CHAPTER 1

INTRODUCTION

1.1 Indian jewellery industry

“Jewellery is like the perfect spice - It always compliments, what’s already been their”- Diane von Furstenberg

Indian jewellery market is 3rd biggest jewellery market in the world. Indian jewellery industry occupies an important position with respect to economy. India is considered to be one of the top countries for the consumption of jewellery and considered as growing industry with the rate of approximately 13 % annually\(^1\). India is the largest producer of gold jewellery and maximum consumption of it is done in the domestic market itself, which is influence by many factors like occasion, festival, traditions etc. In India, jewellery is at the top of the priority list on various occasions and this trend is being followed since ages. Gold takes 80 % of total industry’s share where as rest gemstones and diamond takes up remaining 20 % share\(^2\).

India has succeeded to become the most popular country for diamond cutting and enhancing. The size of the Indian gems and jewellery market was USD 30.1 billion in 2011 and is expected to be USD 45 billion by 2017 on the back of increasing domestic demand\(^3\). The country is one of the largest exporters of gems and jewellery and the industry is considered to play a vital role in Indian economy. This industry is a leading foreign exchange earner. Indian diamonds have become popular and there is a lot of demand for it in domestic as well as international market. Indian diamonds are found in many colours and sizes, which enhance the beauty of diamonds. The places where demand is increasing for Indian jewellery includes the UAE, US, Russia,
Singapore, Hong Kong, Latin America and China. Asia pacific alone holds the maximum share of jewellery in the world and India is the third biggest jewellery market.

Asia Pacific countries are the biggest jewellery market in the world. Asian countries consume most of the jewellery manufactured and they are the one who manufacture maximum jewellery and supply it to world. The total jewellery market size of some major countries of the world can be studied in the following table:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>309,839</td>
<td>100</td>
<td>9</td>
<td>4</td>
<td>387,671</td>
<td>5</td>
</tr>
<tr>
<td>Asia Pacific Countries</td>
<td>183,732</td>
<td>59</td>
<td>14</td>
<td>4</td>
<td>243,842</td>
<td>6</td>
</tr>
<tr>
<td>China</td>
<td>96,760</td>
<td>31</td>
<td>15</td>
<td>4</td>
<td>135,248</td>
<td>7</td>
</tr>
<tr>
<td>India</td>
<td>46,527</td>
<td>15</td>
<td>20</td>
<td>6</td>
<td>60,585</td>
<td>5</td>
</tr>
<tr>
<td>North America</td>
<td>69,239</td>
<td>22</td>
<td>5</td>
<td>3</td>
<td>80,380</td>
<td>3</td>
</tr>
<tr>
<td>Western Europe</td>
<td>29,044</td>
<td>9</td>
<td>-1</td>
<td>1</td>
<td>30,426</td>
<td>1</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>8,306</td>
<td>3</td>
<td>9</td>
<td>-4</td>
<td>8,931</td>
<td>1</td>
</tr>
<tr>
<td>Latin America</td>
<td>7,664</td>
<td>2</td>
<td>7</td>
<td>4</td>
<td>9,035</td>
<td>3</td>
</tr>
<tr>
<td>Middle East &amp; Africa</td>
<td>3,287</td>
<td>3</td>
<td>8</td>
<td>7</td>
<td>11,887</td>
<td>7</td>
</tr>
</tbody>
</table>

Source: -Euromonitor International

There is difference in taste and preference of consumers belonging to different regions of our own country. South India is the biggest manufacturer of pure gold and most of it is consumed in the domestic market itself. Where as north India is famous for diamonds and semiprecious stones embedded in gold. Moreover, every design and manufacturing technique is unique and beautiful. Indian jewellery is mostly handmade which makes every piece unique. Indian industry is broadly divided into two sectors: -
- Gold Jewellery
- Diamond jewellery

**Gold jewellery**

Gold is being used in making jewellery from ancient times. Gold is soft, ductile, malleable and lustrous, which are the basic properties, required for making jewellery. Gold is easy to shape, mold and carve. Many forms of jewellery is made with gold wire only like filigree work. In many states like Kolkata, Kerala, Tamil Nadu and Karnataka gold jewellery is preferred over other metal and gemstones studded jewellery. This jewellery was made for kings and queens during earlier days. Jewellery during different kingdoms was inspired by motifs and different elements. The Mughals period was most famous period in jewellery making. Which was inspired by different motifs, as compared to jewellery made in Mewar at the same time.

Gold jewellery is one of the important expense when taking about household expense in India. Indians use to spend some amount on gold from their income, and this still continues. This can be seen in graph discussed below: -

![Fig: 1.1 Indian household expense](image)
Source :- Ficci Survey, World gold council

It is seen that 8.13% of household expense in on gold or gold jewellery. This is the main reason gold is loved more then any other metal in India. This trend passes on to the family and to next generations as well.

**Diamond Jewellery**

India was the first country to introduce diamond to the world and since then it is the first choice for diamonds. Indian diamond cutting and polishing has emerged to be the best in world, even the smallest of the diamond is cut with a lot of precision. It used to be a small-scale industry but from past 3 decades it has emerged to be modern and large-scale operation industry. Diamonds are mostly imported in raw form then cut in desired shape and size for consumption in domestic as well as international market.

Gems and jewellery export promotional council GJEPC has done collaboration with Moscow Diamond Bourse (MDB) for many opportunities that will benefit India and tourists from all part of the world that will benefit India and tourist from all part of world who would want to procure diamonds from India. Gujarat is a hub for diamond trading and now it is expanding its root in the jewellery manufacturing. Also the state is high in resources and expert craftsmen’s.

The Indian Diamond industry employs approx. 95% of the workforce of the world’s diamond industry. This industry brings huge revenue for the country. Diamond industry is a major source of employment in Gujarat. India has achieved all this from the hard work and skills of the craftsman.

In 2014-2015 around 350 diamond units were shut, which made survival of 24000 workers difficult. The downfall started in 2012 and the industry is still struggling to cope up with the losses. The main reason for the downfall was reduction in demand of
diamonds from big buyers. Over all growth was registered in 2012 at 5 %, and expected to increase till 2018.

The sector is highly export-oriented, Labour-intensive and a major contributor to employment, GDP and foreign exchange earnings. The domestic Gems and Jewellery industry had a market size of INR 251,000 Cr in 2013, with a potential to grow to INR 500,000 – 530,000 Cr by 2018. Considering its immense potential and contributions, the Indian Government has also declared the sector as a thrust area for export promotion. India is one of the biggest importer of rough diamonds. The average price of rough diamond import was 61 percentage. It can be studies in the graph below

Fig 1.2:- India’s Quarterly Rough Diamond Imports

![Graph showing India’s Quarterly Rough Diamond Imports](source: www.diamonds.net)

In the above graph it can be studies that price went down a bit and gained its pace. Import rose by 40 % a year with the value of 3.65 billion USD
The sector provides employment to around 1.8 million people. In the next five years, the sector is expected to create additional employment for around 1.1 million people. FDI in diamond and gold ornaments sector was USD 302 million from April 2000 to April 2011, as per statistics released by the Department of Industrial Policy and Promotion (DIPP), which is part of the Ministry of Commerce and Industry, which in charge for framing country’s FDI policy.\(^7\)

Many states in India are rich in gemstones reserve like Maharashtra, Madhya Pradesh, Orissa, Chhattisgarh, Bihar and Andhra Pradesh. Orissa has a rich deposit of good colour ruby and other gemstones like garnet, aquamarine, etc.

**GST**

Jewellery industry is biggest industry, which provide maximum employment opportunity to both skilled and unskilled workers in India. Despite being such potential in this industry there are many unaccounted money involved in the chain of production. Government has taken many measures on making it an organised industry and introduced Goods and service tax (GST). This will help to get bridge the gap between the price of unorganized and organized segment of the industry.

The Goods and Services Tax (GST) for gold is fixed at 3% and an additional 8% tax to be levied on making charges. Many gold associations in India condemned this, and the tax on making charge was reduced to 5%\(^8\).

The spike in the rate of gold can be due to the import duty, which has been retained. Currently, gold attracts an import duty of 10%, in addition to 3% fixed GST, and 5% added on the making charges (GST).
Impact of GST on gold

GST has left impact on gold, demand for gold has reduced due to GST. Gold has become 0.75% expensive than earlier. Earlier, there was 1% service tax and 1% VAT, on gold amounting to 2%. GST has hiked the tax rate on gold to 3%.

Impact of GST on the organised gold sector

It is believed that the implementation of GST will have dramatic effects on gold trade as only 30% of the gold trade is organised. Although GST is set to benefit the organised gold trade, but greater transparency and accountability, may prompt some jewellers to move to unorganised areas. This might happen by buying cheaper smuggled gold and selling them without bills.

Impact of GST on unorganised gold sector

It is estimated that India imports 700-800 tonne of gold annually, out of which almost 30 tonne is smuggled (mainly through Dubai). This gold comes in country as unaccounted way. GST has spiked the import gold rates by 13%. This might be an odd situation where due to implementation of GST people would prefer not to buy gold beyond limit so that if they get caught at customers check then they will have to bear huge custom charge.

GST on gold making charges

Yes, gold now has a making charge of 5% GST, council had earlier decided a rate of 18% on for gold making charges, however, when GST was implemented, they decided to keep it at 5%. This would affect lot of craftsman who do freelancing.
1.2 Origin And History of Jewellery Industry

The first sign of jewellery was seen amongst African tribe. 75,000 years ago Pierced beads were found at blombos cave, made with different material like seashell, sea snail etc. In Earlier days, beads were made from perforated eggshells and various other natural materials. Jewellery has a long history and many uses, which differs from culture to culture.

According to NOVOSIBIRSK, SIBERIA - A stone bracelet unearthed in Denisova Cave in the Altai Mountains of Siberia in 2008 is being called the oldest-known jewellery of its kind. The soil around the two fragments of the jewellery piece was dated with oxygen isotopic analysis to 40,000 years ago⁹.

EGYPT

Jewellery making was very popular in Egypt since three thousand to five thousand years ago. Egyptian chose indulgence, rare materials, craftsmanship on gold then other metal. In Egypt jewellery became emblem of power and society. It was mainly worn by affluent people during their lifetime and it was kept with their grave goods as well.

Gold jewellery was the primary focus but there were many other forms of jewellery, which was made and worn by Egyptians. Colorful jewellery made out of glass and other semi precious stones were used. Every colour had its own influence, for example red for fire and anger. Silver metal and other gemstones, which were not found in Egypt, were imported from other countries.
EUROPE AND MIDDLE EAST

In Europe many other forms of jewellery, like neckpiece made out of animal bone, teeth, feathers, seeds etc. were also found. Jewellery was not just the means of ornamentation, but was also used for attire decoration and thus making it more functional. An intense carved piece of jewellery was found in Star Carr in North Yorkshire in 2015, which was believed to be from 11,000 BC which was oldest art of Mesolithic from Britain. Around 7000 years back also metal was used for making jewellery, which was cited in Austria after discovery of a female grave that was wearing copper jewellery.

MESOPOTAMIA

Oldest jewellery was found in one of the graves of Mesopotamia, wearing many pieces of jewellery. Jewellery was found to be five thousand years old, it was also found that jewellery in their culture was worn by both male and female. Most of the jewellery was made out of gold and semiprecious gemstones and other precious metals.

Jewellery manufacturing mainly started with gold leaf and then adding semiprecious stones like agate, lapis, jasper etc. to it. Their jewellery making techniques were very intricate like itching, using granules, filigree work etc. and using different shapes were also their primary focus.

GREECE

Jewellery in Greece during 1600 BC was made from precious metal like gold and semiprecious gemstones. Techniques like wire bending, twisting of sheets etc. were in
practice, but over a period of time all these techniques started fading and were replaced by new techniques. Jewellery in Greece was made in many shapes and varieties since Bronze Age, like neck choker, bracelet, head ornaments, pins etc. Greece jewellery was so popular that one of its oldest wreaths was imitated to for the Olympic games winner.

After Persian war jewellery in Greece became more powerful and profuse. They later mastered in all type of coloured gemstones and semiprecious materials. Their designs were simple, soft and with lot of animal motifs, but over the time the designs grew and more innovation took place.

Jewellery was mostly used for gifting then ornamentation. It was worn on special occasions and flaunting wealth. In older days it was even dedicated to god .It was also given to soldiers to protect themselves from the evils.

**ROME**

Rome infused its designs and techniques after conquering most of the Europe. Rome was mostly making brooch and using different material in its brooch. Their brooches were worn to keep attire at place and, making it look beautiful at the same time. Their jewellery had diamonds, emerald and many other precious materials that were from different continents and countries like India, Italy etc. They also created perfumed pendant that were very large with perfume bottle in it.

Woman in Rome would wear lot of jewellery, Roman men would were at least one piece of ring or may be more but it started fading away over the period of time. After Rome lost its huge territory, most of its jewellery had a influence from neighbour countries.
ASIA

India is the most dominating country in Asia in jewellery making with history of 5000 years. People from Indus valley civilization started making jewellery late back when it was not even known to many other civilization. It went to Pakistan and other neighbour countries as well. China also started making jewellery during the same era, but became popular only in little later phase of time.

CHINA

Chinese jewellery was predominantly of silver and blue color feather, later blue feathers were replaced by gemstone of similar color. Jewellery made out of jade was also very popular because of its attraction and strength. Their designs took composite shape over the time and they later mastered the techniques of carving it. They invented many devices to process these stones, which came late in picture of world.

Jewellery was used more for decoration and significance rather than wearing them on body, their jewellery was more of symbols and letters made out of precious stones. Their jewellery was found in graves, which was kept to ornate the dead bodies.

COUNTRIES OF ASIA

Looking at India, Pakistan, Sri Lanka and other south Asian countries history of over 7000 years, we came across various trends and changes due to existence of multiple cultures in the region. Precious metal was primarily exported and exchanged by India due to its easy availability and rich cultural art over thousands of years, which enabled India to prosper rapidly.
Indus Valley civilization was known for its ornamental art ranging from earrings to necklaces and bangles. As evidences and literatures from history tell us, precious metal came later into existence for making jewellery. Before 2100 BC, stone beads were primarily used to make jewellery. The technology though sounds simple in today’s era, was one of its kind in 2100 BC. Hot ovens were used to shape beads and polish them. It was also known to be a canvas for their art expressions, where paintings were seen on their jewellery. It was mostly a family art, whose knowledge used to go down their bloodline.

It was observed that jewellery had much influence on females then male and it continued till modern days, during older times the material of jewellery was clay that sooner got replaced by precious metals like gold silver and diamonds. Indus valley civilization has oldest history of making jewellery and during those times only bangle and few ornaments were made to adorn but later it took many shapes like bracelets, nose pins, earring, head gears, etc.

Jewellery in those days was made with different material having their own value and significance. Gold was considered as “surya” which denotes fire and silver was considered as “moon” and which denotes calm. Jewellery became very popular over the time that there were restrictions placed on the ordinary people to wear it, n royal families were free to wear as many jewellery as they want.

India mined diamonds back in 300 b.c and was first country to do it, later it started trading with other countries. Diamonds were known for its value and soon it became a source of business, buying weapons, food etc. Kings started using them in their jewellery and it would show their wealth and prosperity. Diamonds were even traded for other precious gemstones that were not found in India.
NORTH AND SOUTH AMERICA

Jewellery making was popular in southern and central area. Jewellery was mainly made out of gold, as it was easily available in some cultures of America. Mochica culture was master of making beautiful pieces with different designs and stone inlaying and much difficult techniques. These pieces were considered best artistic pieces of Peruvian culture. Each piece was very intricate and not very easy to make.

Aztecs community would prefer wearing gold over other metal, as it would flaunt their influence, sheer and affluence. Jewellery was decorated with animal hair and feathers. The emperor and higher ranked community would wear more and more jewellery to show their power. Their jewellery had very small pieces and different elements to make it look stunning.

Maya civilization was also well known for their jewellery making. Maya’s were not much exposed to precious metals so they would make jewellery out of natural resources like feathers, animal bone, seashell etc. Their designs were very similar to Aztecs with very slight difference in it.

PACIFIC

It took little longer to introduce jewellery in this area because of fewer tribes, which later got a little recognition due to community existence. Pacific jewellery was more around natural resources and couldn’t keep in existence because of its value. Their jewellery was mainly for attire adornment which included bracelet, brooch etc. Australian jewellery still was little different from others as it was a mixture of different regions and foreign invaders. Over the period of time Australian started mining opal and their variety and they even became number one exporter of it.
Island jewellery was still very traditional as the tribes were isolated and not much influenced by other world. They had very less communication with other parts of the world, which made it further tough to get raw material and semi precious stones.

New Zealand has a rich history of jewellery, which was mainly for personal ornamentation. They were masters in carving and inlaying in bones and wood. Their jewellery was popular till mid age after which it also took shape with metals and precious stones.

1.2.1 MODERN JEWELLERY

Jewellery has taken a long way from creativity to usability. Modern jewellery still follows the traditional designs with little twist to it by adding modern day material. Jewellery is made out of plastic, ceramic, and many other polymers and alloy which were invented recently. Many other machines are also introduced to make work easy and increase efficiency.

Modern jewellery also brought in the concept of wearing artistic pieces with functionality. Many devices like 3D printing also became very popular and they could make a perfect prototype for crafting jewellery. The new method of 3D printing makes it cost effective to create a prototype and a mold, which can later be used for casting mass production jewellery pieces. These enabled artisans to come up with modern light wear designs, which has become very popular amongst teenagers and young professionals.

Modern technological developments of crafting methods and tools enabled jewellery to be accessible to a larger audience rather than being used by kings and princely states as seen in the history. This has created a much bigger market for jewellery
artisans, has reduced the wastage, cost and time involved in crafting thereby creating more demand for the modern jewellery.

1.2.2 Ancient World Jewellery

Since pre-historic age, jewellery made up of shells, bones, stones and other precious stones has been a form of decoration and ornamentation. More than that, it acted as a show of rank in the society. As time progressed, metallurgy techniques grew more advanced. Stone and bone jewellery was soon replaced by metal jewellery. With time, the sophistication and intricacy in designs grew and jewellery became a part of many cultures. For example, a tradition to put precious metals in graves for a better afterlife was very common. There are many evidences of such traditions, one of which dates back to 1780s where Gold collar was found in Shannongrove, Ireland. Some believed jewellery had cryptic charms to protect the wearer, hence jewellery was worn sometimes for protection rather than for ornamentation.

Medieval Jewellery (1200s to 1500s)

Medieval Europe was a status conscious society where Royalties wore jewellery made from precious metals like gold and silver with gems. Jewellery made from less precious and ordinary metal like copper, bronze etc. were worn by a lower class of people. Apart from ornamentation, it is believed that some forms of jewellery were also worn to protect from evil.

With time, gems started to play an important role in design of jewellery. Uncut raw stones were polished and handcrafted using fire to fuse with metals. This technique is common till today.
Renaissance Jewellery

Cutting techniques became advanced, which bought a glitter to stones, which was never seen before. Jewels were often covered on both sides by colorful enamels. Both men and women wore remarkable pieces of jewellery to display power and position. The show of jewellery became more important than ever before. Apart from it, this era also saw something unique – the reviving of art. An increased artistic awareness was seen in these times, and various artistic techniques were used to engrave on gems.

Also, jewellery was worn to protect from the devil, evil and ill health. Specific stones and gems were worn as a thought that it cures illness and gives power and strength to the owner. Such beliefs are prevalent in modern times too. One of the highly valued stones in middle ages were Greek or Roman carved stones which was a symbol of courage and bravery. Many such pieces of artistic jewellery were found across Europe. One such example is linked to a zodiac sign of Scorpio, which is a symbol of water. Its bearer was thought to be protected against poison and fever – one of the most common ailments in the Renaissance era. Its literatures in history can be found dated as old as 1587.

As times progressed, so did the fashion and beliefs attached with it. Dark clothes with gold jewellery were common attire for the royalties and audience with power and political supremacy. Softer pastel shades also came into fashion, which became a symbol of grace. This gave rise to subtle jewellery being made using pearls and gemstones of lighter color. Cutting techniques became advanced and gave a luster to stones in moonlight or dim lit candle environment. Jewellery found its place on the dresses too, which was stitched or pinned to clothes rather than being worn on the body. One such piece of literature evidence was seen in mid 17th century where it is
said that a Frenchman – Jean Toutin of Châteaudun painted opaque enamel which opened a new form of jewellery designs of combining colors in the same piece.

End of previous century saw a new material becoming more prominent in jewellery designing – Diamond. Advancements in cutting technology was a prime reason for diamond to enter the jewellery designs. But diamond jewellery was short lived due to its high intrinsic cost.

From mid 1600, men for self-defense kept small pocket swords. Moreover, it acted as a piece of jewellery for groomed men. This opened up a new avenue for artisans to craft jewellery on swords. It soon became a trend and a status symbol. Goldsmith and sword smith did fine enameling, entrusted gold, silver, gems and other precious elements on the swords. It was no longer a sword smith’s art, it fused with gold smith’s profession. Such artistic swords were given as awards to distinguished military men and guests. One such evidence as recorded in books of history is a reward given to Francis Douglas for quashing a violent mutiny among sailors at Nore.

**19th Century jewellery designs, trends and technology advancements**

Industrial revolution started in the 19th century, which brought about a change in user’s consumption pattern, demand and social change. Initial times in 19th century saw classical jewellery designs inspired by glorious past of European nations viz Rome, Greece etc. Though technology advanced and better machinery was available, goldsmith still preferred handcrafting jewellery to recuperate ancient techniques; for the demand of such jewel craft was more. Jewellery art forms as discussed in previous sections – Renaissance and Medieval – was still prevalent in these times.
A new form of artistic jewellery trend started in 19th century – floral and natural element focused. Jewellery with clear recognizable flowers and fruits became very popular. Hair ornaments design were often floral jewellery that can be assembled on a set of springs to form bigger bodily ornament. By the mid century, more complex and extravagant natural designs and floral designs came into being.

By these times, extravagant jewellery was restricted to women as men often avoided exclusive jewellery art pieces. The natural colors together with matching gemstones became very popular amongst ladies. Some of the floral designs can be seen as early as 800 BC i.e. late Bronze Age.

**Artistic Jewellery**

By 19th century, industrialization was rising in every domain, including the jewellery crafting. As stated before in the previous section, handcrafted jewellery was still more accepted and prevalent than the machine made jewellery. Goldsmiths were shunning the technology and machines, despite the fact they could have made the jewellery at a much lower cost. It was believed that handcrafting a jewellery, specially for the elite class would improve their soul.

Cabochon gems found its place in artistic jewellery by pushing the larger gemstones aside. They were crafted to have symbolic meaning, replacing regular conventional designs with curves and figures.

One such design pattern as seen in the history was a peacock – Ashbee’s most loved design pattern. 1900s saw many jewellery pieces being bought by the upper class that had distinct motifs hovering around peacock patterns.
Paris International Exhibition saw a dramatic transference in styles, which were caused by The Art Nouveau style around 1900s. They had a huge following that created organic pieces, which were very different from floral designs as seen in the 19th century. Artists also started shunning precious metals and gemstones and looked towards more subtle elements of nature like glass, horn and enamel for designing the jewellery. Such artistic jewellery was difficult to accepted by those who had a taste for precious artistic jewellery pieces thus making it unsuitable for some occasions.

The couple of decades from 1920s saw a lot of war, depressions and bloodshed. Economies were crashing while some countries grew exponentially specially on their technology and industrialization front. Jewellery design was no exception. Despite war and economic crashes, jewellery designers continue to excel their art. Machine age brought about a trend of geometric designs and patterns with sharp exotic cuts and fashionable touch to jewellery. New York became the center of jewellery crafting and overtook Paris. Gold made its way back into jewellery designs around this time. Platinum’s cost rose, primarily due to lack of availability.

**Modern day Jewellery**

In modern-day era viz around 1960s, jewellery designs continued to redefine the art of jewellery making. Many art colleges were established during these times, which had a few courses dedicated only to jewellery designs. These courses are prevalent in today’s world too, with an even greater significance and number. New radical ideas started flowing from such institutes.

Technological advancements opened a channel for radical ideas. Advancements in material science enabled the use of non-precious materials like plastics and textiles in jewellery designs, which turned the idea of how one perceives jewellery.
Boundaries of wear-ability were pushed to limits, as artists started exploring interaction of jewellery with body. Fine art saw a new page being added to it – art of jewellery. The debate to consider jewellery crafting as an art still continuous.

1.2.3 Timeline – Jewellery and its trends

110,000 BC to 73,000 BC –

Archeological digs in some historic sites in Morocco found beads and seas shells, decorated and carved, hinting that those were probably used as jewellery. Similar evidences were found in archeological digs and surveys in many other countries like Modern day Israel, Algeria, South Africa etc.

Around 38,000 BC –

Bone and teeth beads were primarily used as jewellery in France.

28,000 BC –

Gravitating jewellery was found in Czech Republic of modern era, which was made from shells and ivory beads.

4400 BC –

First instance of gold being used in jewellery was seen around this time. Its associated with Thracian civilization.

1200 BC –

Jewellery designs based on natural things came into being. Shapes of grapes, cones, spirals, leaves etc. were prominent. Lapis, Jasper, Carnelian were popular gemstones used in this era.
Around 30 BC –

Egyptians started using copper and gold in their jewellery production around this time. Animal designs in jewellery were prominent. Birds, tigers, jackals, antelopes, monkeys, beetles, insects etc. shaped beads came into existence and jewellery was being produced using technologies and craft available during this time. Apart from precious metals, gemstones that became popular were turquoise, lapis lazuli, amethyst etc.

Animal style jewellery with precious metals fused with gemstones like pearls, amethysts, emeralds and cornelian were found during this time in modern day Greece. Historians commonly term it as Greek jewellery.

500 BC - 400 AD –

Rings, brooches and amulets jewellery with pearls, emeralds, diamonds and sapphires etc. were finely handcrafted in animal designs. Ancient Roman Empire elite preferred jewellery designs with animals and coiling snakes.

400 - 1000 AD –

This was a dark age for Europeans. Design development was not seen too much during this era, as only royalties preferred wearing the jewellery. Since elite were only using it, the designs were intricate and costly, making it exclusive.

1066 - 1485 –

Religious practices started pushing jewellery amongst common public. People started wearing jewellery designs on their garments and hair for the spiritual ceremonies and
gatherings. Like before, the common gemstones used in the jewellery were ruby, sapphire, pearl, emeralds, diamonds, and other precious and semi-precious gemstones.

**1500 -1830** –

Europe saw a sharp rise in jewellery usage during Georgian and Renaissance times. Amount of jewellery being used increased together with a variety of jewellery being worn on the body. Necklaces, earrings (similar to modern day danglers), hand jewellery etc. in various nature inspired designs like animal design, spiral or snake style could be found. Diamond jewellery became popular during these times as technology of cutting gemstones started to progress and become advance. Evening attire was often seen studded to diamonds and intricate jewellery.

**1835 - 1900** –

Europe saw a fashion trend being set around this time, with a great taste of jewellery, primarily due to sovereignty of Queen Victoria.

**Early 1900s** –

Art Noveau and Edwardian styles were the monopoly styles and had a profound effect and impact on jewellery designs during this time.

**1920 - 1935** –

The biggest shift in jewellery design with various shapes – geometrical, abstract, modern and oriental artistic – was seen in these couple of decades. It was the first time that wrist watches studded with diamonds became a part of jewellery and watches made out of precious metals like gold were first seen. It was an era of art and experimentation in the domain of jewellery design.
1939 - 1949 –

It was the time when the entire world was at war. Industrialization was constantly bringing new technology and machine designs, and jewellery design was no exception to it. Due to wars, jewellery designs related to patriotic symbols made from semi-precious and exquisite gemstones were adorned.

1950s –

Modern designs in jewellery were seen post war period. Jewellery design institutes came into being, and gained popularity rapidly. This brought about revolution in materials being used for jewellery. For the first time, less costly materials were being used in making of artistic jewellery like plastics though they didn’t really gain any popularity. Precious metals and gemstones continue to dominate the jewellery industry and designs.

1.3 Definition and Key Concepts

Consumer behaviour:

Consumer behaviour concerns mental and physical behaviour of individuals and groups regarding orientation, purchase, use, maintenance, disposal and household production (do-it-yourself) of goods and services from the market, public, and household sectors leading to functionality, achievement, satisfaction and well-being.

Consumer behaviour acknowledges the chance in evaluating the sales, production to be done etc. Consumer behaviour varies from age, education, profession etc., they are
generally clubbed and considered as a group. The study of one group provides the information of individual and for the entire population.

Consumer behaviour has direct and indirect variable, which determine its decision-making ability. If there is a big population study the consumer behavior is studied in a deeper way. Product is generally targeted to a particular segment of customer and hence it is necessary to observe their buying behavior. Broader the population the chances of getting the sales is also more.

**Consumer perception:**

Consumer perception is the expectation of a product before it is purchased or after it is purchased. Customer perception varies from customer to customer. Perception is made from all the information gathered through any means or media. Once perception is made then customer try and look for all the options, which would meet his expectation.

Brands try and tell their story so that customers have their own perception towards that brand. There can be many factors, which can affect the perception customer already had because of many channels of information.

Information perceived can be manipulated in many ways and that concerns the brands. Some information can be damage to brand and some can be very helpful. Studies have been generally done before any product is marketed. Consumer behavior is totally dependent on this. Consumer should be highly motivated so that he makes the purchase.
Motivation and Emotions:

Motivation is central to consumer behavior. Motivation is the spark, the drive, in creating or sustaining certain behaviour. It pushes or pulls the individuals in to action. Further, it determines the intensity and direction of the behavior.

Motivation is a self-driven process and it involves many factors in it. Its process is simple, once there is a need then there will be different factors, which will motivate the customer to purchase.

Motivation are of different type, physical motivation where customer is motivated because of a physical chance like “its very cold”, then there is a need for jacket. Emotional motivation is where by looking at some of the product you emotionally get connected and just buy the product.

Emotions are part of human thinking, something that is deeply connected to inner self. Emotions play a big role in driving customer in a particular direction. Marketing tack ticks are generally based on emotional connection to the customer. It is found in one of the studies that customer would buy a product only when he is emotionally connected to it. It was also found that when asked for the logic to purchase only few could justify and rest were unconsciously connected to the product and made their purchase.

Jewellery purchase in most of the cases is found to be emotional purchase. Most of the customers are emotionally connected and make their mind before even rational thinking about it.
1.4 Ethical And Social Issues

Introduction

In any field of business or industry, a point reaches where ethics and social responsibilities should be given due importance, to avoid over exploitation of resources – both human resource as well as natural resources (if any). Each industry is spawned to create an impact and to create useful products for the mankind. But, a stage comes where if, the ethics are overlooked, they may cause more harm than do good to the mankind.

Jewellery industry also has to address many issues related to society, Labourers, resources, mother nature etc. Over the past few decades, with the advent of technology, jewellery industry is quickly using up the resources that nature provides. But at the same time, the industry has started to address these ethical and social issues and have started being more responsible towards the state where the raw material is being mined.

Health of the workers, safety of the business resources, pondering over environmental issues and illegal or over-exploitation of environment are some the key focus areas for the industry.

One such known and famous issue is related to Diamond mining in Africa, where the naxalites / terrorists have been controlling the diamond rich mining fields and selling them against money and armory. This vicious cycle once made the naxalites intractable against their state’s own army and security forces. Abuse of children and females was common, and the global community including the United Nations took the matter into their hands. Such grate incidents are recorded in the history where the
industry need to look at their ethical and social responsibilities, ignoring the money it would cause a harm to a state or a set of people.

Another progress towards development of such responsibilities is of the Kimberley Process Certification Scheme to fight against the conflict diamonds or commonly known as diamonds obtained from unethical and unlawful ways. These are just a couple of examples where ethical codes are followed. Apart from these, there are many other codes and conducts which have been set by many government, public and private organizations to foster business in an ethical manner. These codes of conduct are applicable to all levels in the sector, right from miners and Labourers to supplies and business owners.

Speaking about social responsibilities of jewellery business, there are many organizations and businesses, which take responsibility of solving and helping the needy. Many private companies play their part in the same like De Beers financially helps organizations working on drugs to fight HIV virus among its workers in Africa.

Just being aware of the issues is a great start. In the near future, such awareness would be crucial if the jewellery sector has to flourish in the best ethical way possible. With the world being well connected via social media tools, human rights issues related to cheating in cartage by companies other socio-economic issues are well read and followed by the consumers. If a company or a business is avoiding such responsibilities and only causing harm to the environment and the resources (both living and non-living), then they are vulnerable to a boycott campaign online. In a well-connected world, such news spreads like fire, and can impact the business in a grate manner.
HUMAN RIGHTS AND SOCIAL ISSUES

Rights above the law of any individual nation or state, a universal right and freedom to all the people are the Human Rights. They are implemented in states via treaties, international laws, and broad-spectrum principles and in other forms. They are often articulated and ensured by law of the state. There can be many reasons, which brings in a need for such laws, but most of them are due the exploitation of human resource by the private sector.

Human rights ought to be respected globally and by each individual and organization equally. Businesses these days play a crucial role in implementation and execution of these rights. Large-scale jewellery businesses have strict corporate monitoring and organized mediums for reporting to higher officials, compliance rules are set forth and followed upon with strictness and other risk assessments are done on a regular basis. Most of the universal human right laws are documented in the Universal Declaration of Human Rights or other similar human rights laws.

Child Labour

One of the most condemned social issues globally. Child Labour prevalence can be found in almost all the corners of the globe, which points to an disturbing position in the measurement of responsibilities by the businesses. Some studies reveal that as many as 200 million child Labourers exist globally.

Skipping school or leaving education prematurely, or in a worst case not getting educated, is one of the harshest effects seen as a result of child Labour. In some states, businesses tie up with school to send the underage workers for a basic education for sometime and make them work for the remaining time. This puts added pressure on
the children. Various factors determine whether a particular type of work is suitable for children or not. Some of the factors are age, gender, health of the child, amount of work they can do and how they perform and the legal assembly of the country.

Root cause of the child Labour problem needs to be analyzed and addressed; foremost important would be to find the impact it has on the industry. One of the reasons why children, in their early age join these businesses is related to financial and economic circumstances. Though children start supporting their families at an early age, which cure already living on a marginal financial income. But such employments of child Labour stripe them of the right to be educated. This in-turn, in the long run, would leave the child uneducated and illiterate (in most cases), thereby opening fewer options for work (skilled work) when he becomes an adult. This creates a large pool of unskilled and uneducated Labour, finding it difficult to cope up with the fast moving technological world. With abundance of unskilled Labour readily available, businesses tend to offer fewer wages, which in-turn reinforces poverty and monetary crisis for them. It defeats the purpose of why the child started working at an early age – to get money for the family. For a country to proceed, child Labour should be approached with strictness and businesses should be responsible to understand the socio-economic impact such activities will have on their business as well as the state.

In India, child Labour is abolished and is unlawful, but it can clearly be seen in every nook. Hence implementing the law is also utmost important, for it to cause a significant impact.

Members of Responsible Jewellery Council, commonly known as RJC, as per the RJC code of practices and ethics, should have rules to avert the engagement of youngsters in the businesses. In an unlikely event, where such rules are found broken in any way by the businesses, the following remediation needs to be executed:
Schooling and education be the first priority, and work should not be affecting the schooling.

Businesses involved in hazardous work should have a strict no for child Labour.

Processes be put in-place to prevent any child Labour being hired in the future.

Occupation should abide by the law, and strictly follow the guidelines and respect the exception given by the law.

A practice of phased remediation should be put in place, so that the problem of child Labour can be slowly and gradually dealt with.

**Involuntary Labour**

One of the most serious issue for any country is to tackle strained or involuntary Labour, who have been made to stay back and work against their will. In most cases, they are put in a trapped environment, their movement is restricted, and their social activities are banned and are made to work in a jail like atmosphere. Statistically, it is estimated that about 12 million forced Labourers exist globally, who are confined in such inhuman conditions.

Threatening along with severe deprivations are also included or termed as forced Labour. Deprivation in terms of money, wage, food, inflicting physical or mental violence, sexual assault and restricting Labourers movement all come under this category.

As per the RJC i.e. Responsible Jewellery Council, members cannot and will not:

- Promote forced Labour
- Restrict freedom of movement of its workers and employees

- Ask for any token amount or security deposit in any form, be it money, property, personal identification documents, property lease documents, equipment or any such monetary form.

- Preserve worker’s personal documents against his will, before-during-after his employment.

**Freedom To Form Unions And Associations**

For the benefit of the Labourers and workers, associations can be formed internally within an organization to safeguard interest of workers. It is a common practice in most of the sectors, which are Labour intensive. The same has been mentioned in the Universal Declaration of Human Rights.

Workers who chose to stay away from such associations would still be protected under the laws of association. The law to form associations doesn’t give freedom to workers to harm the business in any way. They’re merely formed to protect human rights and safeguard the workers from unethical, partial and unjust behaviour of the employer.

This also put forth a voluntary process between the deputies of the Labourers and that of the employers, where they can meet and discuss any issues pertaining to Labours. This is called Collective bargaining. Discussion can be on several issues related to any unjust policies or policies which hamper the basic rights of the workers, wages, working hours, any grievances or complaints that need to addressed etc. Purpose of such meetings is to amicably solve issues for the businesses to run smoothly.
Biased Behavior And Discrimination

A challenge to the concept of equality for opportunity and treatment can be reasoned to discriminatory practices at work place. It could range from discrimination against a particular race, color, sex, region or religion, opinion or caste and origin etc. Percipience can take in many forms, at any time or any place. Such cultures are best avoided, especially in the jewellery industry.

Whether it’s a developing country or a developed state, rural or urban, technologically advanced or not, city or village, these discriminations still exists in their own form. In adverse condition of biased nature, it may bar a segment of people from even getting employed in the jewellery industry. Ultimately, it creates a non-conducive environment for the workers to work in the jewellery business.

Ethically and lawfully, work place should be just and unbiased. The code prohibits any form of biasing or discrimination of the employees.

Safety Measures

It is estimated that close to 2 million people around the globe, die due to negligence in handling hazardous materials or machinery, or due to lack of proper safety equipment’s and rules at the work place. These are often the Labours or workers, which come from lower segments of the society, women, children and the migrants looking for daily wages in a new place. Unsafe and unhealthy workplaces are a cause of serious concern for the sector.

Over the past few decades, safety has become a fundamental responsibility of the businesses. It is the duty and accountability of the business to provide safety trainings, have compliances setup for the same and to implement these rules. These measures
are utmost important for a productive environment at offices, factories, manufacturing units and facilities etc. A healthy work force would always work efficiently and systematically. Apart from these, as per laws, special leaves are enforced which gives workers a right to be away from work without a pay cut, for example – maternity or paternity leaves. Sick leaves are also provided to employees on occasions when the employee is unfit to work prolifically.

From infrastructure point of view, workplaces should meet hygiene standards, and also abide by the health department rules and regulations. Basic safety devices like fire extinguishers, emergency exits etc. should be marked properly and workforce should be trained to use them.

**Grievance Procedures And Discipline At Workplace**

Discipline is an integral part of workplace, but unfortunately it takes an extreme form in some instances, where physical and mental punishments, sexual abuse or psychological abuse becomes a common practice. Such actions are considered unethical and against human rights and dignity.

**Working Hours**

48 hours per week of working hours was set at the first ever International Labour Organization (ILO) Convention in 1919. The same has been followed until now. Over burden by long working hours on a regular basis is one of the issues that remain prevalent in most of the industries. Issues related to regular overtime or overwork in manufacturing industries are most common in the union and company representative meeting. As per law, normal working hours should apply, or incase workers need to do overtime, they should be compensated appropriately.
Remunerations

Salaries or wages is an integral part of a worker’s professional life. There are several factors that determine the wages like country or state where the worker is working, economy and currency, government laws regarding minimum wages etc. Apart from salary component, other benefits may be provided to the workers like insurance, health care, inclusion in long term investment schemes, access to water, home and basic life’s necessities etc.

Responsibilities Towards Native Population Of The State

Jewellery industry needs a lot of support from the local or native population when it comes to mining for precious metals and gemstones. With this there comes an added responsibility towards the betterment of the local community. Providing employment to the natives in the mining process not only gives a smooth successful project, but also is a financially viable option.

Responsibilities should not only end with employment or remunerations to the natives. A broader context should be looked upon where skill development can take place, a better community can be made, a sustainable business can be made bringing an overall development of the area. It’s a win-win situation, because it is more about the relation between the business and the communities.

Small-Scale Mining

One of the oldest forms of mining is called Artisanal Small-Scale Mining or ASM. Studies have shown that over 100 million people are involved or dependent on the small-scale mining for their livelihood. It’s prevalent in over 30 countries currently. They are commonly known as pocket miners or diggers or galamsey.
RJC standard tries to protect the interest of ASMs so that they can exist in an era where large-scale mining, with upgraded and advanced technological digging and mining equipment are available. In some countries, governments and NGOs actively safeguard interests of ASM and enable professionalism in ASM.

**Environmental Responsibilities**

Businesses of all sizes in jewellery sector can sustain longer and benefit from taking environmental policies into consideration during the planning stage itself. Integration with nature into perspective is now an aim for leading companies in the jewellery sector. For any sector globally, businesses are put into check by governing bodies, in-order to make sure that natural resources of the state are not over-exploited to earn money for the business. Unfavorable ecological impacts should be minimized and businesses be made more responsible towards the nature.

**Hazardous Materials**

With the advent of technological processes in various stages of jewellery industry, certain by-product or waste may be harmful and hazardous. Proper measures should be taken about disposing those wastes. For industries, there are government policies and laws put in place to prevent such harmful materials to get into ecological cycle. But most of the jewellery setups are so small that they’re often skipped when taking this into account. Hazardous materials are toxic, flammable, radioactive or explosive, and pose health threats to public. Some of the wastes from the jewellery sector can be electroplating residues, batteries, oils and solvents, mercury, gold beneficiation etc. Different materials fall into various jurisdiction and call for different regulatory laws.
**Waste and Emissions**

Waste and emission are in different form, it can be solid liquid or gas. These waste have to be properly disposed otherwise they have cause pollution and hazard water bodies as well.

Jewellery industry has general type of waste during the supply chain management. All the waste has to be disposed according to the government norms.

Waste in jewellery industry are of different types, at the digging of diamond there is waste that is in liquid form , while processing diamond there is solid and liquid both type of waste emission. Waste can’t be kept to dispose at the end of the production so there has to be waste management at every single step.

**1.5 Challenges Of Jewellery Industry**

Diverse facets of jewellery industry have been studied over the time to understand the challenges of jewellery industry. Various studies have noticed an important fact that imports of raw material plays the most crucial part for the jewellery sector. Some of the other topics that interest researchers and analysts of jewellery sector are:

- Cost analysis and other cost related metrics
- Opportunity for artisans to develop their art
- Employment opportunities
- Marketing techniques
- How it affects a nation’s economy
- Growth patterns and trends
• Technology improvements and techniques

• Fashion and design aspects

As mentioned before, import of raw material plays a crucial role for this sector. Increase in imports i.e. raw material has a direct positive impact on exports too. An upward trend has been noticed for exports in jewellery sector year after year. With positives, come a few drawbacks too. It’s interesting to understand that increase in imports is beneficial only to an extent as jewellery exporters also have some constraints on them. Some of them are:

• Ability to effectively manage the raw material

• Production issues

• Marketing the finished jewellery / product to maintain the cycle of supply and consumption

• Market demands for jewellery

• Technology challenges

• Compliances and other rules and limits

The above-mentioned constraints are just a tip of the iceberg. In actual, the challenges are tough for businesses in jewellery sector. We shall discuss them in detail in the coming sections.

**Imports and its dependencies**

In India, demand for jewellery, precious metals like gold etc. and gemstones cannot be met by the indigenous mineral production. Hence, Indian jewellery market largely depends on import of raw materials. Unceasing exploitation and mining of diamonds
and gold have depleted the supply of raw materials. While other precious gemstones like ruby, sapphire, emerald etc. have not been mined and exploited to that extent. African countries are our bulk exporters from where India imports raw material. India is also venturing into other countries off lately like Australia for import of raw material.

Rough diamonds, gems and pearls attract exemptions from Indian government in terms of duties, customs and taxes. This is majorly done to promote employment of artisans who produce finished goods from raw materials thereby increasing employment opportunities in India for Labour class. Gold, on the other hand doesn’t attract too many exemptions, as it helps Indian government to hold a special economic position in the global economy. Gold reserves with a country are often looked up as a strong positive standing by other nations of the world. Gold Control Act i.e. GCA, has been withdrawn by the Indian government after many years of its placement.

It is estimated that as much as 90% of the raw material needed by Indian jewellery sector is imported. The raw material is then worked upon by the artisans in India to create a finished jewellery product which is in high demand in domestic as well as international market. Such workflows also create employment opportunities for lower segments of the society. Rough diamonds account for almost 50% of the imports. These are then cut, shaped, polished and exported, which is good for Indian economy. World Gold Council i.e. WGC issues statistics which said that as much as 660 tonnes of gold from India was in demand in the global market in 2008.

As far as other precious metals are concerned, Silver is also highly demanded metal in India. India is one of the largest consumer and importer of Silver in the world [according to Bombay Bullion Association].
Rough diamonds are imported by India from Belgium, the United Kingdom, United Arab Emirates, and Israel etc. While India looks towards South Africa, Switzerland, United Arab Emirates and Australia for import of gold.

Raw pearls and other gemstones that are imported by India majorly come from Belgium, Hong Kong, and the United Kingdom etc. The above said nations and other European nations are the largest import destinations of raw material to Indian gems and jewellery industry.

Exporters always have to face a tough competition in the global market, as they are competing with a lot of nations. If it would have been just a domestic supply of finished goods (jewellery), it would have been a different ball game all together. It is utmost important that import of raw materials occur at a fair and just price as it is always the starting point in the line of manufacturing. Production cost is added on top of it together with profit and operational margins to find a just and competitive stand in the global trade market.

Apart from price / cost factor of the import of raw material at a fair price, it is also important to consider quality of the raw material too. If the raw material is not of a high quality, the end product value would also be gravely affected. But jewellery sector is too big and diverse, so there’s always room for all type of quality designs and material. There is always a consumer for every type, but its tough for exporters to compete if the quality is not at par with global standards.

Diamond Trading Company in the United Kingdom is one of the biggest sources for India to import raw unfinished diamonds. There are many other open markets, which have been operational and setup to meet the demands of other nations like the Unites States of America (USA), Japan, Germany etc. But Diamond Trading Company is one
the foremost trusted company globally. It overshadows the global distribution of raw materials. Since it holds a special position in the global market, it is able to put a lot of weight in deciding the global prices for raw material for the importing countries. Its evident that prices in western countries, specially for finished goods, is also controlled by DTC. Diamond and its mining attracts special attention by DTC, and it has the capability to control the global diamond market.

Overall, for Indian jewellery sector, if we concentrate on the imports, it does look worrisome due the fact that it has a large dependency on raw materials from outside the country. Most of the times, this does worry the jewellery companies, forcing them to import raw materials in excess and way before the time they would need them (almost a decade before). When finished goods are made from raw material obtained at a cheaper price earlier, they would fetch high profits.

**Competition**

Looking at the global market for Indian exporters from jewellery sector, there are many buyers in the market of varied sizes in terms of purchasing power. They have specific needs and requirements and budget. But overall, the volume of India’s jewellery exports has been seeing an increasing trend.

India is still a long way away from holding a superior and elite position in the global market. This is primarily due to involvement of a lot of unskilled and untrained Labour in India. Technologically, we’re still behind the global science. Adoption rate of newer machinery and technology is less and limited to medium and large-scale business houses only. The jewellery-designing sector in India is yet to be organised. Jewellery designing institutes are gaining momentum in India, but the workshops /
businesses where graduates from the training institutes are absorbed still lack modern methods.

Looking towards other countries in terms of their training institutes and designs, they have been focusing on systematically developing their industry of gemstones and jewellery. Innovation drives their processes, encouraged by businesses and training centers equally. Extensive research and training is provided for techniques of cutting and polishing. Automation and other computerized machines help quicken the process of jewellery making, cut the cost and increases precision. Overall such methods, when controlled lead towards a well-streamlined production in the jewellery sector.

Despite the sector being unorganized, India still dominates the global market when it comes to diamond cutting, polishing and exports. But other nations are catching up fast with the advancements in the technology. For instance, China is streamlining their diamond cutting and polishing processes, and relying on machines rather than humans. For the same reason, Indian export houses are setting up their facilities in China. Belgium and Israel are also catching up with India in this market.

It is interesting to note, that Indian jewellery exporters are setting up their facilities in China, which is their competitor. There are several factors for doing this:

- Cheaper Labour
- Disciplined work life
- High economic growth
- Quality of Chinese workmanship is increasing
- Easy availability of automated machines
• Welcoming government policies as far as industrialization is concerned

• Export friendly policies

Apart from threats pertaining to Chinese advancement in the industry, there are other issue / challenges that also pose a threat. Diamond producing countries like South Africa, Namibia, Botswana etc. are establishing and seeking investments to setup cutting and polishing facilities in their countries. The government is also in support for this, for obvious reason – economic growth of the country.

Though no diamond mining is done in Israel, it is still the third biggest country in diamond processing, after India and Belgium. It is emerging fast in other gemstones also. Belgium, for the betterment of highly skilled artisans and Labour, has a special welfare fund that encourages and safeguards them. Such developments clearly indicate a tough competition and challenge to Indian gems and jewellery sector. Such systematic approach for development and manufacturing may lead to tough competition in the near future to India.

**Impartial Focus / Growth**

Indian jewellery industry is partial towards diamonds, swinging the weight of the industry to one precious item, and ignoring other gemstones and precious metals. Though India has a wide sector with polished diamonds ranging from diamond jewellery, gold to silver jewellery, and colored gemstones like ruby, sapphire etc. and white pearls, from artificial cosmetic jewellery to fashion jewellery – India has everything. Looking at the numbers, diamonds account for over 80% of the export of gems and jewellery. There’s a huge potential to systematically develop and export other precious gemstones and jewellery.
Fashion

We’ve seen jewellery being changed every few decades. Which has been happening since centuries. In early 1920s, jewellery was commercialized and made a fashion statement. Ever since, new designs and trends have been seen. Consumers now want to go after fashion and are most likely to purchase a specific kind of jewellery, whose fashion trend may have been set by a celebrity or fashion setters. Such fashions are short lived and may get extinct in a few months to a year. Such fast moving trends affect small to medium scale businesses as they don’t have bandwidth to cope with the demand when the time comes, and find it difficult to move stock once the fashion is gone.

Indian jewellery businesses, sadly don’t innovate new designs to set a trend in the global market. They, however, do try to catch up with the fashion trends around the world. Overall, the development in design centers is poor in India, and government is not much perturbed with it. Traditional workflows of crafting jewellery are more prevalent, which finds a tough competition in the world, which is driven by fashion.

Looking at the positives of this, India has skillful artisans, using traditional tools and practices, to craft jewellery for domestic market. Those designs are conventional designs, which are easily liked in the domestic market. This vast demand ranging from modern fashion jewellery to traditional styles puts a lot of pressure on our artisans, thereby hindering the mastery in the art. Moreover, its difficult to meet the demands when the design needs fluctuates too much.

From manufacturer’s point of view, rapid fluctuations in fashion blocks their inventory and capital. They always try to get the most state-of-the-art, fashionable and in-demand jewellery pieces into the market, so as to sell them easily. But that’s not
always the case, specially with small scale and medium scale businesses. As the fashion changes, the demand for a particular type or style starts declining and eventually finishes, putting additional pressure on manufacturers.

**Traditional Crafting**

It is well-established fact that technology will improve and modernization of machines and techniques would happen. Traditional artists would reduce in number, looking for better work opportunities in other domains from their bloodline. Gladly, in jewellery sector, traditional art of crafting is preferred over modern ways of making jewellery. This is very encouraging for the sector.

Despite the traditional designs being preferred, traditional art of crafting is slowly diminishing. Use of automated machineries, utilization of hi-tech equipment like 3D printers, software for design and simulations etc. are gradually replacing the traditional methods of polishing, designing, cutting and manufacturing of jewellery.

Due to tough competition, Indian jewellery industries are proactively looking for better, faster and cheaper technologies that can scale up their business with less investment. However, only a fraction of players prefers going the technology way. Innovative scientific apparatuses designed especially for jewellery crafting are slowly absorbed by Indian jewellery sector. A peek into traditional workshops would reveal some tools that were used centuries ago, thereby hinting at how rigid the industry is towards adopting newer technologies. This is becoming a major problem, as Labours and artisans are not comfortable using these machines. This gives an opportunity to competitors.
Diamond polishing, via traditional ways limit us to medium and large rough diamonds only. Being unable to use modern and automated machines, which are capable of cutting and polishing smaller diamonds, makes us incompetent in the global market.

Overall, this brings the productivity of the overall Indian industry down. Also these traditional practices are costly, take more time and are less productive, which pose a tough challenge to Indian jewellery industry. It is surviving because, as said before, jewellery lover’s love for slow and traditional art pieces of jewellery over modern machine made jewellery.

**Artisans and Labour**

Indian jewellery sector employs lakhs of artisans and labours at various levels of business. Training of these labours and artisans is of utmost importance. Imparting practical knowledge is the key to sustain Indian jewellery industry. But in reality, most of the training institutes are instructing theoretical knowledge to the artisans, thereby stagnating the innovation in the industry. Most of the labourers involved in the jewellery sector don’t have organized training or skip getting one due to shortage of money to be admitted into one of the training facilities. This leaves majority of the Labours in the unskilled or illiterate category, pushing the overall innovations, in the sector, down.

India, throughout the history till modern times, has been known for bringing people from various castes and religion under one umbrella. But looking into the micro perspective of the same, there are some sectors, specially related to art, which are dominated by certain castes and religion. This poses a threat to the Indian jewellery sector. For example – Muslim artisans have a fine hand and an eye for details, which sets them apart from others when it comes to processes of cutting gems. Such
Casteism can be found in Jaipur – one of the biggest centers for cutting and polishing precious and semi-precious gemstones. Any expert or trainer from one caste or religion, usually don’t train or pass on their experience to an artisan from other caste or religion.

- Muslims, as stated above, hold a status of being fine craftsman and artisan. So a novice Muslim artisan eager to learn the art of crafting jewellery would be accepted with open hand to join a facility / business for training.

- Such preference to Muslim artisans is clearly seen in Rajasthan and Gujarat.

- Such biasness by the trainers, towards their own religion or region or caste allows for a negative mindset to be set in the industry and also brings inefficient Labours into the manufacturing work related to polishing and cutting of the gemstones – the prime domain of export for Indian jewellery sector.

- As discussed above, it can be concluded that certain castes hold the position of monopoly in this sector, and are not open to accept artisans from other castes, and in extreme cases, are discouraging or preventing others from doing so.

Some studies have revealed that a major chunk of the artisan pool in Indian jewellery Industries don’t have a permanent job. They’re primarily job-workers working with small to medium scale businesses. Amount of work orders given to them depends on the season and how the business is growing for the client. This is a serious challenge to the industry that most of the artisans and jewellery crafters don’t have a permanent for workplace and no everlasting jobs. Most of the artisans work from home.
• For example, ghat making doesn’t have any organizational setup. They wander from place to place for work, and upon receiving the work, finish the task and craft at home only. There’s no permanent place to find these artisans. At most, they can be found in their houses only, which are their workshops also.

• Another example can be seen in Gujarat. They artisans have a monopoly when it comes to polishing and cutting of Ruby and Emeralds. And it is said that almost 95% of them work from their home itself.

India still holds a position of supremacy in the global jewellery market. But the Labourers are still living a harsh and tough life, facing day-to-day challenges pertaining to achieving basic living standard in India. Most of the work places (if any) are punitive and unsuited for them.

• Most of the workplaces have limited access to clean drinking water and hygienic food.

• Artisans working with precious metals like gold are often forced to work with no fans, as the wastage in form of gold dust is precious.

• Usually, for security purposes too, Labourers are forced to work in dark dingy dungeon rooms, with insufficient artificial lighting.

Apart from other challenges related to workplace, Indian jewellery Labourers also have strict and long working hours. In most cases, a 12-hour work shift is common. With working hours, comes variable per hour basis wages too, which pose a certain level of uncertainty for the Labourers. If the trader or business owner doesn’t have a good business, the Labourers working with them also suffer because of lower wages. This shows the mismanagement in the jewellery sector in India.
Though it is abolished and unlawful to hire children below a certain age in India, jewellery sector illegally does employ children. Usually they’re taught the art of cutting diamonds or precious stones because young eyes are sharp and healthy. These pose a health threat to their eyes, as they grow older.

Another perceptible trend in the sector is that most of the businesses are family run businesses, some of which are decades and centuries old. Most of the family run jewellery businesses or small scale are unregistered and don’t come under the laws of Labour in India, as they are not legal establishments. They fire or hire Labours as per their will, and since they are not registered with the Government of India, there is no certain statistics to determine the rate of unemployment in the sector.

**Financial Issues**

Jewellery is an expensive sector, inviting bigger financial investments. Finance is a bloodline of every business, and precious stones and metal business is no exception to it. There are various components or business units on which finance is spent like:

- Skilled and unskilled Labour
- Training of Labourers
- Taxes like sales tax, custom duties etc.
- Raw material, tools and equipment
- Insurance
- Day to day chores
For a small-scale business in this sector, finance is a huge burden. Working capital involved is high, which makes it difficult for small traders to enter into this sector. However, for medium to large-scale business, this is not a major problem. Funding, grants, loans and investments are available, but are seldom given to small businesses, making the entire concept dis-functional. Big businesses usually don’t need grants, but are always preferred by the financial institutions. Hence finance is a big hurdle for a new or small-scale business in jewellery sector. They are usually thrown out of the market by big exporters, or are so tightly packed that their business cannot sustain, eventually making them quit the competition.

Apart from it, the interest rates are very high, as the loan given to such jewellery firms is usually short-term loan. In case, the goods manufactured from the loan amount doesn’t sell in the market, they are returned to the financial institution as a payback against the loan, while the interest component is continued to be paid on it. This puts additional pressure on the small-scale jewellery exporter / business.

To sum the financial problems faced by jewelers in India, the following are the problems:

- High interest rates charged by financial institutions
- Sanctions on extension of credit limit are reduced.
- Dollar credit for importing or sourcing of raw uncut and unpolished diamond id not available
- Credit ratings are usually fudged and altered
- Entire process of obtaining the loan, grant or investment is time consuming
Compliance And Procedures

Jewellery sector is primarily an export driven sector. Government of India is responsible for formulating and implementing the import export policies. These policies keep changing often, and traders and exporters, who are importing raw materials, cutting, polishing and finishing the jewellery for export, have to abide by these rules and regulations and policies. Frequent changes make the jewellery sector volatile and unstable.

Paper work and formalities involved in compliance is tedious and usually dedicated firms are put responsible for managing the same. But for small and medium scale businesses (which makes the major chunk of the sector), hiring a firm for compliance doesn’t fit into their business plan, making such filings and compliances tough to be followed. Filing of information related to their exports, value of goods, materials, source of raw material, taxes, customs and duties etc. is just a tip of the iceberg.

Pricing

Pricing for jewellery products vary as per the unit of measurement. It doesn’t come under a fixed price tag and usually varies as per market costs of precious gemstones and metals used in making of the product. In the gemstone industry, carat and cent are the unit of weights. Final product price is usually set by the traders, as multiple factors come into play for the calculation of the final price like cost of raw material, cutting and shaping, making charges, taxes, purity and exclusivity of precious gemstones and designs, profit margin. Hence there is no fixed price range for any of the jewellery items. Small-scale traders can’t afford to keep the stock for long, as it piles up their inventory cost. Hence sometimes, they sell their stock, at a lower price, to a large
business / trader, who in-turn would sell to his network of customers or export the goods.

Since there are no regulations or rules for calculation of the cost of a jewellery product, often, customers are the real victims here. Jewellery in India is also sought and looked up as an investment. But with no fixed price, in most of the cases, jewellery gives less return and often losses, if sold in short term.

However, for Gold there are regulatory bodies, which determine the price for it based on its purity. But seeing the trend of last 3-4 years, the gold prices have increased sharply by almost 3 times. Any such rapid increase or decrease is usually looked down as a risky investment. Hence gold is losing its image of as safe investment.

Quality

In comparison to some of the other countries like China, Thailand, UK, Israel etc., Indian Labourers are less professional, productive and rigid when it comes to adopting innovative and latest technology. Because of such reasons, many of the Indian firms are establishing their facilities or outsourcing the manufacturing to China, due to better-disciplined Labours producing better quality product.

There are many factors which cause the quality of the product to go down like:

- Less productivity and motivation amongst the Labourers.
- Long working hours in a less habitable environment causes a dip in quality
- Workplace with less friendly atmosphere makes it tough for the Labourers to stay upbeat about their work.
India is a price driven market, hence quality often takes a back seat when it come to manufacturing of jewellery product. For instance, Indian artisans don’t prefer medium or large size diamonds, as those are better quality diamonds, but attract less consumers / customers in India. Overall, if India has to stay competitive in the global market, quality needs to be focused upon, with a structured plan to tackle various issues.

**Shipment Challenges**

Shipment is a central spine of any business and jewellery industry is no exception to it. In fact, transportation plays a crucial role in mobilizing and expanding businesses. A better shipment network would mean easy access to artistic and fresh designs in jewellery in more areas. But shipment is still a hurdle in India. There is no over-the-counter facility by government, where traders and manufacturers can buy raw material on demand. They have to plan and order beforehand, which puts an additional responsibility of getting the shipment securely and timely.

Exports face an even higher risk and pain. Most of the parcels sent to foreign lands have to go through a strict customs check, which requires a lot of paper work. This eats up a lot of time of the business. Also shipping options to foreign countries are not easily available in all cities, including some of the major ones. Most of the jewellery exports happen via Delhi or Mumbai, as they’re well connected to other countries. In some cases, delivery can be made as quickly as within a day also.

Similarly for imports too, raw material is imported via Delhi or Mumbai. From there it reaches the trader or the manufacturer. This again takes up a lot of time and adds to the cost of business, as longer the hops in the shipping route, more the checks and paper work. And this comes with an added risk too. Thus, having a better shipping
infrastructure, specially catering to the needs of jewellery industry would add value to the sector.

**Rules and Standards Related Challenges**

It is a known fact that Indian jewellery sector primarily focuses more on diamonds and gold. These can be proven by the share this stone and metal holds in the exports and imports of this sector. Such trend may be seen due to the fact that Indian customers prefer traditional designs and practices. Buying gold holds a special place in terms of tradition as well as investment. Since decades, it is considered a safe investment. But over recent years, lower to lower-middle class has started preferring non-standardized gold to save the amount of money being shelled out. Such practices have encouraged cheating in the market. Cartage and purity is widely cheated.

India is one of the biggest exporters of diamonds in the global market, but even those are not homogeneous. Cost or value of diamond varies from buyer to buyer, even if the diamonds are of same size, color, cartage or weight. On a global scale, Diamond Trading Company (DTC), as discussed before, has a monopoly and can enforce rules and standards in the market. This would prevent cheating, at least at the macro level.

**Jewellery as a luxury**

Jewellery is not a daily necessity for a person. It is always a secondary need or want. Countries struck by poverty or war would not prefer spending on the jewellery products. Rather they would be more focused on providing food and shelter to their citizens.

Similar is the case with India, where a larger chunk of population doesn’t have any excess money, let alone spending on the luxuries. Jewellery products are considered a
luxury in India, which makes it a limited segment. With majority of the population fighting hard to earn their daily bread, jewellery would remain in the hand of upper class and middle class.

**Anti-social Activities**

With majority of population below the poverty line, any amount of extra income, from whatever means, may be a lifesaver. But some anti-social elements like robbers would go unlawful and unethical paths to ease the pain in their lives. Security is a prime concerns when you’re running a jewellery business. Showrooms are 24x7 protected and guarded by CCTV cameras and armed guards. Workshops are made in a secured locality, with narrow lanes, to avoid any motor vehicle movement. Despite such precautions and safety, broad daylight robberies have been observed in India. A packet of diamonds stolen may cause an entire trading business to go into losses. Hence a safe and secure environment is the need of the hour. To provide such an ecosystem is a big challenge for a state.
REFERENCES


6. AviKrawitz. (Nov 1, 2011)*Waiting & Hoping*. Martin Raporters


9. NOVOSIBIRSK.(May 2015).*Stone Bracelet May Have Been Made by Denisovans*. Archaeology Magazine, a Publication of the Archaeological Institute of America
