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Two Local Industries of Surat under the Muddled Conditions of Business Environment – Evaluation under the International Factors

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Abstract – The city of Surat is considered as a financial capital of Gujarat State. It is also known as diamond city and art silk Manchester of India. The economy of the Surat city is highly reliant on both the textile and diamond industries. Both these industries mainly operate in an unorganized way but provide employment to large mass and generate valuable FOREX for India. Due to the turmoil conditions in international market both these industries have been affected to a great extent. The impacts of the global factors have positive and negative effect and the same has been studied in this research work.

Keywords: Business Environment, Diamond, International Market, Textile, Muddled, Surat.

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1. INTRODUCTION

The city of Surat is considered as a financial capital of Gujarat State of India. Surat is one of the fastest developing metropolitan areas of the world and is 9th largest metropolitan city of India (Zanzmera, 2012). Surat city is known for its economic base on two basic industries, i.e. textile and diamond (Mahadevia and Shah, 2010; Menning, 1998; Parveen, 2014). Majority of the population of the Surat is associated with both these industries (Makvana, 2014; Zanzmera, 2012). Both these industries are a backbone of the major economic growth of the city (Makvana, 2014; Zanzmera, 2012, Mehta, 2016; Patel, 2016). Due to the industrial nature of the city, majority of the labor force of textile and diamond industry comprises of migrant labor where as local people are employed in Jari industry (Hitesh, 2013; Zanzmera, 2012).

The industrial and economic growth of Surat along with an urban sprawl in a city in past three decades has created interest among the sociologists, linguists, urban planner, advocates, foreign trade experts and the economists (Savani and Bhatt, 2016). Its industries were largely planted and boomed in the man-made fiber industry during the year of 1970~1996 and in diamond industry after 1980, especially after 1991 and till continues (Mahadevia and Shah, 2010). Surat as a city draws its historical importance from the era of Mahabharat (Gandhi, 2005) and Moghul period (Chaudhry, 2002), caught up with momentum of moving towards industrial growth unprecedented in its history (Parveen, 2014).

It has been observed that, before the 1970s, the Surat City's economy was influenced by the jari and art-silk industries. The world famous Kancheevaram sarees of the south India used to get the real Jari made from gold and silver threads / linings from Surat (Gujarat Plus, 2011). Today, another variety of Jari, named as imitation jari, is used for the fabrics made of cotton, art-silk and polyester (Gujarat Plus, 2011; Mahadevia and Shah, 2010).

After 1960s, the diamond industry has witnessed the real thunder current in the business (Gandhi, 2005; Miranda, 1999) and has seen rapid growth in post globalization period (Gandhi, 2005; Gujarat

Plus, 2011). Uncut diamonds were imported from the mines of Africa, Australia, Russia and Canada (Gandhi, 2005; Goti and Nayak, 2015; Hirway, 2009; Miranda, 1999) and the Surti Patels' - the original artisans - used their expertise in cutting and polishing the diamonds (Gandhi, 2005; Miranda, E., 1999). The growth of the diamond, gem and jewellery industries continued due to the boom in the export sector (Miranda, 1999).

Nine out of ten diamonds produced in the world and eight out of ten sarees are from this city (Gandhi, 2005; Miranda, 1999). Around 50% of the migrant people from within and outside Gujarat state has spread to 326.5 sq. km geographically on the bank of perpetual river Tapi (Agnihotri and Patel, 2008; Basak, 2015; Chauhan et al., 2013).

The plain and fertile land of this area and that of its proximity to Arabian Sea with long coast, connectivity to Ahmedabad and Mumbai through rail and road, and as well as their inborn creative working trait have been responsible for its glory as a world known commercial city. It became a busy commercial center by the end of 19th century (Gandhi, 2005). In present time as well, it is one the biggest small-scale industrial center of South Gujarat with a valuable contribution in FOREX earning for our nation (Brief Industrial Profile, Surat district, 2011).

Though, relatively recent industrial growth process has been a very important factor in determining the international business pattern, but together with it, the artistic and creative nature of 'Surti' and Palanpuri people, hard working nature of Kathiyawadi and Orissawasi people and business nature of Punjabi and Marwadi people, its past economic history, and the present time commercialization have contributed a great deal in placing Surat on the commercial map of India and world. In matters of industrialization and economic development, Surat has relatively high position in the State and as well as in national economy (Chaudhry, 2002; Gandhi, 2005; Menning, 1997b; Purani, 2000).

In fact, Surat was known for its Jari work on fabrics/brocades/laces, weaving, handloom and the cutting and polishing of diamonds. Surat was also famous for Kinkhab cloth and polishing of gemstones since Moghul period, which had a good export market. Thus, the art of cloth weaving and skill of gemstone polishing are inborn among the local people and the task is inherited by the generations. A large section of the weaver and polisher community takes it a way of life rather than a purely commercial proposition (Chaudhry, 2002; Gandhi, 2005; Parveen, 2014; Purani, 2000). Owing to man-made fiber and diamond industry in Surat, its specific and typical characteristics and the nature of growth of this small-scale sector, its geographic location, hardworking and enterprising trait of the people, Surat city has come up as one of the most developing industrial centers in the country (Chaudhry, 2002; Gandhi, 2005; Mahadevia and Shah, 2010; Purani, 2000).

The rapid industrial growth of Surat depends upon decentralized small-scale household based industries, which are deploying Lacs of migrant workers. The household industries include mainly three major industries, (i) Jari Manufacturing, (ii) Weaving, (iii) Cutting and Polishing of diamonds (Chaudhary, 2002; Gandhi, 2005; Mahadevia and Shah, 2010). Productions of man-made fiber fabrics along with its ancillary units (such as dyeing and printing process house and texturizing) engage most of the people in the city (Hynes, 1997; Menning, 1997a). In recent times, Jari industry has lost its prime position and it employs around 45,000~50,000 workers only (Mahadevia and Shah, 2010). Diamond industry has been maintaining a status quo and it deploys around 6,50,000~8,00,000 workers and majority of them hail from Kathiyawad-Saurashtra and belongs to Patel community (Hirway, 2009; Gandhi, 2005; Goti and Nayak, 2015). Apart from this, other communities like Koli, Patel, Vankar and Other Backward Castes (OBC), and workers from Maharasthra, Madhya Pradesh, Rajasthan, Bihar and Uttar Pradesh are also working in diamond industry of Surat (Hirway, 2009). Surat is having more than 3,000 units of diamond processing (Hirway, 2009).

The new 'Export Policy' was introduced in 1954 has paved the way for prosperity of the city, and it led to the expansion of man-made fiber industry (Chaudhary, 2002; Gandhi, 2005). After the release of new economic policy in 1991, add further prosperity to the city and it led to the expansion of diamond cutting and polishing industry, which has resulted in an initiation of movement towards the development of corporate professional and practices in business to meet the global challenges mainly in the area of managing FOREX and brand (Gandhi, 2005).

Surat witnessed unprecedented growth during the decade of seventies and eighties in textiles and in nineties and millennium diamonds, constraints were felt due to the absence of local marketing facilities, finished products manufactured in Surat used to be sent to Mumbai for sale and exports as well as processing (Chaudhary, 2002; Gandhi, 2005; Mahadevia and Shah, 2010). After the establishment of textile markets in Surat, the whole market of textile shifted to Surat (Chaudhary, 2002; Hynes, 1997; Menning, 1997a; Menning 1997b; Gandhi, 2005) but till date due to unavailability of certain infrastructural facilities, diamond business is done through Mumbai only (Lee et al., 2008; Report of the task group, 2013) and industrialist and government has also realized to develop the specific infrastructure facilities (like specialized industrial park or zone for gems and jewellery) in Surat to have the direct trading (imports and exports) of diamond from Surat (Lee et al., 2008; Report of the task group, 2013; Vibrant Gujarat, 2017).

In fact, around 45% of the population is involved in the diamond industry, with an equal amount involved in the city's prospering textile industry (Chaudhary,

2002; Gandhi, 2005; Mahadevia and Shah, 2010). Although these two industries have brought about an influx of wealth into the city, this by no means exempts Surat from the welfare and infrastructure problems that trouble most of India. The regional government is very co-operative in assisting the industry, land is cheaper and the flow of experienced labor is greater than that in Mumbai (Lee et al, 2008; Hirway, 2009; Gandhi, 2005). This is why Surat has become the manufacturing center, with Mumbai more focused as a trading center (Gandhi, 2005; Lee et al., 2008; Report of the task group, 2013)". The main business sectors i.e. textile and diamond of Surat have played major role in the socio-economic development of the city (Mahadevia and Shah, 2010; Parveen, 2014; Vansadiya and Padhya, 2014; Surat City Development Plan, 2006–12). These businesses are carried out in some specific areas of the city since their inception (Hynes, 1997; Menning, 1997a; Menning, 1997b; Hirway, 2009; Gandhi, 2005). The development of various industries in Surat has been disorganized due to the lack of governmental control and entrepreneurship approach for home based cottage type units (Mahadevia and Shah, 2010; Engineer, 1994). Most of the units are either unlicensed or unregistered and operate from the home based cottage based clusters in central part of the Surat city (Engineer, 1994).

National Contribution by Surat (Surat Municipal Corporation, 2016)

Business statistics of Surat revealed its national and global importance from following :

- 42 % of the world's total rough diamond cutting and polishing,
- 70 % of the nation's total rough diamond cutting and polishing,
- 40 % of the nation's total diamond exports,
- 40 % of the nation's total man made fabric production,
- 28 % of the nation's total man-made fiber production
- 18 % of the nation's total man-made fiber export, and
- 12 % of the nation's total fabric production.

In the year of 2005, Surat was reported to have a share of around 92% in world's cut and polished diamonds (Gandhi, 2005; Hirway, 2009). Also it is stated that, 8 out of 10 diamonds of the world are produced in Surat. Based on the data provided by Surat Diamond Association, there are around 30 big units, 75 medium size units and 600 small size units where entire process of diamond cutting and polishing carried out.

The slow-down of diamond exports from three years (2010 to 2013) is mainly due to the following reasons :

- Value of US $ appreciate against Indian Rupees since last 10 years
- There was a great recession due to the credit crisis (2007-08) due to the bad debts in housing sector of USA, which has a great effect on economies of USA and Europe. (Great Recession, 2016). Because of great recession, following were the major effects :
    - Credit crunch led to a fall in bank lending, due to shortage of liquidity.
    - Fall in consumer and business confidence resulting from the financial instability.
    - Fall in exports from global recession.
    - Fall in house prices leading to negative wealth effects.
    - Fiscal austerity compounding the initial fall in GDP.
    - In Europe, the single currency created additional problems because of over-valued exchange rates, and high bond yields.
- Diversion of cash credit facilities (given by banks for the purchase of rough diamonds) to real estate by the diamond industrialists (Patel, 2016). Because of this, there were multiple defaulters of banks which have deteriorated the diamond business market (Patel, 2016).

The major industries, which are located in and around Surat, are Textile, Chemicals, Diamond, Jari, Fertilizers, Steel Plant, Pulp and Paper etc. But mainly the business economy of Surat relies on its traditional businesses like, Textile and Diamond. Both these industries are having a typical nature and mainly run by the entrepreneurs on a Small Scale Industries (SSIs) / micro, small and medium enterprises (MSMEs) level, some are operating on cottage level too. However, traditional in nature but they provide employment to more than 20~25 Lacs people of the city directly or indirectly and generating valuable FOREX for our nations through exports of diamonds and textile materials.

From the above discussions, it can be concluded that though unorganized nature carrying by both the textile and diamond industries of Surat, they are the

backbone of the Surat and provides valuable employment to large mass of people and generate valuable FOREX for the nation. Hence in this context it is essential to study the impact of various factors of international business environment.

2. RESEARCH METHODOLOGY

The present research is exploratory in nature and no attempt has been made to establish the relationship against different factors. Due to the exploratory research, formulation of hypotheses is not required & in the light the objectives of the study, certain questions which are specific in nature will be investigated to understand the current problem in more detail. However, in view of pondering further details, a hypothesis of *"volatility in FOREX (mainly US $) and global factors and their impact on the local industries of Surat"* has been evaluated. Also in due course of research work, some of the questions were framed to test the sector and problem specific hypothesis. Hence, a comparative approach is proposed to be adopted. In this study, secondary data from various newspapers, magazines & journals have been collected.

2.1 Objectives of the Present Study

i. To examine the present situation in the context of dollar appreciation and global recession on the working conditions, financial rearrangements, and business performance of the local industry, i.e. to check the impact of the global economic factors on the local industry, its employers, employee and society at large.

ii. To find out the limitations of both these industries of Surat city in the context of international trade law, its management and implementations of effective measures.

iii. To suggest policy measures and corrective action plan to educate the entrepreneurs so that they can cope up with the global / international factors, international trade mechanisms, international finance and international law with a view to preserve & protect the business interest of both textile and diamond industries & avoids the problems to the labors and society.

2.2 Research Questions

1. Is the local industries of Surat are affected by volatility in FOREX market and recession in EU, USA and other part of the world?

2. What are the international factors which affects the local units of Diamond and Textile industries of Surat?

3. Are these industries facing strategic problems in their current business?

4. What are the global business issues and prospects of these industries in Surat?

5. Whether or not both these industries need to plan against such volatility in international market?

2.3 Aim of research study:

To understand the impact of turmoil movement in international business environment, mainly the FOREX appreciation and global economic recession on local industries of Surat city and suggest suitable strategies to improve global trade.

2.4 Main Objectives:

1. To examine the impact of volatility (mainly appreciation) in FOREX market and economic recession in EU and USA on two major industries of Surat, such as Textile and Diamond (i.e. to measure impact of global parameters on local industries)

2. To evaluate the export-import business performance of the industries and its implications on Surat city in the area of societal and economic impacts

3. To suggest a suitable measurement strategies to minimize the impact of such global environmental forces.

2.5 Selection of Industries

For the selection of the samples in textile industry, we have relied on the information obtained from apex nodal bodies. Accordingly a universe for this study has been identified containing 57 numbers of diamond and 118 numbers of textile units which can be affected by the turmoil nature of international business environment. Out of this universe, 15 % samples taken, comprises of 9 diamond units and 18 textile units, i.e. total 27 units. For better clarity to explore the study and evaluate the effect, they are further classified in small units, medium units and large units. So the samples comprises of 03 number of small diamond units, 03 number of medium diamond units, 03 number of large diamond units and 06 number of small textile units, 06 number of medium textile units, 06 number of large textile units.

Primary data has been collected through questionnaire, personal interview & discussion. The gathered data has been processed to develop information through various research tools.

3. DATA ANALYSIS, INFERENCES, AND DISCUSSIONS

Theoretical Framework:

The nervous system of any business relies on four basic elements, such as social, economical, environmental and political (Makvana, 2014). Out of these elements, economical aspects are vital for the success of the business in the era of globalization. In this era of globalization, the economical aspects of business are influenced by foreign trade, volatility of currency and business opportunities across the globe. To get the idea of the "impact of appreciation of US $ value against Indian rupees and economic recession in EU, USA and other part of the world on the performance of export – import business of local industry (textile and diamond) of Surat city, detailed survey based on the questionnaire was carried out to extract the details.

Data Analysis:

The below chart indicates that around 66.67% of the companies are having working system in line of the foreign trade policies of government. The data indicates that the awareness of foreign trade business and its legal regime among textile industrialist is lower than the diamond industrialist. Based on the information collected during the survey, it has been found that due to the nature of diamond business which is mainly exports oriented; the diamond industrialists are having higher awareness for managing the foreign trade business. Most of the diamonds processed in Surat are import as rough diamonds from Africa, Europe, Russia, Australia and Canada; however small portion of rough diamonds (collected from mines of Orrissa, Chhatisgarh and Madhya Pradesh) are also sold out by Indian government through auctions and list of preferences. The processed diamonds are known as cut and polished diamonds and are sold out across the globe by the industrialist through their marketing network.

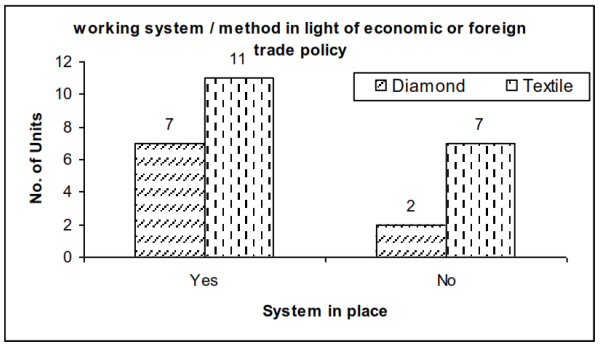

Figure 3.1 Company is have working system / method in light of economic or foreign trade policy of government of India

In compare to diamond industry, textile industry is not enjoying the monopoly in international trade and also facing competition from other nations such as Taiwan, Vietnam, Bangladesh and China. Because of the availability of large market in India, textile industrialist are little reluctant to push their business in global business; also the incentives given by the government for exports business are less. Also the level of awareness and education for exports and participation in trade fair is low among textile industrialists.

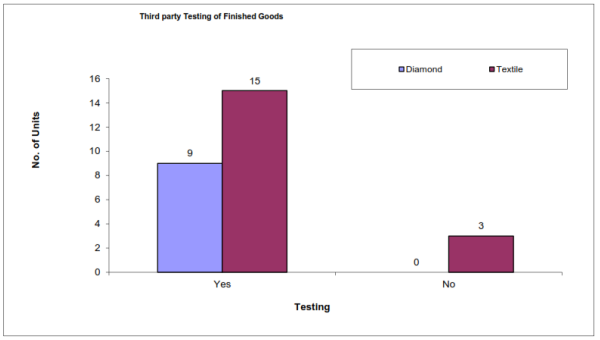

Figure 3.2 Finished product tested / certified by any third party organizations

Quality of finished goods played a major role in international trade business and in case of any legal disputes for quality of finished goods supplied by the suppliers, it proves very much useful. Also the higher value goods in case of diamonds, i.e. the pointers size are only acceptable in international market with certification. The certificates issued by Gemological Institute of America (GIA) and International gemological Institute (IGI) are only acceptable in international market. 22% of diamond companies which are not going for third party certification for their products are in a business of smaller size diamonds and such diamonds are accepted in international market based on the credibility of the sellers. Also it is not a viable option to do certification for smaller size diamonds. The certification by GIA and IGI is done in terms of 4 'C', i.e. carat, color, clarity and cut.

In case of textile industry, 61% of the companies are using third party certification for their products. This certification is obtained from MANmade Textile Research Association (MANTRA), Synthetic & Art Silk Mills' Research Association (SASMIRA) for the product quality. The certification is in terms of organic dyes usage (no azo dyes), fabrics warp-weft ratio, denier of filaments etc. During the survey, industrialists have informed that such certifications are vital tools for handling the trade related disputes. Also such certifications are a part of international sales contract executed between the sellers and buyers. Such certifications are very useful in matters of arbitration also. Based on such certification, they are able to get higher prices for their products which help to our nation for earning higher FOREX.

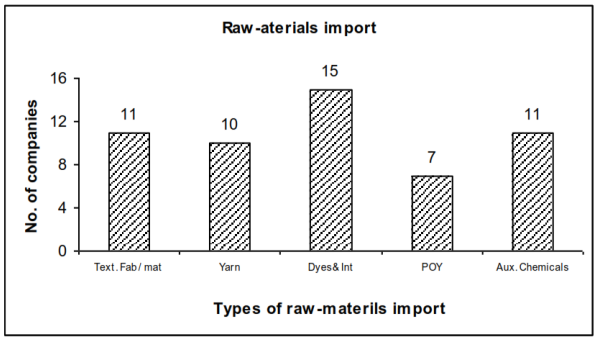

Figure 3.3 Types of raw-materials import by Textile Industry

As per the process requirements, companies of textile sectors are importing their basic raw-materials. Some of the integrated units are importing all the raw-materials if they are in fiber to fashion business to meet their business requirements. For importing these raw-materials, these organizations have made trade agreements with the suppliers for the uninterrupted supply of them. Industrialist are buying these materials through banks as an intermediate agency and using either factoring or forfeiting. The buyers of these raw-materials are providing bank guarantee to the sellers. Around 44 % of the units are using factoring as options where as 22 % of the units are using forfeiting as an option. 33 % of the units are not using factoring or forfeiting as an option during the payment because they have very long relations with their suppliers and making payments after the receipt of the goods or they are buying from their business partners, such practice is mainly adopted for purchase of textile fabrics and materials, in such cases the fabrics is import by buyer for processing (dyeing and printing) and again they are supplying the same to them and getting the charges for the process.

Around 83% of the units are importing dyes and chemicals, mainly the azo dyes from China due to the lower cost. During the survey, it has been found that main reasons behind lower cost of production of azo dyes are weather conditions of China. The azo dyes units are located in areas where temperature is below zero degrees centigrade ($0^{o}C$), because of this they have not to use ice or other chilling media in reactors. Due to this strategic advantage, Chinese suppliers are able to sell their products in Indian market at lower prices than the cost of production of Indian producers. Even after the anti-dumping duty and other taxes, the purchase prices of such azo dyes are very much lower than the products supplied by Indian manufacturers. The cost of production in India for azo dyes are higher because of conducting chemical reaction below $0^{o}C$ and for the same, manufacturers have to use water chiller and supplying such water in a reactor. Here import of azo dyes from China is an example of economies of scale in production. Here in this case, economies of scale mean that production at a larger scale can be achieved at a lower cost (i.e. with economies or savings) due to the advantage of demographic / weather conditions for production.

Before the appreciation of US $ value, the price differentiation between Chinese and Indian suppliers was a valid reason to have a trade (Ricardian, Heckscher-Ohlin) and was beneficial to Surat based textile units to produce the products at lower cost. Here the labor and capital were not the prime factors but the demographic conditions are the main reasons of producing product at lower cost. Before the appreciation of US $ value, China was holding the greatest relative advantage in total factor productivity (TFP). During the survey, the importers had revealed that after the appreciation of US $ value, the cost of import of azo dyes was almost equal to the price of the same materials available in local market. Hence to avoid the complexity of international trade, such as payments in US $, filing of bill of entry, and clearance through customs house agent (CHA), textile manufacturers have switched to the local market for the purchase of azo dyes.

After the appreciation of US $ value the base price of China made azo dyes increases in India and the Chinese suppliers had lost the advantage of TFP and the trade of consuming azo dyes in textile processing has followed the Heckscher-Ohlin model and established that both the countries possess the same production function in a given industry of azo dyes manufacturing.

61 % of the units are importing textile fabrics and materials mainly the knitted fabrics from China. This particular import is mainly driven by the labor and electricity charges as a factor of production. Compare to India, in china the cost of labor and electricity are very low, also the government of China provides support to the manufacturers in the form of subsidies. Here the Recardian model followed in a perfect way. Even after the appreciation of US $ value, the fabrics and materials supplied by China are lower than the cost of similar goods produced in India. In Surat, the cost of labor and charges of electricity are too high.

55 % of the units are importing texturized yarn and 39 % of the units are importing POY from Indonesian and Malaysian markets. The cost of both these yarn is lower than Indian manufacturer. The importers of such materials (fabrics and yarn) are importing these materials under duty free scheme of government of India. They are doing higher value addition work on these materials and then exporting the finished goods from India, hence government is allowing them to import these materials under exports promotion schemes.

Some of the manufacturers are importing chemicals, mainly PTA and MEG from overseas markets of south – east to produce POY, polyester chips etc. have also faced the problems similar to the case of azo dyes. Due to these appreciation of US $ value, PTA and MEG produced from Indian manufacturer is available at competitive rates. After this appreciation of US $ value, the yarn manufacturer have stopped the import and start the usage of local alternatives.

Hence the cost of production of yarn increases. The price of yarn is a major factor for ultimate textile production in Surat market.

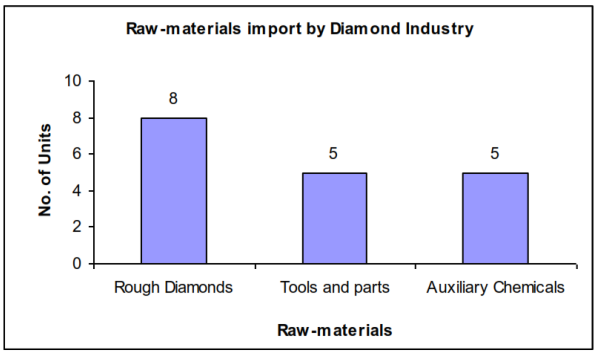

Figure 3.4 Types of raw-materials import by Diamond Industry

As per the process requirements, companies of diamond sectors are importing the rough diamonds, which is a main raw-material for the industry. Some of the integrated units are importing gold, silver and platinum if they are in diamonds to jewelry business to meet their business requirements. For importing these raw-materials, these organizations have made trade agreements with the suppliers (here Debeers Trading Corporation for Sight Holders) for the uninterrupted supply of them. Industrialist are buying these materials through banks as an intermediate agency and using either factoring or forfeiting. The buyers of the rough diamonds are providing bank guarantee to the rough diamonds suppliers. Around 62.5 % of the units are using factoring as options where as 37.5 % of the units are using forfeiting as an option. Also they are using an option of hedging for making the payments on due date.

As the rough diamonds are not being produced in sufficient quantities in Indian mines; the diamond businessmen have to rely on the global rough diamonds supply. 89 % of the units import rough diamonds, 55 % of the units import spare parts and supporting chemicals to meet their process requirements. The entire diamond industry operates on informal sector in international market (Rao and Glinow, 2012).

The diamond cluster of Surat emerged on the basis of its competitive factor conditions such as commercial acumen of Gujarati, low wages, good infrastructure and presence of Gujarati community across the major metros. The structure of the diamond industry has been changed over a period of time, and this cluster of Surat is vulnerable to higher-productivity workers in China; also facing a constraint of rough diamond supply and a temporary fall in demand as the US recession bites. During the survey, industrialist have informed that though this diamonds are processed in local industry but is highly linked with the economy of developed nations. The recession in those countries have direct relations with this industry. Import of rough diamonds in Surat is a part of global value chain. The diamond value chain comprises of mine exploration, sorting of diamonds, distribution and trading of rough diamonds, processing and trading of polished diamonds, jewellery manufacturing and retail business (Porter et al, 2007).

The diamond industry of Surat heavily relies on the skill of its people to process diamonds, is in line with the arguments of Heckscher-Ohlin who had predicted that countries will produce relatively more of the goods that use their relatively abundant factors relatively intensively.

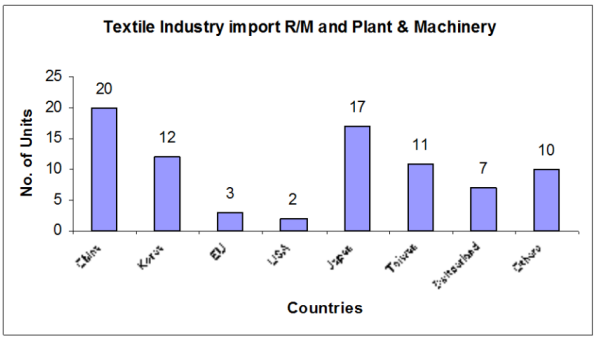

Figure 3.5 Import of Raw-materials and plant & machinery by Textile Industry

Above chart indicates that textile industry of Surat is importing raw-materials and plant & machinery from various developed countries of the world to meet their process requirements. The share of China is higher, mainly due to the import of dyes chemicals, rapier looms, water-jet looms and embroidery machines. Import from Korea is mainly for the advanced machinery of yarn sizing and dyeing and printing process for higher productivity and quality productions. Import from EU and USA is low mainly due to the higher prices of goods. Switzerland is supplying heavy duty embroidery machines to Surat textile industry. Import from Japan is mainly for the specific quality of Bemberg yarn (supplied by Asahi Kasei) for weaving process and import of advanced machinery for yarn sizing. Taiwan is another supplier of rapier looms and water-jet looms to Surat textile industry.

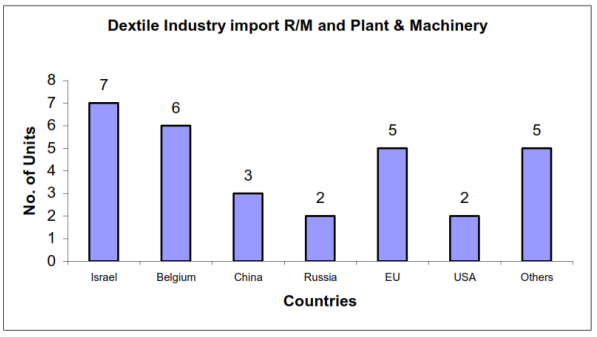

Figure 3.6 Import of Raw-materials and plant & machinery by Diamond Industry

Above chart indicates that diamond industry of Surat is importing raw-materials and plant & machinery from various developed countries of the world to meet their process requirements. Here Israel is one of the major suppliers of rough diamonds and diamond planner machines to diamond industry of Surat. Diamond Planner machines are mainly supplied by Israeli companies known as Sarin and OGI. From EU, mainly diamonds and microscopes are import by Surat. Belgium is another major supplier of rough diamonds to Surat. China is emerging as one of the major suppliers of plant and machinery for diamond processing.

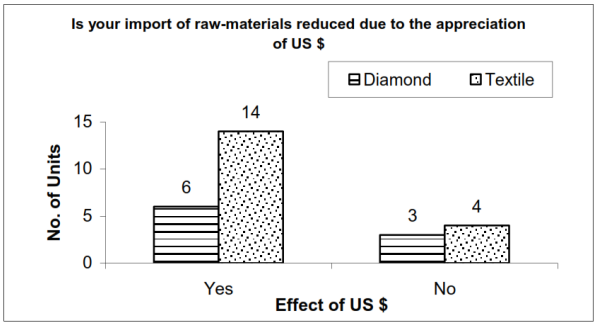

Figure 3.7 Effect of US $ appreciation on import of Raw-materials

The above chart indicates that, around 67 % of the units of diamond industry and 78 % of the units of textile industry have said that their import of raw-materials reduced due to the appreciation of US $. The major reason behind this is cost of production.

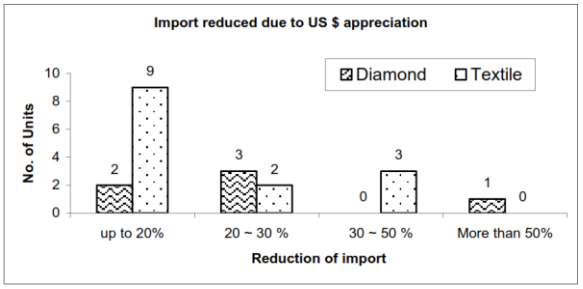

Figure 3.8 Reduction in import of raw-materials due to the US $ appreciation

Due to the higher cost of raw-materials, they are unable to produced goods with competitive rates. As there are options available to textile industry, they have changed their product mix and accordingly manage their production requirements. But diamond industry is heavily relied on import of rough diamonds, have no other option. To compensate with higher prices of rough diamonds, diamond industry have taken certain steps such as providing employment to women and fresh candidates to reduce the wage rate portion. Also they switched over to processing of higher value goods (bigger size diamonds) to compensate the dollar appreciation.

Around 33 % of the diamond units and 64 % of the textile units have said that their import is reduced by 20 % due to the appreciation of US $. The level of reduction is low in diamond industry is mainly due to their heavy reliance on rough diamond imports where as textile industry got the cost competitive supply from local market hence they switch over to that option. Around 50 % of the diamond units have said that their import of raw-materials (rough diamonds) is reduced in a range of 20 ~ 30 % and they have switched to process higher value goods. This is a major portion of the industry affected by the US $ appreciation against Indian rupees. Compare to this, the textile units are low in this ranges due to their need of those raw-materials such as POY, knitted fabrics etc.

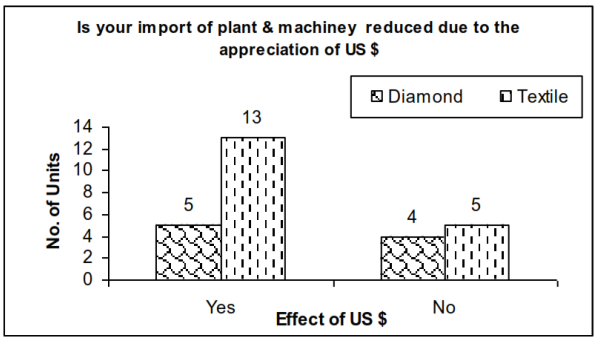

Figure 3.9 Effect of US $ appreciation on import of Plant & Machinery

The above chart indicates that, around 55 % of the units of diamond industry and 72 % of the units of textile industry have said that their import of plant & machinery reduced due to the appreciation of US $. The major reason behind this is higher cost of purchase. They switched over to local machinery suppliers such as Lexus and Sahajanand in case of diamond industry and Gujtex, Narayan and Rajdeep in case of textile industry. The machinery supplied by these local suppliers is at par with imported machinery and buying from them saves lots of FOREX for our nation.

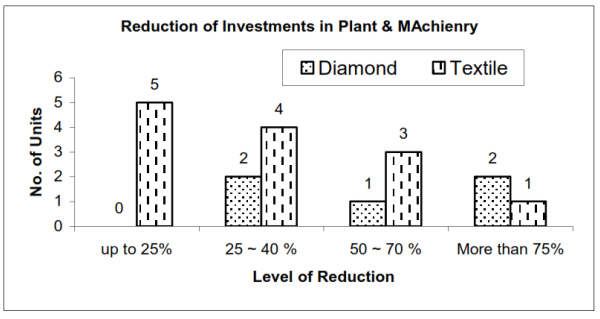

Figure 3.10 Reduction in investment of imported plant & machinery due to the US $ appreciation

From above chart, it can be said that around 38 % of the textile units have reduced their investments in imported plant & machinery up to 25%. Also 40 % diamond units and 30 % of textile units have reduced their investments in imported plant & machinery in a range of around 25 ~ 40%. There are 20 % of diamond and 23 % of textile units who have reduced their investments in imported plant & machinery in a

range of 50 ~ 70 %. But interesting fact is in case of diamond units where 40 % of the units have reduced investments of imported plant and machinery for more than 75% where as in this range textile units are only 7.7 % around. This is mainly due to the switch over option available in diamond industry. The switch over option of using local technology in manufacturing process is a mainly due to the availability of international technology in local market from local suppliers (Desai and Keller, 2002).

Below chart indicates that 44 % of diamond units and 78% of textile units have started buying their machinery from local market to meet their production requirements.

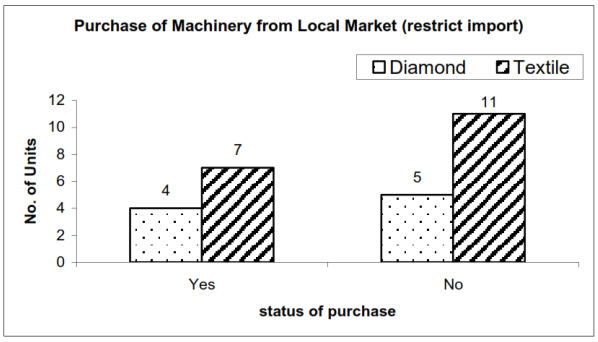

Figure 3.11 Purchase of plant & machinery from local market

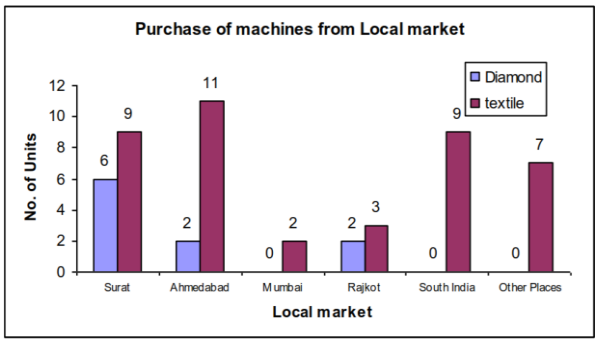

Figure 3.12 Purchase of plant & machinery from various local markets

Above chart indicates that diamond units mainly purchasing the plant and machinery from Surat (66.67%), Ahmedabad (22 %) and Rajkot (22%), where as textile units, mainly purchasing the plant and machinery from Surat (50%), Ahmedabad (61%), Mumbai (11%), Rajkot (17%), South India (50%) and from other places (39%). The chart indicates that due to the dominance of diamond industry in Gujarat, majority of the machinery suppliers are from Gujarat where as due to the presence of textile industry across India, the machinery suppliers are located in and around major metros of India. Due to the presence of textile industry in Madurai and Coimbatur, South Indian states have major machinery suppliers.

Figure 3.13 Status of unit as an exporter

Above chart indicates that all the diamond units are exporting their finished goods (cut and polished diamonds) where as 72 % of the textile units are exporting their products.

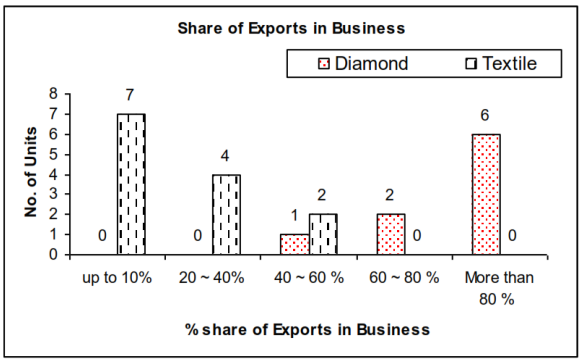

Figure 3.14 Share of exports business in total turnover

Above chart indicates that 67% of the diamond units are having an exports share of more than 80% in their total business turnover where as 54 % of the textile units are having an exports share of around 10 %. This is a huge difference between two industries operated in an unorganized sector in a same city; one is having a higher exports share where as other industry is struggling to establish its identity in global market. This indicates that the textile industry is highly focused on local trade and not on foreign trade. The government must provide incentives to local industry to boost up exports from Surat. 31 % of the textile units are having a share of 20 ~ 40% for exports in their business turnover. These are the units who are involved in exports of value added garments, textile materials and made ups articles from Surat. 15 % of the textile units are having a share of 40 ~ 60% for exports in their business turnover. These are the units who are involved in fiber to fashion concept and because of the same they are able to make exports at competitive rates in the market. Due to processing of entire textile chain under one roof their cost of production is at par with Chinese, Taiwanese and Bangladeshi Suppliers and they are able to compete in international market of EU, middle-east and USA.

Our government must have to encourage such type of units to develop exports from our nation.

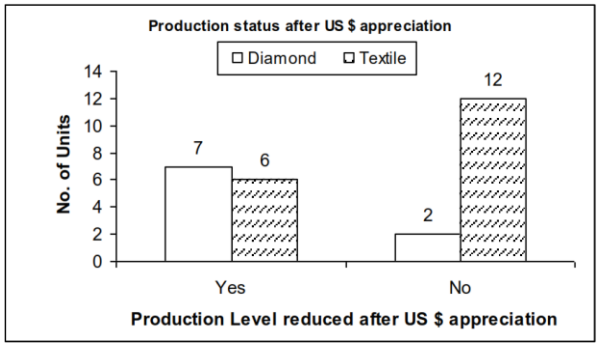

Figure 3.15 Reduction of Production level after the appreciation of US $

Above chart indicates that out of the units surveyed 48 % of the units have reduced their production due to the appreciation in value of US $. Out of the same, 78 % of the diamond units and 33 % of the textile units have reduced their production. This reduction in production is mainly due to the increment of prices of raw-materials in the international market and because of the same their manufacturing cost increases but they are not getting that price increment benefits for their products in international market and because of the same they forced to reduce their production level.

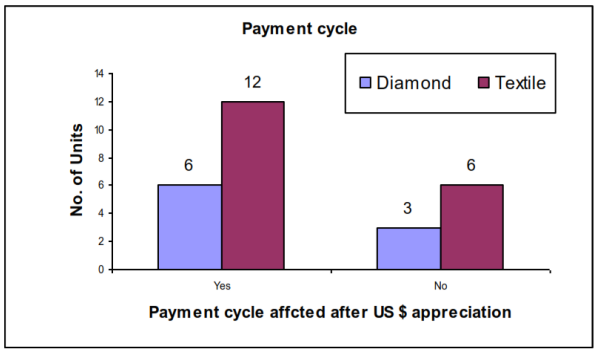

Figure 3.16 Payment Cycle after the appreciation of US $

67 % of the units have revealed that their payment cycle has been affected due to the appreciation in US $. The said appreciation of US $ has made an impact on currencies of other nations located in EU, middle-east and far-east. The exporters of Surat are exporting their products to these nations and because of the same; their payment cycle is affected, mainly due to the higher exchange rates.

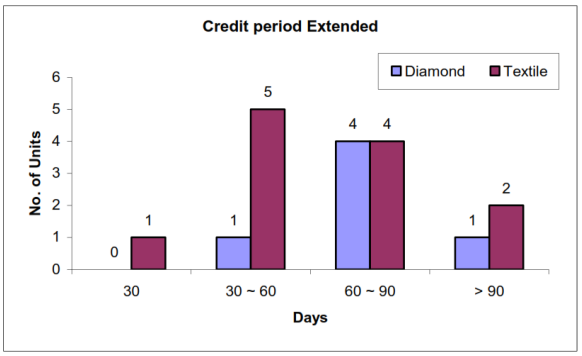

Figure 3.17 Extension of Credit period due to the appreciation of US $

The above chart indicates that, 5.56 % of the units have experienced extension of credit period by 30 days and these are mainly the textile units. 16.67 % of the diamond units and 41.67 % of the textile units have revealed that, their credit period extended by 30 ~ 60 days; 67 % of the diamond units and 33 % of the textile units have revealed that, their credit period extended by 60 ~ 90 days; and 16.67 % of the diamond units and 16.67 % of the textile units have revealed that, their credit period extended by more than 90 days. The credit period of 60 ~ 90 days in case of diamond units is mainly due to US $ value appreciation and recession in international market for luxury goods. The units which are facing a problem of more than 90 days of credit period are integrated units where entire manufacturing chain or all process under one roof carried out.

Below chart indicates that due to the appreciation of US $, 78% of the units are facing an issue of payments to be made to their suppliers. This is mainly due to the payment is being made in US $ in international market and due to the appreciation of value of US $, they have to pay more Indian rupees. In short run they are facing this payment of higher rupees due to no hedging made by them to safeguard their payables.

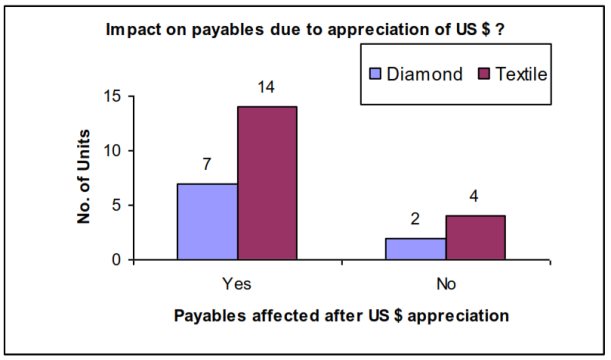

Figure 3.18 Impact on Payables due to the appreciation of US $

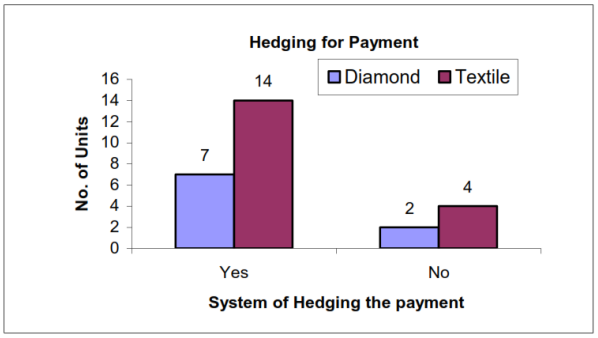

Figure 3.19 Impact on Payables due to the appreciation of US $

Above chart indicates that due to the 67 % of the units are having a system to hedge their payments against the volatility in currency. Even though the units have adopted a strategy to hedge their payments against the US $ but they fail to exercise proper rates due to the lack of knowledge of international trade. Because of this improper hedging, the cost of their payments has been increased and their over all return on investment is reduced.

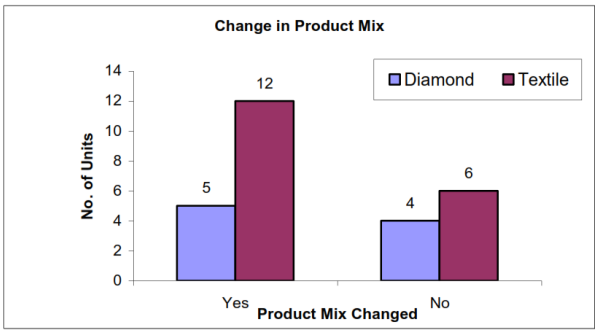

Figure 3.20 Change in Product mix of company due to the appreciation of US $

Above chart indicates that due to the 63 % of the units have changed their product mix due to the appreciation of US $. This is mainly due to the reduction in return on investment on capital employed. They switched over to other products and started exploring new customers in international markets. In view of maintaining the production cycle and over all profitability of the units, the manufacturers have altered their product mix. Some of the diamond units have started production of smaller size diamonds and explored new markets and new customers. Some of the textile units have shifted some portion of their production base from art silk and polyester to cotton and blended fabrics.

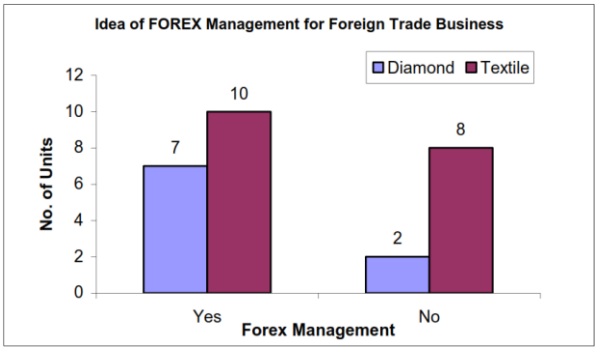

Figure 3.21 Idea of managing FOREX by exporter

Above chart indicates that 63 % of the owners of the units have fair ideas of managing the FOREX. But in recent time they also fail to exercise proper hedging for their receivables and payables. 78 % of the diamond units and 55 % of the textile units have a fair idea of managing the FOREX.

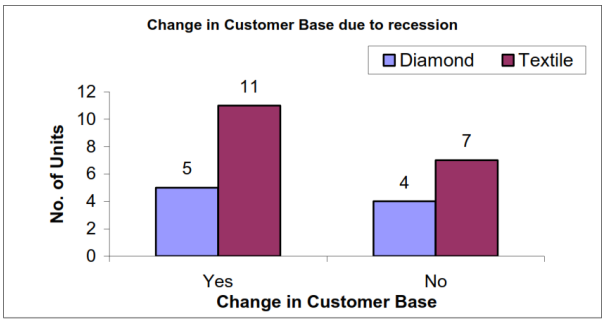

Figure 3.22 Change in Customer Base due to recession

Above chart indicates that due to the recession in EU, USA and other nations, 59 % of the units have experienced a change in their customer base. 55 % of the diamond units and 61 % of the textile units have change their customer base due to the recession in nations where they were doing business. During the discussion, positive aspects crystallized on the surfaces which has reveled the units owners are considering this recession as a learning opportunity for them to explore new markets. Due to the recession, in initial period they had faced a problem of dead stock development of the finished goods. After this recession, textile owners had approached the Southern Gujarat Chambers of Commerce and Industry (SGCCI) to help out to explore in other markets. With the help of SGCCI, they have participated in various trade fairs and road shows and based on the same they got the success to explore new markets.

From the below chart and paragraph, it can be said that in view of the recession the owners of the units have explored new markets. Diamond units have explored new markets of middle – east (56 %), south – east (33 %) and Australia & New Zealand (11%); where as Textile units have explored Latin American Nations (28%), African Nations (17 %), middle – east

(33%), far – east (11 %) and Australia & New Zealand (11%).

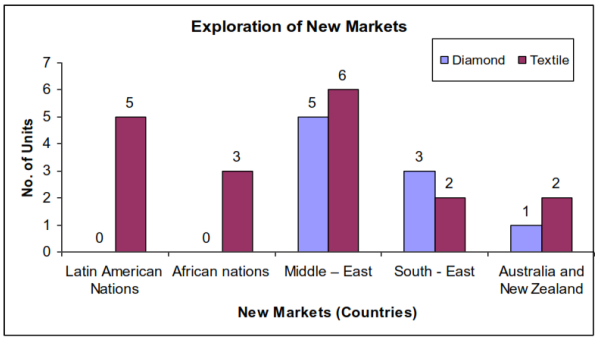

Figure 3.23 Change in Customer Base due to recession

Major exports to middle east by diamond units are bigger size diamonds, known as 'pointers' where as in south – east market they are exporting smaller size diamonds, such 'star', 'malee' etc. The market of middle – east also covers Turkey as a major buyer. Major exports to Latin American Nations from textile units of Surat are partially oriented yarn (POY) and polyester texturized yarn; major buyers are from Brazil, Argentina and Chile. Exports to African Nations are mainly comprises of made ups and textile articles. During the discussions, it has been found that in Sub-Saharan nations and other under developed countries of Africa, there is a higher demand for such materials. However, the biggest opportunities grab by Surat based textile exporters during this recession period is of exploring the market of middle – east for textile materials, articles, dress materials and made ups. These particular exports are mainly diverted to Pakistan; Dubai and Abu Dhabi are acting as a buffer place to stock the goods. From this middle – east the final products of textiles of Surat are exported to Pakistan. Here the interventions of central government is needed to provide a channel for direct exports of textile goods to Pakistan, so that, entrepreneurs of Surat can earn more by direct selling. Also, the textile units have considered the potential of far – east and Australia – NZ as newly emerging markets for the products of Surat.

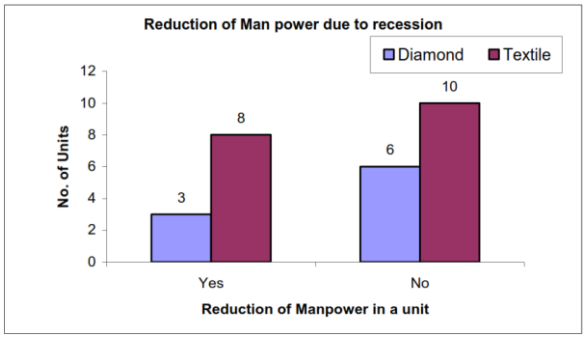

Figure 3.24 Reduction in manpower due to recession

From the above chart, it can be said that in view of the recession the owners of the units have reduced their manpower by 41 % around. 33 % of the diamond units have reduced their man power and 44 % and textile units have reduced their manpower. This step has been taken in view of managing the cost of production with an aim to supply the products at competitive rates in the market.

In diamond industry, 33 % of the units have reduced their man-power up to 25 % of their strength and 67% of the units have reduced the manpower in a range of 25 ~ 50%. Where as in textile industry, 62 % of the units have reduced their man-power up to 25 % of their strength, 25% of the units have reduced the manpower in a range of 25 ~ 50% and 12.5 % of the units have reduced the strength of employees in a range of 50 ~ 75%.

Apart from recession, another reason for reduction of manpower in these units are implementation of modern machinery in units, these machinery are procured from local and international market for the meeting the process requirements. Implementation and using of modern machinery in manufacturing process is one of the step initiated by the owners to reduce the cost of production and improving the quality of finished products in long run.

From the below chart, it can be said that to cope up with the recession and appreciation of US $ value against Indian rupees, the owners of local textile and diamond industry have initiated certain steps, such as reduction in wage rates (55 %), using alternatives materials in process by textile units (51.85%), providing employment to women (37 %) in areas where less physical work demanded in manufacturing process, recruitment of fresh candidates (37 %) and out sourcing of the part of manufacturing process (26%).

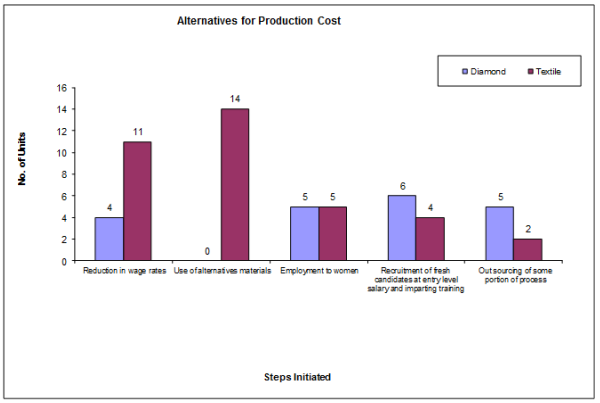

Figure 3.25 Alternatives adopted by the unit owner to maintain the production cost

During the survey, it has been found that management of the units have convinced their workforce through a series of meeting for reduction in wage rates in view of the recession and appreciation of US $ rate. Also they have informed to their staff about the exploration of new markets by them and once those markets will be fully utilized, they will restore their wage rages and difference of

deduction will be given. The option of using alternative materials is only executed by textile industry because there is no other alternative to natural rough diamonds. Textile units have started using some of the dyes intermediates in their process of fabrics dyeing and stop using dyes with an aim to reduce the cost of production, because the price of dyes intermediates are lower than dyes in the market. To execute this option, they have modified the process parameters in their unit.

56 % of the diamond units and 28 % of the textile units have started providing employment to women. During the survey it has been found that the women who are getting an employment in diamond industry belong to LIG groups and working with an aim to contribute to their family in terms of financial requirements. So this step of women employment is a big step in the direction of social engineering. During the survey, it has been found that, in every unit, separate washrooms and urinals are provided for female staff; also rest rooms are allocated for female staff to adjust with their menstrual cycle period. Women are working on computer planner machines, weighing scales and on laser machines.

From the above data, it can be said that compare to the diamond industry, textile industry is not providing valuable opportunity for female workers, the level of employment to female is lower. During the survey, when the reason for this lower employment to women was asked to owners, they have revealed that the workers are exposed to a hazardous process (in dyeing and printing units and in weaving units), heavy duty machinery and other rotating machinery. In the context of cloth style of women, prevailing rules of factories act and risk of accidents, they are not employing women in a manufacturing process. However women are employed in packing and housekeeping department of the unit. So compare to diamond unit, in a same city, in different industry, rate of employing women is not encouraging.

67 % of the diamond units and 22 % of the textile units have started recruiting fresh candidates and with the help of HRD practices, they have started imparting technical and behavioral training to them to meet their requirements. Higher level of fresh candidates' recruitment was observed in diamond industry due to the process requirements and learning opportunities provided by the units. Due to the involvement with hazardous processes in textile units, people are little reluctant to join. Around 55 % of the diamond units and 11 % of the textile units have outsourced some part of their manufacturing process with an aim to reduce the cost of production. During the survey, it has been found that some of the steps such as laser cutting, faceting in a diamond manufacturing process can be easily outsourced. Where as it is difficult to outsource a part of textile manufacturing process. The textile units which have outsourced their process are mainly embroidery work and weaving process.

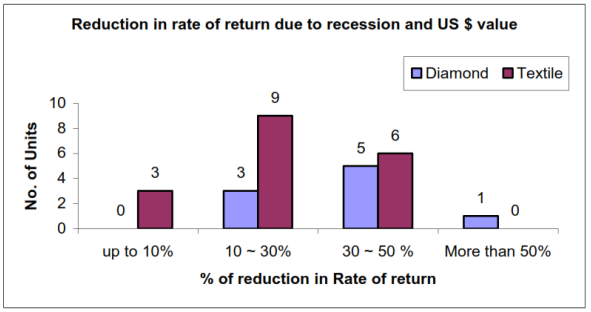

Figure 3.26 Reduction in rate of return due to recession and US $ appreciation

From the above chart, it can be said that rate of return reduce by 10 % in around 11 % of the units; 44 % of the units have experience that their rate of return decreased by 10 ~ 30 %; 41 % of the units have experience that their rate of return decreased by 30 ~ 50 %. Only one unit of diamond industry has experience a reduction in rate of return for more than 50%. This is mainly due to their highest customer base in USA and EU.

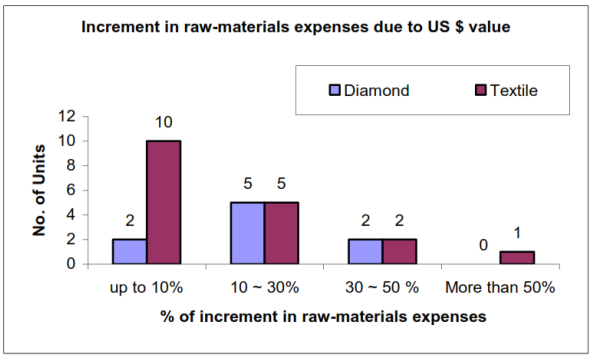

Figure 3.27 Increment in raw-materials expenses due to US $ appreciation

From above chart, it can be said that 44 % of the units of local industries have faced a problem of increment in raw-materials expenses by 10 %; 37 % of the units have said that their expenses for raw-materials increased by 10 ~ 30 %; where as 15 % of the units have said that their expenses increased by 30 ~ 50 %. This particular variation in raw-materials expenses are mainly due to the types of goods processed by them. To mitigate this problem of increment in prices of raw-materials, the owners have shifted their preference to local available materials as explained above and also change their product mix and cater to the new market.

The diamond market is fully competitive and prices of bigger size diamonds are set according to the price rates of Rappaport. 67% of the companies who are producing bigger size stones are driven by these rates where as 33% of the companies who produce smaller size diamonds are having a liberty to fix the prices of polished diamonds in a range. The company like Venus Jewel is able to sell its bigger size diamonds at higher rates than the rates fixed by

Rappaport; this is mainly due to the credibility established by the company in international market for its products and ethics.

There is no differentiation in wage scale between male and female employees in 25% of the textile units however a differentiation in wage scale was observed in 75% of the units. This differentiation in wage scale is mainly due to the type of work done by the female staff in cleaning, sweeping etc. It has been found that, male labor who are also involved in cleaning and sweeping work are also performing a duty of clothes loading and unloading. This work of loading and unloading of fabrics / clothes from vehicle requires certain physical strength and because of the same higher wage is being paid to them. However, the duty time are same and has no variation like diamond industry.

The textile market is fully competitive and prices of rates for fabrics processing are not fixed by any agencies because, the unit who is able to process fabrics with better quality is able to demand higher charges and businessmen of textile market are ready to pay for the same. Main reason behind willingness to pay higher charges is demand for such clothes in the market and end users are also willing to pay higher charges for such sarees, dress materials and textile articles.

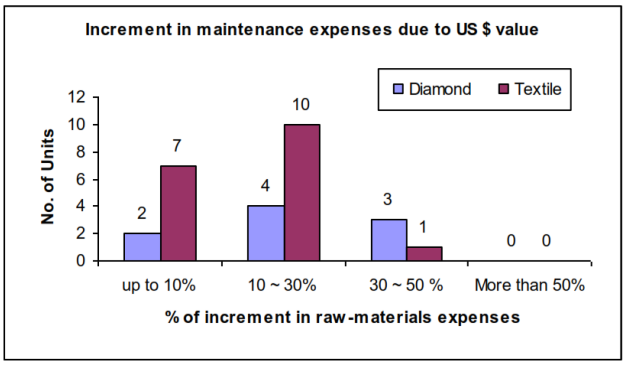

Figure 3.28 Increment in maintenance expenses due to US $ appreciation

From above chart, it can be said that 33 % of the units of local industries have faced a problem of increment in maintenance expenses by 10 %; 52 % of the units have said that their expenses for maintenance increased by 10 ~ 30 %; where as 15 % of the units have said that their expenses increased by 30 ~ 50 %. This particular variation in maintenance is mainly due to the type of technology used by the units.

In case of diamond industry, the variation in maintenance is mainly due to the type of advance machinery involvement in higher quality production. The unit where more no. of advance machinery is used is having a higher maintenance cost and are producing bigger size diamonds. In 67 % of the units of diamond industry, differentiation in wage scale observed between male and female employees. This differentiation in wage scale is mainly due to the timing of work. In these units, the female employees are working for 8 hours where as male employees work for ten hours; so additional overtime is paid to them. The timing of hours for female employees is set in view of their family responsibilities.

It has been found that the units which are small in size (in terms of no. of employees) but are able to produce more due to usage of latest technology machines. Higher level of production derived from computerized digital printing machine is one of the reasons for higher level of productivity. The variation in maintenance expenses is mainly due to the type of advance machinery involvement in higher quality production. For maintenance expenditure, the case is opposite to diamond industry; the units which are using modern machinery have a lower maintenance expenses. This is mainly due to the recent installation of new machinery in those units and because of that, very low wear and tear, hence lower maintenance expenses; where as the units which are using older plant & machinery have a higher rate of wear and tear and higher maintenance expenses. The cost of water is mainly related to the water consumption in unit for fabrics washing, steam production and cleaning.

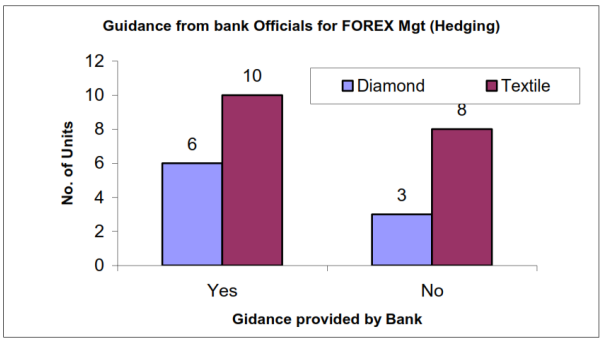

Figure 3.29: Guidance from Bank Officials for FOREX Management (Hedging)

From above chart, it can be said that 59 % of the units of local industries are getting the support from the bank officials for hedging of their payments and receivables. Also they have informed that due to the uncertainty prevailing in the FOREX market, they some times failed to get the actual benefit of hedging. Also they have informed that bank officials are providing guidance through seminars and conferences for the FORX market on periodic basis.

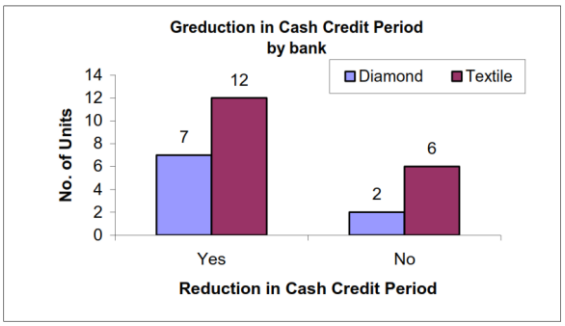

Figure 3.30 Reduction in cash credit facilities by bank due to US $ appreciation and recession

From above chart, it can be said that banks / financial institutions have reduced the cash credit facilities of around 70 % of the units of the local industries. In diamond industry, 78 % of the units' and in textile industry, 67 % of the units' cash credit facilities reduced due to the appreciation in US $ and recession in global market. The main reason behind reduction of this cash credit is foreign exchange; the cash credit limit sanction by banks are in Indian rupees and payments made by them is in US $ terms. Because of the appreciation of US $, buying capacity of the units reduced, which has ultimately reduced the flow of raw-materials for production.

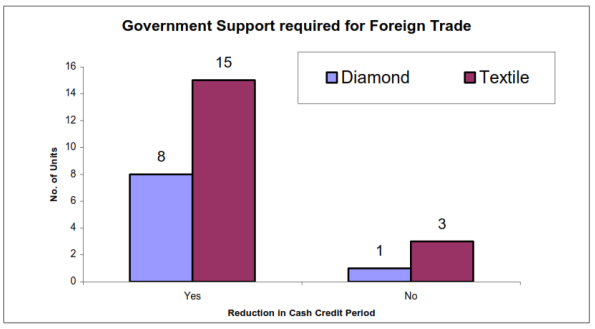

Figure 3.31 Government Support

Also due to the appreciation, credit period, i.e. period for receivable increased. Because of this, the financial institutions have reduced the credit facilities to units.

Above chart indicates that 85 % of the units are seeking government support for their foreign trade business.

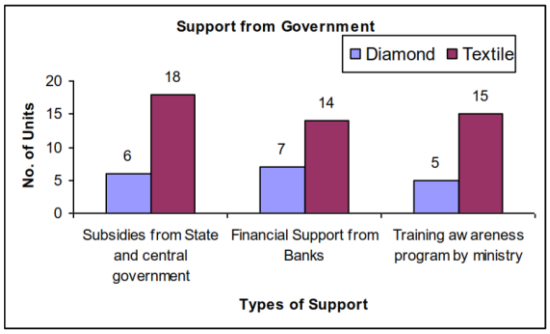

Figure 3.32 Types of Government Support needed

Above chart indicates that 89 % of the units would like to have subsidies from state and central government for the exports made by them. 78 % of the units are seeking support from banks / financial institutions for cash credit facilities and loans for new projects and purchase of plant and machinery; 74 % of the units are seeking support from various ministries of government for promoting foreign trade.

4. CONCLUSION AND RECOMMENDATION

Based on the data collection, analysis and inferences drawn, the findings of the preliminary survey are summarized as follows:

- Awareness of foreign trade business and its legal regime among textile industrialist is lower than the diamond industrialist, is mainly due to the nature of business.
- In global trade, diamond industry of Surat has established almost monopoly whereas textile industry of Surat is not enjoying the monopoly due to the stronger competition from other nations such as Taiwan, Vietnam, Bangladesh and China.
- As there is a large market for textile products in India and few incentives by the Indian government for exports business, the textile traders are not willing to explore international trade.
- There is a need to develop awareness and educate the textile businessmen for exports and along with a motivation to participate international trade fair.
- Textile and diamond industries of Surat have adopted a strategy of third party certification from GIA and IGI and MANTRA and SASMIRA for establishing credibility in the international market. These certifications are vital tools for handling the trade related disputes.
- Based on such quality certification, Surat based industries are able to get higher prices for their products which help to our nation for earning higher FOREX.
- For the payment of imported raw-materials, the options used by the Surat based organizations are : bank guarantee : factoring (44%), forfeiting (22%) and long term relations based credit supply (33%)
- Before the appreciation of US $, around 83% of the textile units were importing azo dyes from China due to the supply at lower price. Even after the anti-dumping duty and

other taxes, the purchase prices of such azo dyes were much lower than the products supplied by Indian manufacturers. The supply of product at lower cost is mainly due to the demographic conditions of China and not the labor and capital to have a business trade (Ricardian, Heckscher-Ohlin).

- After the appreciation of US $ value, the import scenario of azo dyes changed and the users switched to local supply due to the equal cost and they want to avoid the complexity of international trade, such as payments in US $, filing of bill of entry, and clearance through customs house agent (CHA).

- After the appreciation of US $ value, Chinese Azo dyes suppliers and Indonesian yarn suppliers had lost the advantage of TFP and the trade of consuming azo dyes in textile processing has followed the Heckscher-Ohlin model, results into the consumption of local products in manufacturing process.

- Import of knitted textile fabrics and materials from China followed by Recardian model reflects from lower cost of supply.

- Textile units were importing texturized yarn and POY under duty free scheme of government of India but after the appreciation of US $ value, the yarn manufacturer have stopped the import and start the usage of local alternatives. However, there are no such alternatives for diamond industrialists. So they have adopted a strategy of hedging against the US $ appreciation.

- 89 % of the units import rough diamonds, 55 % of the units import spare parts and supporting chemicals to meet their process requirements. The entire diamond industry operates on informal sector in international market (Rao and Glinow, 2012).

- The diamond cluster of Surat emerged on the basis of its competitive factor conditions such as commercial acumen of Gujarati, low wages, good infrastructure and presence of Gujarati community across the major metros.

- Though the diamond industry is local, but it is highly linked with the economy of developed nations through global value chain. The recession in those countries have direct impact on the economy of Surat city at large.

- The diamond industry of Surat heavily relies on the skill of its people to process diamonds, is in line with the arguments of Heckscher-Ohlin who had predicted that countries will produce relatively more of the goods that use their relatively abundant factors relatively intensively.

- Surat is having a higher reliance on a specific textile yarn of Japan, i.e., Bemberg yarn (supplied by Asahi Kasei) for weaving process. The weavers of Surat are developing higher quality fabrics from this yarn and again exporting the same to Japan, USA, EU and South East Asian nations.

- 67 % of the units of diamond industry and 78 % of the units of textile industry have said that their import of raw-materials reduced due to the appreciation of US $, because it has increased the cost of production and due to the same, they are unable to produce and supply the goods at competitive rates in the market. Accordingly, the textile industrialists have changed their product mix but diamond industrialist fails to do so because they heavily relied on import of rough diamonds and have no other option of procuring from local market. To meet the costing aspects, they have started providing the employment to women and fresh candidates to reduce the wage rate portion and started processing of higher value goods (bigger size diamonds) to compensate the dollar appreciation.

- Based on the data collection, it has been found that, due to the dominance of diamond industry in Gujarat, majority of the local machinery suppliers are from Gujarat whereas due to the presence of textile industry across India, the machinery suppliers are located in and around major metros of India.

- Based on the data collection, it has been found that, diamond units are having higher exports whereas textile units are struggling to establish their identity in global market, because it is highly focused on local trade and not foreign trade.

- Our government has to initiate positive steps to provide incentives to the local industry to boost up exports from Surat.

- To increase the textile exports from Surat, the Indian government has to promote “fiber to fashion (F2F)” concept and develop a textile processing chain of all activities under one roof. This chain will make the entrepreneur to produce the textile goods at competitive rates at par with Chinese, Taiwanese and Bangladeshi Suppliers.

- Due to the recession in EU, USA and other nations, the textile and diamond units’ owners have switched the focus from

existing clienteles and explore new markets of middle – east, south – east, far – east, Australia, New Zealand, Latin American Nations, and African Nations,

- The major reasons for reduction in manpower are recession in international market and implementation of modern machinery in units
- In view of the recession and appreciation of US $ rate, the entrepreneurs of the local industrial units have adopted innovative HR practices carried out series of interactions and convinced their workforce for reduction in wage rates; no strike has been observed from labor staff.
- Due to the appreciation of US $ and recession in international market, around 70 % of the units of the local industries have reported that, banks / financial institutions have reduced the cash credit facilities.
- Due to the appreciation of US $,
    - around 33 % of the diamond units and 64 % of the textile units have reduced their import by 20 %.
    - around 55 % of the units of diamond industry and 72 % of the units of textile industry have reduced their import of plant & machinery and they switched over to local machinery suppliers.
    - around 44 % of diamond and 78% of textile units have reduced their investments in imported plant & machinery and utilized a technology switch over option of local industry (Keller, 2002).
    - around 48 % of the units have reduced their production
    - around 67 % of the units have revealed that their payment cycle has been affected
    - around 78% of the units are facing an issue of payments to be made to their suppliers
    - around 67 % of the units have started a practice of hedging for their payments against the volatility in currency
    - around 63 % of the units have changed their product mix
    - buying capacity of the units have been reduced, and ultimately resulted into the reduction of the flow of raw-materials for production
- Due to the recession in international market,
    - around 59 % of the units have experienced a change in their customer base
    - around 41 % of the units have reduced their manpower
- To cope up with the recession and appreciation of US $ value against Indian rupees, the owners of local textile and diamond industry have initiated certain steps, such as
    - Reduction in rate of return by 10 %
    - reduction in wage rates (55%)
    - using alternatives materials in process by textile units (51.85%)
    - providing employment to women in areas where less physical work demanded in manufacturing process (37 %)
    - recruitment of fresh candidates (37 %)
    - outsourcing of the part of manufacturing process (26%)
    - started innovative HRD practices

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