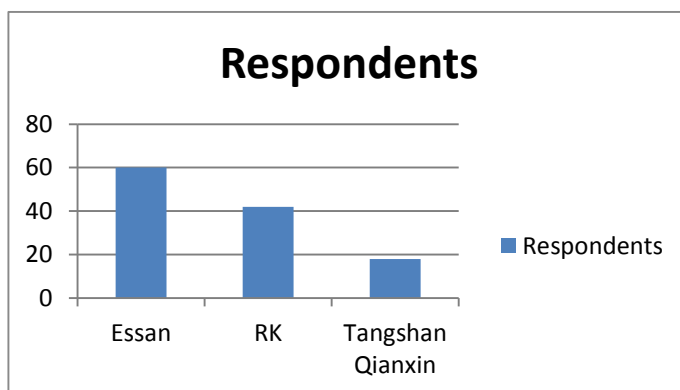
Inference:

From the above table we can see that 10mm is the highest preferred brand by most of the retailers

3) Which Brand is mostly preferred in 20mm nut bolt?

Brands	Respondents	In Percentages
Essan	60	50
RK	42	35
Tangshan Qianxin	18	15

Graph:



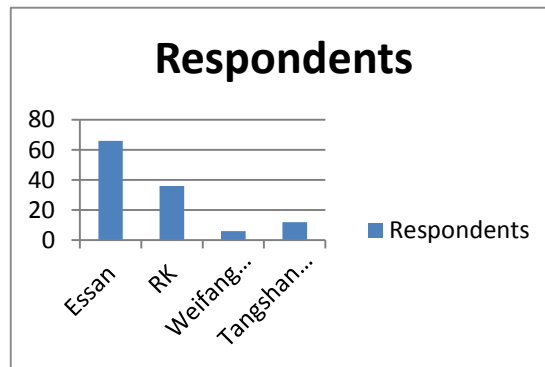
Statistics:

In the above table 50% of the retailers Prefer Essan, 35 % prefer RK and 15 % perere Tangshan Qianxin in 20mm. Inference: From the above table we can see that most of the retailers preferred Essan.brand in 20mm

4) Which Brand is mostly preferred in nut and bolts in 30mm?

Brands	Respondents	In Percentages
Essan	66	55
RK	36	30
Weifang East Steel	6	5
Tangshan Qianxin	12	10

Graph



Statistics:

In the above table 55% of the retailers Prefer Essan, 30 % prefer RK and 5 % prefer Weifang East Steel and 10% Tangshan Qianxin in Pet Bottles.

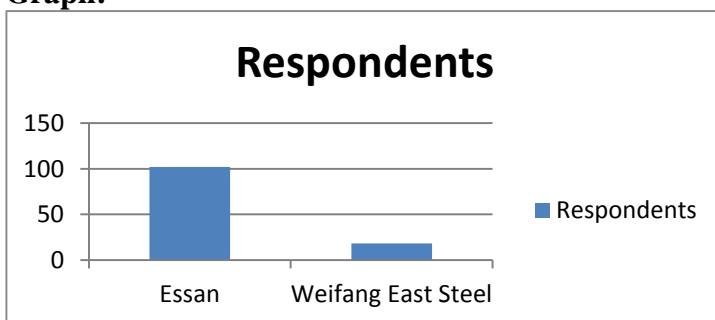
Inference:

From the above table we can see that among Pet Bottles the most preferred brand by retailers is Essan.

5) Which Brand is mostly preferred in Company?

Brands	Respondents	In Percentages
Essan	102	85
Weifang East Steel	18	15

Graph:



Statistics:

In the above table 85% of the retailers Prefer Essan, 15 % prefer Weifang East Steel in Company.

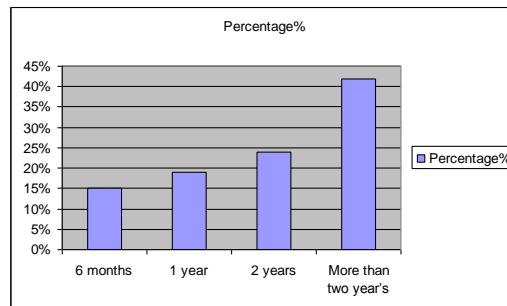
Inference:

From the above table we can see that the Essan brand is most preferred by the retailers in company .

6) Table showing the figures in years about the selling of Essan?

No. of years selling Essan	No.	Percentage%
6 months	15	15%
1 year	19	19%
2 years	24	24%
More than two year's	42	42%

➤ **Graph :**



Statistics:

In the above table 42% of the retailers are selling Essan brand from more than 2 years, and 24% from 2years and 19% from 1 year, and 15% from 6 months.

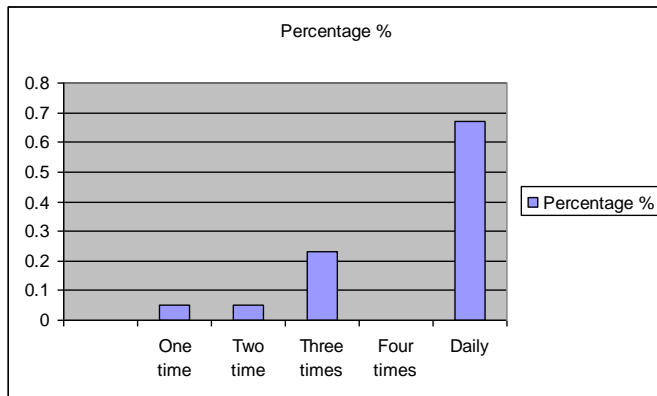
Inference:

From the above table we can see Essan brand addiction and brand loyalty. i.e., 42% of the retailers have long association in selling the Essan brand.

7) Table showing the distribution of Essan?

ibutor visit to retailer	No.	Percentage %
One time	5	5%
Two time	5	5%
Three times	23	23%
Four times	0	0%
Daily	67	67%

➤ **Graph :**



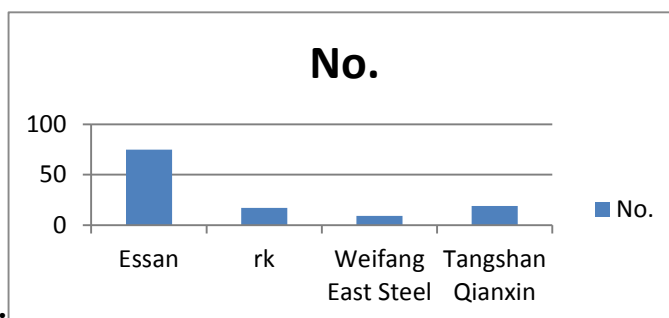
Inference:

Above table shows that 67% of the retailers say that distributors come daily, 23% say that they come three times in a week and 5% say one time, two times in a week respectively.

This shows that the distribution level of the Essan Company in twin cities is good and 94% the retailers are satisfied by the distribution of Essan.

8) Table showing that, which nut and bolt supply is good in distribution.

Brands	No.	Percentage%
Essan	75	70%
rk	17	12%
Weifang East Steel	9	4%
Tangshan Qianxin	19	14%



➤ **Graph :**

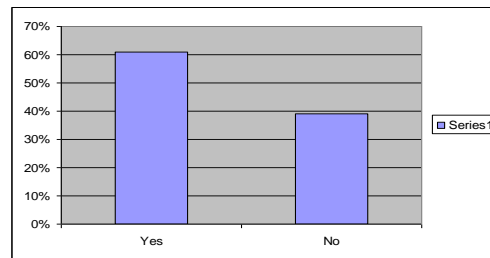
Inference:

Above table shows that 70% of the retailers say that distributors come daily. And they are satisfied in distribution of Essan. 12% say that they are satisfied with Frooti, and 3% say that Weifang East Steel is good in distribution. And 14% retailers say that, Tangshan Qianxin is good in distribution.

9) Table showing the distributors communication about schemes with the retailers?

Yes	61	61%
No	39	39%

➤ **Graph :**



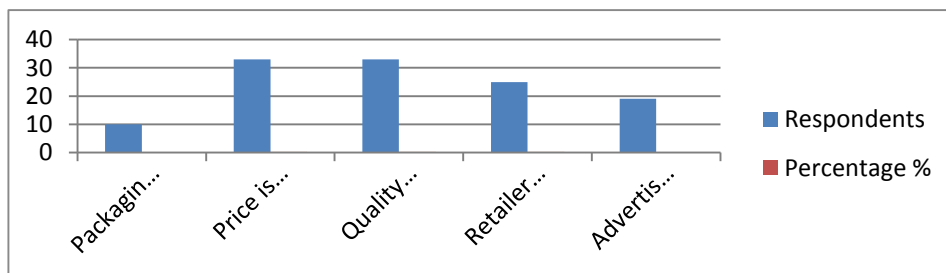
Inference:

Table shows that 61% of the distributors communicate the schemes of the company and 39% doesn't. This shows the Essan has bad communication with retailers. About the schemes of Essan 30mm Nut.

10) Table showing that, why the retailer does not prefer Essan.

Reason	Respondents	Percentage %
Packaging is not good	10	8.10 %
Price is high	33	27.02 %
Quality is not good	33	27.02 %
Retailer margin	25	21.62 %
Advertisement	19	16.21 %

Graph:



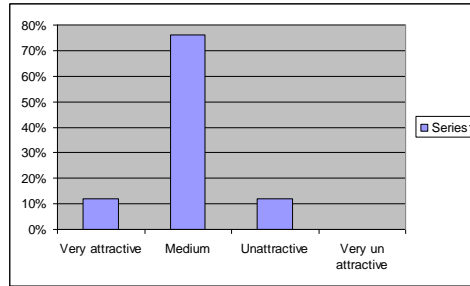
Inference:

From the analysis the retailers who do not prefer Essan is due to high price and low retailers margin. Necessary steps have to be take to guide the retails that the price is not that high compared to the competitive products

11) Table showing that design and style of Essan pack

Very attractive	12	12%
Medium	76	76%
Unattractive	12	12%
Very un attractive	0	0%

➤ **Graph:**



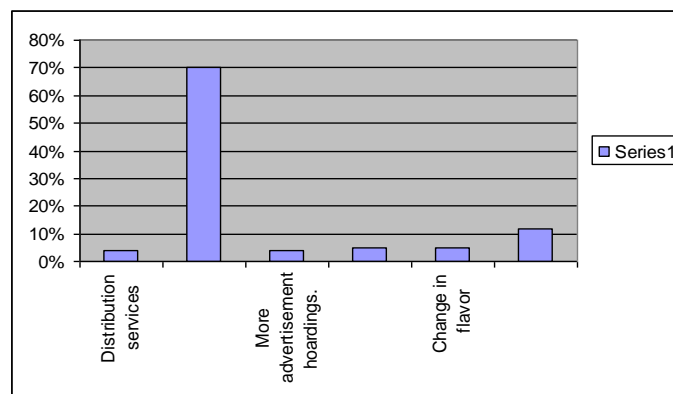
Inference:

The above table shows that 76% of the retailers are said that the design and style of Essan tetra-pack is medium. And 12% of the retailers said design is very attractive. And 12% of retailers said that it is UN attractive. By observing the above table we can know that, the style and design of Essan tetra-pack is not satisfied by the retailers.

12) Table showing retailers view to increase the sales of Essan tetra-pack.

Distribution services	6	4%
Trade schemes / Promotional offers	76	70%
More advertisement hoardings.	6	4%
Telecast of ads in TV media	8	5%
Change in flavor	8	5%
Other's (packing, display boards, etc.,)	16	12%

Graph:



Statistics:

From the above table we can see that 70% is for the promotional offers, the next big thing is for the Display boards & packing with 12%, then goes to more advertisement in TV media. With 5%. And 5% is for change in flavor. And advertisement hoarding with 4%.

Inference:

From the above table we can say that, to increase the sales of the Essan tetra-pack, They should go with the promotional offers to the retailers, and by giving display boards, and by telecasting of ads on TV is the next best option and we can even go for the advertisement hoarding no the road side is the economical option.

FINDINGS, SUGGESTIONS AND CONCLUSION

Findings:-

Embitter Iron & Steel Ltd.

The overview of analysis states the general outlook of Embitter Iron & Steel Company is very good. Its liquidity & solvency health are very good. However, a few observations have been made are listed as follows:

The long term financing of the company have been gradually decreased by the management since year 2014. It shows a good impact on capital structure of company. In year 2015, the long term financing of the company reduced by 19.5% as compared with year 2014. It further decreases by 16.80% in year 2016 compared to year 2015. Trend shows that long term solvency position of company is being improved. This solvency position could be beneficial for company in terms of saving the costs of debt financing. But, the company is also bearing the opportunity loss i.e. the company was able to get leveraged and gain its advantage like; fixed payments of interest, unshared profits, fixed term of loan and interest charge paid is tax deductible.

The trend of working capital ratios shows a continuous improvement during the period. But, in fact it has been declining since year 2014. This trend of improving liquidity is result of financial redressing. As, the fair market value of investments have been increased by 1.7 billion Rupees in year 2015. Again, it has been increased by Rs. 3 billion Rupees in year 2015. If the investments would have been recorded at its actual, the ratios of the company would have showed a negative trend.

Essen Industries Company:

During the study, it is found that the Long term solvency health of company is very good but its short term solvency i.e. Liquidity position is unsatisfactory.

The company is saving the interest charge by utilizing a greater portion of equity for long term financing needs.

Again, like Embitter Iron & Steel the company is bearing opportunity loss by foregoing the attractive benefits of Leverage.

In the over all analysis we find Essen Industries Company get stand at second position.

Hothur Iron & Steels Company:

It is further concluded that the outlook of Hothur Iron & Steels Company in terms of Liquidity and solvency in not satisfactory. The company highly depends on short term and long term financing. The capital structure of company is undesirably high leveraged. Resultantly, company bears heavy service charges of debt financing.

Recommendations:

Essen Industries Company:

- The structure of capital should be made balanced by inducting more debt. Currently, the proportion of debt in the capital is much lesser as compared to industry standard of 1.5:1. In this way, company can gain the advantages of leveraging and can get an opportunity to invest a excessive part of equity in other business and for better returns.

Embitter Iron & Steel Company:

- The structure of capital should be made balanced by inducting more debt. Currently, the proportion of debt in the capital is much lesser as compared to industry standard of 1.5:1. In this way, company can gain the advantages of leveraging and can get an opportunity to invest a excessive part of equity in other business and for better returns.
- The liquidity position should be stated at its actual. If the impact of window dressing for liquidity position are not removed. It would lead to problematic liquidity position in future.

Hothur Iron & Steels Company:

As, the outlook of Hothur Iron & Steels Company in terms of Liquidity and solvency is not satisfactory. The management should induct more equity to make balanced the capital structure of company. The more dependency on debt should be avoided in order to save heavy service charges of debt and for saving the working capital from earnings of the company.

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a) Appendix / Appendixes

As, the financial statements of all three companies has been downloaded from website of the companies. The related web links of companies are as under:

- <http://www.essanindustries.com/financialreports.htm>
- <http://www.embitterIron.com/financial.html>
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