Colored stone business has been facing major challenges—swift changes in business and consumers’ behavior due to technology, society and economy. Moreover, world trends, for instance, growing awareness in ethical colored stone acquisition and social and environmental responsibility. These circumstances change consumers’ behavior and preference in colored stones. They will soon affect sustainability of global colored stone business and trade.

Global Colored Stone Updates

From 2014 to 2018, the average value of the global colored stone trade was US 23,148.86 million dollars. Polished precious stone accounted for nearly half of the total share with the average value of US 11,370.11 million dollars. Polished semiprecious stone average value was at US 9,801.53 million dollars, an approximately 42% share. In the first quarter of 2019, the global colored stone trade value was at US 5,002.91 million dollars, a 2.10% increase compared with the same period of 2018. Although, the global economy has started to weaken, demand for colored stone remained strong from high purchasing power consumers who usually buy colored stones for investment, particularly precious stones without treatment. The world’s top 3 colored stone importers with total share of over half of the world’s gross import value include the US, Hong Kong and India respectively.
The US has been the world’s largest colored stone market. During the past 5 years, the country’s colored stone import value grew positively as its economy constantly recovered. In 2018, the US import value of colored stones from across the world was at US 2,131.91 million dollars, or a quarter of the world’s total colored stone import value. The US import value of the product is likely to increase. Though, its economy has begun to slow down, demand for colored stone among consumers with high purchasing power still moves up. The increase can be proven by the colored stone import value during the first 5 months of 2019, which increased over 3%, compared with the same period of 2018.

In 2019, over 72% of the US colored stone imports were of polished precious stones of which import value was US 1,551.23 million dollars, a 3.77% growth year-on-year. Emerald was the US dominant product, followed by blue sapphire and ruby. The products grew from the previous year. The US imported polished precious stones from Thailand, particularly rubies and sapphires, with the highest share of around 14%. Thailand was followed by France and Colombia, which exported emerald as its dominant product, respectively. However, in 2019 the US is likely to reduce its imports of polished precious stones. During the first 5 months of 2019, the country’s imports of polished precious stone declined by 0.61%.

Import value of polished semiprecious stone, which was at US 528.18 million dollars, went down 10.77% year-on-year. India was its dominant import source with a 20.50% share. Thailand and Hong Kong followed with a 15.69% and 12.35% respectively. It is possible to see a favorable growth of polished semiprecious stone imports in the US. During the first 5 months of 2019, the country’s imports of the product increased around 12%.

The US is the market which accepts gemstones of every variety. American consumers prefer products with country of origin disclosure. They also have positive sentiment to products supporting local communities and truly generating benefits to miners. Hence, entrepreneurs who engage in trade with the US should take these matters into consideration.

Figure 1: The US Import Value of Polished Precious and Semiprecious Stones from Key Sources 2014-2019

Source: Global Trade Atlas, data calculation by The Gem and Jewelry Institute of Thailand (Public Organization)
Note: The import value of 2019 was estimated from data of January-May 2019.
Hong Kong is an importer and a re-exporter. In 2018, Hong Kong was the world’s second colored stone importer with the gross import value of US 1,361.83 million dollars, a 15.71% of the world’s total colored stone import value and nearly 7% growth compared with that of 2018. The market’s major import product are polished precious stones with around 67% share. The product was followed by polished semiprecious stones with an approximate share of 24%.

In 2018, India was the third largest importer of colored stones with the total import value of US 1,156.96 million dollars, a 13.35% share of the global colored stone import value and nearly 7% plunge. It was partly resulted from import tax hike, from 5% to 7.5%, on cut or roughly shaped colored stones as well as polished colored stones. Rough gemstones, with an approximately 60% share, were India’s dominant import product. The product’s import value dipped 31.17%. Polished precious stones came in the second place with a 20.44% share, a 72.42% slump.

In 2018, Hong Kong’s import value of polished precious stone was US 905.40 million dollars, a 15.72% increase from the previous year. Most of the market’s imports were of rubies and emeralds with a share of approximately 37% and 36% respectively. Sapphires took the remaining share. Imports from its top 3 exporters, Myanmar, India and Thailand, were similar, with a 16.55%, 16.12% and 15.63% share respectively. In 2019, there is a positive outlook for the market’s polished precious stone imports as its import value during the first 5 months of 2019 rose nearly 20%.

Meanwhile, Hong Kong’s polished semiprecious stone import value in 2018, which was US 327.32 million dollars, grew by 9.06%. Most of the imports were from India, which was followed by Thailand and Brazil with a share of approximately 15% and 12% respectively. In 2019, there is a positive outlook for the market’s polished precious stone imports as its import value during the first 5 months of 2019 rose nearly 20%.

In 2018, India was the third largest importer of colored stones with the total import value of US 1,156.96 million dollars, a 13.35% share of the global colored stone import value. Nonetheless, the figure was a 41.08% plunge. It was partly resulted from import tax hike, from 5% to 7.5%, on cut or roughly shaped colored stones as well as polished colored stones. Rough gemstones, with an approximately 60% share, were India’s dominant import product. The product’s import value dipped 31.17%. Polished precious stones came in the second place with a 20.44% share, a 72.42% slump.
Apart from the import tax hike, the sharp drop was partly resulted from Indian consumers’ increasing preference in polished semiprecious stones due to their colorful choices and affordable prices. Therefore, polished semiprecious stone imports escalated over 1.25 folds. India’s import of colored stones was partly for cutting and re-export, and jewelry production for domestic and international markets.

In 2018, India decreased its rough stone imports from many key markets, particularly Hong Kong, which earned the highest share of almost 50%, and the UAE, the market at the third place. Import value of the markets fell 47.50% and 15.77% respectively. On the contrary, the country’s import value from Zambia, its second largest source, still expanded by 14.48%. In 2019, India is likely to decrease its rough stone imports. During the first 4 months of 2019, the country’s import value of rough stones slumped around 32%.

India’s entire polished precious stone imports were of rubies. Its top 3 sources were Hong Kong, with the most share of around 45%. Thailand was in the second place with a 12.65% share while the US was the third largest source with an 8.40% share. Import value from the sources decreased 84.23%, 30.74% and 3.62% respectively. Switzerland and Madagascar are the sources which may earn a favorable growth. India is likely to increase its imports of polished precious stones in 2019. During the first 4 month of this year, India’s polished precious stone imports almost doubled.

India’s polished semiprecious stone source with the highest import value in 2018 was Hong Kong with over 61% share and more than 3.10-fold growth. The UAE was in the second place with a 24.30% share, a 90.94% upsurge. Import value from the US, the third largest source with a 4.06% share, slipped 15.63%. Polished semiprecious stones’ popularity in India has been escalating as the data of the country’s imports during the first 4 months of 2019 suggests over 4-fold growth in its polished semiprecious stone import.
Factors Influencing Markets’ Demand

During these past several years, demand in colored stone market constantly increased as colored stone distinction of enchanting color choices attracted consumers. The gemstones with exotic colors and diverse cutting styles are likely to become increasingly popular, particularly among younger generations like millennials who want unique products reflecting their personalities. They often buy goods based on their experiences. Prices matter less than these factors.

Apart from those, the rising demand was also boosted by celebrities’ influence such as Duchess of Cambridge and Duchess of Sussex whose clothing and jewelry pieces worn always become extremely popular. Colored stones which the two royalties had worn such as Duchess of Cambridge’s deep-blue sapphire engagement ring and the aquamarine ring on Duchess of Sussex’s finger sparked so much interest in blue sapphire and aquamarine among consumers that they have been receiving higher demand and become one of the top sellers this year.

Pantone’s Color of the Year also stimulates demand for colored stones of the colors. Nowadays, consumers have increasingly bought gemstones based on their colors instead of their varieties. This year’s popular colored stones are of pink, red and orange matching the Living Coral color, Pantone’s Color of the Year. Consequently, demand for spinel, ruby, sapphire, garnet, imperial-topaz, morganite and padparadscha in the market has been rising.

Buying for investment is another purpose of purchasing colored stones for possession. Colored stones which have always been sought after in the global market since the past and will still be in demand in the future are the Big Three colored stones: ruby, sapphire and emerald. They usually break records as the highest earners in every auction. The Big Three colored stones, especially Myanmar rubies, Kashmir sapphires and Colombian emeralds without quality enhancement, are highly sought after in the markets, particularly in Asia, Europe and the US.

In addition, nowadays, consumers’ confidence in buying colored stones has increased due to news and information, which can be easily obtained through the Internet, the industry’s development in transparency, environmental responsibility and reliable quality identification for colored stones. Modern consumers are likely to increasingly buy colored stones accompanied with quality certifications, products with brands and products available online.

Challenges of Global Colored Stone Trade

At present, colored stone business changes rapidly as each year comes with new challenges causing changes in the colored stone market. Thus, colored stone business has to promptly develop and adjust. The challenges can be summarized as follows:
Regulations of Colored Stone Sources

Many countries with gemstone deposits have started to control their gemstone supplies. The countries such as Myanmar Sri Lanka and Tanzania only allow exports of polished colored stones to generate value added and income for local communities. It is likely that many countries will start boosting value added to their raw materials after they have successfully trained skillful cutters. This may affect countries relying on rough stone imports, particularly colored stone cutting hubs countries such as Thailand, India and China which need rough stone imports for cutting and domestic and international distribution.

Global Colored Stone Supplies

Global colored stone supplies have relatively fluctuated. Sources, particularly sources of high-quality colored stones have been able to recover less gemstones which do not require quality enhancement such as Myanmar rubies, Sri Lanka’s Ceylon sapphires, India’s Kashmir sapphire and Colombia’s emeralds without fracture-filling oil treatment. However, demand for these colored stones have been high hence their prices surge. On the other hand, quantity of moderate-quality to low-quality colored stones from different sources worldwide such as Asian and African countries has remained high. Thus, buyers can easily reach the stones because of their low to moderate price ranges. Nonetheless, discovery of new colored stone deposits in many countries such as Mozambique and Zambia helps boost supplies in the market. New gemstone varieties to be alternatives for consumers such as grandidierite from a Madagascar mine, which yields a large quantity, gold sheen sapphire from a mine in Kenya, carmeltazite, a blue mineral from Israel, which is available in a small quantity, but it is in demand among fans of exotic colored stones.

Gemstone Mining Monopoly of Large Companies

These days, many large companies have played a key role in colored stone business with over 20% share of total production. They often dominate most of the world’s key sources. Gemfields owns Montepuez ruby mine in Mozambique and Kagem emerald mine in Zambia. Fura Gems owns Coscuez mine in Colombia. The company which has merged with Mustang Resources earned a concession to operate a ruby mine in Mozambique. These companies conduct mining with modern technologies instead of traditional processing methods hence good-quality gemstones are yielded. They also have access to put the gemstones on auction. Therefore, only large companies are able to acquire good-quality gemstones from auctions whereas small and medium operators with low circulation funds have smaller chances to join the auctions. Therefore, they can only access low to moderate-quality colored stones.

Transparent and Ethical Business Operation

The trend of consumers placing importance on buying products from transparent and ethical companies, which care about human rights, do not involve with child labors, and be responsible for environment and society, has urged international agencies like CIBJO to establish guidelines on monitoring and traceability. Additionally, the US has been prepared to stipulate measures on companies in the gem and jewelry business to declare materials’ country of origin to prevent raw material trade funding terrorism, which occurs in many countries, and money laundering. Currently, Gübelin Gem Lab has used Provenance Proof Blockchain co-developed by Everledger and Fura Gems to track country of origin of a gemstone in every process throughout its supply chain. The system has been opened for every related agency to use. Hence, stakeholders throughout the supply chain have to adjust and consider joining blockchain system, which will become a driving mechanism for the colored stone industry in the future.
Though, gemstone business has been facing challenges, demand for colored stones is likely to constantly expand. Demand of some middle-end customers was pushed by commercials and celebrities or online influencers. Demand of high-end customers focus on investing in the high-quality Big Three colored stones. Meanwhile, millennials are interested in unique colored stones and various gemstone cutting styles. According to a report of Future Market Insights (FMI), the world gemstone market in 2019 will grow 4.4% and an average growth of 5% will be seen during 2018-2026. Moreover, in the future customers will focus on transparent and ethical business operation. They will buy a gemstone which discloses its thorough country of origin, community support and environmental care.

One of the challenges which is considered as an obstacle to the global colored stone trading is 2 large companies’ possession of the world’s key colored stone mines. They have shortened supply chain as they arrange auctions for rough stones from their own mines. Only large traders are able to have access to good-quality rough stones from the auctions. These companies will mainly sell the auctioned stones to their networks or customers. Consequently, small- and medium-sized colored stone traders and jewelry manufacturers conducting their businesses in a traditional way will not be able to get good-quality colored stones. They can only buy colored stones from small mines, which produce low to moderate-quality colored stones in high prices. The circumstance widens the gaps between players in supply chain. Nevertheless, present-days gemstone mining monopoly is still limited within ruby and emerald mines. There has not been any monopoly in blue sapphire mining. Thus, the world has to keep watch for any company’s blue sapphire mining monopoly in key gemstone source countries.

And the global trend of calling for transparency and integrity in gemstone business operation has been increasingly prominent. Large companies have advantages because of their modern business model, responsible supply acquisition, transparent and ethical business operation, and awareness in social and environmental responsibility. Meanwhile, small and medium traders will be affected because they generally conduct business in a traditional way. They do not usually provide receipts and products’ source disclosure. Also, they do not prepare transparent income and expense account. Certainly, it is a challenge for small and medium operators. If they fail to adapt, their market share will be snatched by other traders who can readjust to the changing trends. They will have to struggle more to stay in the market.

Furthermore, low-end to middle-end product markets are likely to slow down due to discovery of new gemstone deposits, especially in Africa. Most of the deposits yield a lot of low to moderate-quality gemstones which may result in oversupply in the market and possible price decrease. Meanwhile, growth in high-end market will remain solid because there are limited supplies whereas demand for high-quality products will still be high. Moreover, discovery of new gemstone varieties may lead to product replacement. Buyers are likely to buy more new gemstone varieties with similar colors to traditionally popular gemstone varieties but of better quality in similar prices. This is an advantage for consumers as they have more choices. However, it may cause more traditionally popular colored stones to remain in stock and their prices to drop in the future.

After all, amid changes mentioned, without continuous readjustment to be prepared for different situations which may change trade at any time, it will be grueling for traders, small or large, to lead their business through challenges in the colored stone market.
The most beautiful color for blue sapphire is blue with a hint of purple, similar to a cornflower or vivid blue in medium tones, not too deep. Good quality blue sapphires have velvety texture, good brilliancy and good color uniformity. With a limited budget, you should choose a relatively bright blue sapphire with moderate color intensity under a light source.

Popular colors in the market are royal blue and cornflower blue.

CLARITY

Typically, blue sapphires bear visible inclusions. If a blue sapphire has inclusions, it can be assumed that it is a natural blue sapphire. However, in order to identify whether the inclusions are natural or synthetic, an inspection with a 10x loupe has to be done by an expert.

CUT

A blue sapphire cut with an ideal proportion, optimal faceting for the best color (setting a gemstone table in a direction where the stone yields purple-blue or vivid blue color), symmetrical, precise faceting with proper shape.

LIGHT

A blue sapphire should be observed under a standard light of 6,500 Kelvin degrees.

Source

Blue sapphires have been found in many countries. Generally, high quality sapphires discovered in different sources bear distinctive characteristics. Thus, they are called according to their sources such as:

1. Kashmir Blue Sapphires are praised as the superior sapphire due to their fascinating velvety blue color with a little purple hue or cornflower blue. They are highly priced because of their extreme rarity.

2. Myanmar Blue Sapphires bear bright blue color with a hint of purple or royal blue, a medium-toned blue similar to Kashmir sapphire. However, it is not as velvety as Kashmir sapphire. Myanmar blue sapphires are exceptionally appealing; hence they are in high demand in the global market and can fetch high prices.

3. Ceylon Blue Sapphires are of vivid in color but less bright than Myanmar blue sapphire. Ceylon blue sapphires are of lighter tones. Most of them are found as milky white rough stones, after heat treatment, bright blue sapphires are yielded.

4. Thai Blue Sapphires are quite dark with a little green hue. Some of them may exhibit slightly velvety texture.

5. Australian Blue Sapphires are of darker hues than Thai blue sapphires. Their colors may have a hint of green or yellow. No velvety texture is found.

6. Madagascar Blue Sapphires are found in various hues of blue similar to blue sapphires from Thailand, Australia, Sri Lanka and Myanmar. At present, most of the blue sapphires circulated in the markets are from the source. They usually have purple-blue color with good brilliency.

7. Cambodian Blue Sapphires are of rich and relatively saturated blue color. They are quite expensive due to their rarity.

What is Blue Sapphire?

Blue sapphire is a variety of corundum with blue color and hardness of 9 Mohs scale, second hardest after diamond. Most blue sapphires are usually treated with heat for color enhancement. Mixed cut, a combination of brilliant cut and step cut, is the popular cutting used for blue sapphires.

Purchasing a Blue Sapphire

COLOR

The most beautiful color for blue sapphire is blue with a hint of purple, similar to a cornflower or vivid blue in medium tones, not too deep. Good quality blue sapphires have velvety texture, good brilliancy and good color uniformity. With a limited budget, you should choose a relatively bright blue sapphire with moderate color intensity under a light source. Popular colors in the market are royal blue and cornflower blue.

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LIGHT

A blue sapphire should be observed under a standard light of 6,500 Kelvin degrees.

Caring and Cleaning a Blue Sapphire

STORAGE

A blue sapphire jewelry piece should not be stored with other gemstone jewelry, particularly diamond jewelry, to avoid scratching, which will damage blue sapphires. Loose blue sapphires should not be stored within the same pouch as the stones can scratch one another.

WEARING

A blue sapphire jewelry piece should not be worn while cooking, cleaning, or doing hard work because smoke from chemical substances or other solutions may cling onto the blue sapphire’s surface and tarnish its color or reduce its sparkle. Additionally, the gemstone may be cracked or chipped from accidentally banging into something.

CLEANING

Use gentle liquid soap or jewelry cleaner to wash jewelry and use a soft bristle brush to polish thoroughly before wiping it with a soft cloth and let it dry or blow dry.
# Economic Data of World's Major Gem and Jewelry Markets 2018

## Sales of Jewelry by Category Value 2018

<table>
<thead>
<tr>
<th>Category</th>
<th>United Kingdom</th>
<th>Germany</th>
<th>Russia</th>
<th>China</th>
<th>Japan</th>
<th>United Arab Emirates</th>
<th>United States</th>
<th>United Kingdom</th>
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<tr>
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<td>3,293.30</td>
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<td>3,506.80</td>
<td>55,983.60</td>
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## Average Monthly Net Salary (USD) and Consumer Price Index (CPI)

<table>
<thead>
<tr>
<th>Country</th>
<th>Average Monthly Net Salary</th>
<th>CPI</th>
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<tbody>
<tr>
<td><strong>Australia</strong></td>
<td>114.10</td>
<td>7.30%</td>
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<tr>
<td><strong>China</strong></td>
<td>102.70</td>
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<td><strong>France</strong></td>
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<td><strong>Germany</strong></td>
<td>105.70</td>
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<tr>
<td><strong>Hong Kong</strong></td>
<td>109.50</td>
<td>7.50%</td>
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<tr>
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<td><strong>Japan</strong></td>
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<td><strong>Russia</strong></td>
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<td><strong>United Arab Emirates</strong></td>
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<tr>
<td><strong>United Kingdom</strong></td>
<td>107.90</td>
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<tr>
<td><strong>United States</strong></td>
<td>255.16</td>
<td>13.20%</td>
</tr>
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</table>

Source: Euromonitor International

### World's Gem and Jewelry Export Value Ranking

<table>
<thead>
<tr>
<th>Country</th>
<th>Rank</th>
<th>Value (million USD)</th>
<th>Share (%)</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
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<td>34,403.81</td>
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### World's Polished Precious Stone Export Value Ranking

<table>
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<th>Country</th>
<th>Rank</th>
<th>Value (million USD)</th>
<th>Share (%)</th>
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<tbody>
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### World's Polished Semi-Precious Stone Export Value Ranking

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<th>Country</th>
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### World's Silver Jewelry Export Value Ranking

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<tr>
<th>Country</th>
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<td>United States</td>
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### World's Gold Jewelry Export Value Ranking

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<th>Country</th>
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<td>11</td>
<td>1,036.36</td>
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<td>-2.22</td>
</tr>
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</table>

Source: Global Trade Atlas, data processed by the Gem and Jewelry Institute of Thailand (Public Organization)
Global Gem and Jewelry Manufacturing and Trading Centers

**Belgium**

Antwerp is Belgium’s diamond cutting and trading hub. Annually, over US 50 billion dollars circulated into its diamond trading business. There are 4 diamond bourses located in Antwerp. Its diamond and jewelry trading district is called Diamond Quarter. Antwerp World Diamond Center is its key agency with functions in promoting Belgium’s diamond trading image and business.

**Israel**

Ramat Gan is one of the world’s leading diamond cutting and trading center. Ramat Gan also houses Israel Diamond Exchange, where over 330,000 diamond traders conduct their transaction each year, and Israel Precious Stones & Diamond Exchange within the same compound. Diamond cutting factories in the city employ advanced technologies, modern automatic cutting machinery and diamond cutters with finest craftsmanship. The country has Israel Diamond Institute, which is responsible for promoting the country’s diamond trading image and business.

**USA**

New York is one of the world’s major polished diamond trading centers. Its diamond, colored stone and jewelry trading district, where nearly one thousand retailers and wholesalers operate their businesses, is on 47th Street, between Fifth Avenue and Sixth Avenue. JA New York, a key gem and jewelry trade show of the eastern US, is held three times a year.
India

Jaipur is an eminent cutting and trading center of colored stones, particularly emerald and tanzanite. There are over 100 factories in the city with more than 300,000 workers in the industry.

Mumbai is a foremost center of polished diamond trading and jewelry manufacturing. Bharat Diamond Bourse, the world’s largest diamond bourse is located here. Its significant trading districts are in Zaveri Bazaar and Opera House. Also located in Mumbai is SEEPZ, a special economic zone promoting jewelry manufacturing and export. Jewelry products from the zone contribute to more than 40% of the country’s gross jewelry export value.

Surat is India’s primary diamond cutting center. Over 90% of small polished diamonds sold in the global market are from the city. Establishments in the city employ 1 million diamond cutters. Surat Diamond Bourse is being constructed and expected to be completed in 2020.

China

Shanghai is one of China’s noted diamond and jewelry trading center. It is also the city where Shanghai Diamond Exchange, one of the world’s large diamond bourse with trading transaction value of US 5.8 billion dollars per year, and Shanghai Gold Exchange, one of the world’s largest gold spot trading market, are located.

Shenzhen is China’s important gem and jewelry manufacturing and trading center. Businesses in the city started out from Hong Kong entrepreneurs’ manufacturing base relocation that consequently fostered many local entrepreneurs in Mainland China. Almost 4,000 factories are located in the city and almost 200,000 workers are employed. There are tens of large gem and jewelry exhibition and trading centers in Shuibei and Tianbei. Each year, gem and jewelry retail and wholesale businesses generate around US 40 billion dollars in circulation.

Hong Kong

Being dubbed as the City of Gold, Dubai is the largest gold bars and gold jewelry trading center of the Middle East. Gold Souk in Diera is a retail and wholesale location of standardized-quality gold jewelry goods with attractive prices. It also a prominent diamond trading center as well as gem and jewelry distribution center to countries in the Middle East and Northern Africa. Each year, gold, gemstone and jewelry trading generates US 75 billion dollars in circulation.

Chanthaburi is one of the world’s top cutting and trading center of colored stones, particularly rubies and sapphires, which are famous and highly recognized for their quality standards. Over 80% of rough gemstones from all over the world have been shipped to the province for heat treatment and cutting for optimal brilliancy by skillful artsins. A colored stone market is located in the heart of the city, on Si Chan Road. Every Friday to Sunday, the market is always bustling as traders set up rows of stalls to buy and sell gemstones. Diversified varieties of rough and polished stones are available; thus, it is the place where many buyers and sellers from Thailand and overseas gather.
Wealth refers to a sum of financial asset value plus movable property and real estate owned by a household deducted with debts.

An individual adult with net assets of US 1 million dollars and over

Luxury Market: Opportunity and Alternative for Gem and Jewelry Business

Nevertheless, according to the Global Wealth Report 2018 of Credit Suisse Research Institute, the total global wealth\(^1\) rose by US 14 trillion dollars to 317 trillion dollars, an approximately 4.6% growth. Although, the growth rate was less than that of the previous year, it was higher than the average growth rate since 2008. An analysis on an individual adult showed that wealth rate per person went up by 3.2%, the highest rate since the survey has been conducted. Currently, there are 42.2 million millionaires\(^2\) out of the total world populations of over 7.600 million, 2.3 million more than the previous year. It has been forecasted that the global wealth would reach US 399 trillion dollars in 2023.

The figure below illustrates changes in the global wealth in 2018. The regional data shows that North America generated the highest wealth rate. It was followed by Europe and Asia Pacific. Nonetheless, it was noted that China generated wealth worth US 51,874 billion dollars, the value was higher than the combined wealth of Latin-America and Africa. It was also close to that of Asia-Pacific. If China’s wealth had been included in that of Asia-Pacific, the continent would have been ranked as the world’s top wealth generator.

Whenever wealth is mentioned, it is impossible not to think about millionaires, investors who transform wealth and influence general economic society. According to an analysis on each country, the countries with the highest number of millionaires were the US, China, Japan, the UK and Germany respectively. In addition, the report has predicted that in 2023, the number of millionaires in the

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\(^1\) Wealth refers to a sum of financial asset value plus movable property and real estate owned by a household deducted with debts.

\(^2\) An individual adult with net assets of US 1 million dollars and over
In the past 12 months, total global wealth grew by 4.6%. It is lower than for 2017, but higher than the average growth rate in the past 2008 era.

countries would increase. China would have the highest increase rate of 62%. Canada would be in the second place with a growth rate of 54%. The countries would be followed by Germany, Australia and Spain with an equivalent growth rate of 41%.

It could be noted that in spite of not seeing much prospect in economy, wealth rate of each region constantly increased in accordance with escalating number of millionaires. Furthermore, according to information from luxatic.com on popular hobbies or leisure activities of rich people in the world stated that beside travelling, reading, playing sports (e.g. running, sailing, playing polo, skiing and car racing) or involving in charity activities, these millionaires are also devoted collectors of art pieces, watches, gemstones and jewelry pieces. It has predicted growth in luxury market for
The US: Apart from having the highest number of millionaires with 17.4 million millionaires, it was also the world’s largest gem and jewelry market with the growth rate of 7% in 2018. Diamond was the most popular product with trading value accounted for 50% of diamond markets worldwide. Americans place importance on unique styles, business with responsibility to society and environment, and fair employment in production. However, the “Make America Great Again” policy could be a risk that producers and trading partners should not overlook.

China: There were 3.5 million millionaires in China. Cities with the highest number of millionaires were Beijing, Shanghai and Shenzhen. Numbers of middle classes and millionaires with high purchasing power have risen significantly. These demographics prefer luxury goods with premium quality. Furthermore, the government’s policies on consumption stimulus and tax reduction have also encouraged spending. As for the country’s gem and jewelry market, jadeite products and gold jewelry products are greatly favored due to Chinese belief and tradition. Currently, China has been the country with the highest demand for gold jewelry products in the world. However, entrepreneurs should be mindful of consequences from the trade war between China and the US.

Japan: Japan was ranked at the third of the world for its number of millionaires. Its gem and jewelry market has been improving in line with economic condition. It was lifted by spending stimulus campaigns of Japanese stores and malls during its imperial era transition from Heisei to Reiwa. Such factors motivated consumers to spend more money. Though, from October 2019 onward, Japan will hike its VAT rate from 8% to 10%, the new rate will only be imposed on

At present, the global gem and jewelry trading value is estimated at US 348.5 billion dollars per year (costume jewelry US 306.8 billion dollars and fine jewelry US 41.6 billion dollars). Top 5 luxury product buyers include the US, Japan, France, China and Italy respectively.

### LUXURY ITEM PERFORMANCE

**BY ASSET CLASS, PERCENTAGE OF GROWTH IN 10 YEARS**

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Percentage of Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watches</td>
<td>55%</td>
</tr>
<tr>
<td>Watches</td>
<td>69%</td>
</tr>
<tr>
<td>Colored Diamonds</td>
<td>77%</td>
</tr>
<tr>
<td>Stamps</td>
<td>103%</td>
</tr>
<tr>
<td>Jewelry</td>
<td>138%</td>
</tr>
<tr>
<td>Wine</td>
<td>174%</td>
</tr>
<tr>
<td>Coins</td>
<td>182%</td>
</tr>
<tr>
<td>Cars</td>
<td>288%</td>
</tr>
</tbody>
</table>

Source: [VISUALCAPITALIST.COM](http://www.visualcapitalist.com)
consumer products, particularly food and beverage. It will not significantly affect or pose no effect on high-end market of gem and jewelry business.

**Germany:** Germany’s number of millionaires was ranked at the fifth place of the world. Gem and jewelry business and trade has been carried on in the country since the Roman Era. It has also been the EU’s leading gem and jewelry trading hub. In 2018, consumers’ confidence in spending has been increasing as the euro strengthened. Thus, demand for fine jewelry rose. The market sales has been estimated at US 4.79 billion dollars, a 1.3% increase compared to 2017. The key factor was German consumers’ perception that buying fine jewelry products is an interesting financial investment. The most popular products are gold jewelry, platinum jewelry and diamond jewelry. Finely produced goods with intricate patterns, unique styles and environment-friendly production are preferred.

**India:** It has been anticipated that India would become the country with the third largest economy in the world in the next 8 years. This is the result of middle-class consumer growth in major cities such as Delhi and Mumbai. Therefore, demand for body piercing jewelry products, which are traditionally popular, rises. Moreover, India has been the country with the second highest demand for gold jewelry products, following China. Younger generation Indian consumers prefer modern jewelry products with a wide range of choices. Apart from gold jewelry, popularity of platinum jewelry products and diamonds has been on the rise.

**Hong Kong:** In spite of not being the country with the highest number of millionaires, Hong Kong, with 250,700 millionaires, was ranked at the fourth place, after London, New York and Tokyo. Gem and jewelry industry has been an outstanding driving factor for its economy. Hong Kong promotes gem and jewelry trade by organizing hugely successful gem and jewelry trade shows, making Hong Kong the world’s prominent gem and jewelry trading center. Diamond jewelry products enjoy the highest popularity while products with trendy designs have been gaining popularity among buyers including domestic consumers and foreign tourists. They also look for products with internationally standardized quality certifications.

**GLOBAL GOLD JEWELRY DEMAND (TONNES)**

<table>
<thead>
<tr>
<th></th>
<th>INDIA</th>
<th>CHINA</th>
<th>REST OF THE WORLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>504</td>
<td>631</td>
<td>933</td>
</tr>
<tr>
<td>2017</td>
<td>602</td>
<td>651</td>
<td>948</td>
</tr>
<tr>
<td>2018</td>
<td>598</td>
<td>672</td>
<td>929</td>
</tr>
</tbody>
</table>

The world’s demand for gold jewelry chart shows China and India ranked at the top and the second place respectively. (Source: www.visualcapitalist.com)

Middle classes with high incomes, nouveau riches and millennials have become a factor generating consistent demand hence gem and jewelry markets have been rapidly and progressively flourished. Online media platforms, social media influencers, fresh designs, unique and meticulously made products, high quality raw materials and business ethics regarding society and environment are factors significantly amplifying high-end consumers’ demand.

Integrating beauty industry with fashion industry is another key approach in creating new opportunities to expand gem and jewelry industry. Publicizing through fashion industry’s leading models can broaden gemstone consumption to be incorporated with other luxury products, for instance watches, bags and apparels. It also helps opening up new market indirectly.

![Golden Jewelry](image)
Technological Innovation: The Crucial Advantage for Gem and Jewelry Business

Production innovations have been adopted in gem and jewelry industry such as different methods of gem quality enhancement, e.g., heat treatment, pressure treatment and chemical treatment, as well as production of pink gold and purple gold. However, good products may not make good sales, though innovations have been used in production. Using innovations in the entire operation from upstream to downstream is essential. At present, applying online media is an essential advantage of technological innovations because it allows sellers to instantly contact with consumers at anytime from anywhere.

Innovation or creativity has become significant in business. And in this digital society, its influence has become increasingly essential as every gadget is about connecting everything with the Internet of Things (IOT). Technological innovation will be an extremely influential factor during today’s rapidly changing world.

How can innovations help gem and jewelry business?

Online Gem and Jewelry Fairs

Now, trade shows or exhibition booths where sellers from different places showcase their products and services are popular because they are able to directly interact with their consumers (B2C) and gain more business partners (B2B) or observe their competitors. Such activities are usually arranged in large convention centers and major shopping malls in business districts. However, business operators whom establishments are located far away from the venues cannot afford to participate in many trade fairs, resulting in losing opportunity to meet their customers. Moreover, the activities require costs for transportation, wage and setting up a booth. Thus, small-scaled business operators may not be able to break even.
Online fairs are initiated for the exact reason. Apart from greatly reducing costs in opening up booths, consumers in every corner of the world can easily view products with just a click. Online gem and jewelry fairs have been gaining popularity in virtual society across the world. There is one interesting example i.e., www.jewelryvirtualfair.com. It is the world’s first developed gem and jewelry online society, which offers useful news and information for gem and jewelry traders. Currently, its service network covers over 100 countries worldwide.

Hong Kong Trade Development Council held Hong Kong International Jewellery Show Online to support gem and jewelry business for traders in Hong Kong and around the world. Its website features various product categories from many countries and information for participation in Hong Kong fairs as well as latest news in gem and jewelry industry. Buyers can directly contact with traders via phone or e-mail.

Another initiative concerning online gem and jewelry fair and shopping to fulfill demand of buyers and sellers is an online auction such as www.gemrockauctions.com, a website with information security in accordance with the EU restrictions. The website elaborately classifies gem and jewelry products allowing visitors to search for products by price range, type, color or auction format. Payment can be made with PayPal, a credit card or direct money transfer.

Artificial Intelligence or AI has been applied in many industries to analyze complicated and high volume of data or even consumers’ demand. Using manpower to analyze a great data volume will take a long time, resulting in failure to immediately respond to customers in the digital era.

How can we utilize AI for gem and jewelry industry?

The Sahajanand Group in India is a group of companies which research and develop technologies such as manufacturing machine development, medicine and medical supply development or life sciences. Recently, the group has launched a machine with AI processing from rough diamond cutting with precision and accuracy to boxing without involvement of manpower in any of the process.
Sharing Economy is another booming trend resulted from online society’s growth. Demands and supplies are simply linked through mobile gadgets such as smartphones and tablets. Business operators do not need to have any products on hand. They can be a broker who brings sellers and buyers together and gain great benefits. For a clearer picture, examples of such engagements are familiar businesses such as UBER, GRAB and Airbnb, which became widely popular in a short time.

Sharing economy has not been widely implemented in gem and jewelry business due to products’ high value, sellers have to be careful about products being lost or changed when returned. Nevertheless, businesses of the nature have been seen in many countries such as the US’ Rocksbox, offering luxury jewelry pieces for rent. Renttherunway and Vinted in the country provide rental services of affordable clothes, bags and fashion jewelry pieces. MontLuxe in France with

Meanwhile, Sarine Technologies Ltd. of Israel has invented Sarine Clarity™ for diamond clarity inspection with speed and accuracy and Sarine Color™ for diamond color comparison with higher speed than laboratory’s testing process. The machines save time and better respond to customers’ demand.

Al has been utilized in Thailand, for instance, Jubilee Diamond has integrated AI with its Jubilee iMOMENT application. Just start the application and scan a symbol engraved on a ring’s band, you can view photographs and video clips conveying memorable stories of Jubilee’s rings. The service will be expanded to cover other products. Additional features will soon be offered for the application. Furthermore, Jubilee Diamond provides protection and security system for customers’ information. Nobody can have access to information of the rings ‘owners, though they are not with their owners.
services covering many countries in Europe offers leading brand bags and jewelry pieces for daily or monthly rental.

Sharing economy business responds to younger generations, average-income consumers who fancy luxury products, prudent consumers who do not want to spend money on luxury goods which will be used just a few times or trend-following consumers who keep up with latest trends. Thus, the business is a new alternative which certainly comes at the right time.

**Online Media Utilization of Gem and Jewelry Business**

Beside the aforementioned 3 approaches, there is another form of innovations which becomes popular in business operation – using online platform for substantial marketing communication. The following global brands are apparent examples of powerful and effective online media usages which have started trends for the industry.

**Van Cleef & Arpels** is a French prominent brand with remarkable image passed down for over a century. The brand has carried out marketing implementation in online media by creating fantasy-like stories for products to captivate followers. Stories are also created for the brand to consistently arouse followers such as presenting each collection through a fairytale. The practice does not only leave impression to viewers, but it also generate experience of the brand among them.

David Yurman is an American global brand which collaborates with prominent social media influencers to create contents through web blogs, online media and Instagram to directly stimulate sales. Additionally, in 2017, the brand has expanded its collaboration with Elle magazine to reach out to the magazine’s Facebook followers of over 4.7 million. These are parts of the brand’s success in collaborating with online media influencers with images fit for the brand who will convey its value to desired target consumers.

**Bvlgari**, a high-end Italian jewelry brand, has used online media through social media influencers for a long time. One of the interesting lessons from Bvlgari is the way the global brand has to adjust its commercials according to differences of markets in each region.
Unavoidably, innovation is in our everyday life, thorough knowledge and application of innovations will help us comprehensively keep up with changes in the world.

**Buccellati** is another brand which productively uses marketing strategy through online media with an inventive idea believing that promoting a brand in social media does not require a person. Therefore, the brand uses a well-known social influencer named “Noonoouri,” a computerized avatar with doll-like features similar to a barbie doll. Currently, she has almost 300,000 followers. It could be said that the brand’s using Noonoouri is so memorable and fascinating that she has become its model or icon.

However, Buccellati still keeps its balance in carrying out teenager marketing and traditional marketing through noted models and celebrities.

Evidently, innovations have stepped into every part of society including gem and jewelry business. Ignoring innovation trends especially technological innovations will certainly slow one down and those who fail to keep up will be swallowed by digital disruption. These days, production of many technologies have been ceased because consumers demand new and better things, which are continually developed.

When gem and jewelry business faces rapid changes, adjustment and innovation is needed to maintain competitiveness. Using technologies from upstream to downstream, from an entire process of production to sales, will create value-added to gem and jewelry business by promptly and sustainably elevating product quality, reducing costs, generating product identity and reaching multiple consumer groups.

**Damiani,** another Italian high-end brand, uses online media marketing strategy wisely by integrating every offline platforms and online media platforms. The brand held events inviting social media influencers to help circulate photos and video clips on their platforms. Thus, its new campaigns are quickly publicized and become widely popular.

Bvlgari also penetrates Middle Eastern markets by recruiting Tara Emad and Rym Saidi, Middle Eastern social media’s beloved actresses and models.

**NOONOOURI**, a computer-generated personality, is an influencer of Buccellati.

NOONOOURI, A COMPUTER-GENERATED PERSONALITY, IS AN INFLUENCER OF BUCCELLATI
(CREDIT: VAAJU.COM)
**South Korea Cuts Diamond Tax**

After having been prolonged for 5 years, South Korea’s government finally lifted the special 26% Individual Consumption Tax on polished diamonds. Only 5% import tax and 10% VAT, which have already been imposed on all imported products, remain. It has been anticipated that the new taxation structure will increase the government’s revenue levied from imported diamonds through legal channels, attract more foreign entrepreneurs and encourage domestic diamond and jewelry trade. Currently, South Korea’s annual polished diamond sales are at US 2.5 billion dollars while yearly diamond jewelry sales are around US 5 billion dollars.

**Russia Replaces China with Its World’s Largest Gold Reserves**

Global demand for gold grew to 1,053.3 tons in the first quarter of 2019, a 7% growth from the same period of 2018. The latest Gold Demand Trends report of World Gold Council states that the growth of gold demand compared with the same period of the previous year was mostly a result of central banks’ consistently stocking up on gold as well as influence from ETF mutual fund which cites gold price index. The largest gold buyer is the Central Bank of the Russian Federation, which has overtaken China to hold the top spot. The country is followed by China, India, Turkey and Mexico respectively.

**Hong Kong Retail Business Outlook**

PricewaterhouseCoopers (PwC) estimated Hong Kong’s retail sales to go down by 5% in 2019. Sales would sharply decline in luxury goods, which include jewelry, due to the trade war between the US and China and the continued protest in Hong Kong lowering number of tourists from Mainland China. The PwC’s forecast corresponds to the data from Hong Kong government’s Census and Statistics Department which reveals that sales of jewelry and other luxury products remain sluggish. During the first five month of 2019, sales of jewelry, watches and other valuable items were at US 4.47 billion dollars, a 4.4% decline year-on-year. Meanwhile, the overall retail sales dropped 1.8% to US 26.44 billion dollars.

**Merging Art and Science on Your Wrist**

“Quantum Nano” bracelet collection from Velichkovski, designed with nanotechnology conception, is the first ever jewelry production that employs the same computer programs used by scientists for quantum molecular modeling of DNA, nanotubes or graphene nanostructures. The Quantum Nano collection is futuristic jewelry design adopting nanotechnology with modern designs and distinctive looks. Additionally, 3D printing technology is also used in its production.
US to Toughen Its Origin Rules for Gem and Precious Metal Raw Materials

The US government is preparing to put tougher rules on jewelry business. The government will require country of origin disclosure of materials, including diamonds, colored stones and precious metals, to prevent money laundering and using jewelry raw materials trade to fund conflicts and illegal groups. Meanwhile, the industry sector thinks that thorough declaration of origins of materials or all parts in jewelry is too complicated because many parts of jewelry products had been recycled or sold through secondary markets. However, the government was not convinced by the feedback and put jewelry industry among the tops on its closely monitored list despite possibility of other industries funding conflicts.

An Opportunity for Investors to Prosper from Colored Stone Industry

During these many years, investors have shifted their interest from investing in gold to colored stones because they saw enticing benefits throughout the supply chain from cutting to mounting gemstones on a setting and turning it into a jewelry piece. The industry’s experts anticipated that in 2019, demand for colored stones will consistently increase. In the market, high demand for natural gemstones—emeralds, rubies and sapphires— without any treatment will be seen. Apart from investing in gemstones for speculation, there have been new investment products with high profit in the colored stone industry. For instance, London DE, the UK’s prominent colored stone supplier, has offered 3-month loan note with 0.83%-1.25% interest per month or equivalent to 10-15% return each year for investors to benefit from investing in gemstone industry, which is likely to persistently thrive.

India Raises Import Duty on Precious Metals

Gem and Jewellery Export Promotion Council (GJEPC) warned that failure in reducing customs duty on gold and diamond will cause more workers in Indian to be out of job after failing to lobby the government to lessen import tax on polished diamonds and polished colored stones from 7.5% to 2.5% to support declining exports. To make the matter worse, it is possible that the government may hike its import duty on gold and other precious metals from 10% to 12.5%. These factors will diminish competitiveness of India’s gem and jewelry industry.

GJEPC believed that reducing import duty on gold, diamonds and colored stones will boost entrepreneurs’ financial liquidity whereas the government’s decision will definitely inflict the industry. Foreign tourists may buy less jewelry products from India while large diamond manufacturing bases will be relocated to India’s competitors—China and Vietnam. The gem and jewelry industry accounts for 15% of the country’s gross export value, a 7% of India’s GDP. The industry also employs over 5 million workers across the country.