

# SWOT Analysis of Steel Re Rolling Mills (A comparative study of international brand with a local brand)

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**Abstract-** For the development of any modern economy, steel is crucial and is considered to be the backbone of human civilisation. The domestic steel industries are facing new challenges. Some of these relate to the trade barriers in the developed markets and certain structural problems due to the high cost of commissioning new projects. Thermo Mechanically Treated (TMT) steel bars are presently used for reinforcement, which are produced in Steel Re Rolling Mills (SRRMs). Presently, in India there are more than 1200 rolling mills are there since 1929. Modernisation of such mills is going on. Since the cost of production of the steel bars is increasing day by day, it is necessary that a good quality monitoring system has to introduce to reduce the waste without affecting its cost. Hence a quality awareness with good maintenance is very much essential. The producer must have a clear awareness about their strengths, weaknesses, opportunities and threats (SWOT)

**Index Terms-** Challenges in Steel rolling mills (SRRMs), Thermo Mechanically Treated (TMT), quality awareness, Strength, Weakness, Opportunities and Threats (SWOT)

## INTRODUCTION

For the development any modern economy, steel is crucial and is considered to be the backbone of human civilization. The domestic steel industries are facing new challenges. Some of these relate to the trade barriers in the developed markets and certain structural problems due to the high cost of commissioning new projects. Thermo Mechanically Treated (TMT) steel bars are presently used for the reinforcement, which are produced in the rolling mills. Presently, in India there are more than 1200 rolling mills are there. (Jacob,Pramod,2013). Modernisation of such mills is undertaken by United Nations Development Program (UNDP). Since cost of production of steel bars is increasing day by day the demand and competition are also varying. It is the duty of the producer to sell their product with good quality and minimum price. The producers are urged to provide a good quality monitoring system to reduce the waste without suffering its quality. Hence quality awareness with good maintenance is much essential (Pramod and et al , 2006). The producer must have awareness about their strength, weakness, opportunities and threats. The preparation and formation of a House of Quality (HOQ) and its analysis may give a clear picture about what the consumer's interest about the quality and strength from the product of a company or an organization. The House of Quality gives the voice of consumer in a technical language voice (Barnett, W.D., Raja, M.K., 1995) t..

## 1 HISTORY OF STEEL

History reveals that steel was discovered by China under the reign of Han dynasty ( 202 BC - 220 AD). Prior to steel, Iron was very much popular all over the world. The Chinese invented the steel because they found that steel was harder than the iron and they used it for making weapons. From China the process of making steel came to India. Very good quality of steel was being used in southern India. The history says that around BC 100 steel was the major export from Asia. During 9<sup>th</sup> century the Middle -East developed techniques to produce flexible and sharp products with steel (Chard, Jack, 1995).

Steel has a carbon content ranging from 0.2 to 1.5 percent, enough carbon to make it harder than wrought iron, but not so much as to make it as brittle as cast iron. Its hardness combined with its flexibility and tensile strength makes steel far more useful than either type of iron: it is more durable and holds a sharp edge better than the softer wrought iron, but it resists shock and tension better than the more brittle cast iron(Ashton,1968). However, until the mid 1800s, steel was difficult to manufacture and expensive. Prior to the invention of the Bessemer converter, steel was made mainly by the so-called cementation process. Bars of wrought iron would be packed in powdered charcoal, layer upon layer, in tightly covered stone boxes and heated. After several days of heating, the wrought iron bars would absorb carbon; to distribute the carbon more evenly, the metal would be broken up, rebundled with charcoal powder, and reheated. The resulting blister steel would then be heated again and brought under a forge hammer to give it a more consistent texture. In the 1740s, the English clockmaker Benjamin Huntsman, searching for a higher-quality steel for making clock springs, discovered that blister steel could be melted in clay crucibles and further refined by the addition of a special flux that removed fine particles of slag that the cementation process could not remove(Pounds, Norman,1963 ). This was called crucible steel; it was of a high quality, but expensive (Jacob and Pramod, 2013).

## 2. SWOT ANALYSIS

In a project or a business SWOT is a planning tool used for understanding the Strengths, Weaknesses, Opportunities, and Threats. It specifies the objective of the business or project and identifies the internal and external factors which are supportive or unfavorable to achieving that objective (Piercy, and Giles, 1989). It is usually used as part of a strategic planning process (Valentin, E. K., 2001). The origins of the SWOT analysis technique is credited by Albert Humphrey, who led a research project at Stanford University in the 1960s and 1970s using data from many top companies (Hill & Westbrook, 1997). The major goal was to identify why corporate planning failed? The resulting research identified a number of key areas and thus the tool used to explore each of the critical areas was called Satisfactory, Opportunity, Fault and Threat (SOFT) analysis. Humphrey and the original research team used the categories "What is good in the present is satisfactory, good in the future is an opportunity; bad in the present is a fault and bad in the future is a threat." In 1964 Urick and Orr at a conference changed the F to a W, and it has stuck as that, SOFT to SWOT (Urick and et al, 1974). Some researchers reference the 1965 publication "business Policy, text and cases" by Learned, Christensen, Andrews and Guth from Harvard University, in which a framework is used which closely resembles SWOT, however these words are not used and certainly the framework is not described as succinctly as we know it today (Collis et al, 1995) In this book the terms used are: opportunities, risks, environment and problems of other industries. In fact these authors reference a course note from K R Andrews "a concept of corporate strategy" for much of the strategy framework (Hill and Westbrook, 1997).

It is said that a SWOT is meaningless on its own. It works best when part of an overall strategy or in a given context or situation. This strategy may be as simple as:

- a) Goal or objective
- b) SWOT analysis
- c) Evaluation or measures of success strategy
- d) Action

This is sometimes known as the 4 As model – Aim, Assess, Activate and Apply where: Aim – is the objective, Assess – is the SWOT review itself, Activate – is identify the strengths or measures of success and use them to advantage and Apply - is take action (Valentin 2001).

The SWOT is great for developing an understanding of an organisation or situation and decision-making for all sorts of situations in business, organisations and for individuals. The SWOT headings provide a good framework for reviewing strategy, position and direction of a company, product, project or person (career). Doing a SWOT can be very simple, however its strengths lie in its flexibility and experienced application. Remember the capture is only part of the picture (Shinno and et al, 2006).

An analysis can be used for:

- Planning
- Brainstorm meetings
- Product evaluation (in industries/organisations)
- Problem solving
- Competitor evaluation
- Personal Development Planning
- Decision Making (with force field analysis) Workshop sessions

## 2.1 SWOT ANALYSIS IN STEEL ROLLING MILLS

SWOT analysis can be used for the product analysis. SRRM products such as steel bars, customer analysis is done with SWOT. When implementing a SWOT analysis to devise, a set of strategies the following guidelines should be utilised. Strengths (Wehrich, 1982) determine the organisation's strong points. This should be from both internal and external customers. Do not be humble; be as pragmatic as possible. - Are there any unique or distinct advantages that makes organisation stand out in the crowd? - What makes the customers choose the organisation over the competitions? - Are there any products or services in which the competition cannot imitate (now and in the future)?

Weaknesses (Wehrich, 1982) Determine your organisation's weaknesses, not only from the point of view, but also more importantly, from your customers. Although it may be difficult for an organization to acknowledge its weaknesses, it is best to handle the bitter reality without procrastination.

- Are there any operations or procedures that can be streamlined?
- What and why do your competition operate better than your organization?
- Does your competition have a certain market segment conquered?

### Opportunities

Another major factor is to determine how your organization can continue to grow within the marketplace. After all, opportunities are everywhere, such as changes in technology, government policy, social patterns, and so on.

- Where and what are the attractive opportunities within your marketplace?
- Are there any new emerging trends within the market?
- What does your organization predict in the future that may depict new opportunities?

## Threats

No one likes to think about threats, but we still have to face them, despite the fact that they are external factors that are out of our control. For example, the recent major economic slump in different countries. It is vital to be prepared and face threats even during turbulent situations. - What is your competition doing that is suppressing your organisational improvement?

- Are there any changes in consumer demand, which call for new requirements of your products or services?

- Is the altering technology hurting your organisation's position within the marketplace?

### 2.1.1 THE WIZARDRY OF SWOT

The wizardry of SWOT is the matching of specific internal and external factors, which creates a strategic matrix, which makes sense. (Note: The internal factors are within the control of your organization, such as operations, finance, marketing, and in other areas. The external factors are out of your organization's control, such as political and economic factors, technology, competition, and in other areas). The four combinations are called the Maxi-Maxi (Strengths/Opportunities), Maxi-Mini (Strengths/Threats), Mini-Maxi (Weakness/Opportunities), and Mini-Mini (Weaknesses/Threats) which are coming under uncertainty principle. (See Figure 1.)

1 Maxi-Maxi (S/O) organization's strengths and opportunities are shown in the combination. In essence, an organization should strive to maximise its strengths to capitalise on new opportunities (Wehrich, 1982).

2 Maxi-Mini (S/T): this combination shows the organization's strengths in consideration of threats, e.g. from the competitors. In essence, an organization should strive to use its strengths to parry or minimise threats (Wehrich, 1982).

3 Mini-Maxi (W/O): this blend shows the organization's weaknesses in tandem with opportunities. It is an exertion to conquer the organization's weaknesses by making the most out of any new opportunities (Wehrich, 1982).

4 Mini-Mini (W/T): this amalgamation shows the organization's weaknesses by comparison with the current external threats. This is most definitely defensive strategy, to minimise an organization's internal weaknesses and avoid external threats (Wehrich, 1982).

### 2.1.2 GUARANTY INSIGHT OF SWOT

As mentioned, the wizardry of SWOT is the matching of specific internal and external factors. However, what about the matching items within internal factors and items within external factors. The primary reason is that matching these factors will create strategies that will not make sense. For example, with a combination of strength and weakness (both are internal factors), let's say one of your organization's strengths is "plenty of cash" and one of your weaknesses is "lack of training". Therefore, mixing these two factors together, your management team might simply decide to plan more training for the staff members. The obvious remark for this purposeless strategy will be "so what!" Mainly because you should not train, just for the sake of training (A successful training program must have a specific target in response to external changes. You have to determine your organization's specific needs for training in line with the external and internal factors. In other words, the strategy must have an external factor as a trigger in order for it to be feasible.

## 3 .STEEL ROLLING MILLS IN KERALA

At present there are more than seventy steel rolling mills are working in Kerala state. Most of them are working at Palakkad district. Some of them are working at Ernakulam, Kozhikode and Malappuram districts. The Government of Kerala is giving their maximum support due to their industrialisation policy (MID-TERM REVIEW- Energy Efficiency in Steel Re-Rolling Mills, Government of India, United Nations Development Programme (UNDP), Global Environment Facility, 8 August 2007). Some of the major companies are; Kairali steels, Paragon steels, Prince TMT steels, SJ steels, Scotfree steels, Surabhi steels, Minar steels, AP Steels etc. They are producing different sizes of steel bars as well as the billets or ingots from which the steel bars are produced. These firms are producing and selling their products locally. Hence we can call them as local branded SRRMs. Latest technologies are implemented in most of the companies. Mainly the Thermo mechanical treatment (TMT) process are implemented there. With the TMT process good quality bars are able to produce. They are tested for the strength and quality. The ingot / billets are able to produce either from the ores or from the scrap. Almost all the factories, the raw materials are the scrap. The factories are working round the clock. In order to melt the raw materials arc furnaces are used. The exhaust gas is removed with the draught mechanism. Oil furnaces are also used to reheat the ingot below the melting process. Different kinds of rolling as well as machineries are also used in the factories. In order to install the whole units a minimum of Indian money, rupees fifty crores has to be spent (Jacob and Pramod, 2013). This situation exists throughout the country.

The raw materials and machineries are imported and the source of power is supplied by the state. 440 KV lines are supplied to the factories and step down transformers are installed at the factory premises. Heavy materials are transported and handled by fully/partly automated or human controlled cranes. Thyristor controlled devices are also used for the electric arc furnaces.

There are certain companies which are producing with international standards. Their products are exported to different countries. They are able to achieve foreign money through exports. In India we have Steel Authority of India (SAIL), Tata Iron and Steel Company (TISCO) etc. ((INTERNET. <http://www.tatasteel.com>, Cited 17 July 2006). Such firms may be called international branded ones.

It is customary that all the systems must coordinate during the production of steels. Proper maintenance has to be implemented to those units for the smooth functioning. Alternate accessories have to be there while the process is going on. The SWOT analysis helps in analysing strategic planning in steel manufacturing mills. It is a planning tool used to identify Strengths, Weaknesses, Opportunities and Threats involved in a business. It is used as part of Strategic Planning Process in Kerala. It is a planning tool used to identify

Strengths, Weaknesses, Opportunities and Threats involved in a business. It is used as part of Strategic Planning Process (Piercy and Giles, 1989)).

It is a planning tool used to identify Strengths, Weaknesses, Opportunities and Threats involved in a business. It is used as part of Strategic Planning Process. Strategic Planning helps an organisation to answer some basic and critical questions like: Where we stand? What is our goal? How to reach the desired goal? How to evaluate performance?

### 3.1 SIGNIFICANCE OF SRRMS WITH INTERNATIONAL BRANDS AND SWOT.

Following guidelines should be used by implementing a SWOT analysis to devise a set of strategies.

#### Strengths

The organisation's strong points have to obtain for this..The steel rolling mills of international brands, distinct advantages that makes the organisation stand out in the crowd has to find out first then the customers choose of the organization over the competition's has to find out. It is found that, for an international brand the quality will be very good. The brand name is also good. The working force as well as quality verification systems may be in top order.

Weaknesses obtain the organisation's weaknesses\ from the point of view from the customers. Although it may be difficult for an organization to acknowledge its weaknesses, it is best to handle the bitter reality without procrastination. - Are there any operations or procedures that can be streamlined? - What and why does your competition operate better than your organization? - Is there any avoidance that your organization should be aware of? - Does your competition have a certain market segment conquered? ( Dealtry, R. 1992, Ashton, 1968)

#### Opportunities:-

Under uncertainty principle the major factor is to determine how the organisation can continue to grow within the marketplace. Afterall, opportunities are everywhere, such as changes in technology, government policy, social patterns, and so on.

-- What does the organisation predict in the future that may depict new opportunities?

- Where and what are the attractive opportunities within the marketplace?

- Are there any new emerging trends within the market?( Dealtry, R. (1992)

#### Threats:-

No one likes to think about threats, but we still have to face them, despite the fact that they are external factors that are out of our control. For example, the recent major economic slump in Asia. It is vital to be prepared and face threats even during turbulent situations. - What is your competition doing that is suppressing your organizational development?

- Are there any changes in consumer demand, which call for new requirements of the products or services?

- Is the changing technology hurting your organization's position within the market place. Based on the above factors a table is given below (Table.1) for the steel rolling mills for an international brand as well as a local brand. (Ashton, 1968)

By considering the strong points or the positive aspects of international branded rolling mills, we see, the brand name, strong working force, quality verifying methods, production controls are found to be good. They may have good word wide markets or demand for the public constructions. They have the opportunities for the future expansion and support from the General Agreement for Trade and Tariff (GATT). They will have good net wok in marketing and research facilities. Resource building capacity will be good. But, it is seen that in rural areas, the network may be poor. Its price may be high due to various factures(Shinno, H et al., d Hachiga, S. (2006). Rural area people may be unaware about the product. Another threat is that, now China is having the monopoly and there may be the protectionism in the west. Important points are given in the table 1 given below.

Table 1 shows a nutshell about the strength, weakness opportunities and weakness of an international branded steel bar industries. It is found that they are having a good number of strength and opportunities, while the weakness and the threats are less in number. From the above table it is found that very good quality both in physical and chemical are obtained from the internationally branded companies. In India, Tata iron and steels company (TISCO), Steel Authority of India Ltd(SAIL) are the companies. In China, Great Britain, and USA, number of such companies are working (Dealtry, R. (1992) ,

The information about the strength, weakness, opportunities and threats of international standard show that there are 16 ,14, 5,and 6 points respectively. They are given in percentage wise below.(strength, weakness, opportunities and threats ).

Table .1 Strength, weakness, opportunities and threats of international steel brand

<p><b>STRENGTH.</b></p> <ol style="list-style-type: none"> <li>1) Brand name &amp; good will,</li> <li>2) Good R &amp; D wing,</li> <li>3) Good work force</li> <li>4) Good Lab facility</li> <li>5) Good Malleability &amp; ductility properties</li> <li>6) Good Advertisement &amp; publicity</li> <li>7) Wide range &amp; size</li> <li>8) Customer trust &amp; faith is good</li> <li>9) Good in sales technique &amp; ability to customize</li> <li>10) Preparation is from its ores</li> <li>11) Availability of international market</li> <li>12) Receives foreign money through export</li> <li>13) Good in share market</li> <li>14) Mechanical strength is good</li> <li>15) Highly skilled and dynamic human resources</li> <li>16) Scrap availability and ease of scrap transportation</li> </ol>	<p><b>WEAKNESS</b></p> <ol style="list-style-type: none"> <li>1) Poor network in rural area</li> <li>2) Weak publicity</li> <li>3) High price</li> <li>4) Only for the high income group</li> <li>5) Not possible to meet the world market</li> <li>6) Red tapism, bureaucracy</li> </ol>
<p><b>OPPORTUNITIES</b></p> <ol style="list-style-type: none"> <li>1) Good internal market</li> <li>2) High demand in Public sectors</li> <li>3) Expansion facility</li> <li>4) Flexibility in future expansion</li> <li>5) Good distribution network</li> <li>6) General Agreement of trade on Services</li> <li>7) Research &amp; Development capability</li> <li>8) Generate intellectual property</li> <li>9) Resource Building capacity</li> <li>10) Competition- cost – Quality service</li> <li>11) Collaboration : win-win thinking</li> </ol>	<p><b>THREATS</b></p> <ol style="list-style-type: none"> <li>1) Global competition</li> <li>2) Availability of raw materials</li> <li>3) Availability of raw material</li> <li>4) Internal market</li> <li>5) Unawareness to local people</li> <li>6) China becoming net exporter</li> <li>7) Protectionism in the West</li> <li>8) Dumping by competitors.</li> </ol>

### 3.2 SWOT ANALYSIS FOR INTERNATIONAL BRANDS RATINGS

The importances are obtained from the survey and expert's opinion, the following percentage is obtained. Then graphs are plotted. Comparison graph is also prepared to identify the importance of each item and graphs are given below( Figure 1,2 3,4).

#### A) Strength

- Brand name & good will, - 4%
- Good R & D wing, - 11%
- Good work force - 10%
- Good Lab facility - 8%
- Good Malleability & ductility properties - 6%
- Good Advertisement & publicity - 3%
- Wide range & size - 2%
- Customer trust & faith is good - 10%
- Good in sales technique & ability to customize - 4%
- Preparation is from its ores – 6%
- Availability of international market- 2%
- Receives foreign money through export - 5%
- Good in share market - 6%
- Mechanical strength is good- 4%
- Highly skilled and dynamic human resources - 10%
- Scrap availability and ease of scrap transportation 5%
- Other points - 4%

**B) Weakness**

- Poor network in rural area 24%
- Weak publicity – 18%
- High price - 17%
- Only for the high income group - 13%
- Not possible to meet the world market - 11%
- Red tapism, bureaucracy - 08%
- Other points - 09%

**C) Opportunities**

- Good internal market - 5%
- High demand in Public sectors - 12%
- Expansion facility - 9%
- Flexibility in future expansion -- 9%
- Good distribution network - 3%
- General Agreement of trade on Services - 6%
- Research & Development capability - 14%
- Generate intellectual property- 8%
- Resource Building capacity - 7%
- Competition- cost – Quality service - 5%
- Collaboration : win-win thinking - 7%
- Other points- 12%

**D) Threats**

- Global competition - 23%
- Availability of raw materials - 7%
- Availability of raw material - 6%
- Internal market - 18%
- Unawareness to local people- 8%
- China becoming net exporter 5%
- Protectionism in the West - 7%
- Dumping by competitors. - 9%
- Other points - 17%

Table 2. Percentagewise split up of factors

Sl.no	strength	%	weakness	%	opportunities	%	Threats	%
1	4	1	24	6	5	1.25	23	5.75
2	11	2.75	18	4.5	12	3	7	1.75
3	10	2.5	17	4.25	9	2.25	6	1.5
4	8	2	13	3.25	12	3	18	4.5
5	6	1.5	11	2.75	3	0.75	8	2
6	3	0.75	8	2	6	1.5	5	1.25
7	2	0.5	9	2.25	14	3.5	7	1.75
8	10	2.5	0	0	8	2	9	2.25
9	4	1	0	0	7	1.75	17	4.25
10	6	1.5	0	0	5	1.25	0	0
11	2	0.5	0	0	7	1.75	0	0
12	5	1.25	0	0	12	3	0	0
13	6	1.5	0	0	0	0	0	0

14	4	1	0	0	0	0	0	0
15	10	2.5	0	0	0	0	0	0
16	5	1.25	0	0	0	0	0	0
17	4	1	0	0	0	0	0	0
Total	100	25	100	25	100	25	100	25

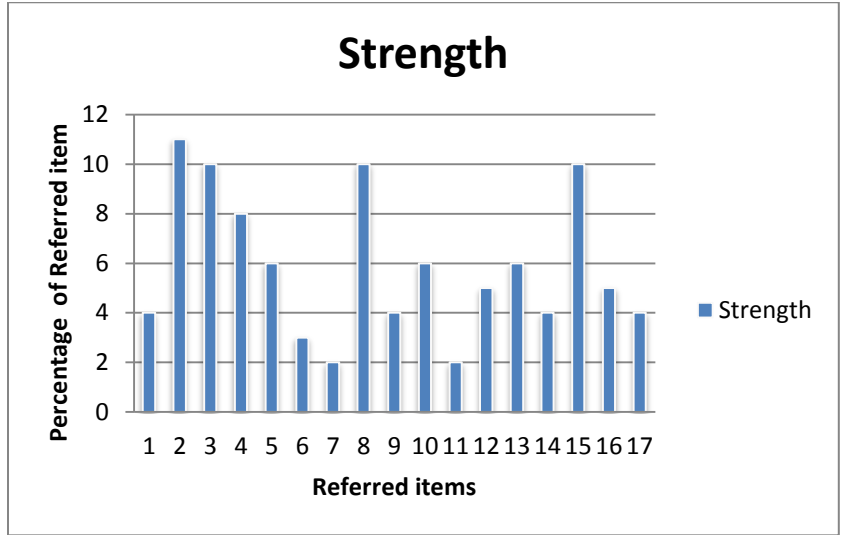


Figure 1 Relationship of Strength in SWOT

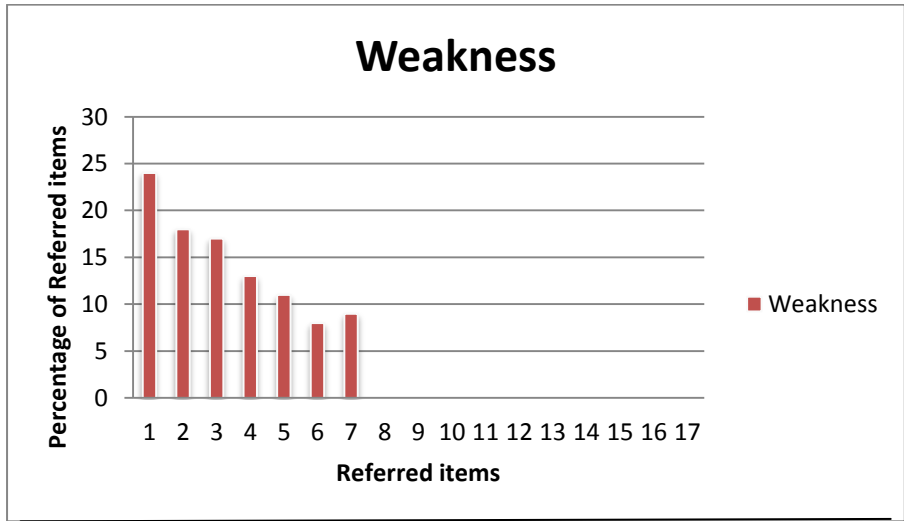


Figure 2. Relationship of weakness in SWOT

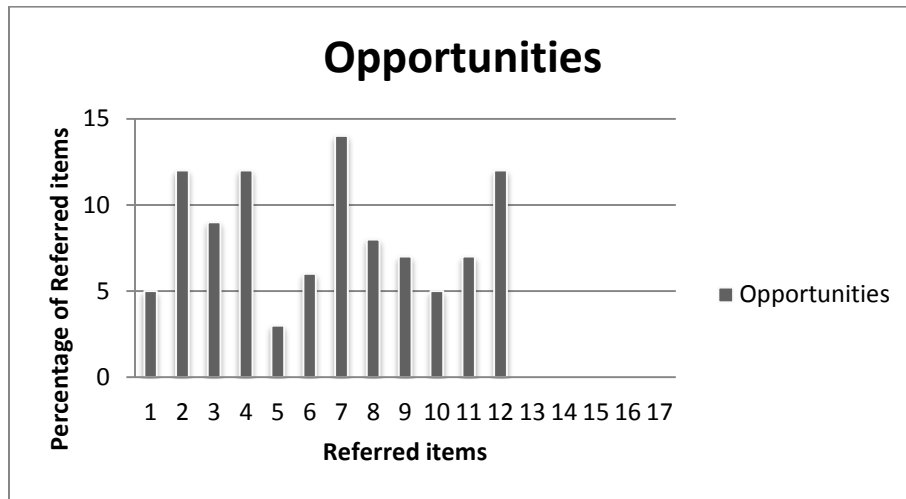


Figure 3 Relationship of opportunities in SWOT

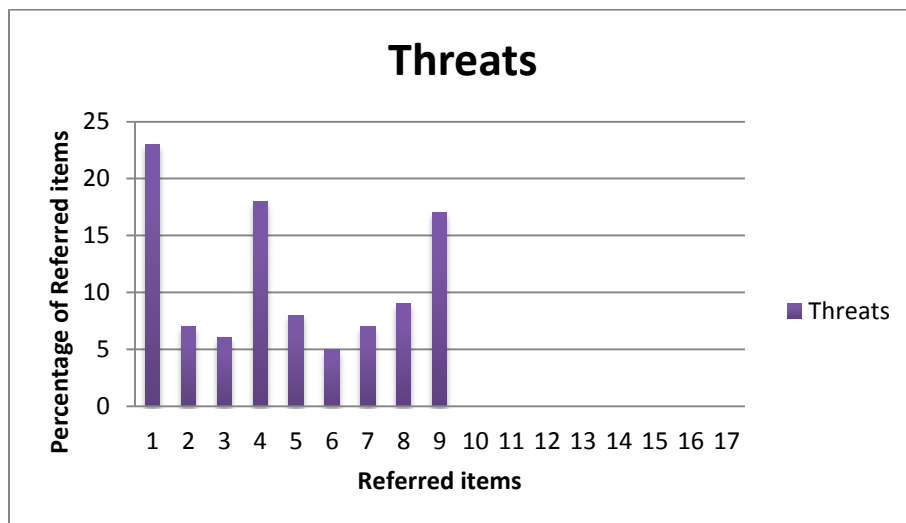


Figure 4 Relationship of Threats in SWOT

### 5. SWOT ANALYSIS FOR LOCAL BRANDED STEEL BARS RATINGS

It is found that lot of local branded SRRMs are coming up now. The central government as well as state government industry departments are giving more benefits to the entrepreneurs to start new ventures for the progress of the nation. In order to start more monitory as well as taxation benefits are giving. This may create more employment chances and even export chances are also getting now. In the field of SRRMs there are more than 1600 units are working at present in local and national level which are not up to international level.

Availability of power and raw material with skilled persons are the lacuna found in the local industries. Even though there are enough labours available, in SRRMs the temperature effects due to high heating and melting process people are reluctant to work in such industries. Another important negative impact is lack of chemical and labs for the material testing. Availability of cheap labour and facilities for the expansion is good. Hence cost of production may be less in TMT products.

Since number of steel industries are coming up the local competition is a threat to this field. Many industries are using the raw materials as scrap steels. When it melts in induction furnaces the product qualities may reduce. In order to compensate this additives and other ingredients have to be added while it is melting after the lab verifications of the components of the molten mild steel (MS). The MS rods malleability, ductility, resistance to corrossions are very important. These properties can only be achieved by the lab testing only.

Transportation of the finished and raw material are another problem faced by the local industries. There may be a shortage of infra structure to the local industries. Research and development wings performance may also be poor.

A table and percentage wise analysis are given below in Table3.



Table .3 Strength, weakness, opportunities and threats of national steel brand

<p><b>STRENGTH.</b></p> <ol style="list-style-type: none"> <li>1) Cheap</li> <li>2) Scope for entry of private firms</li> <li>3) Much demand in local</li> <li>4) Low price</li> <li>5) Easily available</li> <li>6) Cheap labour</li> <li>7) Good encouragement from government</li> <li>8) Lower tax rates</li> <li>9) Cheap land</li> <li>10) Flexibility for expansion</li> </ol>	<p><b>WEAKNES</b></p> <ol style="list-style-type: none"> <li>1) Poor Brand name &amp; good will,</li> <li>2) Poor R &amp; D wing is good,</li> <li>3) Poor work force</li> <li>4) Poor Lab facility</li> <li>5) Poor malleability &amp; ductility</li> <li>6) Advertisement &amp; publicity is poor</li> <li>7) Poor range &amp; size</li> <li>8) Poor in customer trust &amp; faith</li> <li>9) Poor sales technique and ability to customize</li> <li>10) Preparation is from its scrap only</li> <li>11) No international market</li> <li>12) Receives less foreign money through export</li> <li>13) Poor in share market</li> <li>14) Poor mechanical and physical strength</li> </ol>
<p><b>OPPURTUNITIES</b></p> <ol style="list-style-type: none"> <li>1) Good internal market</li> <li>2) More demand to common men</li> <li>3) Expansion facility</li> <li>4) Flexibility in future</li> <li>5) Distribution network</li> </ol>	<p><b>THREATS</b></p> <ol style="list-style-type: none"> <li>1) Local competition</li> <li>2) Availability of raw materials</li> <li>3) Availability of power</li> <li>4) Poor response</li> <li>5) Unawareness to local people</li> <li>6) Poor lab facility</li> </ol>

Percentage wise analysis of the above points are given below

**A) Strength**

- Cheap - 12%
- Scope for entry of private firms 16%
- Much demand in local 11%
- Low price 14%
- Easily available - 6%
- Cheap labour - 9%
- Good encouragement from government 7%
- Lower tax rates 6%
- Cheap land - 8%
- Flexibility for expansion - 6%
- Other points 5%

**B) Weakness**

- Poor Brand name & good will, 6%
- Poor R & D wing is good, 9%
- Poor work force 11%
- Poor Lab facility 10%
- Poor malleability & ductility 7%
- Advertisement & publicity is poor 5%
- Poor range & size 3%
- Poor in customer trust & faith 4%
- Poor sales technique and ability to customize 8%
- Preparation is from its scrap only 13%
- No international market 5%
- Receives less foreign money through export 4%
- Poor in share market 8%
- Poor mechanical and physical strength 3%
- other points 4%

**C) Opportunities**

- Good internal market - 16%
- More demand to common men 18%
- Expansion facility 12%
- Flexibility in future 15%
- Distribution network 17%
- Other points 22%

**D) Threats**

- Local competition - 23%
- Availability of raw materials - 17%
- Availability of power 16%
- Poor response 8%
- Unawareness to local people 8%
- Poor lab facility 5%
- Availability of skilled persons 7%
- Others 16%

Table 4. Percentagewise split up of factors

sl.no	Strength	%	weakness	%	opportunities	%	Threats	%
1	12	3	6	1.5	16	4	23	5.75
2	16	4	9	2.25	18	4.5	17	4.25
3	11	2.75	11	2.75	12	3	16	4
4	14	3.5	10	2.5	15	3.75	8	2
5	6	1.5	7	1.75	17	4.25	8	2
6	9	2.25	5	1.25	22	5.5	5	1.25
7	7	1.75	3	0.75	0	0	7	1.75
8	6	1.5	4	1	0	0	16	4
9	8	2	8	2	0	0		.
10	6	1.5	13	3.25	0	0	0	0
11	5	1.25	5	1.25	0	0	0	0
12	0	0	4	1	0	0	0	0
13	0	0	8	2	0	0	0	0

14	0	0	3	0.75	0	0	0	0
15	0	0	4	1	0	0	0	0
16	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0
Total	100	25	100	25	100	25	100	25

From the above tables (Table 1 and 2), it is found that the strength or weakness or opportunity or the threats in both the brands are showing certain important criteria in that field. Taking the case of branded steel bar, they are having a good-will in the market. Their market share value is found to be good. The scrap materials or the other raw materials or even the machine's parts are easily available in the world markets. At present the shipment through the containers are very easy. The raw or scrap materials are transported in very large quantities through the shipment in containers. The availability of them is another factor, which are getting from different countries such as Africans countries or the western countries. The branded company has enough infra structure and investments. They are able to invest money for the lab facilities and equipments for the quality checkups. The inter national brands TMT bar's strength and the physical properties may be very good since they are able to get good expertise or dynamic and highly skilled work force or good R&D wings(Menon, A. et al. 1999), .

When we consider the local branded TMT bars, the above criteria may be poor. Their strength will be not up to the international standard. They cannot invest a huge amount in the company. There the production cost will be cheap. The scope for entry of private firms are there. They will attain the demand in local markets. Low price is another factor. The products are easily available in the local markets.(Collis, David J. and Cynthia A, 1995). Cheap labour is another positive aspects. They get good encouragement from government and the tax rates will be less. Cheap labour and the land facilities or the flexibility for the opportunities are considering, we see that all the factors may be positive in nature. Their negative aspects of threats and weakness are arising due to the unavoidable circumstances. Take the case of price or the opinion about the product in the local level or the publicity in the local level will be very poor. (Pramod V.R et al 2006)

The SWOT analysis indicates a clear picture about how the TMT bars are obtaining the market in the international, national and local level. The factors are found to be genuine. But human observation and their usage or consumption in the construction fields are important. When someone takes a decision, that decisions must not harm or create an alarming situation. Constructing a building or an infra structure, it must withstand a minimum period. If any failure occurs that reflects the quality of the reinforcements. The society always needs a product with good quality and with a reasonable price from the nearby markets( Kotler philip,2010)

Table 1 and Table 3 give the compartment division of the factors of SWOT available from the discussion and opinion if the expertise. Its percentage is also obtained from the questioners collected. Then each point is again analysed with respect to the overall percentage and a comparison is done in the bar charts(Figure 1-4) and graphs in Figure( 5-16). These figures give a clear understanding about the grading of each factors in SWOT analysis. Further study can also be done by the ABC analysis which gives the importance of major and minor factors. These factor points can also analysed mathematically by the Interpretive structure modelling(ISM) analysis

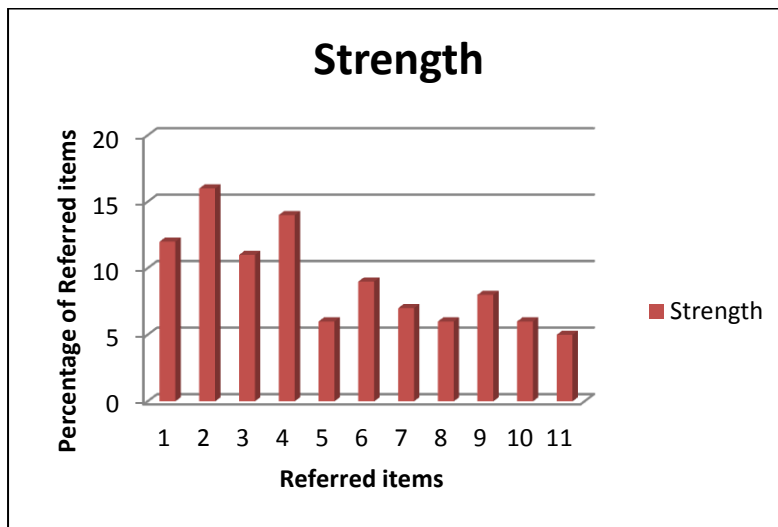


Figure 5. Relationship of Strength in SWOT

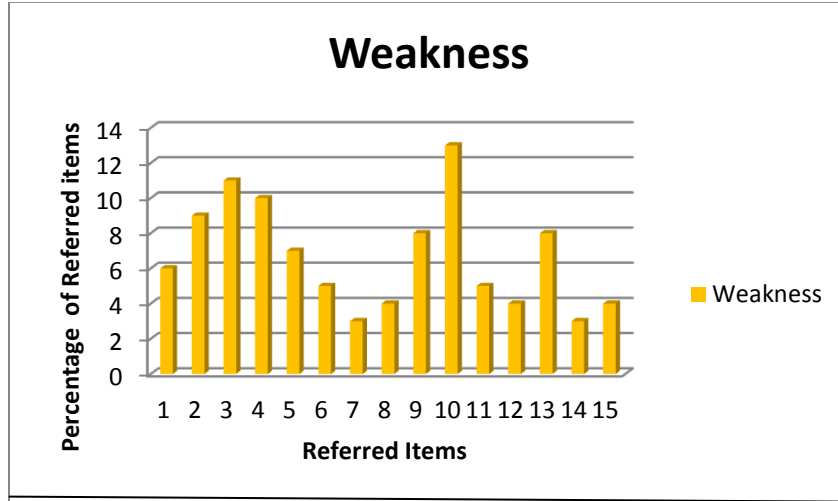


Figure 6. Relationship of weakness in SWOT

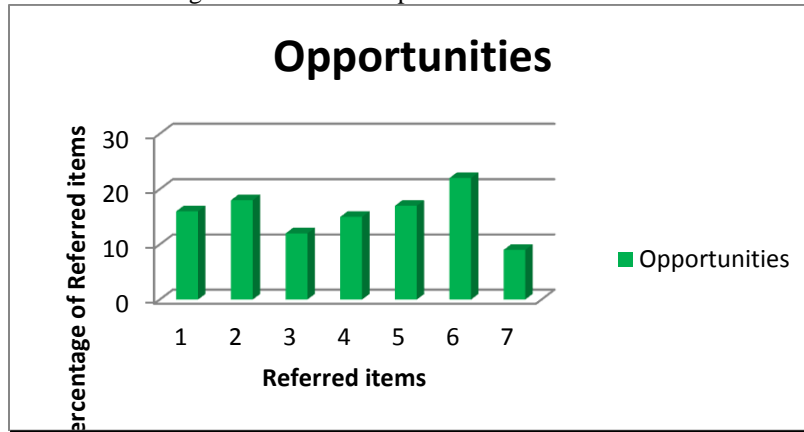


Figure 7.. Relationship of Opportunities in SWOT

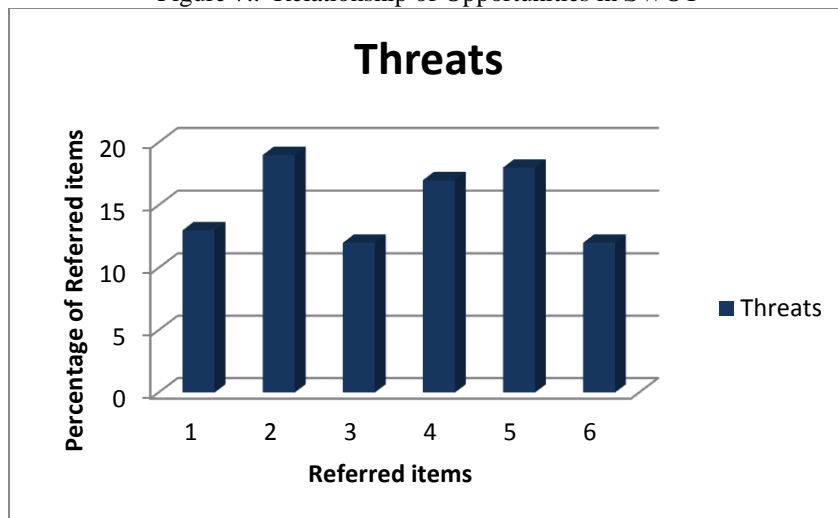


Figure 8.. Relationship of Threats in SWOT

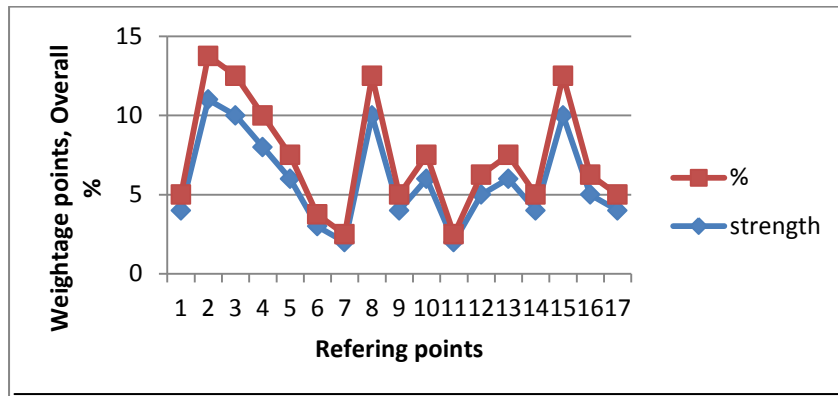


Figure 9. Relationship between Strength V/S its overall % in SWOT

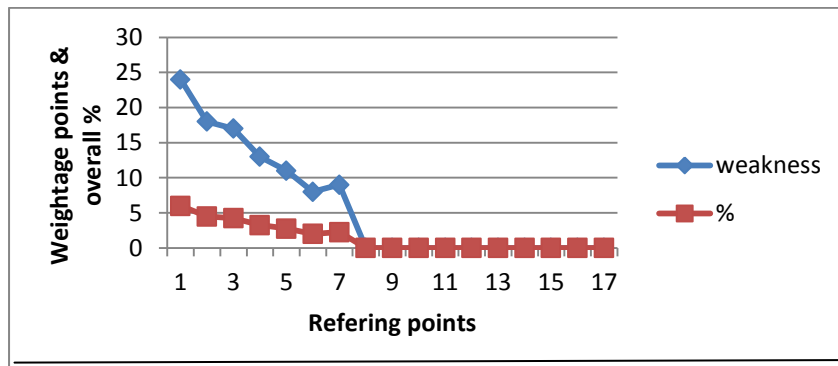


Figure 10. Relationship between Weakness V/S its overall % in SWOT

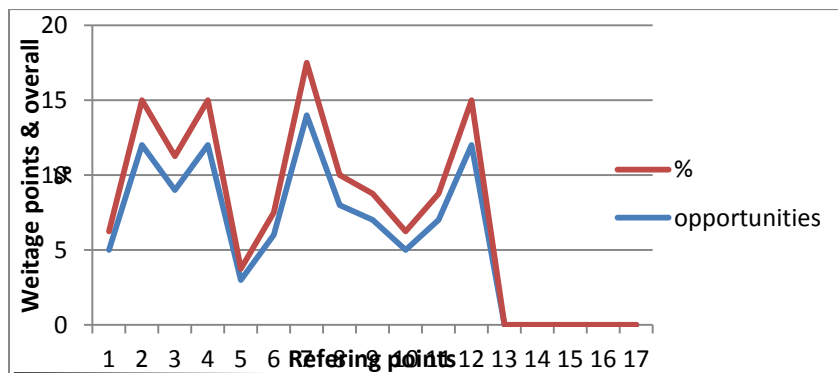


Figure 11. Relationship between Opportunities V/S its overall % in SWOT

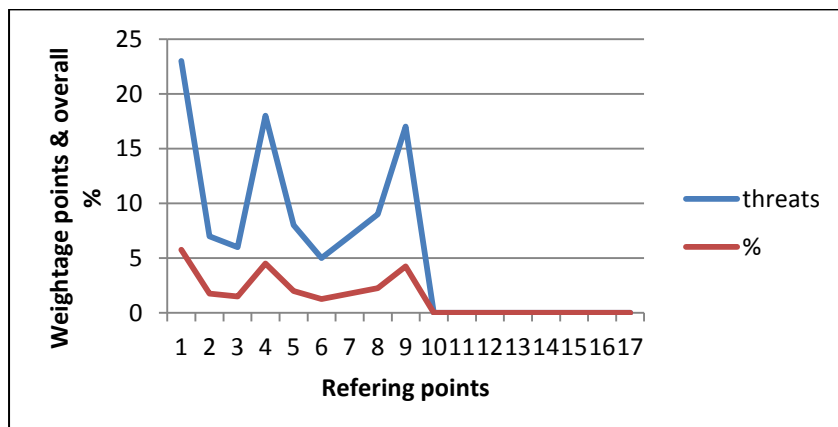


Figure 12. Relationship between Threats V/S its overall % in SWOT

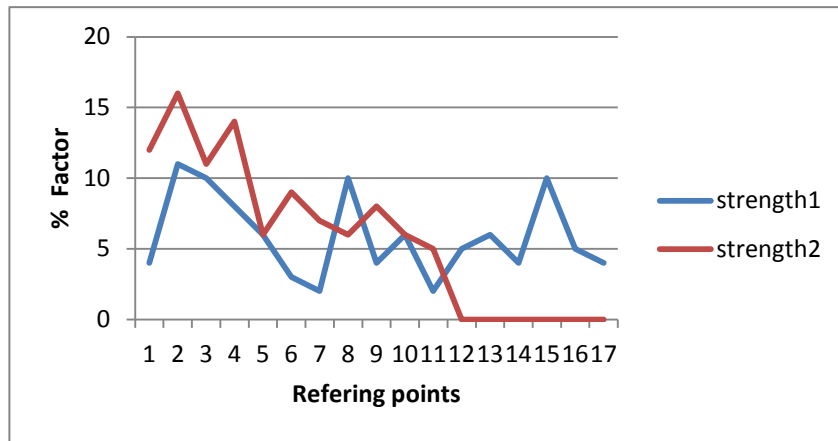


Figure 13. Relationship of Strength in International(1) and national(2) brands

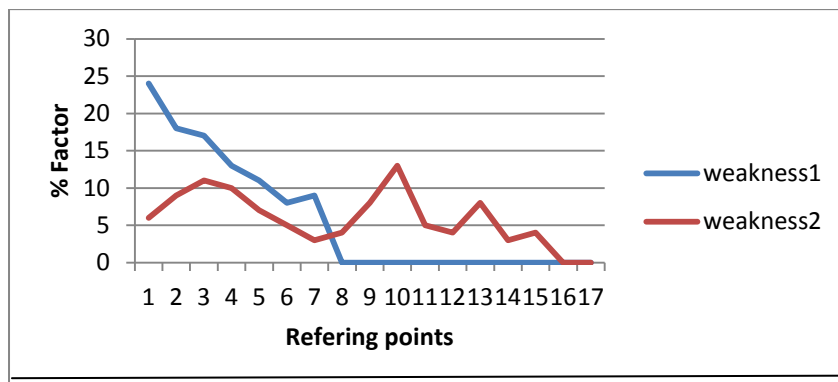


Figure 14. Relationship of Weakness in International(1) and national(2) brands.

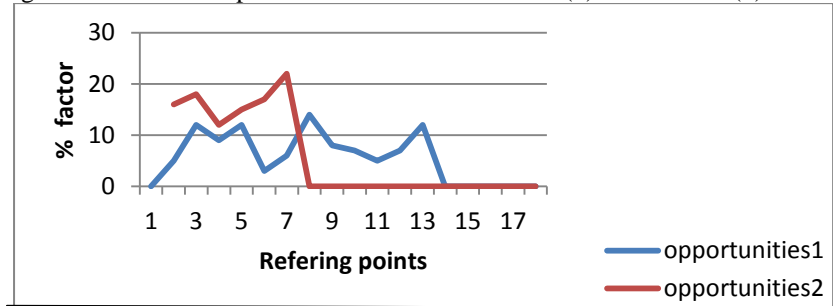


Figure 15. Relationship of Weakness in International(1) and national(2) brands

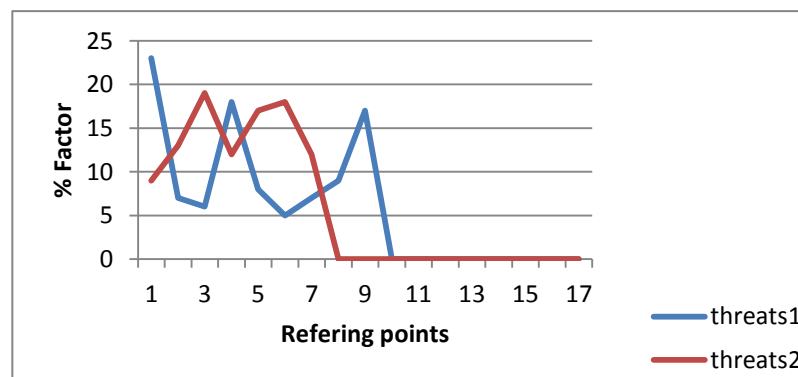


Figure 16. Relation ship of Threats in International(1) and national(2) brands

## I. CONCLUSION

SRRMs of international and local or national brands nature in SWOT analysis is done from the questionnaires and discussions with experts in this fields and industrialists. It is analysed that to certain extent there are more benefits for the international brands (Figure : 1-8). To some extends the local brands are good in its Strength, Weakness, Opportunities and Threats factors; especially in cost of production and price of the products. For the future expansion and encouragement by the government and local branded regarding tax benefits and other incentives local or national brands are good. The availabilities of cheap labour is an added weight age for the local branded ones .But in qualities and strength, international branded ones are very good. The availabilities of good lab, efficiencies of skilled personalities are found to be far ahead. Heavy duty as well as public works department's works maybe given to specialised international branded products Figure (9-12). When we use a product, that product must be useful to the mankind and its quality must be of very good standard. The SWOT analysis of SRRMs give clear picture in this regard.

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