# “ANALYSIS OF INVESTOR’S PERCEPTION, APPREHENSION AND DECISION MAKING FOR PRECIOUS METALS AND STONES”

**A THESIS**

**SUBMITTED BY**


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**MASTER OF COMMERCE**

**UNDER THE GUIDANCE OF**


**Ms. NISHITA THAKRAR**

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**ATMIYA UNIVERSITY**


**SUBMITTED TO**

**Department of Commerce**

**Atmiya University**

**Rajkot-360001**

**Gujarat-India**

**April-2024**

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I declare that the thesis entitled "**ANALYSIS OF INVESTOR'S PERCEPTION, APPREHENSION AND DECISION MAKING FOR PRECIOUS METALS AND STONES"** submitted by me for the degree of Master of Commerce is the record of research work carried out by me during the period from December 2023 to April 2024 under the guidance of **Ms. Nishita Thakrar** and I assert that the statement made and conclusion drawn are an outcome of my independent, legitimate and original research work. I further certify the work has not formed the basis for the award of any degree, diploma, associate ship, and fellowship, certificate in any other University or other institution of higher learning.

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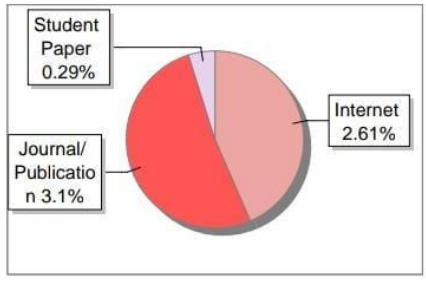


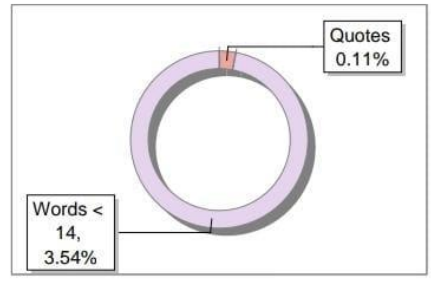


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**Date:**

**Place: Rajkot** **VISHAL KHIMJIBHAI SOLANKI**

# PREFACE

In today's dynamic and increasingly complex financial landscape, the importance of financial literacy cannot be overstated. As college students embark on their academic journeys, they are not only preparing themselves for their future careers but also facing the challenges and responsibilities of managing their finances independently. It is within this context that the exploration of financial literacy among college students becomes not only pertinent but imperative. This thesis delves into the multifaceted realm of financial literacy among college students, seeking to uncover the factors influencing their financial knowledge, attitudes, and behaviours. Through comprehensive research, analysis, and discussion, this study aims to contribute valuable insights into the current state of financial literacy among college students and to offer recommendations for fostering greater financial competency among this demographic.

The journey of this thesis has been an enriching one, characterized by extensive literature review, data collection, and rigorous analysis. It is my sincere hope that the findings presented herein will not only add to the existing body of knowledge on financial literacy but also serve as a catalyst for further research and initiatives aimed at empowering college students with the essential financial skills they need to navigate the complexities of the modern financial world. Finally, I dedicate this thesis to all the college students striving to enhance their financial literacy and to the educators, policymakers, and advocates working tirelessly to facilitate their journey towards financial empowerment.

This Research work has been divided into five chapters. First chapter deals with the theoretical background of the study which covers the introduction of the financial literacy and overview of the college students. The second chapter covers the literature review, research methodology is covered in the third chapter and fourth chapter shows the data analysis and interpretation and in the last chapter there is summary, findings and suggestions based on the data.

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# 1). INTRODUCTION

## 1.1) BACKGROUND OF PRECIOUS METALS

### 1.1.1) Growth and Evolution of Precious Metals:

Rare metallic chemical elements with a high economic value are known as precious metals. Precious metals often exhibit lower chemical reactivity than the majority of elements (see noble metal). They often have a high shine and are ductile. While historically valuable as money, precious metals are today mostly valued as raw materials for investments and industry. Each of the precious metals has an ISO 4217 currency code: gold, silver, platinum, and palladium.

Gold and silver, which are used as currency, are the most well-known precious metals. Both materials are used in industry, but their uses in jewellery, coins, and the arts are what are more well-known. Ruthenium, rhodium, palladium, osmium, iridium, and platinum, which is the most traded of the platinum group metals, are some more precious metals. Precious metals are in high demand due to their position as a store of value and investments, in addition to their practical applications. Historically, industrial metals like common metals have been priced substantially lower than precious metals.

The great shine of naturally occurring elements known as precious metals distinguishes them from other elements. These metals have a higher economic value than base metals and are rare, hard, less reactive, and expensive. Additionally, they are malleable, ductile, impervious to corrosion, and effective heat and energy conductors. They consequently find use in the production of jeweler, consumer electronics, cars, chemicals, and medical equipment all around the world. Additionally employed as valuable assets for investing reasons are precious metals including gold, silver, platinum, and palladium.

Changing lifestyles and rising disposable incomes among consumers are driving the market's expansion. In addition, major market companies across a range of industrial verticals are investing in the recycling of precious metals, which may then be used to manufacture artificial cochleas and heart pacemakers. This is due to the growing environmental concerns. Furthermore, as these metals are used to clean exhaust fumes in automobiles, governments in various nations are enacting strict emission rules, which is, in turn, assisting in the market's expansion. However, governments from a number of nations have declared total lockdowns as a preventative step to fight the pandemic in light of the escalating number of corona virus disease (COVID-19) cases. This has disrupted supply chains and halted operations of several manufacturing units, which, in turn, has led to

inventory shortages. On the other hand, investments in precious metals have increased to survive the rapidly changing market conditions.

## 1.1.2) GLOBAL MARKET

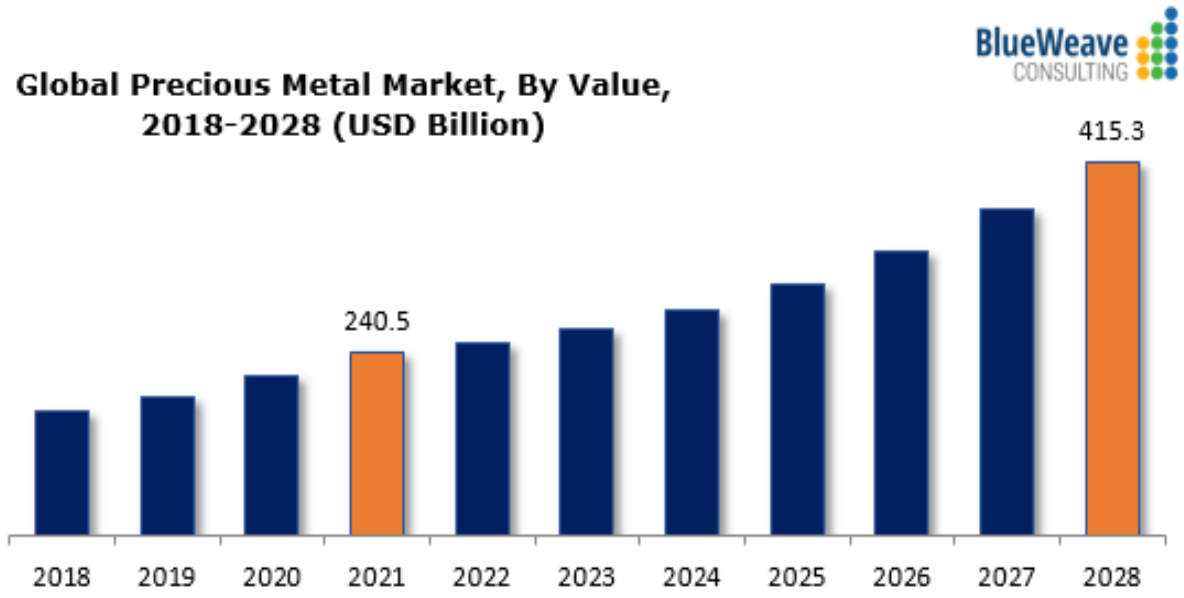
The Asia-Pacific segment currently holds the largest market share and is likely to continue to do so during the forecast period (2022-2028). India, Japan and China are among the region's rising global powers. Among them, China has the biggest influence on the market space of the precious metals industry. As of 2021, the country is the largest consumer of gold and PGMs. The country's strong domestic manufacturing industry is a crucial component supporting demand for commodities. Additionally, in terms of volume, North America is expected to grow at the second fastest CAGR. Easy availability of silver resources in Mexico, as well as a strong production base in the United States and Canada, are expected to drive the expansion of the precious metal market in the region. This influences the Asia Pacific segment to dominate the market share in the coming years.

A recent study by strategic advisory and market research firm Blue Weave Consulting revealed that the global precious metals market was worth $240.5 billion in 2021. The market is expected to grow at a CAGR of 8.1%, with revenues of approximately USD 415.3 billion by the end of 2028. The global precious metals market is booming due to increasing demand from end industries. Also concerns about the environment and its legal implications. Additionally, the industry is expanding due to changing lifestyles and increasing disposable income among consumers. Additionally, governments in many countries are implementing strict emission rules, which is fueling market expansion as these metals are used to clean exhaust emissions in automobiles. However, in response to the escalating number of cases of the coronavirus (COVID-19), governments in several countries have declared total lockdowns as a precautionary measure to combat the pandemic. This disrupted supply networks and shut down several production units, causing a chain reaction. On the other hand, as a means of surviving rapidly changing market conditions, investments in precious metals have increased.

## 1.1.3) Increasing Trading Activity in Precious Metals

An increase in precious metals trading activities supports the expected market expansion. Both the increase in the number of weddings where jewellery is often worn and the rising popularity of plated jewellery among young people is driving the industry. For example, South Korean youth have become a key group for sales of luxury goods, which increased

sevenfold between 2017 and 2019, according to statistics from Statistics Korea released in March 2021. As consumer purchasing power declines and consumers are forced to spend their money more wisely on essentials, the COVID- 19 had an impact on economic activity.




Source: BlueWeave Consultant

### 1.1.4) Consumers' Purchasing Power is rising

Market growth is fueled by people's changing lifestyles and increased disposable income. Due to growing environmental concerns, market leaders across various industry verticals are investing in the recycling of precious metals, which can ultimately be used to manufacture pacemakers and artificial cochlea. In addition, governments in many countries are implementing strict emission regulations that are aiding the expansion of the market as these metals are used to clean automobile exhaust. All these factors contribute to the growth of the global precious metals market during the forecast period (2022-2028).

### 1.1.5) Challenge: Price Turbulence

Along with several disadvantages of investing in precious metals, there are other risks that investors should be aware of. One of the main sources of volatility is prices. A number of

variables can affect precious metal prices, including changes in the economy, Federal Reserve policy, investor demand, mining supply and inflation. Since they have no cash flow, one will not be able to profit from precious metals. If the person owns the metal directly, the investment also includes storage costs. Additionally, jewellery and other tangible gold items are always at risk of theft due to their high value and price.

## 1.1.6) Global Precious Metal Market – By Application

On the basis of application, the global precious metal market is segmented into jewellery, investment, electrical engineering, automotive, chemical, and others. Among them, the electrical segment has the largest market share. The rise of this segment is primarily due to the growth of the electrical and electronic industry, where most of the silver is used for various purposes. The jewellery industry is the second largest use of the product. Despite the tough times, this sector is expected to create strong prospects for the global precious metals company during the forecast period. The stable spending patterns of China and India in the gold jewelery market are likely to remain a significant driver in the coming years. Weddings in both countries provide year-round opportunities for vendors to space the jewellery market, helping to boost demand for expensive commodities like gold and silver. All these factors support the growth of the global precious metals market during the forecast period (2022-2028).

## 1.1.7) Key Companies & Market Share Insights

A key move by the European Union and the US government to trace the original source of the commodity is likely to help curb black market activities in the expensive commodity. The regulatory authorities of the above regions have forced the market vendors to provide full details about the sources of commodities and their place of origin.

Industry participants are focusing on creating joint ventures for the exploration and extraction of rare commodities in African countries where large untapped reserves have yet to be discovered. New mining projects in the pipeline are likely to play a key role in fuelling the ever-growing demand for the rare commodity, offering a number of opportunities for market sellers. Leading players in the global precious metals market include:

- Freeport-McMoRan
- Polyus Gold International

- Goldcorp
- Gold Fields
- Randgold Resources
- Newmont Goldcorp
- Barrick Gold
- AngloGold Ashanti
- Kinross Gold
- Newcrest Mining

## Precious Metal Market Report Scope

| | |
|---|---|
| **Market size value in 2020** | USD 193.3 billion |
| **Revenue forecast in 2027** | USD 362.1 billion |
| **Growth Rate** | CAGR of 9.0% from 2020 to 2027 |

| | |
|---|---|
| **Market demand in 2020** | 22,581.8 tons |
| **Volume forecast in 2027** | 36,501.1 tons |
| **Growth Rate** | CAGR of 3.5% from 2020 to 2027 |
| **Base year for estimation** | 2019 |
| **Historical data** | 2016 – 2018 |
| **Forecast period** | 2020 – 2027 |
| **Quantitative units** | Volume in tons, Revenue in USD million and CAGR from 2020 to 2027 |
| **Report coverage** | Volume forecast, revenue forecast, company ranking, competitive landscape, growth factors, and trends |
| **Segments covered** | Product, application, region |
| **Regional scope** | North America; Europe; Asia Pacific; Central & South America; Middle East & Africa |
| **Country scope** | U.S.; Germany; France; Russia; China; India; Brazil |
| **Key companies profiled** | Newmont Goldcorp; Barrick Gold; AngloGold Ashanti; Kinross Gold; Newcrest Mining; Freeport-McMoRan |
| **Customization scope** | Free report customization (equivalent up to 8 analysts' working days) with purchase. Addition or alteration to country, regional & segment scope. |
| **Pricing and purchase options** | Avail customized purchase options to meet your exact research needs. |

## 1.2) COUNTRY MARKET

EXPORTS: In 2020, India exported $25.5 billion worth of precious metals, making it the 8th largest exporter of precious metals in the world. In the same year, precious metals were the 6th most exported product in India. Top destinations for precious metal exports from

India are: United States ($8.25 billion), Hong Kong ($7.37 billion), United Arab Emirates ($3.9 billion), Belgium ($1.4 billion) and Thailand ($696 million).

The fastest growing export markets for precious metals in India between 2019 and 2020 were Qatar ($38.9 million), South Korea ($24.1 million) and Vietnam ($15.4 million).

IMPORTS: In 2018, India imported precious metals worth $40.8 billion, becoming the 6th largest importer of precious metals in the world. In the same year, precious metals were the 4th most imported product in India. India imports precious metals mainly from: Switzerland ($10.2 billion), United Arab Emirates ($6.89 billion), United States ($4.36 billion), Hong Kong ($3.99 billion) and Belgium ($3.25 billion).

The fastest growing precious metal import markets for India between 2019 and 2020 were Guinea ($587 million), Armenia ($147 million) and Russia ($120 million).

TARIFFS: In 2019, the average tariff for India on precious metals was 11.1%. The countries with the highest import duties on precious metals were Chile (MFN, 13.7%), Angola (MFN tariff, 13.5%), Botswana (MFN, 13.5%), Cote d'Ivoire (MFN tariff rate, 13.5%) and Cameroon (MFN tariff rate, 13.5%).

The Asia Pacific region dominated the market and accounted for more than 37.0% share of the global volume in 2019. This region includes upcoming global powerhouses such as India, Japan, and China. Among them, China has the widest influence on the market space of the precious metals industry. The country is the leading consumer of gold and PGMs as of 2019. China's strong domestic manufacturing sector is a key factor driving demand for the above commodities in the country.

Another key factor driving the growth of the market is India's emergence as an alternative powerhouse in the region. The country is the second largest consumer of gold commodities in Asia Pacific. The country also has a strong jewellery sector thanks to a huge wedding industry. Similarly, the country is also developing its manufacturing capacity by attracting foreign investment in chemical, energy, automotive, construction and many others. Hence, India is likely to play a key role in boosting the growth of the global precious metals industry in the coming years.

## 1.3) STATE MARKET

India's westernmost state, Gujarat has been India's gateway to the world for centuries with a rich history of trade and culture. This trade resulted in a huge influx of currency,

especially in the form of gold, which led to the beginning of a love affair with the gold metal. Current gold rates in Gujarat are a reflection of international gold rates, given that most of India's gold needs are met by imports. With its long coastline and excellent ports, Gujarat is often the preferred way to import gold into India, ensuring that it plays a significant role in the journey of the precious metal. Gold is an integral part of Gujarati culture and its residents buy gold to celebrate festivals and other auspicious events.

Prime Minister Narendra Modi on Friday launched the Indian International Bullion Exchange (IIBX), India's first international bullion exchange, and the NSE IFSC-SGX Connect at Gandhinagar's GIFT city, an international financial services hub set up by the Gujarat government outside the state capital.

India is the world's second largest consumer of gold and the move to set up IIBX is seen as India's effort to bring transparency to the precious metal market.

In addition, the establishment of IIBX could lead to standard gold prices in the country and make it easier for small bullion traders and jewellers to trade in precious metals.

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India, a leading importer of precious metals

India is the leading importer of the metal, importing 1,069 tonnes of gold in 2021, up from 430 tonnes a year ago. The yellow metal is strictly regulated in the country and currently only nominated banks and agencies approved by Reserve Bank Of India can import gold and sell it to traders and jewellers across the country.

Launching the new stock exchange and laying the foundation stone for new projects at GIFT city, his home project, the Prime Minister said that India is among the largest economies in the world and is now joining the league of global financial centres like the United States, the United States of America. Kingdom and Singapore.

## 1.4) PESTEL ANALYSIS

This PESTEL analysis of precious metals examines the political, economic, social, technological, environmental and legal factors that affect the industry. By analysing these factors, businesses can make informed decisions about their operations and strategies.

Precious metal objects are considered a key part of various cultures and are purchased as a status symbol. This industry is one of the fastest growing industries in international markets like India, Bangladesh and many more. The significant growth has thus prompted companies to invest heavily in the marketing and promotion of precious metals.

India, which is a major player in this industry, consists of skilled and trained workers who work according to the liberalization policies of the government. The sector faces challenges in achieving economies of scale due to its fragmented structure. The main threat comes from China, which is slowly displacing Indian jewellery.

Although some customers love traditional gold jewellery, diamond and other jewellery are also becoming a symbol of fashion trend. The fashion trend is evolving and allowing users to prefer wearing traditional yet modern jewellery. The industry thus faces subsequent changes resulting from changing customer behaviour and industry trends.

### 1.4.1) POLITICAL FACTORS

Political factors are very important because they can limit the business operations of any company or industry. The political situation in countries such as the UK and the US is relatively stable and jewellery businesses can easily do business internationally. However, the government's policy of taxation of precious metals may deter buyers.

Another political factor is the excise duty that the government can increase or decrease on cut and polished gemstones. Industry must review the Marketing and Control Orders of the Board established to provide guidance on tariffs, import duties and other trade regulations. Other factors include government approval of FDI in the industry. Operations in this industry are also affected by government policy and taxation regarding the export and import of diamonds.

### 1.4.2) ECONOMIC FACTORS

The most common economic factor that influences a consumer's purchase is their per capita consumption. As it grows, customers will buy more jewellery that was seen in previous years in India. The improvement in the standard of living and the increase in the national income of the population resulted in higher investment in the purchase of jewellery and jewellery. The reduction in tariffs has also brought growth to the diamond sector.

New organizers are coming into the market with increasing penetration which will provide diversity in terms of products and designs. Restrictions on gold imports are being eased, which will bring further benefits to the industry.

### 1.4.3) SOCIAL FACTORS

People today consider diamond and gold jewellery as a luxury fashion product and like to invest in them. Retail organizations introduced this idea, which was adopted by many customers. With the rising prices of gold over the years, people now prefer to invest in diamonds and gemstones. Since the diamond became a status symbol, investment and purchase of diamonds increased with improved living standards. Consumer preferences change according to the trend.

Many financial schemes have been introduced which will in turn lead to the growth of jewellers in the short to medium term. All these social factors have given the gems and jewellery industry new directions in terms of its business expansion.

### 1.4.4) TECHNOLOGICAL FACTORS

India's gems and jewellery industry has a highly skilled workforce for cutting and polishing diamonds and gold, but the need for high-end equipment has increased to move up the value chain. The introduction of new machinery and tools allowed jewellery brands to rise above the competition.

The industry needs to adapt to the new technology solutions available for inventory management, supply chain and production management. Quality production of gems and diamonds can only be ensured through a technologically supported ecological industry.

### 1.4.5) LEGAL FACTOS

Trade intermediaries play an important role in the promotional activities of diamond exhibitions, organizing trade workshops and taking care of trade delegations. It works to improve interaction and bring greater understanding between governments.

Increasing the export of gems and jewellery is also important. Various activities are organized with the approval of the government. With the participation of statutory members and exporters, items will be exhibited at various stands and exhibitions. This will help increase sales and generate maximum revenue in minimum time.

### 1.4.6) ENVIRONMENTAL FACTORS

The jewellery industry addresses its social and ethical responsibilities to people and countries when it comes to mining and selling products. The industry has faced significant challenges, including health, safety and environmental issues. Companies are working to curb illegal mining of rare commodities. Environmental factors vary by industry location. The processing activities and manufacturing methods used to cut and polish gemstones will certainly leave an impact on the gemstone.

The processing of precious stones varies from one place to another. They occur as a distinct crystal that consists of visual characteristics and properties. Many different devices are used for different environmental factors, which makes the whole process very easy.

## 1.5) INTRODUCTION OF THE STUDY

Investing means putting part of the amount in other ways that provide high returns. Most investors want to invest in such a way that they can get a sky-high return as soon as possible without having to bear the risk and without losing the money they have invested. This is why investors are always looking for top investment plans where they can double their money in a few months or years with little risk. The fact is that investment products that provide high returns with low risk do not exist. In fact, higher risk, higher return and vice versa. When choosing investment avenues, you need to match your risk profiles with the risk associated with the product before investing. An understanding of the basic concepts and an in-depth analysis of investment methods that can help investors build a good portfolio that minimizes risk and maximizes profits.

Economic investments The term economic investment means replenishment of the company's share capital. The fixed capital of a company is goods that are used in the production of other goods. The term investment implies the creation of new and productive capital in the form of new construction and permanent tools of the producer, such as plant and machinery. Inventory and human capital are also included in this concept. Therefore, from an economic point of view, investment means an increase in the building, equipment and inventory.

### 1.5.1) Financial Investment

It is the allocation of cash resources to assets that are expected to generate a certain profit or return over a given period of time. It means the exchange of financial claims such as stocks and bonds, real estate, etc. financial investment involves contrasts written on pieces of paper such as stocks and bonds. People invest their funds in shares, bonds, fixed deposits, national savings certificates, life insurance policies, pension funds, etc. in their view, investment is a commitment of funds to earn future income in the form of interest, dividends, rent, insurance, pension benefits and appreciation of the value of their principal capital. In a primitive economy most investments are of the real variety, while in a modern economy many investments are of the financial variety.

**A. Investment Avenue Stock Market**

A stock exchange is an organized market that is recognized by the central government and trades in shares issued by a company. In the stock market, buying and selling of shares takes place as per SEBI guidelines, rules and regulations of the stock market. Throughout the world, the stock market is also known as the stock market. In India, the stock markets are the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE). In the process of investing, investments in the stock market were an important part. In recent decades; Statistics show a large proportion of household financial assets in stocks in many countries, as well as in India. Stock markets provide a channel for allocating savings to those who need them productively.

**B. Bonds Investment Avenue**

Investment media include, but are not limited to, Bonds and Bonds. This form of investment represents the most common way of borrowing by the company. A debenture or debenture is a legal document containing an acknowledgment of a company's debt. Although bonds have a lot to offer investors, buying bonds is not without risk. Some bonds expose investors to more risk than other bonds. For example, government bonds have no risk of default, but are still exposed to other risks. Different types of risks associated with bonds such as credit risk, interest rate risk, reinvestment risk, call risk, liquidity risk and foreign exchange risk.

**C. Investment Class of Mutual Funds**

A mutual fund is a non-depository, non-banking financial intermediary that acts as an important means of indirectly connecting property holders and deficit units. The mutual fund concept was conceived to pool the resources of small investors and deploy them in the capital market to help industrialization through participation in equity and other debt instruments. Mutual funds offer investors the benefit of a diversified portfolio and

professional management at a low cost. Informed investing, safety of funds, diversification of risks and reasonably satisfactory return are the basic features of mutual funds. In India mutual funds are governed by

➢ RBI guidelines in case of mutual funds are set by the banks.

➢ SEBI manages, regulates and monitors the mutual fund sector in India.

**D. Bank and Post Office Investment Avenue**

These are financial assets that provide a medium-high return, but cannot be traded on the market.

**E. Gold and Silver Investment Avenue**

In India, the bullion market offers an opportunity to invest in real assets such as gold, silver, works of art (paintings, antiques), precious stones and precious metals are traded on the metal exchange.

Investing in gems is not a get-rich-quick scheme. Rather, this course will educate you on the gem market, allowing you to make more informed gem investment decisions. It is even more important to find out what type of specialized knowledge investors need to be successful. Finally, this study will give you a map of the professional gemstone business and some advice on how and where to start. Before investing in any type of asset, you need to understand the basic investment principles. Like investing in stocks, bonds, or mutual funds, investing in gemstones requires knowing how much risk investors are willing to take, as well as goals for achieving a return on investment—a profit goal. You need to figure out the time horizon of the investment (or "holding period") and how much money you might need to get started.

The supply and demand for a particular gem affects the price of the gem and thus the potential profit or loss. Supply and demand, as well as prices, are inextricably linked to the rarity of gems, both now and in the future. Rarity, or "perceived scarcity," is a critical part of any gemstone investment. The predominance of lab-grown gemstones in today's market has made assessing the issue of rarity a particularly interesting topic.

Precious stones fall under the category of "alternative" investments. It shares this category with silverware, fine art, baseball cards, netsuke, coins, etc. This means it is for people who already have enough funds allocated to stocks, property and bonds. So they are able to allocate a small portion of their investment portfolio to something they love.

In addition to having plenty of spare cash, investing in this sector requires good business connections, insider-level knowledge or better, and a willingness to take risks. investment category.

If someone wants to make quick money by investing, don't choose precious stones. We know the golden rule in the investment game: the higher the risk, the higher the profit, the more painful and also the fall! No one can predict what will happen with investments, but one thing is certain: investing in precious stones only brings long-term results and is a safer choice than most other investments. There are many factors that cause value to rise and very few that are negative. Long-term in this case means no less than ten years. For example, diamonds will increase in value steadily over time, but undoubtedly never more than 10% per year. Let's not forget that diamonds are found on almost every continent, this stone is very well known and there is a very high demand for it, which can be covered by the very large supply that exists.

For those who are not experts in stock trading, it is important to know that gems are affordable wealth. Purchased and subsequently stored in a bank, in a safe deposit box or under a mattress, this investment is not abstract, it is not a document of intangible property. This is an important factor for some people, not important for others. One thing is certain: in the event of a possible explosion of the market price, you will have a gem at hand, if necessary, it can be sold immediately, personally and without intermediaries.

Precious metals are rare, naturally occurring metallic chemical elements with high economic value. Chemically, precious metals tend to be less reactive than most elements (see noble metal). They are usually ductile and have a high gloss. Historically, precious metals were important as currency, but now they are seen mainly as investment and industrial commodities. Gold, silver, platinum and palladium have the ISO 4217 currency code.

**1.5.2) The risks of precious metals**

Every investment carries its own risks. While they may come with a degree of security, there is always some risk involved in investing in precious metals. Metal prices can fall during times of economic certainty, which discourages people who like to invest in the precious metals market. Selling can be a problem during times of economic volatility as prices tend to shoot up. Finding buyers for physical metals can be difficult. Another risk to precious metal prices is the issue of supply. When demand increases, the existing supply may begin to run out. And that means producers will have to bring more of each metal to

market. If there is a shortage of minable metals, this may put pressure on prices. Commodity markets distinguish two large groups of traded raw materials.

The first consists of renewable commodities, represented mainly by agricultural products: wheat, corn, coffee, soybeans. The second group includes non-renewable resources, represented by oil, energy, aluminium and silver. Some non-renewable metals, including silver, are used for investment and production in industries. Regardless of the market an investor chooses, the current conditions set for individuals and companies are generally the main aspects of investing. These can be supportive or discouraging; defined by the business environment, government and applicable legislation. The purchasing power of investors and their willingness to invest the accumulated funds in order to obtain profits testify to the level of transparency of the investment environment in the context of the current legislation. If you invest a significant portion of your capital in physical precious metals, you may not want to keep your metal at home (you'll need a safe and possibly additional equipment). In this case, you may prefer to choose a custodian – an institution that will store your metal for you. This storage service is not free (neither shipping to the warehouse nor its insurance), so you have to account for these costs and it reduces your gold returns. By buying paper gold, you get paper that more or less reflects the price of gold, allowing you to avoid the expense and pain of storage.

## 1.6) GOLD

Gold is one of the most preferred investments in India. High liquidity and ability to beat inflation are its strengths, not to mention charm, prestige and so on. Gold prices shoot up as markets face turbulence. Although there are phases when the markets witness a decline in gold prices, it will not last long and it will always see a strong comeback. Safety, liquidity and returns are the three criteria most risk-averse investors look for before investing. While gold meets the first two criteria without any problems, it does not fare badly in the last one either. Here's why you should invest in gold: Investing in gold pays off because it's an investment that beats inflation. Over time, the return on gold investments has been in line with the rate of inflation.

### 1.6.1) Gold coins

For decades, large numbers of gold coins were issued by sovereign governments around the world. The coins are normally bought by investors from private dealers at a premium of about 1% to 5% over the value of their underlying gold, but in March 2020 it jumped to 10%.

The advantages of gold coins are:

• Their prices are conveniently available in global financial publications.

• Gold coins are often minted in smaller sizes (one ounce or less), making them a more convenient way to invest in gold than larger bars.

• Reputable dealers can be found with minimal searching and are located in many major cities.

If you want to invest exclusively in gold, focus on widely circulated coins and leave rare coins to collectors.

The main problems with bullion are that the cost of storage and insurance and the relatively large dealer mark-up limit the profit potential. Buying gold bullion is also a direct investment in the value of gold, and any change in the dollar price of gold will proportionally change the value of the holding. Other gold investments, such as mutual funds, may be made in smaller dollar amounts than precious metals and may not have as much of a direct price as precious metals.

**1.6.2) Gold jewellery**

About 49% of the world's gold production is used to make jewellery.5 As the world's population and wealth grow each year, the demand for gold used in jewellery is expected to increase over time. On the other hand, buyers of gold jewellery have been shown to be somewhat price sensitive and buy less if the price is rising rapidly.

Buying jewellery at retail prices involves a significant mark-up – up to 400% over the base value of the gold. Better deals on jewellery can be found at estate sales and auctions. The advantage of buying jewellery this way is that there is no retail markup; the disadvantage is the time spent searching for valuable pieces. However, owning jewellery provides the most enjoyable way to own gold, even if it is not the most profitable from an investment perspective. As an art form, gold jewellery is beautiful. As an investment, it's mediocre - unless you're a jeweller.

**1.7) SILVER**

If gold is the most famous precious metal, silver is easily the second. Silver has more industrial uses than gold, making it valuable both as currency and for its hardworking properties. All precious metals also have a certain level of rarity; silver is no different. These three properties, use as currency, rarity and use in various industries, make silver a rare and very important metal! Silver has the highest electrical and thermal conductivity of all elements and has the lowest transition resistance. Silver is the second most popular and

investing precious metal. Like its gold counterpart, silver bars are found in both bricks and coins. Silver is a popular choice for bars if you are just starting out because it is cheaper than gold but still valuable.

**1.8) PLATINUM**

If there were a "preciousness" scale, platinum might be considered the rarest of all precious metals. It is 15 times rarer than gold! It is also more ductile than gold, silver or copper. Because of its remarkable corrosion resistance, it is used in a wide range of important applications such as catalysts and laboratory equipment. Platinum is also gold, like gold and silver, that is minted into coins or bullion. Platinum bars have their pros and cons when it comes to investing. During periods of economic prosperity, the value of platinum tends to rise. In times of economic uncertainty, its value tends to decline. This is the opposite of gold, making them complementary portfolio items.

**1.9) PALLADIUM**

Palladium is related to platinum because they both belong to a category of elements called the platinum group metal, or PGM. It also has some of the same uses as platinum, particularly with use in catalysts. More than half of palladium reserves are consumed in this way. Palladium is also an investable precious metal! It is a relatively new investable precious metal compared to its peers. The first palladium coin was issued by Sierra Leone in 1966. The United States just started minting palladium American Eagles in 2017. Currently, palladium is still low on the radar of some investors, but as more mints create palladium bars, we will see it gain popularity. .

Precious stones are dominated by only four: diamonds, rubies, emeralds and sapphires. Sometimes you may see a pearl, opal, or jade listed as a gemstone, but more often they are considered semi-precious. These four gems were traditionally the most expensive and sought after stones.

**1.10) DIAMOND**

Diamonds, one of the most sought after and expensive gemstones in the world, are a popular choice for engagement rings and other jewellery. Diamond is actually a form of carbon, the hardest naturally occurring substance on Earth. In its pure form, diamond is colorless, but various elements in the crystal structure and certain environmental conditions can produce colours ranging from dark brown to yellow, blue, pink, and green. Diamond is the cornerstone of the month of April.

**1.10.1) Price formula for diamond**

Tavernier's Law (or Indian Law) is used to determine the price of a diamond. The formula is for basic calculation and shows how the price of a diamond increases with its size. Larger gemstones are more rare and their price rises rapidly. Diamonds of 25 carats and above usually have their own names.

• W is the carat weight

• C is the base price of a one-carat stone

Smaller-sized diamonds are traded in packages of similar stones, called "melee," after the French word for mix. Generally, diamonds of exactly similar size, cut, shape, color and clarity are used in a single diamond piece of jewellery. If not, the stones would not match and the piece would not sell. Small recycled diamonds are treated differently than large single stones.

A single small diamond has limited value by itself. It is only useful if it can be matched with other similar diamonds, restored into jewellery and sold to the customer, thereby creating value. Small recycled diamonds need to be sorted, cut and resold to manufacturers in large packages so that they can select the appropriate stones for setting into jewellery.

**1.11) Emerald**

A form of beryl and a cousin of aquamarine, the emerald is known for its beautiful green color. It can range from blue-green to yellow-green. With a Mohs hardness rating of 7.5 to 8.0, emeralds are harder than many other rare gemstones. However, they contain many internal cracks that make them brittle. This factor is important to consider when purchasing emerald jewellery, as this gemstone is not ideal for everyday wear. With an average price of around $126 per carat, emeralds are more expensive than rubies and sapphires, but less than a tenth of the price of diamonds. This beautiful green gem is the keystone for May.

**1.12) Pearl**

Although not technically a stone, the pearl is an important gemstone for jewellery consumers. Instead of being mined from the earth, pearls are created by oysters. GIA notes that pearls come in a range of colours, including white, pink, black, yellow, gray and brown. They also come in a variety of shapes and sizes with large round pearls being among the most valuable. The thickness of the luminous outer layer, or nacre, also determines the value. Pearls are among the finest gemstones you can buy, with a Mohs hardness of only 2.5 to 3.0. This means they are not a good choice for rings or items that are worn daily. Pearl is the cornerstone of June.

**1.13) Ruby**

Their captivating red color, high durability and status as the official stone of July make rubies the top of jewellery. Rubies are made from the same mineral as sapphires, called corundum, and make beautiful rare gemstones. According to Geology.com, any example of gem-quality corundum that is red in color is considered a ruby. Rated 9.0 on the Moths hardness scale, rubies are among the most durable gemstones. They are ideal for everyday wear and are a great choice for an engagement ring. High-quality rubies are the most expensive colored gemstones on the market, and those examples with a vivid, deep red tone are the most expensive.

**1.14) Sapphire**

Sapphires are made of the same material as ruby and can be any shade other than the red of corundum. They are the cornerstone of September. The most common color of this rare gemstone is blue, although they can also come in yellow, pink, orange and many other shades. There are even white sapphires that offer a more affordable alternative to diamonds. Equally durable compared to rubies, sapphires are ideal for everyday wear and for use in rings. The most valuable sapphires are those that have a deep, rich color, very few inclusions and other imperfections, and an effective cut. Sapphires of the highest quality are very rare and prized for use in jewellery.

# 2) LITERATURE REVIEW

## 2.1 Introduction

A literature review within the framework of a thesis is a critical analysis and synthesis of existing research and scholarly works relevant to the topic of the thesis. It serves several important purposes. It provides background information and context for the thesis topic, demonstrating the researcher's understanding of the existing knowledge in the field. By reviewing existing literature, the researcher can identify gaps, contradictions, or unresolved questions in the literature, which can help define the research problem or question addressed in the thesis. It helps in developing a theoretical framework or conceptual model by synthesizing key concepts, theories, and methodologies from the literature that are pertinent to the subject of the study. By describing how earlier studies have handled related research topics or issues, the literature review can help support the study approach that was selected. The researcher might create research questions or hypotheses that will direct the study based on the gaps in the literature that have been found. By highlighting the areas that have already been investigated and those that require more inquiry, it assists the investigator in avoiding repetition of earlier findings. Throughout the thesis, The literature review references pertinent studies and findings to bolster arguments and interpretations. All things considered, the literature review is an essential part of the thesis that shows how the researcher can interact with previous research, point out holes or areas that need more investigation, and place their own work within the larger academic discourse.

## 2.2 Literature Review

**(Esoimeme, 2021)**This essay seeks to clarify the issue of criminals using precious metals, stones, or jewels as a form of payment. It also explores the different anti-money laundering initiatives that banks and dealers in these commodities must implement in order to reduce the risk of money laundering. This is especially noteworthy when it comes to gold businesses that are utilized by criminal organizations that deal in narcotics (i.e., the trade of gold for drugs). These criminals also employ gold corporations as a status symbol, for wealth transfer, and for storage and preservation.[1]

**(Akinkoye, Ebenezer, Bankole, & Oluwaseun., 2020)**The study looked at emotional biases and how they affect Nigerian investors' decision-making. The population, which is

[1] Esoimeme, Ehi. (2021). The FinCEN Files: How Anti-Money Laundering Procedures Can Identify and Reduce The Money Laundering Risks Facilitated Through The Purchase and Sale of Precious Metals, Precious Stones and Jewels. 10.2139/ssrn.3758442.

made up of clients of the top 10 stock broking companies listed by the Nigerian Stock Exchange as of January 31, 2018, was determined using primary data. These companies were chosen because, as of January 31, 2018, they accounted for 68.72% of the total transaction value. Each stock broking firm's thirty clients, for a total of three hundred, were given a standardized questionnaire with the aim of collecting data on the emotional biases and investing decision making of Nigerian investors. Logistic regression analysis and percentages were used in the data analysis process. The results demonstrated that emotional biases, such as herding, overconfidence, loss-aversion, and regret-aversion biases, were common among Nigerian investors and had a major impact on their decisions.[2]

**(Imen & Omri, 2024)**The primary goal of this study is to examine how the white precious metals market reacts to shifts in the unpredictability of crypto currencies. It offers fresh perspectives on the changing dynamics between these two asset types. The research makes use of forecast error variance decomposition estimation, impulse response functions analysis, and quantile regression technique. The primary conclusions of this study imply that returns for silver, platinum, and palladium are not significantly impacted by the two innovative uncertainty measures, UCRY policy and UCRY pricing uncertainty indexes. This suggests that they have no disruptive effects on the market for precious metals. As a result, white precious metals are not thought of as a crypto currency's stand-in and are not affected by fluctuations in the market.[3]

**(Terziev, 2017)**Because of its increasing applicability, the essay looks at the control procedure for operations involving precious metals and gemstones. Even though this is a crucial component of the exchange control, an effort is made to analyze the key events and the details. The fundamentals of control are discussed in the context, which is achieved through operations involving precious metals and stones in a significant enough range within the mining, processing, storage, and provision of particular and focused application.[4]

**(Dsouza, 2022)**Books, periodicals, and journal articles were among the secondary sources from which the study's data came. Results: Corporate governance has an external effect on investing decisions, while human psychology plays an internal role. The process of making investment decisions is greatly aided by corporate governance, which makes all aspects of company information transparent. However, investors interpret this information based on their own psychological evaluations and presumptions. Because of this, a company's transparency has very little effect on investment decisions and only has a limited effect overall; human behavior still has a major influence. Despite the firm's transparency, there is no assurance that an investor will always make a logical decision when investing.[5]

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[2] Akinkoye, Ebenezer & Bankole, Oluwaseun. (2020). Effect of Emotional Biases on Investor's Decision Making in Nigeria. International Journal of Business and Management Future. 4. 33-39. 10.46281/ijbmf.v4i1.548.

[3] imen, omri. (2024). An analysis of the dynamic relationship between cryptocurrency uncertainty and white precious metals. 10.21203/rs.3.rs-4008769/v1.

[4] Terziev, Venelin & Stoyanov, Evgeniy & Georgiev, Marin. (2017). SPECIFICS OF CONTROL IN OPERATIONS WITH PRECIOUS METALS AND PRECIOUS STONES. Scientific journal «ECONOMICS AND FINANCE». 71-76. 10.2139/ssrn.3122666.

[5] Dsouza, Prima. (2022). A Descriptive Analysis on Effect of Corporate Governance on Investor's Decision. International Journal of Management, Technology, and Social Sciences. 1-10. 10.47992/IJMTS.2581.6012.0173.

**(Salunke & Dadasaheb, 2020)**Oscar Wilde, a Victorian short story writer known for his worship of aestheticism, had an amazing preoccupation with a variety of valuable metals, stones, and minerals. Gold, silver, lead, diamonds, sapphires, rubies, jades, ivory, bronze, lapis lazuli, and other materials are mentioned often. The references to metals, minerals, and stones are located in this essay, which also explains their importance and relevance in the context of his well-known short stories, The Happy Prince and The Young King. In these stories, Wilde's main characters live comfortable, prosperous lives until they learn the truth about their good fortune, at which point they drastically change. One aspect of Wilde's handiwork that sets him apart is that he doesn't employ these materials just to decorate the objects.[6]

**(Wu, 2024)** To look into the differences between the intended dimensions made using the three available fabrication procedures and the morphological dimensions of completed cores. to evaluate the loss of precious metal in the dental clinic's unique precious metal post and core restorative procedures. Three distinct methods were used to create titanium posts and cores: classic lost-wax casting, digital scanning impression technology, and digital scanning wax-pattern technology. The scanned model data was fitted to the digital design data of the anticipated preparation using Geomagic Studio, and the 3D discrepancies between the two were examined. Energy-dispersive X-ray spectroscopy layered pictures were used to gather, process, weigh, and analyze precious metal debris from the precious metal post and core for precious metal elements.[7]

**(Ivanova, 2022)**This article's current evaluation of the public data of those involved in the exchange of precious metals, precious stones, and items derived from them made it possible to support the requirement for information systems integration. The state is required to uphold the established trend and the existing course of development in order to protect the interests of its inhabitants. Theoretical rationale and real-world application balance out a sizable number of risks that impede the state integrated information systems (hereinafter referred to as the DMDK GIS) implementation in the area of control over the turnover of precious metals, precious stones, and products made of them at all stages of this turnover. Present are the scientific and methodological tenets of economic theory.[8]

**(Dumlupınar, 2023)**Since ancient times, people have utilized precious metals like gold, silver, palladium, and platinum as savings and payment tools. Financial investment products have become more diverse as markets have evolved and become more modernized. During this process, items that facilitate investing in precious metals have begun to be included to portfolios on a larger scale. Precious metals have become more popular, which has raised prices, during times of war and political, economic, and other crises when uncertainty is high. The amount of investors' portfolios has begun to be impacted by the price volatility of precious metals. Because of this, one of the most

[6] Salunke, Dadasaheb. (2020). Oscar Wilde's Obsession with Precious Stones and Metals: A Study of The Happy Prince and The Young King. 19. 318-324.

[7] Wu, Yumin & Qi, Haowen & Zhang, Yuhang & Xie, Haifeng. (2024). 'Gold' lost in restoration: Evaluation of core morphology of custom metal posts and cores, and analysis of precious metal debris. Heliyon. 10. e24946. 10.1016/j.heliyon.2024.e24946.

[8] Ivanova, Ludmila & Umgaeva, Olga. (2022). Trends in the Development of State Integrated Information Systems in the Field of Circulation of Precious Metals and Stones and Their Products. Financial Journal. 14. 122-133. 10.31107/2075-1990-2022-4-122-133.

significant subjects in recent years has been the connection between precious metals and numerous financial assets and factors.[9]

**(Youvan, 2024)**If the electrical grid were to permanently fail, rural America would see a radical change in resource valuation that would radically transform social structures and economic systems. This essay explores the relative worth of ammunition and precious metals in a situation like this, as well as their functions in trade, communal resilience, and survival. Because of their historical worth as money storage and trade tools, precious metals are in opposition to ammunition's immediate use in protection and hunting. We look at the practical vs intrinsic value of these resources, how they affect social order and community dynamics, how difficult it is to prioritize resources ethically and sustainably, and more.[10]

**(Pinglu, 2021)**Conventional finance theories, such as the Capital Asset Pricing Model (CAPM), ignore the decision-making processes of actual people and instead presume that rational actors are at the center of all investment decisions. But in reality, different types of investors behave differently when it comes to investing. This study uses the investor's type (IT) moderating role to investigate behavioral biases in investing decision making. A questionnaire was created and distributed using a survey approach to gather input from small investors in the Pakistan Stock Exchange (PSX). Disposition effect (DE), herding effect (HE), and overconfidence (OC) bias were used to simulate investment decision-making, and IT was considered a moderating component.[11]

**(Dias, 2024)**Understanding the relationships between the Dow Jones (United States), Amman SE General (Jordan), BLSI (Lebanon), EGX 30 (Egypt), ISRAEL TA 125 (Israel), MASI (Morocco), and MOEX (Russia) indices and the precious metals markets Gold Bullion LBM, Silver, Handy & Harman, London Platinum, from January 1, 2018 to November 23, 2023, is becoming more and more important in light of the global pandemic of 2020 and the Russian invasion of Ukraine in 2022. The goal of the study was to ascertain whether investors operating in the Middle East and North Africa (MENA) stock markets could use precious metals like gold, silver, and platinum to rebalance their portfolios and serve as hedges against stock market fluctuations.[12]

**(Jerjian,, 2023)**In a constantly changing environment, animals need to precisely gauge their own motion in relation to the outside world in order to navigate and direct adaptive behavior. This is essentially a multimodal process that integrates vestibular, kinesthetic, and visual signals. Combining ideal observer models with meticulous neurophysiological research has made it possible to understand how the combination of vestibular and visual data supports the perception of heading, or linear self-motion direction. These results have

[9] Dumlupınar, Mehmet & Kocabiyik, Turan. (2023). YATIRIM ARACI OLARAK KIYMETLİ METALLER: KIYMETLİ METALLERİN FİYATINI ETKİLEYEN UNSURLAR VE KIYMETLİ METALLERDE NEDENSELLİK İLİŞKİSİ 1 PRECIOUS METALS AS INVESTMENT TOOLS: FACTORS AFFECTING PRECIOUS METAL PRICES AND INTERDEPENDENCE AMONG PRECIOUS METALS. 28. 241-266.

[10] Youvan, Douglas. (2024). Grid Off in Rural America: What's More Valuable, Precious Metal or Ammunition?. 10.13140/RG.2.2.13958.34887.

[11] Pinglu, Chen & Ullah, Saif & Ullah, Atta. (2021). Behavioral Biases in Investment Decision Making and Moderating Role of Investor's Type. Intellectual Economics. 14. 87-105. 10.13165/IE-20-14-2-06.

[12] Dias, Rui & Galvão, Rosa & Alexandre, Paulo. (2024). Precious metals as hedging assets: Evidence from MENA countries. Investment Management and Financial Innovations. 2024. 10.21511/imfi.21(1).2024.13.

been expanded upon in recent studies by highlighting the importance of time in relation to stimulus dynamics and the trade-off between accuracy and speed. The topic issue "Decision and control processes in multisensory perception" includes this article.[13]

**(Abdel-Wahab, 2023)**Depending on their chemical and physical characteristics, elements can be categorized as metals, nonmetals, or metalloids. Rare and pricey are precious metals. There are eleven recognized precious metals, silver, gold, and platinum being the three that investors are most interested in. The objective is to develop physical techniques for detecting the presence of gold, silver, and precious metals in the metal components of computer motherboards, and to verify their existence chemically for use in and sale to the jewelry industry once they are physically extracted from the motherboards. Tests that were chemical and physical were identified. Inscription tests, magnet tests, specific gravity testing for gold and silver metal components, chemical test kits, and jewelry test kits are examples of physical tests.[14]

**(Ksenzhuk, 2018)**Precious metals are said to serve as a desirable way to invest when high liquidity risks associated with other financial assets emerge. It was shown that using precious metals to make money in addition to safeguarding against high risks was a reasonable decision. Research has shown that promoting the growth of the precious metals market enhances a nation's financial and investment environment. As a priceless asset, precious metals increase credit confidence and avert efficiency, liquidity, and default crises. The impact of globalization on the operation of the global precious metals market and the allure of precious metals as investments is well-established. The elements that impact the growth of the precious metals industry are identified.[15]

**(Sprevak, 2023)**The predictive processing framework covers a wide range of concepts on how the brain may use predictive models to execute perception, cognition, decision-making, and motor control. These concepts can be expressed and expanded in a variety of ways. Predictive coding and active inference, the two most important ideas within this framework, are introduced in this article in an up-to-date manner. Sections 2 through 5 of the paper provide an overview of the development of predictive coding, starting with early theories regarding effective coding in the visual system and moving on to a more comprehensive model that takes perception, cognition, and motor control into account. The paper's conclusion discusses potential future research avenues that are critical to the advancement of both models.[16]

**(Khudabadi, 2024)**Emotions have a crucial part in the cognitive processes involved in decision-making, according to recent theories of decision-making. One such strategy is the

[13] Jerjian, Steven & Harsch, Devin & Fetsch, Christopher. (2023). Self-motion perception and sequential decision-making: where are we heading?. Philosophical Transactions of the Royal Society B. 378. 10.1098/rstb.2022.0333.

[14] Abdel-Wahab, Hebah & Gund, Tamara. (2023). Precious Metals Identification in Computer Motherboards. Journal of Materials Science and Engineering A. 13. 42-46. 10.17265/2161-6213/2023.4-6.003.

[15] Ksenzhuk, Oleksandr. (2018). DETERMINANT OF THE DEVELOPMENT OF THE PRECIOUS METALS MARKET AND PECULIARITIES OF INVESTMENTS IN PRECIOUS METALS. EUREKA: Social and Humanities. 4. 10-16. 10.21303/2504-5571.2018.00694.

[16] Sprevak, Mark & Smith, Ryan. (2023). An Introduction to Predictive Processing Models of Perception and Decision-Making. Topics in Cognitive Science. 10.1111/tops.12704.

EIC model (Lerner et al., 2015), which postulates that an individual's overall emotional states have an indirect impact on cognitive choice processes and that mood can influence decision making by influencing present emotions. The purpose of the study was to comprehend the subtleties that underlie and the impact of emotions on decision-making. The paper's six primary hypotheses examined whether choice styles had a more substantial impact on decision making or if accidental emotions, as a result of present emotions, have a considerable impact on decision making. The study employed a mixed method approach in which the qualitative data was gathered through theme analysis and interviews, which aided in triangulation and the creation of patterns.[17]

**(Jinesh, 2023)**The last 20 years have seen a significant increase in behavioral bias research due to growing scholarly interest and a publishing frenzy. The current study investigates how risk perception influences the link between heuristic biases and the decision-making of individual equities investors. The survey data from 432 individual equities investors who trade at the National Stock Exchange (NSE) in India are examined in the study using partial least square structural equation modeling (PLS–SEM). It is discovered that risk perception fully mediates the relationship between representativeness bias and investment decision-making, but it only partially mediates the relationship between overconfidence bias and investment decision-making, availability bias and investment decision-making, gamblers' fallacy bias and investment decision-making, and anchoring bias and investment decision-making.[18]

**(Beikmohammadi, 2023)**The use of waste incineration is expanding globally as a means of improving energy recovery and municipal solid waste management. However, due to their physicochemical characteristics, waste incineration leftovers like Fly Ash (FA) and Bottom Ash (BA) can cause threats to human health and the environment if not treated properly. However, these leftovers can be used to create profitable municipal metal mines if they are used properly. Different size ranges of BA (< 0.075 mm, 0.075–0.125 mm, 0.125–0.5 mm, 0.5–1 mm, 1-2 mm, 2-4 mm, 4–16 mm, and > 16 mm) were used for the granulation in this investigation. The ICP-MASS technique was utilized to analyze the physicochemical characteristics, heavy metal elements, environmental risks, and other rare and precious metal elements in every Granulated Bottom Ash (GBA) group obtained from Tehran's garbage incineration.[19]

**(Babayeva, 2020)**Diamonds will always be heroes. One of the key elements of the financial sector is the market for precious stones. Let's define precious stones first before discussing their significance in the global jewelry business. Precious stones are a must-have accessory for ladies and have historically caused strife in some nations. Precious stones are minerals found in the earth's crust that have been endowed by nature with a stunning look. The primary varieties include diamonds, emerald, turquoise, ruby, alexandrite, and others. It is

[17] Khudabadi, Heena H & Shankaran, Ashwin. (2024). Deciphering Decision Making: The Interplay of Mood States and Decision Styles. International Journal of Indian Psychology. 11. 10.25215/1104.237.

[18] Jain, Jinesh & Walia, Nidhi & Singla, Himanshu & Singh, Simarjeet & Sood, Kiran & Grima, Simon. (2023). Heuristic Biases as Mental Shortcuts to Investment Decision-Making: A Mediation Analysis of Risk Perception. Risks. 11. 72. 10.3390/risks11040072.

[19] Beikmohammadi, Masoumeh & Yaghmaeian, Kamyar & Nabizadeh, Ramin & Mahvi, Amir. (2023). Analysis of heavy metal, rare, precious, and metallic element content in bottom ash from municipal solid waste incineration in Tehran based on particle size. Scientific Reports. 13. 10.1038/s41598-023-43139-1.

more prevalent in older geographic locations. For instance, the Republic of South Africa, Botswana, and Russia. These stones are employed in radio engineering, electronics, optics, and other industries in addition to jewelry.[20]

**(Naudé, 2020)** Precious stones, which are expensive stones and hard materials other than gold, silver, and copper, were valued according to their appearance (beauty, color), durability (durability), and scarcity (cost). Consequently, it is extremely challenging to establish a correlation between the list of vocabulary phrases used in the ancient Near East to refer to precious stones and current mineralogical identifications. This essay applies complexity thinking and editorial theory to reexamine the identification and etymology of precious stones in the Bible. The high priest's breast piece (Ex 28:17–20; 39:10–14), with its twelve priceless stones, and the Septuagint translation of the Hebrew words serve as the foundation for lexicographical identification.[21]

**(Ochildiev, 2024)**In today's resource-driven society, the extraction of valuable and rare metals from copper concentrates is crucial. Effective and sustainable extraction techniques are critical as the market for these metals grows as a result of their uses in a variety of sectors, including electronics, renewable energy, and healthcare. An underappreciated supply of these essential elements are copper concentrates, which frequently contain traces of precious metals including gold, silver, and platinum group metals. Investigating cutting-edge extraction methods to retrieve these metals helps to meet the increasing demand while also promoting environmental sustainability and resource conservation. This study aims to explore the trends, obstacles, and potential futures in the extraction of rare and valuable metals from copper concentrates.[22]

**(Sivasubramania, 2014)**In today's global investment market, investors reign supreme. They can invest anywhere, but their daily patterns of investment are always shifting. On the other hand, this study examines how investor behavior affects investor decision-making. The purpose of this study is to look into how investor behavior affects investors' choices in the Jaffna district. The Jaffna Peninsula is home to a huge number of investors. However, the majority of them lack the ability to make wise financial decisions. Thus, the behavior and decision-making of investors were examined in this study. Using a straightforward random selection technique, 100 investors in the Jaffna district were chosen as a sample for this purpose, and questionnaires from the investors were used to gather primary data.[23]

**(Ahmed, 2022)**Through the use of structural equation modeling, this study attempts to investigate the direct and indirect relationships between investor decisions and behavioral biases by examining the mediating function of risk perception. Individual investors who have been making investments on the Pakistan Stock Exchange for a number of years are

[20] Babayeva, Khavar. (2020). Precious stones-wealth hidden behind the glitter.

[21] Naudé, Jacobus & Miller-Naudé, Cynthia. (2020). The Septuagint translation as the key to the etymology and identification of precious stones in the Bible. HTS Teologiese Studies / Theological Studies. 76. 1-17. 10.4102/hts.v76i4.6142.

[22] Ochildiev, Kakhramon & Khojiev, Shokhrukh & Mutalibxonov, S. (2024). TRENDS AND PROSPECTS OF EXTRACTING PRECIOUS AND RARE METALS FROM COPPER CONCENTRATES. 10.1007/978-3-031-21219-2_246.

[23] Sivasubramaniam Balagobei, Saseela. (2014). A Study on Investor's Behaviour and Investor's Decision Making: In Jaffna District.

the subjects of the study. The data was collected using the purposeful sampling technique, and the sample size was 450 surveys. The results support the idea that blue-chip stocks and investing decisions are mediated by risk perception. Moreover, herding bias, the disposition effect, and investment decisions are not mediated by risk perception. Nonetheless, there is a strong direct correlation between risk perception and the disposition effect.[24]

**(Farhadian, 2012)**The precious stones aquamarine, emerald, sapphire, ruby, and diamond. Furthermore, due to their worth and quality, several semi-precious stones like spinel, topaz, and green garnet (Demantoid) are categorized in the precious stones group. Even though it has been shown how important it is to explore for precious stones in order to generate employment and a suitable financial cycle with a high added value, Iran has not yet given this any thought. The majority of the data for precious stone exploration comes from the findings of the regional geochemical explorations' heavy mineral studies (Jannessary, 1389). The first documented event dates back to 1978, when the Ab-va-Khak firm introduced sapphire and topaz to the East of Iran, around 35 years ago.[25]

**(Negen, 2023)**It is evident that learning a new sensory skill—a new method of projecting sensory inputs onto states of the world—is possible. How adaptably a novel sensory ability can be integrated into multimodal perception and decision-making is still unknown. In order to address this, we trained 12 normally sighted volunteers to distance themselves in a virtual environment using both a noisy visual cue and a novel aural cue that resembles echo. We looked for important indicators of effective multisensory perception and decision-making using the new skill through model-based studies. It was discovered that 12 out of 14 individuals were able to measure distance by employing the new aural cue. Three crucial aspects of their utilization of this new sensory ability were evident: (A) It accelerated the timing of choices. (b) It was mostly immune to interference from a concurrent digit span task; and (c) It used a Bayes-like integration with vision to increase accuracy.[26]

**(Ji, 2018)**In the context of crowd funding, the best choices for platform advertising and product quality are examined using a dynamic model that takes investors' perceptions into consideration. However, studies in the literature rarely take into account the significant occurrence that internet information changes investors' perceptions in some way, and instead typically set investor perceptions as fixed values. A dynamic decision model is proposed, taking into account the impact of platform advertisement and product quality information on investor perception. In order to characterize the investor's perception, the investor's reference price and investment desire are first introduced in two dynamic

[24] Ahmed, Zeeshan & Rasool, Shahid & Saleem, Qasim & Khan, Mubashir & Kanwal, Shamsa. (2022). Mediating Role of Risk Perception Between Behavioral Biases and Investor's Investment Decisions. SAGE Open. 12. 1-8. 10.1177/21582440221097394.

[25] Farhadian, Mohammad & Jannessary, Mohammad. (2012). Introduction to exploration of the precious stones in Iran.

[26] Negen, James & Bird, Laura-Ashleigh & Slater, Heather & Thaler, Lore & Nardini, Marko. (2023). Multisensory Perception and Decision-Making With a New Sensory Skill. Journal of experimental psychology. Human perception and performance. 49. 600-622. 10.1037/xhp0001114.

situations. Lastly, the data simulation experiment confirms the study's requirement by comparing the effects of the reference price and cost-sharing ratio on the ideal outcomes.[27]

**(Mayora, 2024)**Every year, the Indonesian capital market's performance keeps becoming better. According to KSEI data, the number of investors is rising year, with most of them being generational. The purpose of this study is to ascertain how Surabaya's generations' investing decision-making is influenced by risk perception, recency bias, herding behavior, and regret aversion bias. This study was carried out with a quantitative methodology. The findings indicate that regret aversion bias does not have a negative impact on investment decision making, herding behavior has no significant effect on investment decision making, risk perception has a significant effect, and recency bias has a negative effect.[28]

**(Chandra, 2023)**An investor's assets are allocated in important investing decisions based on additional considerations. Given that younger investors now make up the majority of investors, investors need to be aware of the factors influencing their decisions. Despite its importance, very few or no research have looked at how young adults in Surabaya make investment decisions based on their sense of risk and level of financial literacy. The purpose of this study is to ascertain the simultaneous and individual effects of financial literacy and risk perception on investment decision-making, with a focus on young adults in Surabaya. A simple random sample procedure was used, with 89 respondents receiving questionnaires in total.[29]

**(Guarda, 2023)**Despite having a close relationship, perception and decision-making are two cognitive functions that are rarely examined together. It is essential to distinguish between the roles played by these two cognitive processes when making judgments involving time-related variables. This can be done by having a thorough understanding of the impact of time perception. This paper describes a laboratory experiment conducted with university students from Santiago, Chile, and London, United Kingdom, to investigate how time perception affects the routes they choose in a transportation system. The introduction of an experimental condition where participants must select their preferred bus route based only on how they perceive the time aspects of animated bus trips is a significant innovation in the experimental design.[30]

## 2.3 Research Gap

The literature review examines several research papers that explore the investors tend to behave differently in different times and that may affect the market. There are various studies undertaken on this subject matter around the world but there is limited study in India and hence, to understand relation between investment in precious metals and stone and

[27] Ji, Ying & Wei, Ju & Wu, Zhong & Qu, Shaojian & Zhang, Baojun. (2018). Dynamic Strategies on Firm Production and Platform Advertisement in Crowdfunding considering Investor’s Perception. Discrete Dynamics in Nature and Society. 2018. 1-12. 10.1155/2018/3726080.

[28] Mayora, Gradinda & Lestari, Wiwik. (2024). The Effect of Risk Perception, Recency Bias, Herding Behavior and Regret Aversion Bias on Investment Decision Making Among The Younger Generation in Surabaya.. Ekspektra : Jurnal Bisnis dan Manajemen. 8. 80-94. 10.25139/ekt.v8i1.7482.

[29] Chandra, Pavita & Pangkey, Laura & Soetanto, Tessa. (2023). Young Adults' Investment Decisions in Surabaya: The Influence of Financial Literacy and Risk Perception. International Journal of Organizational Behavior and Policy. 2. 87-96. 10.9744/ijobp.2.2.87-96.

[30] Guarda, Pablo & Harvey, Nigel & Muñoz, Juan. (2023). Uncovering the influence of time perception on decision-making about time. 10.31234/osf.io/t49kf.

behaviour of investors' sentiments for it, there is a need for this study in the field of behavioural finance. Therefore, our research aims to investor's behaviour toward precious metal and stone.

## 2.4 Conclusion

In conclusion, the literature review on the analysis of investors' perception, apprehension, and decision-making regarding precious metals and stones reveals multifaceted insights. It underscores the intricate interplay between psychological factors, market dynamics, and individual preferences shaping investors' behavior in this niche market segment. Studies highlight the significance of risk perception, uncertainty, and market volatility in influencing investor sentiments towards precious metals and stones. Moreover, the role of information asymmetry, herd behavior, and socio-economic factors emerges as crucial determinants of investment decisions in this domain. Furthermore, the literature underscores the growing importance of alternative investments such as precious metals and stones amidst economic uncertainties and inflationary pressures. Investors often perceive these assets as a hedge against inflation, currency devaluation, and geopolitical instability, thereby influencing their portfolio allocation decisions. Additionally, advancements in technology, such as block chain-based platforms for trading precious metals, are reshaping the landscape and offering new avenues for investment. Overall, this literature review highlights the complex nature of investors' perceptions and decision-making processes concerning precious metals and stones.

# 3) RESEARCH METHODOLOGY

## 3.1 Introduction

A study's section on research methodology describes the methodical process utilized to carry out investigations and compile pertinent data in order to answer the study's goals or queries. This section is essential because it gives readers a comprehensive understanding of the methodology used in the study, enabling them to assess the validity and trustworthiness of the results. An organized overview of the research approach is provided below:

Research methodology refers to the systematic process undertaken by researchers to collect, analyze, and interpret data in order to address specific research questions or objectives. It serves as the foundation upon which the entire study is built, guiding researchers in their pursuit of knowledge and understanding within their field of inquiry. In this section, we delineate the methodological framework employed in our study, detailing the procedures and techniques utilized to achieve our research aims. By elucidating our approach, we aim to provide transparency and insight into the rigor and validity of our findings. The research design is the overarching plan that guides the execution of the study. It encompasses the selection of participants, data collection methods, and analytical techniques. In our research, we adopted a [describe the research design e.g., experimental, co relational, qualitative, quantitative, mixed-methods] approach to address our research questions effectively. Ethical considerations are paramount in research, ensuring the protection of participants' rights and well-being. We adhered to ethical principles [mention any relevant ethical guidelines or protocols followed e.g., informed consent, confidentiality, anonymity] throughout the study. Furthermore, any potential ethical dilemmas encountered during the research process are addressed and mitigated appropriately.

Research methodology has a significant impact on the creation of evidence-based procedures and the growth of knowledge in the social sciences, business, science, and humanities, among other fields. Following strict methodological guidelines allows researchers to minimize bias, errors, and inconsistencies in their investigations, thereby enhancing the credibility and reliability of their findings. Moreover, sound research methodology fosters transparency and accountability in the research process, enabling other scholars to evaluate and build upon existing research.

In summary, this section provides a comprehensive overview of the research approach that was used in this investigation. By explaining how we go about designing studies, gathering data, and analyzing it, ethical considerations, and limitations, we aim to enhance the transparency and credibility of our findings. Through rigorous methodological practices, we endeavor to add insightful observations to the corpus of knowledge already known in our area of study. This technique overview for the research sets the stage for a detailed exposition of each component, providing clarity on how the study was conducted and ensuring transparency and credibility in the research process.

This introduction provides a foundational understanding of research methodology, laying the groundwork for further exploration and application in various research contexts. As we delve deeper into the intricacies of research methodology, we will explore each component in greater detail, examining its theoretical underpinnings, practical implications, and ethical considerations. Through a comprehensive understanding of research methodology, researchers can enhance the rigor, credibility, and impact of their investigations.

## 3.2 The study's title

The Present study is titled as mentioned below:

Analysis of Investor’s Perception, Apprehension and Making choices with precious stones and metals.

Investors are aware of the numerous benefits of including gold in their portfolio. These justifications have centered on macroeconomic issues lately. Centuries ago, customs emerged in India about the hoarding of gold, its use as jewelry and other embellishments, and its distribution as gifts for noteworthy events like marriages. These customs are still followed today, particularly in India's rural areas. Therefore, it should not be shocking that India is the world's biggest gold consumer. India is predicted to use more than 1,000 metric tons of gold this year, up from 963 metric tons in 2010, according to the World Gold Council. The nation has customarily purchased gold and gemstones according to the seasons. These patterns have typically coincided with the holiday calendar, with peak purchase times being Akshaya Tritiya in May and Diwali, the festival of lights, in

September. Additionally, there has been an uptick in buying due to the typical wedding season, which spans from September to December.. Because of this, gold has historically seen a cluster market in the summer because of a lack of demand from the biggest buyer of precious metals worldwide. However, dealers were taken aback this summer by the volume of precious metals and stones purchased from India. This estimate, however, might be modest because most American investors are unaware of a development that has occurred in India. Due to the relatively high prices of gold and stones as a measure of investment, investors are once again concentrating on the gold market while the global stock market decreases.

## 3.3 Objective of the study

The research objective of this study is as follows:

1. To gain a thorough understanding of the various investing options accessible in India.

2. To learn how investors use precious metals and gemstones as a substitute for traditional investments.

3. To determine the relationship between investment behaviour and investor perception, anxiety, and decision-making.

4. To research how independent or dependent certain investor-related investment-related elements are.

## 3.4 Hypothesis of the Study

The following hypothesis was formulated and tested:

**$H_1$**: There is no significant relation between investors' gender and investment decision.

**$H_2$**: There is no significant relation between income and type of investment.

**$H_3$**: There is no significant relation between type of investment and non-traditional investment.

## 3.5 Types of research

Research methodology can be divided into a number of categories according on the type of research question and the chosen research design. Typical forms of research methods consist of:

- Quantitative Research: Involves the systematic collection and analysis of numerical data to test hypotheses and establish patterns or relationships.
- Qualitative Research: Focuses on using in-depth interviews, close examination of people, or textual research to comprehend the underlying meanings, perceptions, and experiences of people.
- Mixed-Methods Research: Integrates both quantitative and qualitative approaches within a single study to offer a thorough comprehension of complex phenomena.
- Action Research: A collaborative strategy that incorporates researcher participation and practitioners to address practical problems and bring about positive social change.
- Experimental Research: Utilizes controlled experiments to investigate cause-and-effect relationships by manipulating independent variables and measuring their effects on dependent variables.

## 3.6 Population of the study

- CENSUS/POPULATION

The global precious metal market size was valued at USD 182.1 billion in 2019 and is expected to grow at a 9.0% compound annual growth rate (CAGR) in revenue is projected for the years 2020–2027. During the course of the projection period, the demand for the product in jewelry applications is projected to become a significant driver of market growth.

- SAMPLE

Our focus in this study is on behavior of investors investing in valuable stones and metals. We have limited the scope of our investigation to Indian investors who hold precious metals and stones and reside in Gujarat state's largest cities. We have gathered data from 410 respondents' questionnaires in order to have pertinent information for our investigation.

- SAMPLING METHODS

For our research, we have used the convenience random sampling technique.

- DATA COLLECTION METHODS

To collect the required for the study, we used primary data were collected in the form of structured questionnaires from retail investors residing in Gujarat state by the use of online **Google Forms.**

- DATA COLLECTION TECHNIQUES/INSTRUMENTS

Data techniques tools means tests, questionnaires, inventory, interview schedule or guidelines, measurement scales, survey programs and any other forms used to collect information on substantially identical items from respondents.

Accurate and systematic data collection is essential to conducting scientific research. Data collection allows us to collect the information we want to collect about our study subjects. Depending on the type of research, data Among the techniques used in collection are document review, observation, interviewing, measurement, or a combination of different methods.

- DATA ANALYSIS METHODS

The efficient use of measurable and sensible procedures to depict information ranges, modularise information structure, gather information portrayal, outline utilizing figures,

tables, and charts, and assess factual patterns, probabilistic information, and determine significant ends known as information investigation. These scientific strategies permit us to make essential inferences from the information by disposing of the superfluous disarray made by the remainder of it. Information age is a ceaseless cycle; this makes information examination a consistent, iterative interaction where information is gathered and dissected at the same time. Guaranteeing information honesty is one of the principal parts of information examination.

Data analysis for the collection was completed using use of software named Excel, and SPSS. Data Analysis includes tests of ANOVA method for hypothesis testing.

## 3.7 Scope of the study

**Quantitative Analysis**: conducting surveys or utilizing existing datasets to quantify investors' perceptions, preferences, and decision-making processes.

**Qualitative Analysis:** Employing qualitative research techniques like as interviews or focus groups to gain deeper insights into investors' attitudes, beliefs, and behaviors.

**Comparative Analysis:** Comparing investor perceptions and decision-making processes across different regions, investor demographics, or market conditions.

**Longitudinal Analysis:** Tracking changes in investor sentiment and behaviour over time to identify evolving trends and patterns.

**Predictive Modeling:** Developing predictive models based on historical data to forecast investor behaviour and market trends in the precious metals and stones market.

Analyzing investors' perception and decision-making processes regarding precious metals and stones involves delving into different elements that affect their attitudes, behaviours, and choices. Here's a structured breakdown of what such an analysis might entail:

1. Market Dynamics and Trends
2. Investment Objectives
3. Risk Perception
4. Information Sources

5. Psychological Factors
6. Investor Profiles
7. Investment Strategies
8. Regulatory Environment
9. Market Sentiment and Sentiment Analysis

## 3.8 Significance of the study

Analyzing investor perception and decision-making regarding precious metals and stones is crucial due to several reasons, and understanding the significance of such a study requires a multifaceted approach:

1. Market Dynamics: Precious metals and stones, such as gold, silver, diamonds, and others, often behave differently from traditional financial assets like stocks and bonds. Understanding investor perception helps in deciphering market dynamics, including price movements, demand-supply trends, and market sentiment.
2. Hedge against Inflation and Economic Uncertainty: Investors often turn to precious metals and stones as a safeguard against rising prices and economic uncertainty. Analyzing their perception and decision-making provides insights into how investors perceive macroeconomic factors and the efficacy of these assets in preserving wealth during times of economic instability.
3. Portfolio Diversification: Precious metals and stones are considered as nontraditional financial instruments that help balance portfolios and reduce overall risk. Studying investor perception sheds light on the role of these assets in portfolio construction and risk management strategies.
4. Psychological Elements: Investor sentiment and psychological biases play a significant role in decision-making. Analyzing perception helps in understanding the psychological factors driving investment decisions, such as fear, greed, herd mentality, and risk aversion, which impact market movements.

5. Global Economics Trends: Precious metals and stones are influenced by global economic trends, geopolitical events, and currency fluctuations. Examining investor perception gives information about how these external factors shape investment decisions and affect asset prices.
6. Environmental and Ethical Concerns: Increasingly, investors are considering environmental and ethical factors in their investment decisions, particularly in the case of mining and production of precious metals and stones. Understanding investor perception helps in assessing the significance of sustainability and ethical considerations in shaping investment preferences.
7. Market Efficiency and Information Asymmetry Analyzing investor perception contributes to the understanding of market efficiency and information asymmetry in the precious metals and stones market. It helps in evaluating the impact of information dissemination, market rumours, and insider trading on investor decisions.
8. Policy Implications: Governments and regulatory bodies often implement policies affecting precious metals and stones markets, such as taxation, import/export regulations, and monetary policies. Studying investor perception provides insights into the effectiveness and unintended consequences of such policies on investor behavior and market stability.

## 3.9 Chapter Plan

1. Introduction and Background of the study
2. Literature Review
3. Research Methodology
4. Analysis of Data
5. Summary, Findings and Suggestions

## 3.10 Limitations of the study

Limited Sample Size: The study's findings may not be generalizable due to a small sample size or specific demographics of participants.

- Data Quality: Reliance on self-reported data or subjective assessments may introduce biases and inaccuracies into the analysis.
- Timeframe: The study's timeframe might not capture long-term trends or sudden market shifts, affecting the validity of its conclusions.
- External Factors: External events or macroeconomic changes not considered in the study may influence investor perceptions and decisions.
- Methodological Constraints: The study's methodology, such as survey design or analytical techniques, may have limitations impacting the robustness of results.

# 4) DATA ANALYSIS

## 4.1 Introduction

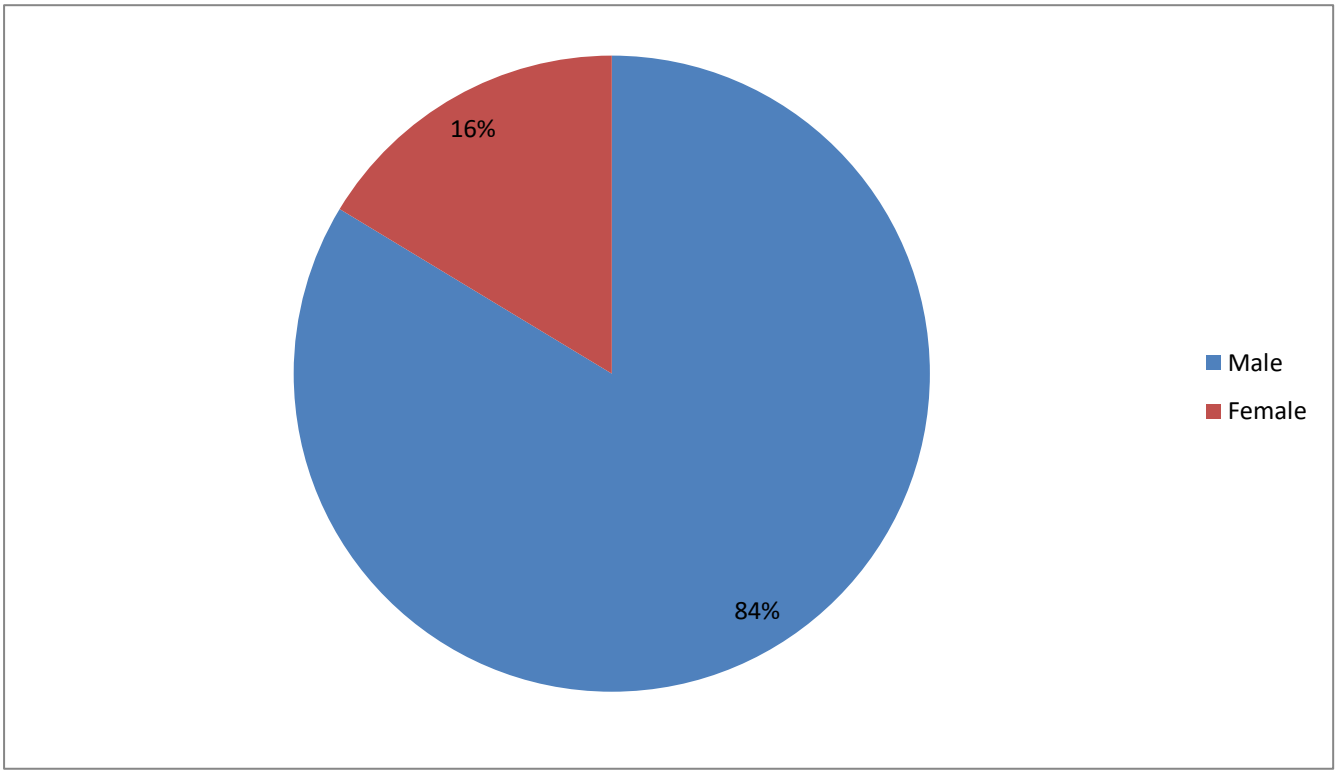
Data collection and analysis are fundamental processes in many domains, from scientific inquiry to business decision-making. These processes involve gathering information, transforming it into a usable format, and then interpreting it to derive insights and make informed decisions. Whether in academia, industry, or government, effective data collection and analysis are necessary to comprehend phenomena. Identifying patterns, and solving problems. Data collection begins with the identification of relevant variables and the design of appropriate data collection methods. This may involve surveys, experiments, observations, or extraction from existing databases. Confirming the correctness and dependability of collected data is crucial, often achieved through rigorous sampling techniques, standardized protocols, and quality control measures. Once data is collected, the next step is analysis. This involves organizing, cleaning, and transforming raw data into a format suitable for analysis. Statistical and computational techniques are then applied to uncover patterns, trends, and relationships within the data. Visualization tools such as charts, graphs, and dashboards are commonly used to give the results in a clear and understandable way. The significance of gathering data and analysis extends across disciplines. In scientific research, data collection allows researchers to test hypotheses and draw conclusions about the natural world. In healthcare, it enables clinicians to track patient outcomes and evaluate treatment effectiveness. In business, it informs strategic decisions, market trends, and customer behavior. In government, it supports policy development, resource allocation, and program evaluation. However, data collection and analysis also present challenges. These may include ethical considerations such as privacy and consent, biases in sampling or analysis, and the sheer volume and complexity of data generated in today's digital age. Addressing these challenges requires a multidisciplinary approach, incorporating expertise from fields such as statistics, computer science, and ethics. In conclusion, data collection and analysis are crucial procedures that produce information, guide judgment, and spur innovation in a variety of fields. Researchers, practitioners, and policymakers may handle complex challenges in today's linked world and get useful insights by gathering high-quality data and using rigorous analytical techniques.

## 4.2 Demographic Profile of Respondents

**Table No.4.1**: Percentage Analysis on the basis of Gender of investors

| Particulars | Demographic | Frequency | Percentages |
|---|---|---|---|
| Gender | Male | 343 | 83.65854 |
| | Female | 67 | 16.34146 |
| | Total | 410 | 100 |

**Chart No. 4.1**




**Interpretation:-**

**Male**: 343 investors, representing approximately 83.66% of the total.

**Female**: 67 investors, representing approximately 16.34% of the total.

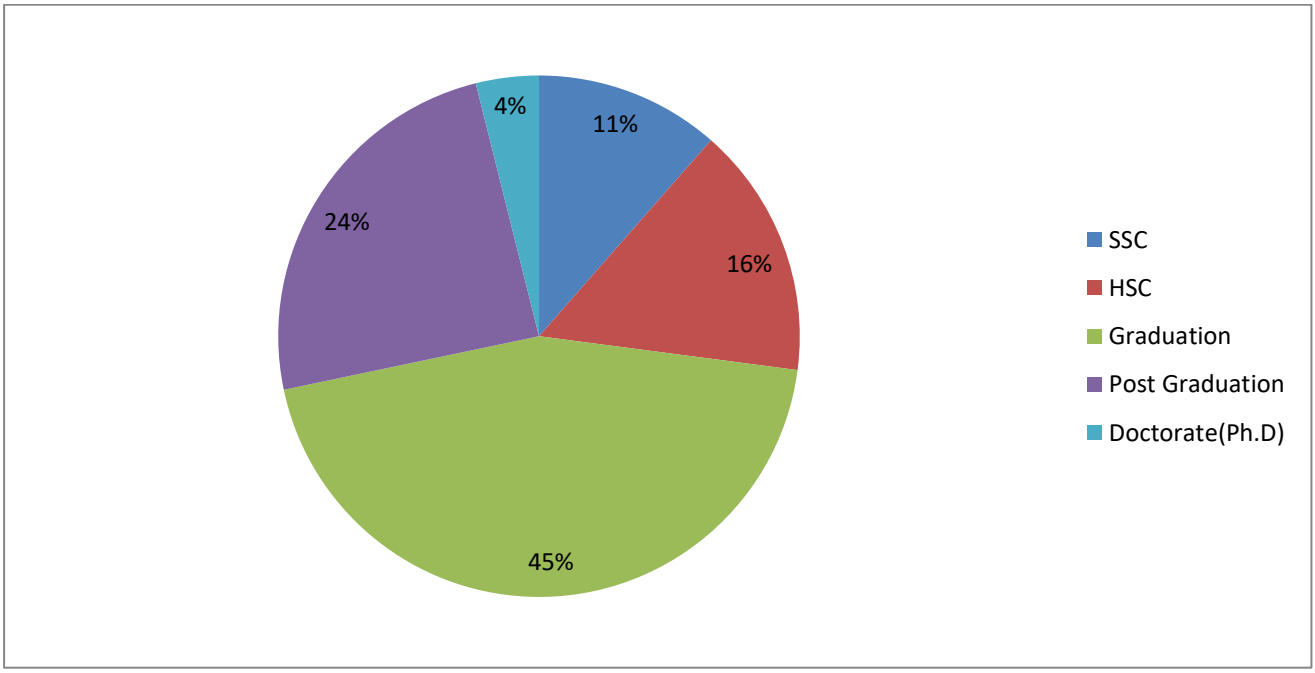
This analysis indicates that the majority of investors are male, constituting around 83.66% of the total investor base, while female investors comprise approximately 16.34%.

The analysis reveals a notable gender disparity among investors, with males dominating the investor base at 83.66%, significantly outweighing females who constitute only 16.34%. This stark contrast underscores existing gender imbalances within the investor community, potentially reflecting broader socio-economic trends. The substantial male majority suggests a potential underrepresentation of female perspectives and participation in investment decision-making processes. Closing this disparity could promote more diverse investment environments by utilizing a range of perspectives and skills. It draws attention to the significance of programs that support gender diversity in the finance industry, provide equal opportunities for all investors, regardless of gender, and eventually improve the dynamics and results of the market as a whole.

**Table No.4.2**: Percentage Analysis on the basis of Education Qualification of investors.

| Particulars | Demographic | Frequency | Percent |
|---|---|---|---|
| Education Qualification | SSC | 47 | 11.4634 |
| | HSC | 64 | 15.6098 |
| | Graduation | 183 | 44.6341 |
| | Post Graduation | 100 | 24.3902 |
| | Doctorate(PhD) | 16 | 3.90244 |
| | Total | 410 | 100 |

**Chart No. 4.2**




**Interpretation:-**

The majority of investors hold a Graduation degree, constituting 44.63% of the total. This indicates a significant presence of individuals with undergraduate education in the investor pool. Following closely, Post Graduates comprise 24.39%, indicating a substantial portion of investors with advanced degrees.

High School Certificate (HSC) holders constitute 15.61% of investors, suggesting a moderate representation of individuals with secondary-level education. Meanwhile, those with a Secondary School Certificate (SSC) make up 11.46% of the total, indicating a comparatively smaller but still notable proportion.

Interestingly, individuals with Doctorate (PhD) qualifications constitute only 3.90% of investors, implying a smaller but distinct presence of highly knowledgeable buyers in the marketplace.

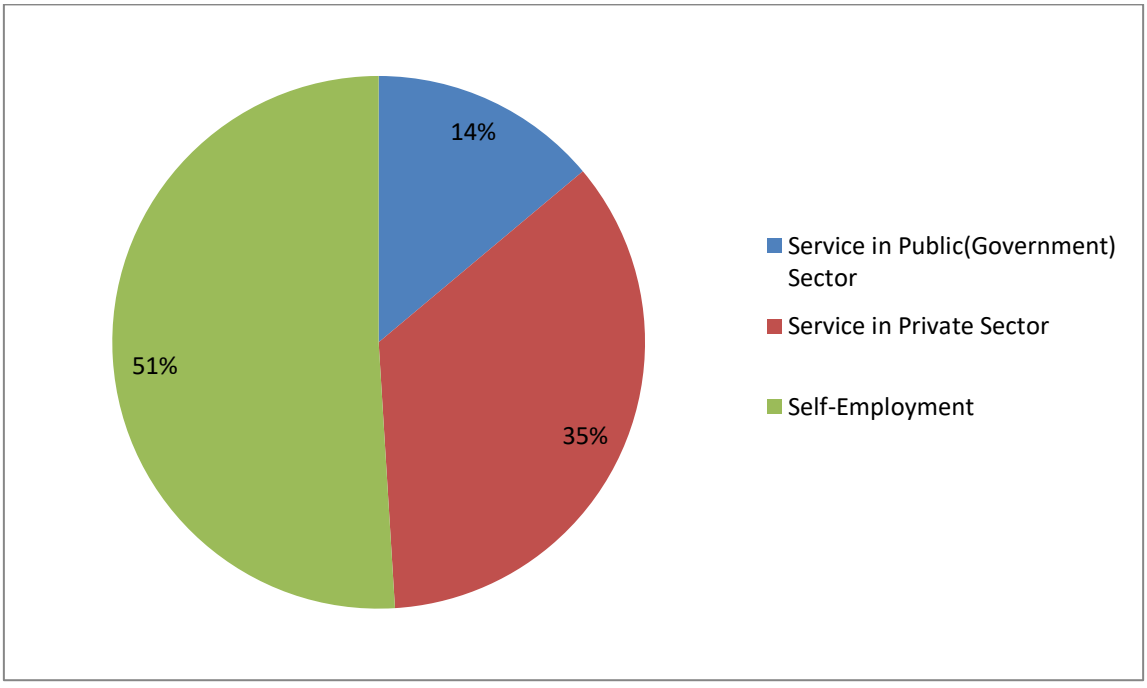
Overall, the data suggests that the pool of investors has a wide range of educational backgrounds, with a sizable portion possessing graduate and undergraduate degrees.

Investors with diverse educational backgrounds may exhibit differing degrees of competence, risk appetites, and investment methods, which could account for this variability. Such insights can be valuable for financial institutions and policymakers in tailoring investment products and strategies to cater to the needs of different segments of investors.

**Table No.4.3:** Percentage Analysis on the basis of Occupation of investors.

| Particulars | Demographic | Frequency | Percent |
|---|---|---|---|
| Occupation | Service in Public(Government) Sector | 57 | 13.90244 |
| | Service in Private Sector | 144 | 35.12195 |
| | Self-Employment | 209 | 50.97561 |
| | Total | 410 | 100 |

**Chart No. 4.3**




**Interpretation:-**

This category consists of 57 investors, representing approximately 13.90% of the total investor population (410). This indicates that a relatively small proportion of investors are employed in

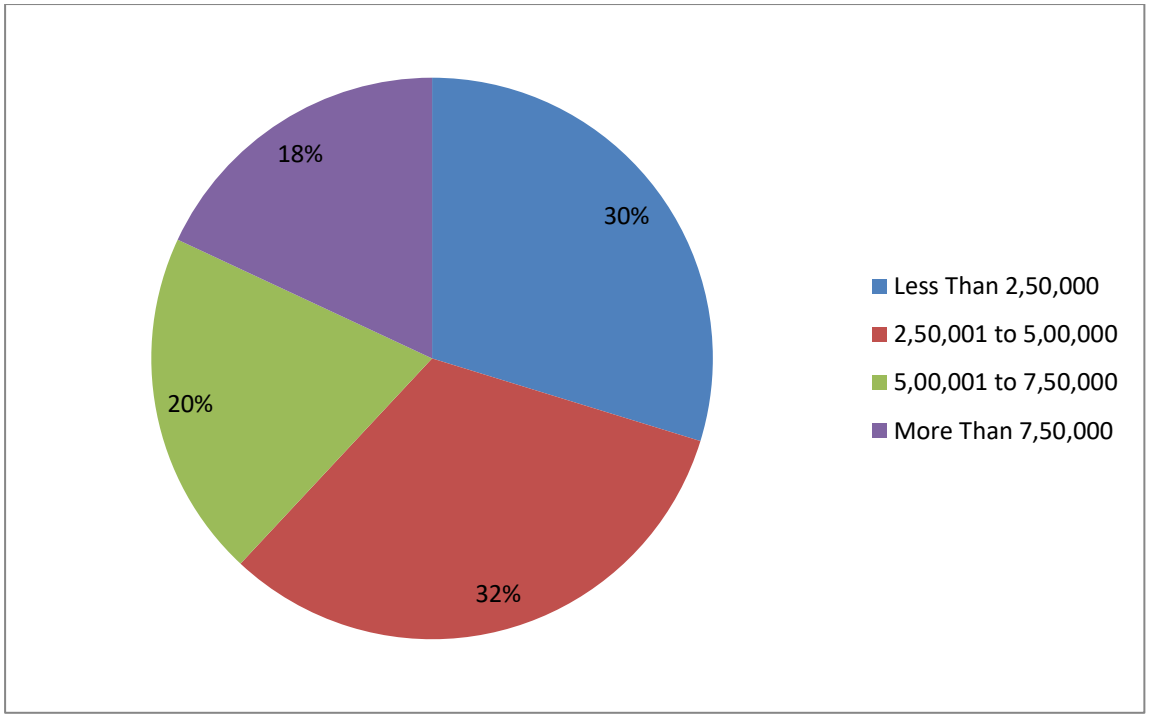
public/government service roles. There are 144 investors categorized under this occupation, accounting for approximately 35.12% of the total investors. This suggests that a significant portion of investors are employed in the private sector, which includes various industries and corporations outside of government employment. The largest group among the investors, with 209 individuals, constituting about 50.98% of the total investor population. This indicates that self-employment is the most prevalent occupation among the investors surveyed, showcasing a considerable entrepreneurial spirit or inclination towards independent business ventures.

Overall, the data suggests a diverse mix of occupations among investors, with a significant proportion engaged in self-employment, followed by those in the private sector, while a smaller fraction is involved in public/government service roles. This breakdown could be valuable for understanding the occupational distribution within the investor community and tailoring investment strategies or financial products accordingly.

**Table No.4.4**: Percentage Analysis on the basis of Annual Income of investors.

| Particulars | Demographic | Frequency | Percent |
|---|---|---|---|
| Annual Income | Less Than 2,50,000 | 122 | 29.7561 |
| | 2,50,001 to 5,00,000 | 132 | 32.19512 |
| | 5,00,001 to 7,50,000 | 82 | 20 |
| | More Than 7,50,000 | 74 | 18.04878 |
| | Total | 410 | 100 |

**Chart No. 4.4**




**Interpretation:-**

The provided data represents a percentage analysis based on the annual income of investors. Here's the breakdown:

1. Less Than 2,50,000: This group consists of 122 investors, which accounts for approximately 29.76% of the total sample size.
2. 2,50,001 to 5,00,000: There are 132 investors falling into this income bracket, making up about 32.20% of the total.
3. 5,00,001 to 7,50,000: This category comprises 82 investors, representing around 20% of the total.
4. More Than 7,50,000: There are 74 investors in this group, making up approximately 18.05% of the total.

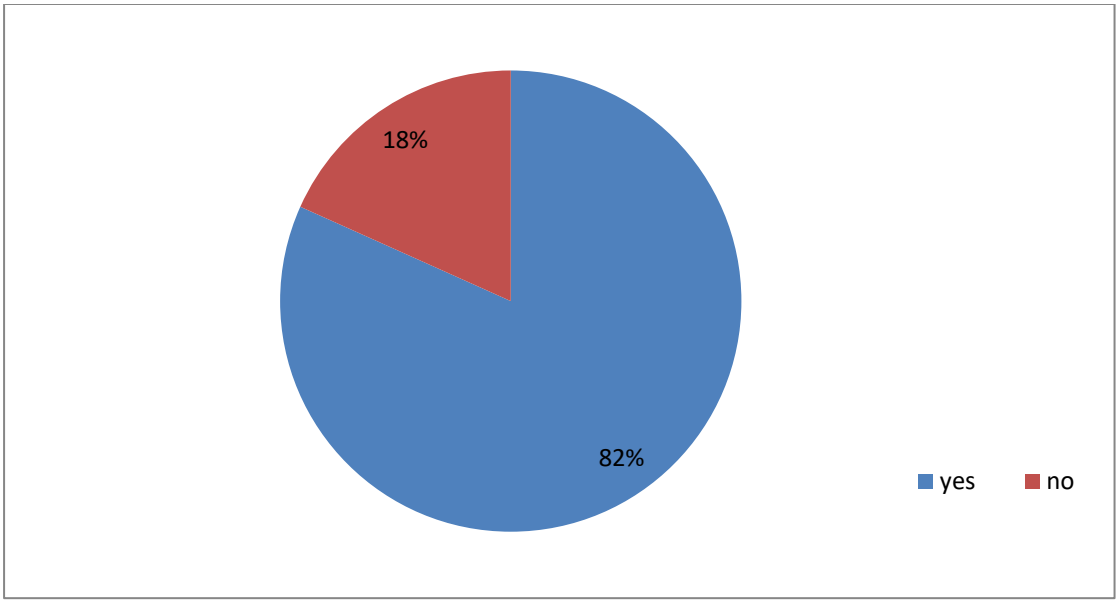
From this analysis, it's evident that the majority of investors fall into the lower income brackets, with over 60% having an annual income less than 5,00,000. Conversely, only around 18% of investors have an income exceeding 7,50,000. This information can be valuable for understanding the income distribution of investors and tailoring investment strategies or products accordingly.

## 4.3 Percentage Analysis of Various Questions:-

**Table No.4.5**: Percentage Analysis on the basis of Awareness of Alternative Investment.

| Particulars | Demographic | Frequency | Percent |
|---|---|---|---|
| Are you aware of alternative investment | yes | 335 | 81.707 |
| | no | 75 | 18.293 |
| | Total | 410 | 100 |

**Chart No. 4.5**




**Interpretation:-**

Among the surveyed individuals, 335 (81.707%) responded affirmatively that they are aware of alternative investment options. On the other hand, 75 individuals (18.293%) suggested that they aren't aware of alternative investment options.

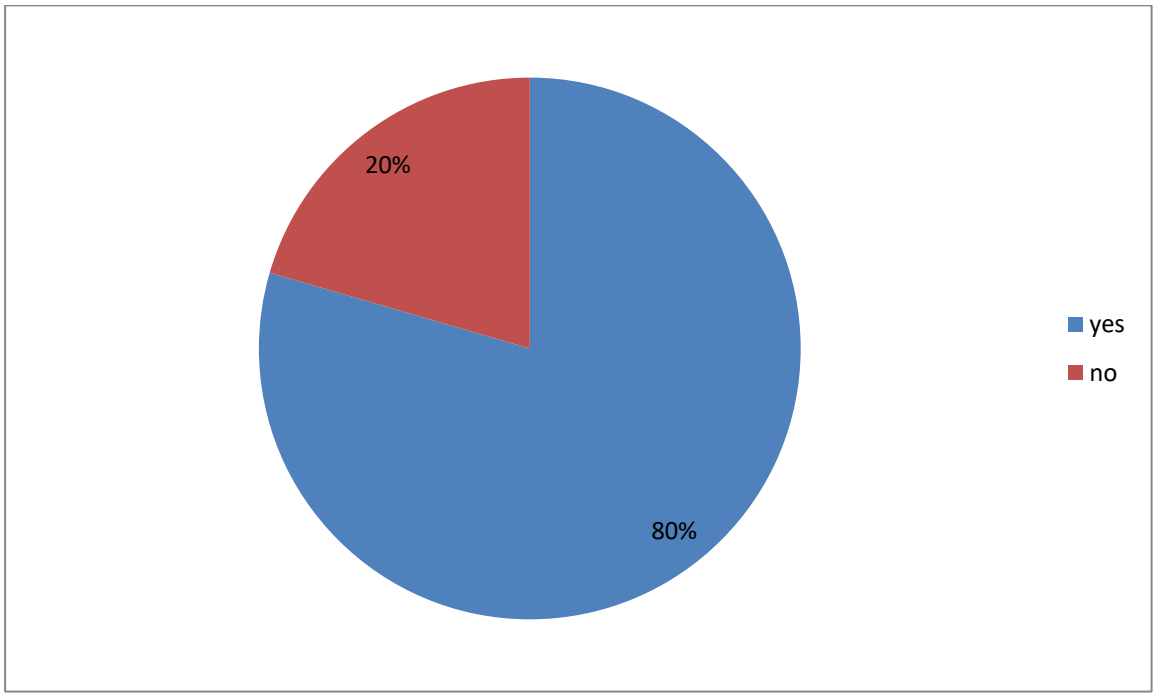
This analysis indicates that a significant majority (81.707%) of the surveyed demographic are aware of alternative investment opportunities. However, there is still a notable minority (18.293%) who lack awareness in this regard. This information could be valuable for

institutions or entities looking to tailor their investment education or outreach programs to enhance awareness among those less informed about alternative investment options.

**Table No.4.6:** Percentage Analysis on the basis of Alternative Investment

| Particulars | Demographic | Frequency | Percent |
|---|---|---|---|
| Does investor invest in other then Traditional Investment? | yes | 326 | 79.5122 |
| | no | 84 | 20.4878 |
| | Total | 410 | 100 |

**Chart no. 4.6**




**Interpretation:-**

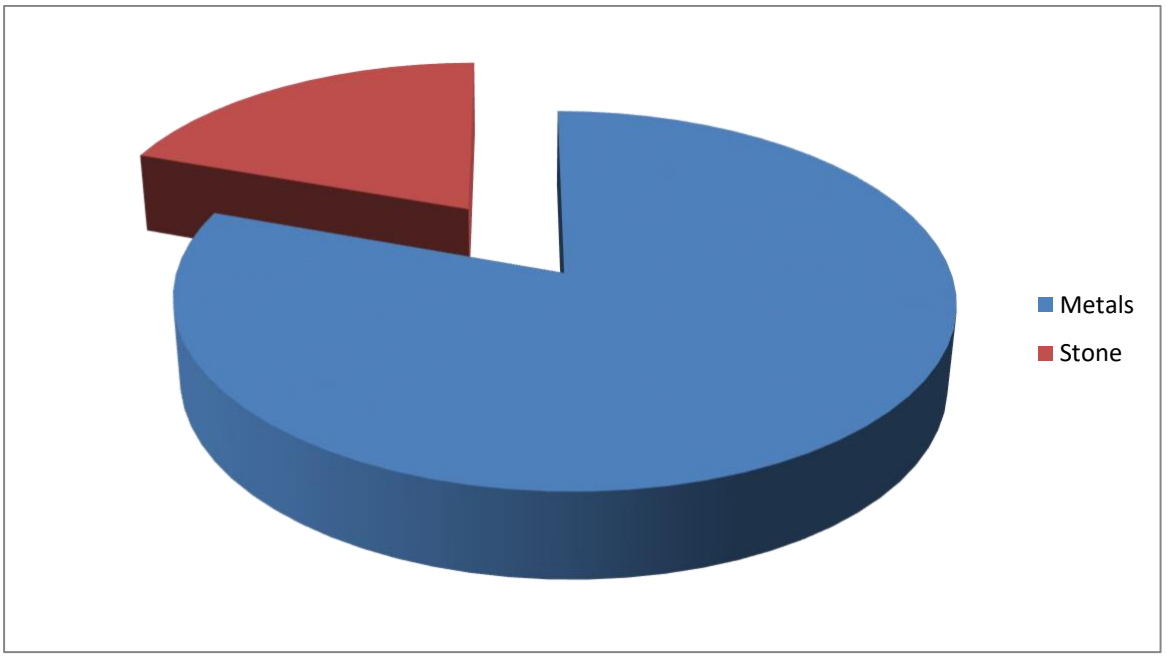
Among all of the responders, 326 individuals, constituting approximately 79.51% of the sample, indicated that they invest in alternatives to traditional investment options. The majority of respondents (about 79.51%) are aware of and actively invest in alternative investment options besides traditional avenues.

Conversely, 84 respondents, representing about 20.49% of the sample, said they don't invest in anything other than traditional investment options. However, a significant portion (approximately 20.49%) of the respondents still solely relies on traditional investment instruments.

**Table No.4.7:** Percentage Analysis on the basis of investment in different avenue

| Particulars | Demographic | Frequency | Percent |
|---|---|---|---|
| Investment in Different Avenue | Metals | 330 | 80.4878 |
| | Stone | 80 | 19.5122 |
| | Total | 410 | 100 |

**Chart No. 4.7:**




**Interpretation:-**

The provided data presents a percentage analysis of investments in different avenues, specifically metals and stone. Here's the breakdown:

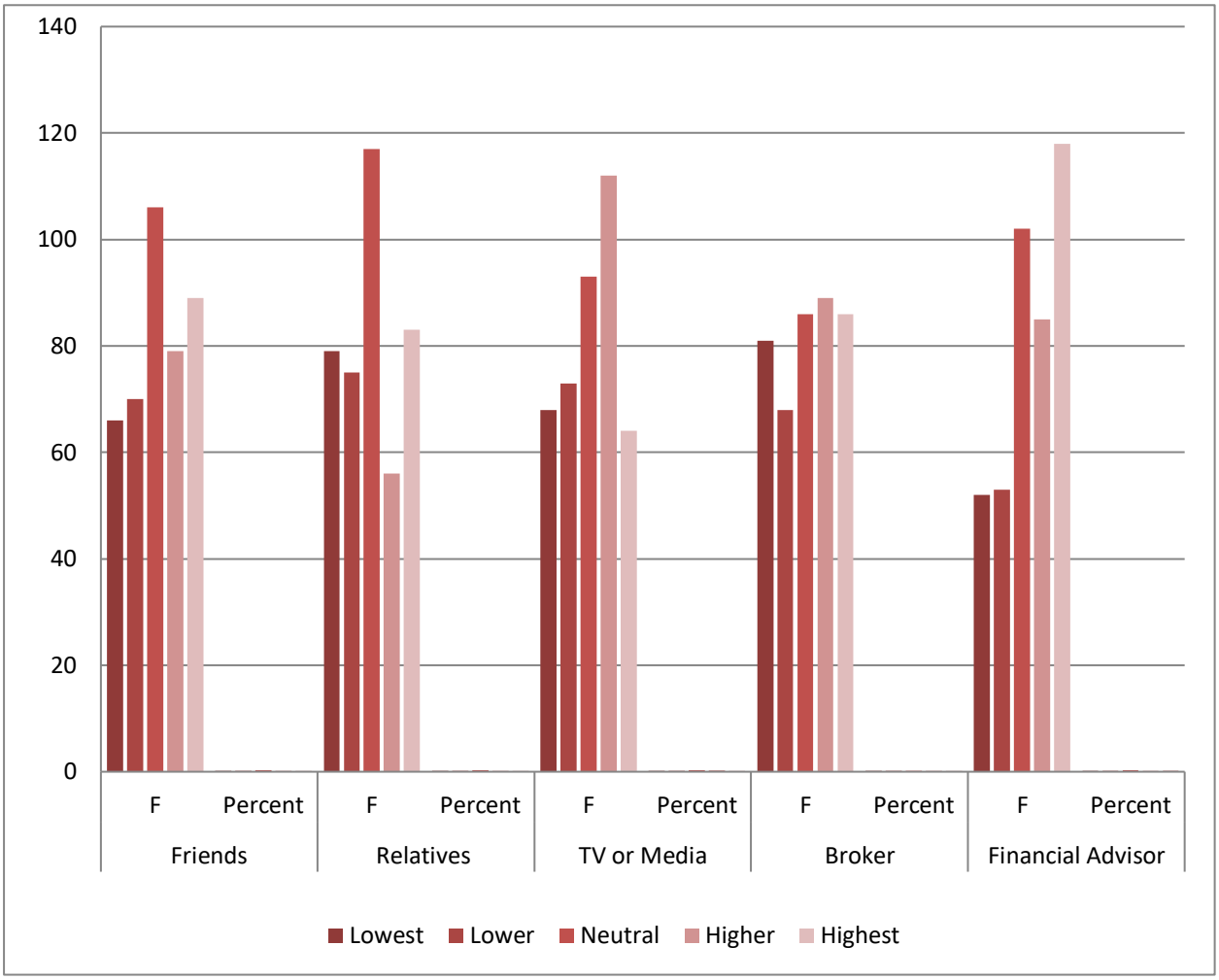
- Metals: 330 investments, constituting approximately 80.49% of all the investments made.
- Stone: 80 investments, representing approximately 19.51% of all the investment made.

The data suggests that 80.49% of investments are made primarily in metals. Conversely, investments in stone comprise a smaller portion, approximately 19.51%, of the total investment pool. This analysis indicates a significant preference or emphasis on investments in metals compared to stone within the demographic or group under consideration.

**Table No.4.8**: Percentage Analysis of the sources of investment in Alternative Avenue

| | Friends | | Relatives | | TV or Media | | Broker | | Financial Advisor | |
|---|---|---|---|---|---|---|---|---|---|---|
| Demographic | F | Percent | F | Percent | F | Percent | F | Percent | F | Percent |
| Lowest | 66 | 16% | 79 | 19% | 68 | 17% | 81 | 20% | 52 | 13% |
| Lower | 70 | 17% | 75 | 18% | 73 | 18% | 68 | 17% | 53 | 13% |
| Neutral | 106 | 26% | 117 | 29% | 93 | 23% | 86 | 21% | 102 | 25% |
| Higher | 79 | 19% | 56 | 14% | 112 | 27% | 89 | 22% | 85 | 21% |
| Highest | 89 | 22% | 83 | 20% | 64 | 15% | 86 | 20% | 118 | 28% |

**Chart No. 4.8**




**Interpretation:-**

**Sources of Investment:**

1. Friends: This refers to investments sourced through personal connections. Across all demographics, the percentage of investment sourced from friends ranges from 16% to 22%.
2. Relatives: Similar to friends, investments sourced from relatives show a similar pattern across demographics, ranging from 14% to 20%.
3. TV or Media: This represents investments influenced by advertisements or information obtained from television or other media sources. The percentage of investment from this source varies widely across demographics, ranging from 15% to 27%.

4. Broker: Investments made through a broker show consistency across demographics, with percentages ranging from 20% to 22%.
5. Financial Advisor: Investments guided by a financial advisor also show consistency across demographics, with percentages ranging from 13% to 28%.

**Income Level Influence**: There seems to be some correlation between income level and the choice of investment source. For instance, those in the Neutral and Highest income categories tend to rely more on financial advisors (25% and 28% respectively), while those in the Lower income category tend to rely less on financial advisors (14%).

**Media Influence**: The percentage of investment sourced from TV or media is relatively high across all income categories, indicating the significance of media influence in investment decisions across demographics.

**Consistency in Broker and Financial Advisor Usage**: While there are variations in the percentages, the usage of brokers and financial advisors shows relatively consistent patterns across different income levels.

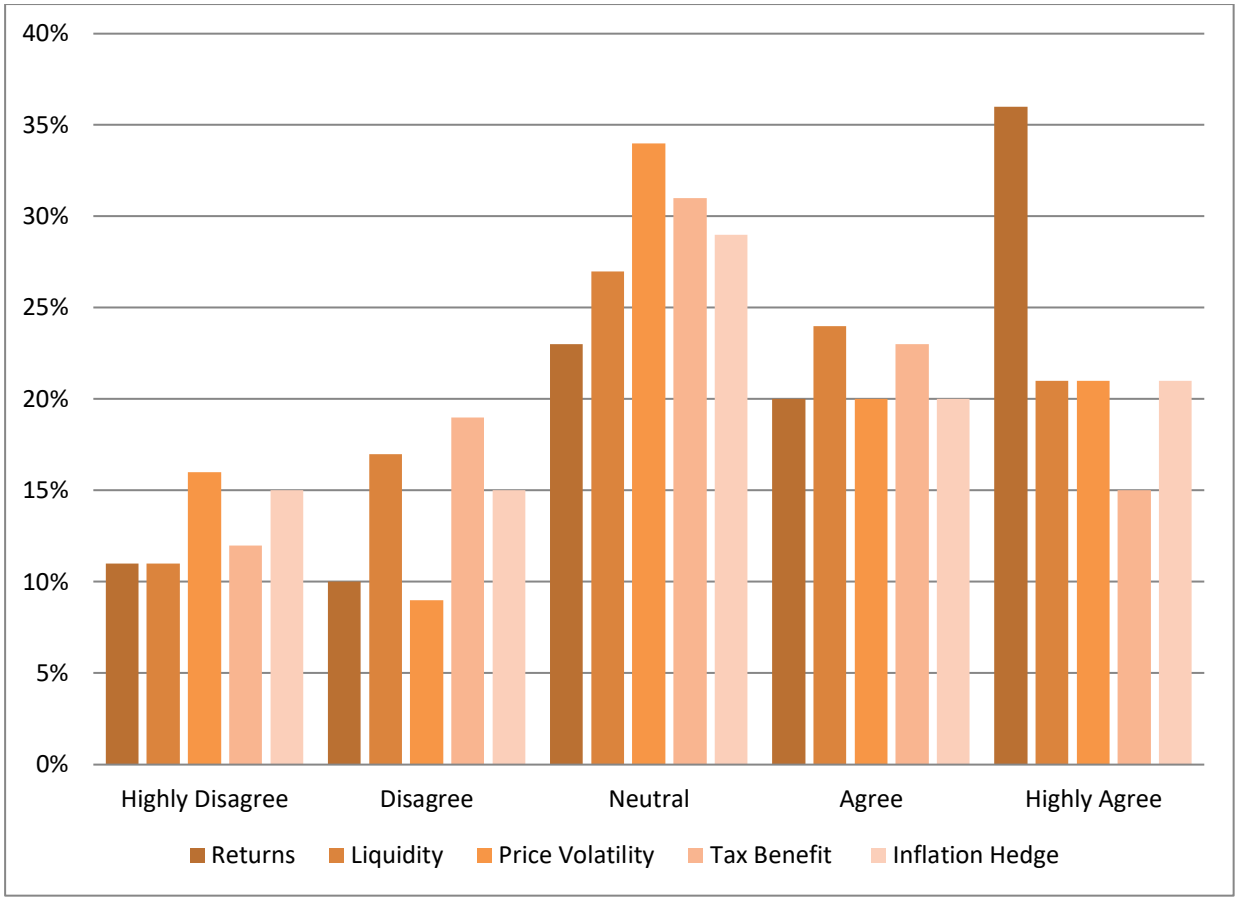
Overall, the analysis suggests that while certain sources of investment may vary based on income level, there are consistent patterns in the utilization of brokers and financial advisors across demographics. Additionally, media seems to play a determined role in influencing investment decisions across all income levels.

**Table No. 4.9**: Percentage Analysis of factors affects investment decision in precious metals and stones.

| Question | Particular | Highly Disagree | Disagree | Neutral | Agree | Highly Agree |
|---|---|---|---|---|---|---|
| Which factors affects to make investment | Returns | 11% | 10% | 23% | 20% | 36% |

| | | | | | | |
|---|---|---|---|---|---|---|
| decision in Precious Metals? | Liquidity | 11% | 17% | 27% | 24% | 21% |
| | Price Volatility | 16% | 9% | 34% | 20% | 21% |
| | Tax Benefit | 12% | 19% | 31% | 23% | 15% |
| | Inflation Hedge | 15% | 15% | 29% | 20% | 21% |

**Chart no. 4.9:-**




**Interpretation:-**

This table presents a percentage analysis of factors influencing investment decisions in precious metals, along with the responses ranging from "Highly Disagree" to "Highly Agree."

**Returns**: A significant portion (36%) of respondents highly agrees that returns influence their investment decisions in precious metals. This implies that a lot of investors saw the possibility for favorable returns in this asset class, which could be a major motivator for their investment choices.

**Liquidity**: The responses regarding liquidity are more evenly dispersed over the spectrum, with no one group taking center stage. This implies that even though many investors take liquidity into account, it may not be the main factor affecting their choice to invest in precious metals.

**Price Volatility**: A significant portion of respondents (34%) are neutral regarding the influence of price volatility on their investment decisions in precious metals. This indicates

a degree of uncertainty or perhaps a lack of consensus among investors regarding the effect of market fluctuations on their investing decisions.

**Tax Benefit**: The responses regarding tax benefits are somewhat evenly distributed across the spectrum, with no clear consensus. This implies that although some investors may consider tax benefits in their decision-making process, it's not universally perceived as a significant factor.

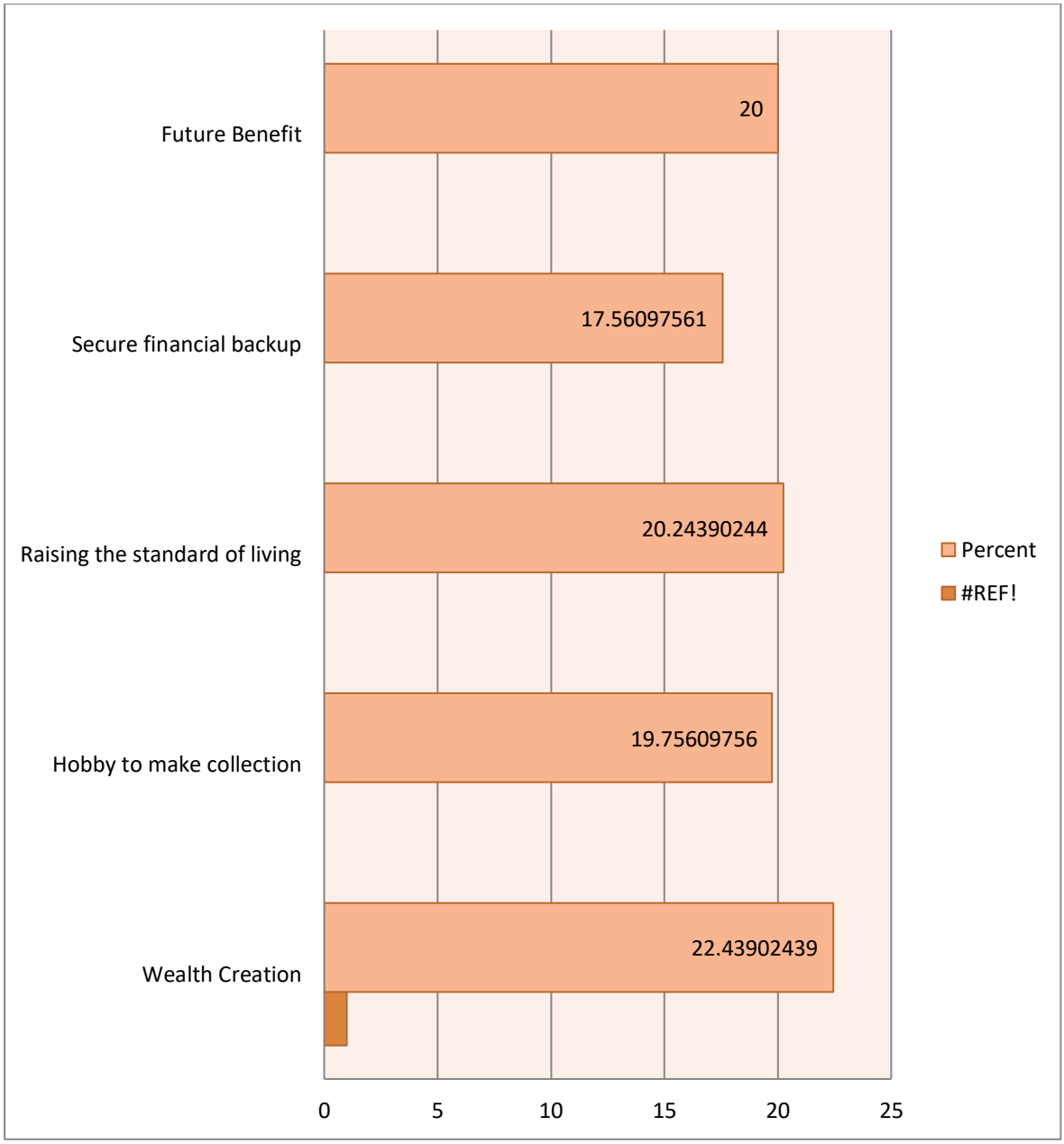
**Inflation Hedge**:: The responses regarding using precious metals as an inflation hedge are dispersed quite evenly, with a notable portion (29%) being neutral. This implies that although some investors believe in the effectiveness of precious metals as an inflation hedge, there's also a considerable level of uncertainty or disagreement among respondents.

Overall, the interpretation of these results indicates that returns and inflation hedge potential are perceived as more influential factors in investment decisions regarding precious metals compared to liquidity, price volatility, and tax benefits. However, there's some level of uncertainty or lack of consensus regarding the impact of liquidity, price volatility, and tax benefits on investment decisions in this asset class.

**Table No. 4.10**: Percentage Analysis of factors motivates investors to invest in precious metals and stones.

| Particulars | Demographic | Frequency | Percent |
|---|---|---|---|
| Which factors motivates you to invest in precious metals and stones? | Wealth Creation | 92 | 22.43902 |
| | Hobby to make collection | 81 | 19.7561 |
| | Raising the standard of living | 83 | 20.2439 |
| | Secure financial backup | 72 | 17.56098 |
| | Future Benefit | 82 | 20 |
| | **Total** | **410** | **100** |

**Chart No.4.10**




**Interpretation:-**

The table presents a percentage analysis of factors that motivate investors to invest in precious metals and stones, based on demographic data.

**Wealth Creation:** 22.44% of respondents cited wealth creation as their motivation for investing in precious metals and stones. This suggests that a significant portion of investors sees these assets as a means to grow their wealth over time.

**Hobby to make collection:** 19.76% of respondents invest in precious metals and stones as a hobby or for collection purposes. This indicates that there's a segment of investors who view these assets as collectibles rather than solely financial instruments.

**Raising the standard of living:** 20.24% of respondents aim to raise their standard of living through investments in precious metals and stones. This implies that some investors view these assets as a means of improving their standard of living or realizing specific goals.

**Secure financial backup**: 17.56% of respondents invest in precious metals and stones for the purpose of securing a financial backup. This indicates that there's an investors' belief that these assets provide stability and security in times of economic uncertainty.

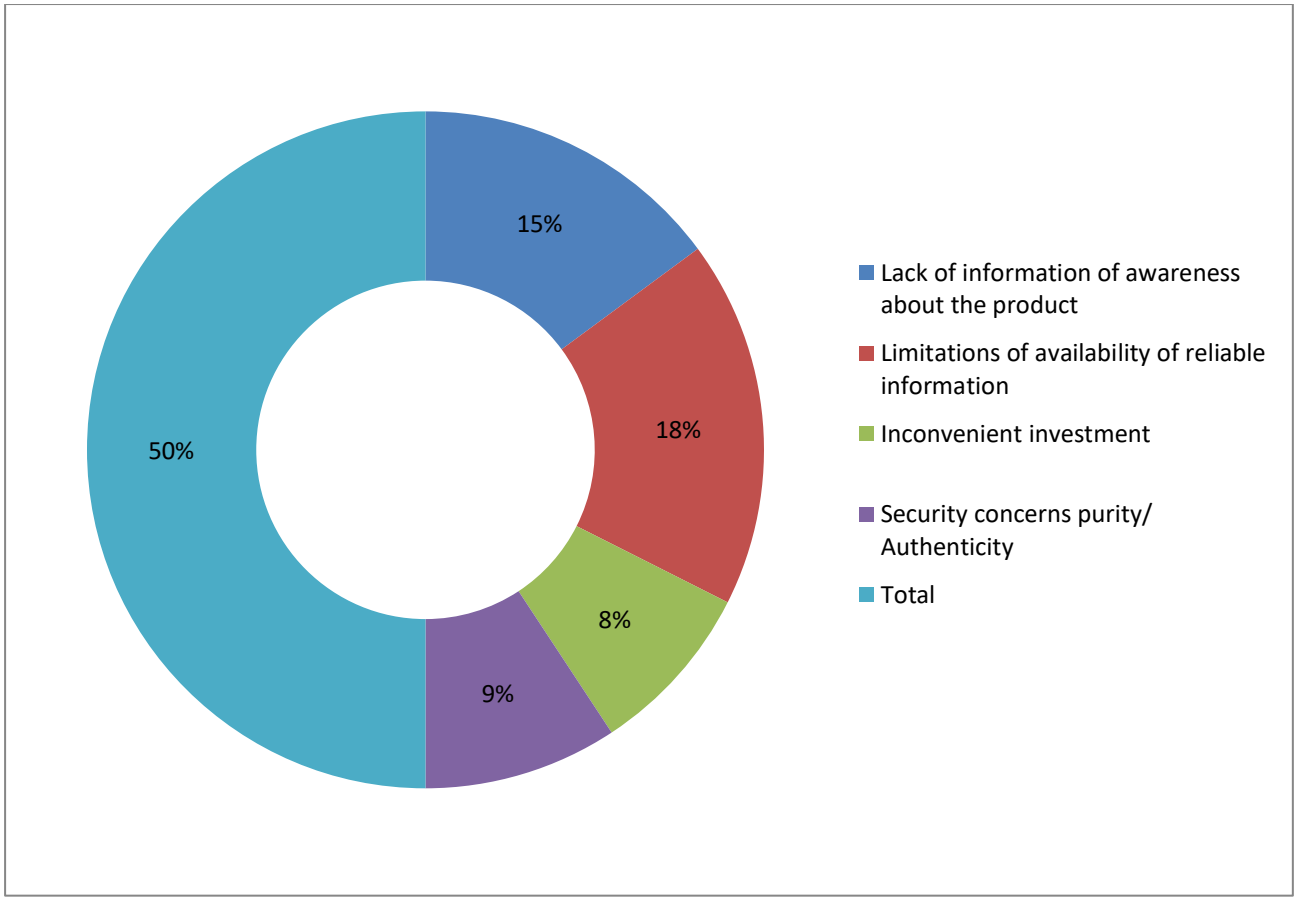
**Future Benefit:** 20% of respondents are motivated by future benefits when investing in precious metals and stones. This could take into account things like hedging against inflation or preserving wealth for future generations.

Overall, the analysis suggests that investors are motivated by a combination of financial objectives, personal interests, and perceived benefits when it comes to investing in precious metals and stones. These motivations vary among individuals, highlighting the diverse reasons behind investment decisions in these assets.

**Table No.4.11**: Percentage Analysis of challenges faced by investors.

| Particulars | Demographic | Frequency | Percent |
|---|---|---|---|
| **Which challenges faces by investors while investing in alternative avenues?** | Lack of information of awareness about the product | 122 | 29.7561 |
| | Limitations of availability of reliable information | 144 | 35.12195 |
| | Inconvenient investment | 68 | 16.58537 |
| | Security concerns purity/ Authenticity | 76 | 18.53659 |
| | **Total** | **410** | **100** |

**Chart No. 4.11**




**Interpretation:-**

The table provides a percentage analysis of the challenges faced by investors when investing in alternative avenues. Here's the interpretation:

**Lack of information or awareness about the product:** This challenge accounts for approximately 29.76% of the total challenges faced by investors. It indicates that a substantial amount of investors struggle because there isn't sufficient knowledge or awareness about the alternative investment products they are considering.

**Limitations of availability of reliable information:** About 35.12% of the total challenges are attributed to the limited availability of reliable information. This implies that investors discover it difficult to access trustworthy and credible information about alternative investment opportunities, which may hinder their decision-making process.

**Inconvenient investment:** Approximately 16.59% of investors face challenges related to inconvenient investment options. This could imply difficulties in the investment process itself, such as complex procedures, lengthy paperwork, or inconvenient access to investment platforms.

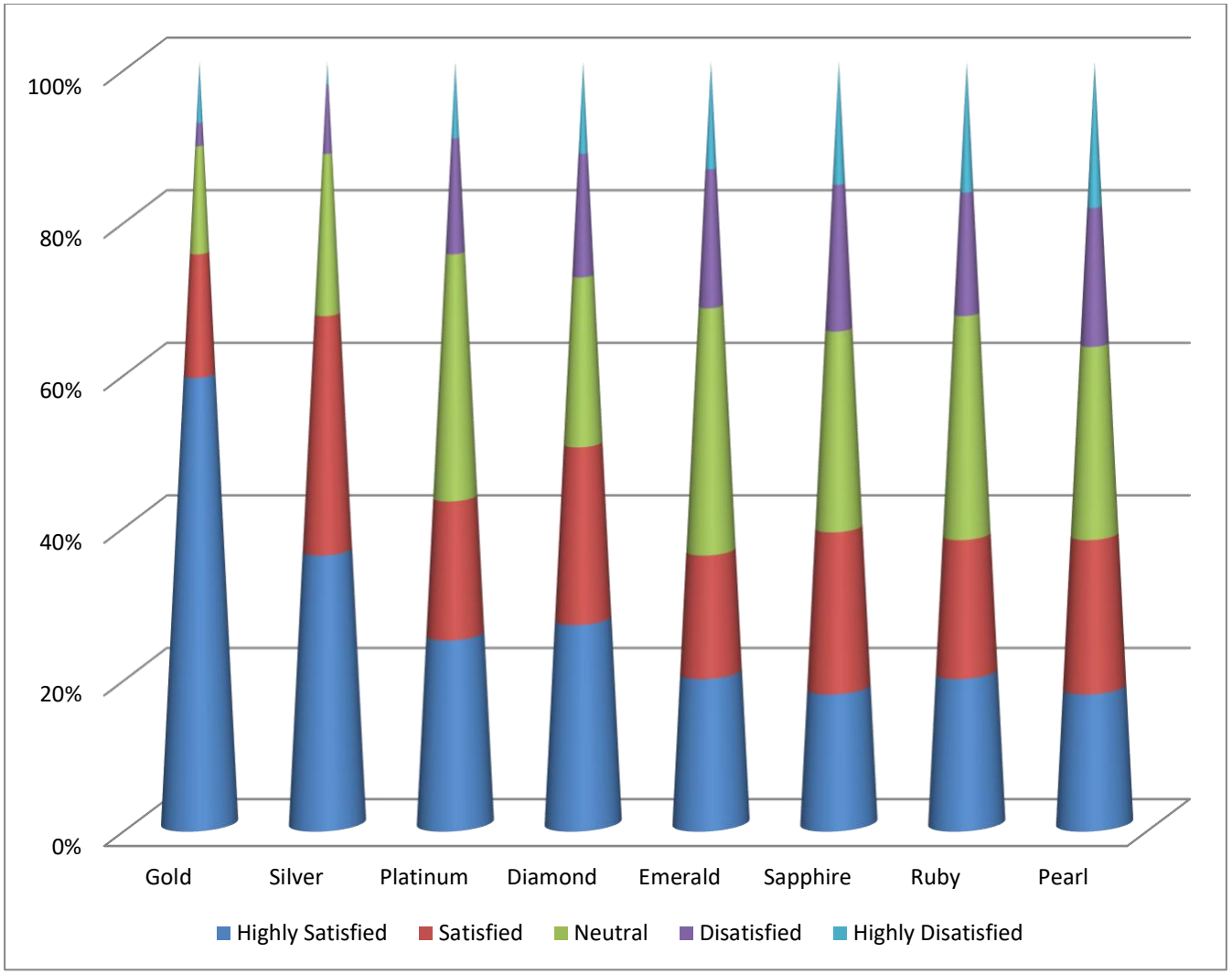
**Security concerns/purity/Authenticity:** This category represents around 18.54% of the total challenges. It indicates that a considerable portion of investors grapple with concerns about the security, purity, or authenticity of alternative investment options. This could encompass worries about fraud, scams, or the legitimacy of the investment opportunity.

Overall, the analysis highlights that the most significant challenges for investors in alternative avenues revolve around the availability and reliability of information, followed by concerns about security and authenticity, with inconvenience and lack of awareness also playing significant roles. Taking these issues on might possibly enhance investor confidence and participation in alternative investment markets.

**Table No.4.12:** Percentage Analysis of Preference for Investing in Precious Metals and Stones.

| Particulars | Highly Satisfied | Satisfied | Neutral | Dissatisfied | Highly Dissatisfied |
|---|---|---|---|---|---|
| Gold | 59% | 16% | 14% | 3% | 8% |
| Silver | 36% | 31% | 21% | 9% | 3% |
| Platinum | 25% | 18% | 32% | 15% | 10% |
| Diamond | 27% | 23% | 22% | 16% | 12% |
| Emerald | 20% | 16% | 32% | 18% | 14% |
| Sapphire | 18% | 21% | 26% | 19% | 16% |
| Ruby | 20% | 18% | 29% | 16% | 17% |
| Pearl | 18% | 20% | 25% | 18% | 19% |

**Chart No.4.12**




**Interpretation:-**

The table provides a percentage analysis of the preference for investing in various precious metals and stones, categorized by levels of satisfaction.

**Gold**:59% of responders express great satisfaction with investing in gold, making it the most preferred option.16% are satisfied.14% are neutral. Only 3% are dissatisfied and 8% are highly dissatisfied.

**Silver**: While 36% are highly satisfied with silver investments, it's notably lower compared to gold.31% are satisfied.21% are neutral.9% are dissatisfied and only 3% are highly dissatisfied.

**Platinum**:

25% are highly satisfied with platinum investments.18% are satisfied. Interestingly, 32% are neutral.15% are dissatisfied and 10% are highly dissatisfied.

**Diamond, Emerald, Sapphire, Ruby, and Pearl**:

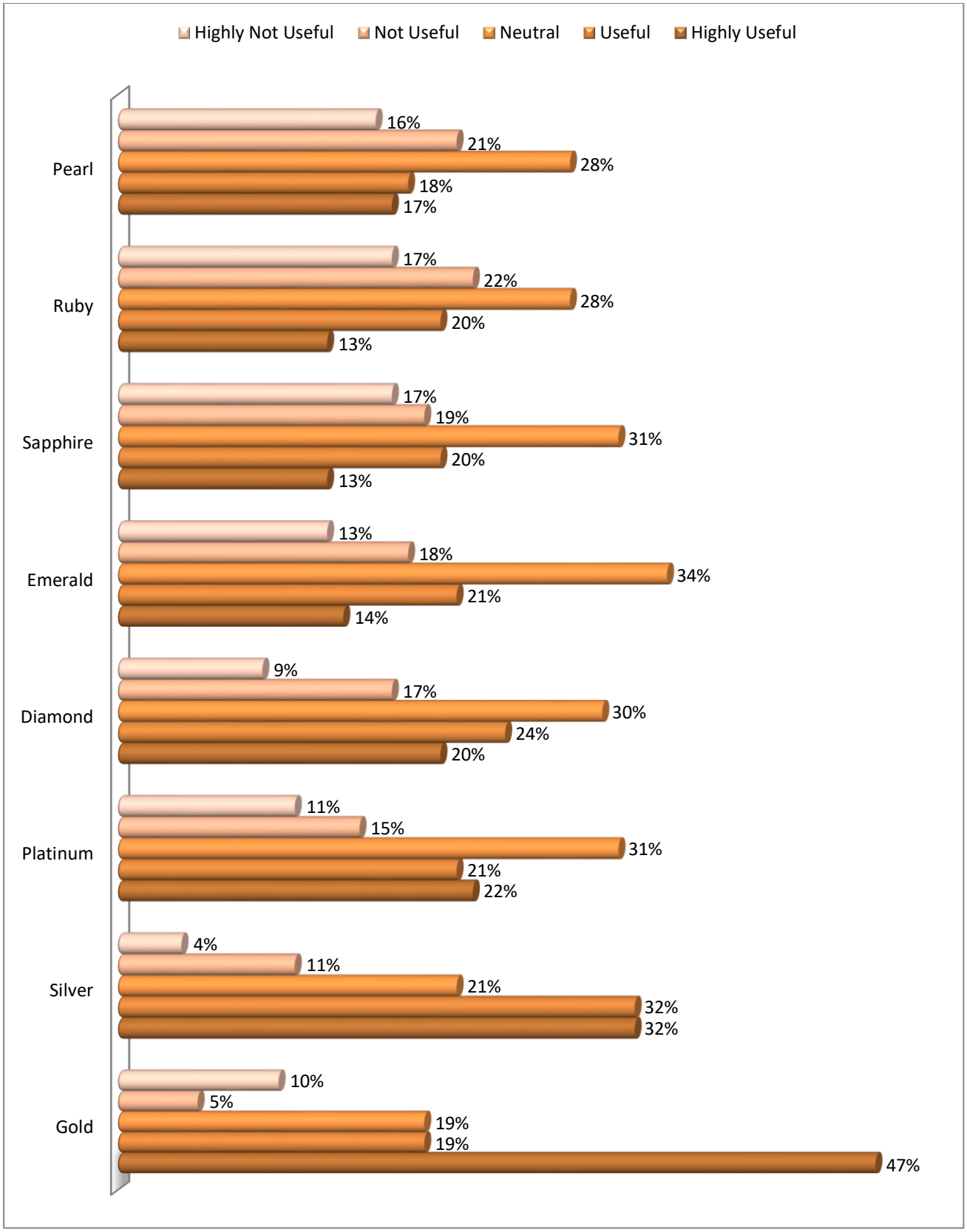
Across these gemstones, satisfaction levels vary. Diamond has 27% highly satisfied, followed by Ruby and Emerald at 20% each. Emerald and Sapphire have the highest neutral responders' percentage (32% and 26%, respectively), indicating some ambiguity. With 19% of respondents, Pearl had the highest level of dissatisfaction.

**Gold** is overwhelmingly the most preferred precious metal for investment, with a high satisfaction rate. **Silver** follows, though with a lower satisfaction rate compared to gold. **Platinum** has a significant portion of respondents in the neutral category, indicating a lack of strong opinion. Among the gemstones, **diamond** seems to be the most preferred, followed closely by **ruby** and **emerald**. **Sapphire**, **ruby**, and **emerald** have relatively high percentages of respondents in the neutral category, indicating uncertainty or lack of strong preference. **Pearl** has the highest dissatisfaction rate among all, suggesting it might not be a popular choice for investment among respondents.

**Table No.4.13:** Percentage Analysis on usefulness for diversification of investment.

| Particulars | Highly Useful | Useful | Neutral | Not Useful | Highly Not Useful |
|---|---|---|---|---|---|
| Gold | 47% | 19% | 19% | 5% | 10% |
| Silver | 32% | 32% | 21% | 11% | 4% |
| Platinum | 22% | 21% | 31% | 15% | 11% |
| Diamond | 20% | 24% | 30% | 17% | 9% |
| Emerald | 14% | 21% | 34% | 18% | 13% |
| Sapphire | 13% | 20% | 31% | 19% | 17% |
| Ruby | 13% | 20% | 28% | 22% | 17% |
| Pearl | 17% | 18% | 28% | 21% | 16% |

**Chart No.4.13**




**Interpretation:-**

This table presents a percentage analysis of the perceived usefulness of various investment options for diversification purposes. Let's break down the interpretation:

**Gold:** 47% of respondents find gold highly useful for diversification.19% find it useful.19% are neutral.5% do not find it useful.10% find it highly not useful.

**Silver:** 32% of respondents find silver highly useful for diversification.32% find it useful.21% are neutral.11% do not find it useful.4% find it highly not useful.

**Platinum:** 22% of respondents find platinum highly useful for diversification.21% find it useful.31% are neutral.15% do not find it useful.11% find it highly not useful.

**Diamond:** 20% of respondents find diamond highly useful for diversification.24% find it useful.30% are neutral.17% do not find it useful.9% find it highly not useful.

**Emerald:** 14% of respondents find emerald highly useful for diversification.21% find it useful.34% are neutral.18% do not find it useful.13% find it highly not useful.

**Sapphire:** 13% of respondents find sapphire highly useful for diversification.20% find it useful.31% are neutral.19% do not find it useful.17% find it highly not useful.

**Ruby:** 13% of respondents find ruby highly useful for diversification.20% find it useful.28% are neutral.22% do not find it useful.17% find it highly not useful.

**Pearl:** 17% of respondents find pearl highly useful for diversification.18% find it useful.28% are neutral.21% do not find it useful.16% find it highly not useful.

Gold and silver seem to be the most favoured options for diversification, with significant percentages of respondents finding them highly useful.

Platinum, Diamond, and Pearl also have a decent percentage of respondents finding them useful for diversification.

The neutral responses are quite significant across all options, indicating a degree of uncertainty or lack of strong opinion on their usefulness for diversification.

Across all options, the percentages of respondents finding them highly not useful are comparatively low, suggesting that each investment alternative has a certain degree of perceived utility.

## 4.4 Reliability Statistics

**4.4.1** From where did investors get the sources of investment in Alternative avenue

| Reliability Statistics | |
|---|---|
| Cronbach's Alpha | N of Items |
| .777 | 5 |

**Interpretation**

The dependability of the information obtained from investors about their sources of investment in alternative routes is indicated by the Cronbach's Alpha coefficient of.777. The coefficient in this instance points to a reasonably high degree of internal consistency between the measured items, which is encouraging for the validity of the instrument or survey that was used to gather the data. Analyzing a Cronbach's Alpha value entails determining the degree to which the survey's items or scale consistently measure the same underlying construct—in this case, investors' sources of investment in alternative avenues. A Cronbach's Alpha value closer to 1 indicates stronger internal consistency among the items, with .777 falling within an acceptable range for many research purposes. However, It is imperative to acknowledge that the context of the study must be taken into account while interpreting Cronbach's Alpha. and the specific goals of the research. While .777 demonstrates reasonable reliability, researchers may want to assess whether this level of consistency meets their standards for data reliability and whether any adjustments or further validation steps are necessary.

Overall, a Cronbach's Alpha of .777 suggests that the data collected on investors' sources of investment in alternative avenues are reasonably reliable, but researchers should remain cautious and consider additional factors when interpreting the results.

**4.4.2** Which factors affects to make investments decision in Precious Metals and Stones

| Reliability Statistics | |
|---|---|
| Cronbach's Alpha | N of Items |
| .808 | 5 |

**Interpretation**

The reliability statistics you've provided, specifically Cronbach's Alpha of .808 with 5 items, indicates a good degree of internal consistency amongst the variables affecting choices made when investing in precious metals and stones. A set of items' degree of group relationship is measured by Cronbach's Alpha, with values closer to 1 denoting higher internal consistency. The five objects in this context probably stand for various considerations that investors have when deciding whether to purchase precious metals and stones. These variables may consist of things like market volatility, geopolitical stability, historical performance, inflation hedging capabilities, and industrial demand. The high Cronbach's Alpha implies that these elements are positively correlated and collectively contribute to investors' decision-making process regarding these commodities.

Investors typically seek assets that offer stability, growth potential, and hedging against economic uncertainties. The high degree of internal consistency indicates that the variables taken into account are trustworthy predictors of the allure of precious metals and jewels as investment opportunities. This could mean that in order to make well-informed decisions about allocating resources to these assets, investors rely on a balanced appraisal of many criteria, including market dynamics, macroeconomic trends, and geopolitical issues. Overall, the strong internal consistency highlights how crucial these elements are in influencing financial choices in the precious metals and stones market.

**4.4.3** Indicate how satisfied you are with investing in Precious Metals and Stones

| Reliability Statistics | |
|---|---|
| Cronbach's Alpha | N of Items |
| .895 | 8 |

**Interpretation**

Based on the reliability statistics provided, with a Cronbach's Alpha coefficient of .895 and 8 items, the satisfaction level towards investing in Precious Metals and Stones appears to be highly reliable. Cronbach's Alpha is a metric for internal consistency that shows how many the items in a scale consistently measure the same underlying construct—in this case, satisfaction with investing in precious metals and stones.

A Cronbach's Alpha value of .895 suggests a high level of reliability, meaning that The scale's items have a significant correlation with one another. This suggests that the scale is effectively measuring the intended concept of satisfaction with investing in precious metals and stones, rather than capturing unrelated factors. Investors and researchers can have confidence in the consistency of responses gathered using this scale. High reliability suggests that the scale accurately captures respondents' attitudes towards investing in precious metals and stones, providing valuable insights for decision-making and further analysis. In conclusion, based on the Cronbach's Alpha coefficient of .895, the satisfaction level towards investing in precious metals and stones is deemed highly reliable, affirming the consistency and validity of the measurement instrument used.

## 4.5) Hypothesis testing in a single method ANOVA analysis

### 4.5.1 ANOVA analysis by the demographic makeup of respondents for Investment Decision.

Ho: There is no significant relation between investor's gender and investment decision.

H1: There is significant relation between investor's gender and investment decision.

| ANOVA | | | | | |
|---|---|---|---|---|---|
| **Average** | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** |
| Between Groups | 1.549 | 1 | 1.549 | .085 | .771 |
| Within Groups | 7462.582 | 408 | 18.291 | | |
| **Total** | **7464.131** | **409** | | | |

- By Gender
- **Interpretation:-**
- The F-value (0.085) obtained from the ANOVA table is less than 1.
- The significance level (Sig.) associated with the F-value is 0.771, which is much higher than the typical threshold of 0.05.

Since the p-value (0.771) is greater than the significance level (0.05), we fail to reject the null hypothesis.

**Conclusion**:

Based on these results, we do not have enough evidence to reject the null hypothesis. Therefore, we do not discover a meaningful correlation between the gender of investors and their choice of investments. Stated differently, the data suggests that gender does not have a statistically significant influence on investment decisions.

**HYPOTHESIS**

Ho: There is no significant relation between investor's Occupation and investment decision.

H1: There is significant relation between investors' Occupation and investment decision.

❖ By Occupation

| ANOVA | | | | | |
|---|---|---|---|---|---|
| **Average** | **squares** | **DF** | **Xbar** | **F** | |
| Group | 7.611 | 2 | 3.805 | .208 | .813 |
| Within Groups | 7456.520 | 407 | 18.321 | | |
| **Total** | **7464.131** | **409** | | | |

**Interpretation:-**

- ❖ The p-value (Sig.) associated with the F-value is 0.813, which is greater than the typical significance level of 0.05.
- ❖ Since the p-value is greater than 0.05, we fail to disprove the hypothesis (Ho).
- ❖ Therefore, we do not have sufficient data to determine that there is a meaningful connection between investors' occupation and investment decision.
- ❖ In other words according to the available data, there isn't a statistically significant variation in investment decisions based on investors' occupation.

**HYPOTHESIS**

Ho: There's no meaningful connection between investor's Education Qualification and investment decision.

H1: There is connection between investor's Education Qualification and investment decision.

- By Education Qualification

| ANOVA | | | | | |
|---|---|---|---|---|---|
| **Average** | **squares** | **DF** | **Xbar** | **F** | **Sig.** |
| Between Groups | 17.757 | 4 | 4.439 | .241 | .915 |
| Within Groups | 7446.374 | 405 | 18.386 | | |
| **Total** | **7464.131** | **409** | | | |

**Interpretation:-**

- **F-value:** The F-value is a ratio of the variance between groups to the variance within groups. In this case, the F-value is 0.241, which is not equal to 1. This suggests that there is less variation between groups than there is within groupings.
- **Significance (Sig.):** 0.915 is the significance level (p-value) corresponding to the F-value. This indicates that there is insufficient evidence to reject the null hypothesis because it is over the usual alpha threshold of 0.05.
- **Understanding Ho and H1:** We are unable to reject the null hypothesis (Ho) since the p-value (0.915) is higher than the significance level, which is typically 0.05. Accordingly, the available data does not support a strong relationship between investors' educational backgrounds and their investing choices.

In conclusion, the alternative hypothesis (H1) that there is a substantial relationship between investors' educational backgrounds and investing decisions is not sufficiently supported by the ANOVA test results.

**HYPOTHESIS**

Ho: There's no meaningful connection between investor's Annual Income and investment decision.

H1: There's connection between investor's Annual Income and investment decision.

- By Annual Income

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Average | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 141.214 | 3 | 47.071 | 2.610 | .051 |
| Within Groups | 7322.917 | 406 | 18.037 | | |
| Total | 7464.131 | 409 | | | |

**Interpretation:-**

- **F-statistic:** The F-statistic measures the ratio of variance between groups to variance within groups. In this case, it is 2.610.
- **Significance (Sig.):** This value (0.051) is the p-value associated with the F-statistic. It indicates the probability of obtaining an F-statistic as extreme as, or more extreme than, the one observed in the sample data, assuming the absence of a hypothesis (Ho) is true.
- **Decision:** Since the p-value (0.051) is higher than the usually accepted significance level of 0.05, the null hypothesis cannot be rejected. This indicates that, at the 0.05 level of significance, there is insufficient data to draw the conclusion that an investor's annual income and investment choice have a significant association. But it's important to remember that the p-value is near the significance level, so the

relationship might be considered borderline significant or warrant further investigation.

- **Conclusion**: We are unable to conclude with confidence, given the facts at hand, that an investor's annual income and investment choice are significantly correlated.

**HYPOTHESIS**

Ho: There's no meaningful connection between investor's Alternative Investment and investment decision.

H1: There is meaningful relation between investor's Alternative Investment and investment decision.

By Alternative Investment

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Average | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 66.820 | 1 | 66.820 | 3.685 | .056 |
| Within Groups | 7397.311 | 408 | 18.131 | | |
| Total | 7464.131 | 409 | | | |

**Interpretation:-**

- The F-value of 3.685 suggests that there is a degree of variation across the groupings as opposed to inside them. The F-value has a significance value (Sig.) of 0.056, which is higher than the usual significance level of 0.05.
- Since the significance value is more than 0.05, the null hypothesis cannot be ruled out. This indicates that insufficient data exist to draw the conclusion that there is a meaningful connection between investor's alternative investment and investment decision at the chosen significance level.
- However, it's worth noting that the significance value, or p-value, is nearly at the traditional cutoff of 0.05. This implies that the relationship might be approaching

significance, but it doesn't quite meet the threshold to be considered statistically significant.

- In summary, these findings do not allow us to state with confidence that there is a meaningful association between investor's alternative investment and investment decision.

**HYPOTHESIS**

- Ho: There is no meaningful relation between investor's other than Traditional Investment and investment decision.
- H1: There is significant relation between investor's other than Traditional Investment and investment decision.
- By Invest in other than Traditional Investment

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Average | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 275.451 | 1 | 275.451 | 15.633 | .000 |
| Within Groups | 7188.680 | 408 | 17.619 | | |
| Total | 7464.131 | 409 | | | |

**Interpretation:-**

- 0.05 is the selected significance threshold, and the p-value (Sig.) is less than that. Consequently, we reject the null hypothesis (H0), which states that there isn't a meaningful connection between investor's other than Traditional investment and investment decision.
- Instead, we have substantial evidence in favor of the alternative hypothesis (H1), which states that there is a noteworthy connection between investor's other than Traditional investment and investment decision.
- In simpler terms, the data demonstrates that a statistically significant relationship does exist between investors' other than Traditional investment and their investment decisions.

### 4.5.2 ANOVA analysis by demographic profile of respondents for Alternative Avenue

**HYPOTHESIS**

Ho: There is no meaningful relation between investor's gender and Alternative Investment Avenue.

H1: There is meaningful relation between investor's gender and Alternative Investment Avenue.

- By Gender

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Average | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 24.833 | 1 | 24.833 | 1.435 | .232 |
| Within Groups | 7062.754 | 408 | 17.311 | | |
| Total | 7087.587 | 409 | | | |

**Interpretation:-**

- The F-value (1.435) indicates the ratio of variance between groups to the variance within groups.
- The Sig. value (.232) is the p-value associated with the F-test.
- We are unable to reject the null hypothesis since the p-value (.232) is higher than the usual significance level (such as 0.05).
- This indicates that there isn't any substantial evidence to support the idea that their relationship between investor gender and alternative investment avenue at the chosen significance level.
- In other words, based on this analysis, we cannot conclude because there is a notable variation in alternative investment avenue preference between genders.

- The results do not support the hypothesis think there is a noteworthy connection between investor gender and alternative investment avenue.

**HYPOTHESIS**

Ho: There's no meaningful connection between investor's Occupation and Alternative Investment Avenue.

H1: There is meaningful connection between investor's Occupation and Alternative Investment Avenue.

- By Occupation

| ANOVA | | | | | |
|---|---|---|---|---|---|
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 15.238 | 2 | 7.619 | .438 | .645 |
| Within Groups | 7072.349 | 407 | 17.377 | | |
| Total | 7087.587 | 409 | | | |

**Interpretation:-**

- This is the p-value associated with the F-statistic. It tells us the probability of observing the data if the null hypothesis (Ho) is true.
- Now, let's interpret the results based on the provided table:
- The F-statistic value is 0.438.
- The associated p-value (Sig.) is 0.645.
- Since the p-value if higher than the customary 0.05 significance level, the null hypothesis (Ho) cannot be ruled out. This indicates that insufficient data exist to draw the conclusion that there is a meaningful connection between an investor's occupation and their choice of alternative investment avenue.

- In simpler terms, based on the data and analysis, we cannot say that an investor's occupation significantly influences their selection of alternative investment avenues.

**HYPOTHESIS**

Ho: There's no meaningful connection between investor's Education Qualification and Alternative Investment Avenue.

H1: There is meaningful connection between investor's Education Qualification and Alternative Investment Avenue.

- By Education Qualification

| ANOVA | | | | | |
|---|---|---|---|---|---|
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 227.732 | 4 | 56.933 | 3.361 | .010 |
| Within Groups | 6859.855 | 405 | 16.938 | | |
| Total | 7087.587 | 409 | | | |

**Interpretation:-**

- We reject the null hypothesis (Ho) because the p-value (0.010) is less than the usual significance level of 0.05.
- This indicates that the association between is statistically significant investors' education qualifications and alternative investment avenues.
- The considerable difference in the mean square between groups (56.933) compared to within groups suggests a notable variation in alternative investment avenues across different education qualification levels.

- However, it's important to note that while although a statistically significant association exists, more research is needed to determine the extent of this relationship and its practical ramifications. investigation or analysis.

**HYPOTHESIS**

Ho: There is no meaningful connection between investor's Annual Income and Alternative Investment Avenue.

H1: There is meaningful connection between investor's Annual Income and Alternative Investment Avenue.

- By Annual Income

| ANOVA | | | | | |
|---|---|---|---|---|---|
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 244.287 | 3 | 81.429 | 4.831 | .003 |
| Within Groups | 6843.300 | 406 | 16.855 | | |
| Total | 7087.587 | 409 | | | |

**Interpretation:-**

The sum of squares (6843.300) indicates the total variability in alternative investment avenue scores that cannot be explained by differences in annual income levels. The degrees of freedom (406) represent the whole count of observations less the whole count of groups. The mean square (16.855) is the average variation within groups and is computed in a manner akin to that of the between-groups mean square.

Since the p-value (Significance) associated with the F-test (0.003) is smaller than the customary 0.05 significance level, the null hypothesis (Ho) is rejected. This implies that

there is a noteworthy connection between investor's annual income and alternative investment avenue. In other words, different levels of annual income appear to have a statistically significant effect on the choice of alternative investment avenues.

**HYPOTHESIS**

Ho: There is no meaningful connection between investor's Alternative Investment and Alternative Investment Avenue.

H1: There is meaningful connection between investor's Alternative Investment and Alternative Investment Avenue.

- By Alternative Investment

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Average | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 3.133 | 1 | 3.133 | .180 | .671 |
| Within Groups | 7084.454 | 408 | 17.364 | | |
| Total | 7087.587 | 409 | | | |

**Interpretation:-**

The F-value is a ratio of the variability between groups to the variability within groups. In this case, the F-value is 0.180, and the associated p-value (significance) is 0.671. This p-value is higher than the typical 0.05 significance level, suggesting that the null hypothesis (Ho) cannot be ruled out. To conclude that an investor's alternative investment and alternative investment outlet have a substantial link would be premature given the available facts.

**Interpretation**: According to the analysis, an investor's alternative investment and alternative investment avenue do not significantly correlate. Stated differently, there is insufficient evidence to substantiate the claim that there is a notable variation in alternative investment across different avenues.

**HYPOTHESIS**

Ho: There is no significant relation between investor's other than Traditional Investment and Alternative Investment Avenue.

H1: There is significant relation between investor's other than Traditional Investment and Alternative Investment Avenue.

- By Invest in other than Traditional Investment

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Average | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 85.678 | 1 | 85.678 | 4.992 | .026 |
| Within Groups | 7001.909 | 408 | 17.162 | | |
| Total | 7087.587 | 409 | | | |

**Interpretation:-**

- As the p-value (0.026) is below the conventional significance level of 0.05, the alternative hypothesis (H1) is accepted and the null hypothesis (Ho) is rejected.
- As a result, investors that make investments in Alternative Investment Avenue and Traditional Investment have a substantial relationship.
- In other words, the type of Investment Avenue chosen (traditional or alternative) is related to the investors' preferences or behaviours.

### 4.5.3 ANOVA analysis by the respondents' demographic profile for Alternative Avenue

**HYPOTHESIS**

Ho: There is no meaningful connection between investor's gender and its satisfaction level.

H1: There is meaningful connection between investor's gender and its satisfaction level.

- By Gender

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Average | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 19.830 | 1 | 19.830 | .398 | .529 |
| Within Groups | 17736.904 | 356 | 49.823 | | |
| Total | 17756.734 | 357 | | | |

**Interpretation:-**

The results of the ANOVA show that there is no significant difference in satisfaction levels between investors of different genders. This conclusion is drawn based on the F-value of 0.398 and the associated p-value (Significance) of 0.529, which is greater than the conventional significance level of 0.05. Therefore, we fail to reject the null hypothesis (Ho) and conclude that there isn't any noteworthy relationship between investor gender and satisfaction level.

The interpretation of these results implies that investors' satisfaction levels are not much influenced by gender alone. Investor satisfaction may be more significantly influenced by other factors. It could be essential to conduct further research or take into account more factors in order to fully comprehend the factors affecting investor satisfaction.

**HYPOTHESIS**

Ho: There is no meaningful relation between investor's Occupation and its satisfaction level.

H1: There is meaningful relation between investor's Occupation and its satisfaction level.

- By Occupation

| ANOVA | | | | | |
|---|---|---|---|---|---|
| | Squares | df | Mean Square | F | S |
| Groups | 455.089 | 2 | 227.545 | 4.669 | .010 |
| Within Groups | 17301.645 | 355 | 48.737 | | |
| Total | 17756.734 | 357 | | | |

**Interpretation:-**

The analysis conducted through ANOVA reveals a There exists a noteworthy correlation between the occupation of investors and their happiness levels. Given that the F-test's p-value is smaller than the traditional significance criterion of 0.05, the null hypothesis (Ho) is strongly supported by the evidence. This shows that investors' levels of satisfaction are influenced by their work.

The between-groups sum of squares, which represents the variation in satisfaction levels attributable to different occupations, is 455.089. This value is significantly greater than the within-groups sum of squares, indicating significant variations in job satisfaction among different professions.

With a calculated F-statistic of 4.669, we can conclude that the variation in satisfaction levels between different occupations is not likely due to random chance alone. Therefore,

there appears to be a meaningful relationship between occupation and satisfaction levels among investors.

In summary, the results provide statistical evidence supporting the alternative hypothesis (H1) think there is a noteworthy connection between investors' occupation and their satisfaction levels. This implies that occupation should be considered as a factor in understanding and addressing investors' satisfaction within the context of the study.

**HYPOTHESIS**

Ho: no meaningful relation between investor's Education Qualification and its satisfaction level.

H1: meaningful relation between investor's Education Qualification and its satisfaction level.

- By Education Qualification

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Average | Sum of Squares | df | Square | F | Sig. |
| Groups | 191.310 | 4 | 47.827 | .961 | .429 |
| Within Groups | 17565.424 | 353 | 49.760 | | |
| Total | 17756.734 | 357 | | | |

**Interpretation:-**

The ANOVA table provides key statistical measures to assess this relationship. The "Between Groups" row indicates the variance between different education qualification groups, while the "Within Groups" row shows the variance within each group. The "Total" row encompasses all variances.

The F-statistic (0.961) measures the ratio of variance between groups to variance within groups. A value close to 1 suggests that the variance within groups is similar to the variance between groups, indicating no significant difference. The associated p-value (0.429) is greater than the conventional significance level of 0.05, suggesting insufficient evidence to reject the null hypothesis.

Therefore, based on the ANOVA results, we fail to reject the null hypothesis. This means There isn't a statistically meaningful connection between investors' education qualifications and their satisfaction levels at the chosen significance level. Further analysis or different methodologies may be necessary to explore potential associations more deeply.

**HYPOTHESIS**

Ho: no meaningful relation between investor's Annual Income and its satisfaction level.

H1: meaningful relation between investor's Annual Income and its satisfaction level.

- By Annual Income

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Average | Sum of Squares | df | Square | F | S |
| Groups | 943.705 | 3 | 314.568 | 6.623 | .000 |
| Within Groups | 16813.030 | 354 | 47.494 | | |
| Total | 17756.734 | 357 | | | |

**Interpretation:-**

Firstly, the significant F-statistic value of 6.623 suggests that groups with varying annual incomes have varying levels of contentment. The p-value of.000 that is connected with this indicates strong evidence against the null hypothesis (Ho), which is less than the customary

significance level of.05. This indicates that we disprove the hypothesis that the annual income and satisfaction level are unrelated.

Furthermore, compared to the within-groups mean square (47.494), the between-groups mean square (314.568) is significantly greater, indicating that a large portion of the variability in satisfaction levels can be explained by differences in annual income.

In conclusion, the findings provide robust evidence to support the alternative hypothesis (H1) that there is indeed a significant relationship between investors' annual income and their satisfaction level. This suggests that there are commensurate fluctuations in investor satisfaction levels as annual revenue fluctuates. This information is helpful in analyzing investor behavior and customizing strategies to enhance investor satisfaction across different income brackets.

**HYPOTHESIS**

Ho: no meaningful relation between investor’s Alternative Investment and its satisfaction level.

H1: meaningful relation between investor’s Alternative Investment and its satisfaction level.

- By Alternative Investment

| ANOVA | | | | | |
|---|---|---|---|---|---|
| | Sum | df | Square | F | S |
| Groups | 4.817 | 1 | 4.817 | .097 | .756 |
| Within Groups | 17751.917 | 356 | 49.865 | | |
| Total | 17756.734 | 357 | | | |

**Interpretation:-**

The analysis conducted using ANOVA (Analysis of Variance) for the relationship between investor's alternative investment and satisfaction level yields interesting insights. With a matching p-value of 0.756, the computed F-statistic is 0.097. This implies that investors' satisfaction levels are not significantly different depending on their alternative investment choices, as the p-value is substantially higher than the conventional significance level of 0.05.

Furthermore, the sum of squares between groups (4.817) and within groups (17751.917) indicates that the variability in satisfaction levels is predominantly due to random variance within groups instead of systematic variations across different types of alternative investments. The significant variation in the sums of squares further corroborates the conclusion that alternative investment choices do not significantly impact investor satisfaction levels.

Therefore, based on the evidence from this ANOVA analysis, we fail to reject the null hypothesis (Ho) and conclude that there is no discernible link between investors' satisfaction levels and the alternative investments they choose. This implies that other variables outside of alternative investment preferences may play a more substantial role in determining investor satisfaction.

**HYPOTHESIS**

Ho: no meaningful relation between investor’s other than Traditional Investment and its satisfaction level.

H1: meaningful relation between investor’s other than Traditional Investment and its satisfaction level.

- By other than Traditional Investment

| ANOVA | | | | | |
|---|---|---|---|---|---|
| | Sum | df | Mean Square | F | S |
| Groups | 4.817 | 1 | 4.817 | .097 | .756 |
| Within Groups | 17751.917 | 356 | 49.865 | | |
| Total | 17756.734 | 357 | | | |

**Interpretation:-**

The "Between Groups" section assesses the variability in satisfaction levels attributed to the different investment types, indicating whether these types significantly influence satisfaction. Here, the sum of squares (SS) is 4.817, with 1 degree of freedom (df) and a mean square (MS) of 4.817. The F-statistic tests the ratio of variance between groups to variance within groups. With a calculated F-value of 0.097 and a p-value (Sig.) of 0.756, the result fails to reject the null hypothesis, suggesting that the variance in satisfaction levels between different investment types is not statistically significant.

Conversely, the "Within Groups" section assesses the variability in satisfaction levels within each investment type. The SS is 17,751.917, with 356 df and a MS of 49.865. This section serves as a baseline for understanding the natural variance in satisfaction levels within each investment type.

Overall, the analysis suggests that There is not enough data to support the assertion that satisfaction levels significantly differ based on engagement in investment types other than Traditional Investment. Further research or alternative analytical approaches may be warranted to explore this relationship comprehensively.

# 5) SUMMARY, FINDINGS, CONCLUSION AND SUGGESTIONS

## 5.1 Introduction

This chapter provides a synopsis of the study and presents conclusions derived from a comprehensive analysis of investors' perceptions, concerns, and decision-making processes regarding precious metals and stones. It encapsulates the essence of the research findings and distills key insights drawn from the detailed investigation. Additionally, it offers suggestions stemming from the study's findings, which aim to enhance understanding and guide actions in the realm of investing in precious metals and stones. Through synthesizing the gathered data and interpreting the results, this chapter provides insightful information on the intricate dynamics influencing investor behavior in this particular market segment. By delving into investors' mindsets, attitudes, and preferences, it sheds light on the factors shaping their perceptions and apprehensions, thereby contributing to a deeper understanding of their decision-making processes. Moreover, it underscores the significance of the study's implications for investors, policymakers, and industry stakeholders alike, providing a foundation for informed decision-making and strategic planning in the domain of precious metals and stones investment.

## 5.2 Summary

The precious metals market encompasses uncommon metallic chemical components that high economic value, prized for their lower chemical reactivity, lustrous appearance, and various industrial applications. Historically used as currency, these metals—gold, silver, platinum, and palladium—are now primarily valued as raw materials for investments and industrial use. The market is dominated by gold and silver because of its widespread use in jewelry, coins, and creative projects. Furthermore, additional precious metals such as platinum group metals (PGMs), which include platinum, ruthenium, rhodium, palladium, osmium, and iridium contribute significantly to the market. These metals are in high demand for their dual role as a store of value and practical applications across industries like consumer electronics, automotive, chemicals, and medical equipment manufacturing. The market's growth is fueled by several factors, including changing lifestyles, growing consumer discretionary income and growing environmental concerns are driving investments in the recycling of precious metals. Furthermore, the demand for these metals is increasing due to strict emission restrictions around the world, particularly in automotive applications. However, the COVID-19 epidemic caused interruptions in the market. as governments imposed lockdowns to contain the virus, leading to supply chain disruptions

and production halts. Despite these challenges, investments in precious metals surged as investors sought stable assets amidst volatile market conditions. In terms of regional dynamics, the Asia-Pacific region holds the largest market share, driven by rising global powers like India, Japan, and China. China, in particular, stands out as the biggest buyer of PGMs and gold, bolstered by a thriving industrial sector. North America comes in second, driven by the rise of the market by Mexico's silver deposits and robust production bases in the US and Canada. According to a recent Blue Weave Consulting report, the global market for precious metals was valued at $240.5 billion in 2021 and is expected to rise at a compound annual growth rate (CAGR) of to reach about $415.3 billion by 2028. This growth trajectory is attributed to increasing demand from end industries, environmental concerns, and regulatory changes driving market expansion. Furthermore, rising trading activities in precious metals, fueled by factors such as increasing weddings and the popularity of plated jewelry among young consumers, are expected to support market growth. Despite economic impacts from the COVID-19 pandemic, the industry remains resilient, adapting to changing consumer behaviors and preferences.

In conclusion, the precious metals market is witnessing significant growth driven by a combination of factors such as changing consumer lifestyles, environmental concerns, and regulatory changes. Despite challenges posed by the COVID-19 pandemic, investments in precious metals remain robust, underlining their status as valuable assets in times of market uncertainty. As trading activities increase and demand persists across various industries, the market is poised for continued expansion in the foreseeable future.

PESTEL Analysis:

Political Factors: Government policies on taxation, excise duty, FDI, and trade regulations significantly impact the industry's operations.

Economic Factors: Per capita consumption, standard of living, national income, and tariff reductions influence consumer purchasing behavior and industry growth.

Social Factors: Changing consumer preferences, perception of precious metals as luxury fashion items, and investment trends affect market dynamics.

Technological Factors: Adoption of high-end equipment, machinery, and technology solutions for inventory and production management drive industry competitiveness.

Environmental Factors: Ethical and environmental responsibilities, including curbing illegal mining and addressing health and safety issues, are crucial for sustainable industry practices.

Legal Factors: Government approvals, trade intermediaries' roles, and efforts to boost exports are significant legal aspects affecting the industry.

## 5.3 Findings of the study

The study offers a thorough examination of the precious metals market, emphasizing India and its western state, Gujarat. It encompasses various aspects including exports, imports, tariffs, regional dynamics, state-specific initiatives, and a PESTEL analysis (Political, Economic, Social, Technological, Environmental, and Legal factors). Here's a summary of the key findings:

**Exports and Imports:**

India is a important player all over the world precious metals market, both as an exporter and importer.

In 2020, India exported $25.5 billion worth of precious metals, ranking 8th globally. The top destinations included the United States, Hong Kong, and the United Arab Emirates.

Import figures were substantial, with India importing $40.8 billion worth of precious metals in 2018. Major import partners included Switzerland, the United Arab Emirates, and the United States.

**Tariffs:**

India had an average tariff of 11.1% on precious metals in 2019. Chile, Angola, Botswana, Cote d'Ivoire, and Cameroon had the highest import duties on precious metals.

Asia-Pacific area, including China and India in particular, dominated the market, with China being the leading consumer of gold and platinum group metals (PGMs).

**State Market - Gujarat:**

Gujarat, India's westernmost state has a rich history of trade and culture, particularly in precious metals like gold.

The state hosts India's first international bullion exchange, Indian International Bullion Exchange (IIBX), aimed at bringing transparency to the precious metal market.

Gujarat's strategic location with excellent ports makes it a preferred gateway for importing gold into India.

## 5.4 Suggestions of the study

The study provides a comprehensive overview of the investment avenues available in precious metals and stones, particularly focusing on gold, silver, platinum, palladium, and gemstones such as diamonds, emeralds, rubies, pearls, and sapphires. It delves into the various aspects that investors need should take into account prior to entering these markets, such as the historical significance of these assets, risk concerns, investing techniques, and market dynamics. Still, there are a number of places where the study could be further developed and enhanced to provide more practical insights and guidance for investors.

**Management and Risk Management:** While the study acknowledges the inherent risks connected to investing in gemstones and precious metals, it might offer more thorough instructions on risk assessment and mitigation techniques. Talks on hedging strategies, diversification, and the contribution of alternative investments to reducing portfolio risk as a whole may fall under this category.

**Market Analysis and Forecasting:** The study briefly touches upon market trends and seasonal patterns in demand for precious metals and gemstones especially while considering India. It might, however, benefit from a more thorough examination of market dynamics, including variables affecting supply and demand, price swings, and long-term projections. To assist investors in making well-informed judgments, forecasting techniques and tools should also be investigated.

**Investment Strategies and Asset Allocation:** While the study outlines the investment potential of precious metals and gemstones, it could provide more guidance on developing tailored investment strategies and asset allocation models. This could involve discussions on investment objectives, time horizons, liquidity considerations, and the integration of precious metals and stones into diversified investment portfolios.

**Regulatory and Legal Considerations:** Given the international nature of precious metals and gemstone markets, investors need to be aware of regulatory frameworks, tax implications, and legal considerations governing their investments. The study could include sections on regulatory compliance, import/export regulations, and jurisdictional differences to help investors navigate these complexities.

**Technological Innovations and Market Disruptions:** The study briefly mentions the impact of technological advancements, such as lab-grown gemstones, on market dynamics. However, it could delve deeper into emerging trends, disruptive technologies, and their implications for investors. Discussions on block chain technology, digital marketplaces, and authentication mechanisms could be particularly relevant in this context.

**Education and Resources for Investors**: In addition to providing theoretical knowledge, the study could offer practical resources and tools to assist investors in their decision-making process. This could include curetted lists of reputable dealers, online platforms for trading precious metals and gemstones, educational materials on gemstone grading and certification, and access to industry reports and research.

**Environmental and Social Impact:** As investors become increasingly conscious of environmental and social issues, the study could address the sustainability aspects of precious metals and gemstone mining, production, and trading. Discussions on responsible sourcing, ethical practices, and certification schemes could help investors synchronize their financial tactics with their values.

In conclusion, while there are prospects to further extend and enhance the study's practical usefulness for investors, since it provides insightful information on the investment potential of precious metals and gemstones. By addressing key areas such as risk management, market analysis, regulatory considerations, technological innovations, investor education, and sustainability, the study can provide a more comprehensive and actionable framework for navigating these dynamic and diverse investment avenues.

## 5.5 Conclusion

The study delves into the intricacies of investing in precious metals and stones, particularly focusing on gold and gems, within the context of the Indian market. It underscores the significance of understanding basic investment principles, risk assessment, and the long-term perspective required for successful investments in these assets. Investing in precious metals and gems offers a tangible and historically reliable avenue for wealth preservation and growth. Gold, in particular, stands out as a preferred investment choice due to its high liquidity, ability to beat inflation, and enduring charm. It serves as a hedge against economic uncertainties, with its value often seeing a strong comeback during periods of market turbulence. The study highlights the importance of gold in Indian culture, where traditions of hoarding gold for jewelry and ornaments, as well as gifting during special occasions, have persisted for centuries. This cultural affinity, coupled with seasonal buying patterns aligned with festivals and wedding seasons, further bolsters the demand for gold in India. While gold remains a cornerstone investment, the study also explores the potential of investing in other precious metals such as silver, platinum, and palladium. These metals offer diversification benefits and cater to different market dynamics, with silver being valued for its industrial uses and relative affordability compared to gold. Platinum and palladium, although lesser-known to some investors, hold significant industrial applications and investment potential, particularly in periods of economic prosperity. Moreover, the study sheds light on investing in gemstones, emphasizing the importance of specialized knowledge and risk tolerance in navigating this market. Gems, including diamonds, rubies, emeralds, and sapphires, represent alternative investments that appeal to individuals with a penchant for luxury and rarity. Despite their allure, gemstone investments require careful consideration of factors such as rarity, quality, and market demand, as well as the difficulties with liquidity and valuation. When assessing the dangers and rewards of investing in precious metals and stones, the study acknowledges the inherent uncertainties and fluctuations in commodity markets. While precious metals offer a degree of security, they are not immune to price volatility driven by economic factors and supply-demand dynamics. Similarly, gemstone investments entail risks related to market perception, quality assessment, and resale challenges.

In conclusion, the study advocates for a balanced approach to investment portfolio management, where allocations to precious metals and stones complement conventional asset classes, such as bonds, real estate, and stocks. It underscores the need for investors to

educate themselves, seek expert advice, and adopt a long-term perspective when venturing into the realm of precious metals and gems. By understanding the fundamentals, assessing risks prudently, and aligning investments with individual financial goals, investors can harness the potential of these timeless assets to preserve wealth and achieve sustainable returns over time.

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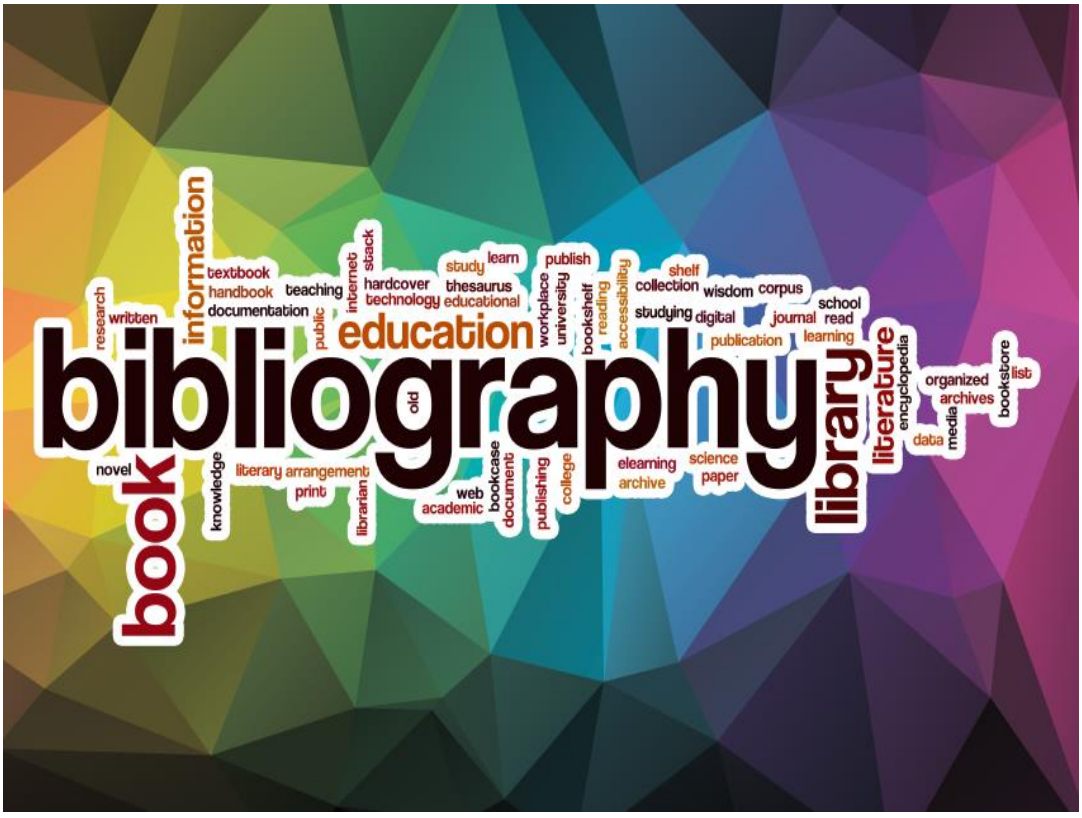

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## Questionnaire:

**Personal Details:**

1. Name: _____
2. Email ID:_____
3. Gender
   a) Female
   b) Male
4. Area of city where you live
   _____
5. Education Qualification
   a) SSC
   b) HSC
   c) Under Graduate
   d) Post Graduate
   e) Ph.D.
6. Occupation
   a) Service in Private Sector
   b) Service in Government Sector
   c) Self-Employment
7. Annual Income
   a) Less than Rs 2.5 lac
   b) Rs 2.5 lac to Rs 5 lac
   c) Rs 5 lac to Rs 7.5 lac
   d) More than Rs 7.5 lac

**Investment Details:**

8. Do you make investment?
   a) Yes

b) No

9. Are you aware of alternative investment?
   a) Yes
   b) No

10. Do you invest in other than traditional investment avenue?
    a) Yes
    b) No

11. In which sectors do you invest from the below mentioned as alternative investment? a)Precious Metals
    b)Precious Stones

**Factors influence investment decision:**

12. From where you get the source of investment in alternative avenues? (Rank lowest to highest)

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Friends | | | | | |
| Relatives | | | | | |
| TV/Radio/Advertisement | | | | | |
| Investment Brokers | | | | | |
| Financial Advisors | | | | | |

13. Which factors affects to make your investment decision in precious metals and stones?

| | Highly Agree | Agree | Neutral | Disagree | Highly Disagree |
|---|---|---|---|---|---|
| Returns | | | | | |
| Liquidity | | | | | |
| Price | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Volatility | | | | | |
| Tax Benefit | | | | | |
| Inflation Hedge | | | | | |

14. Which factors motivates you to invest in precious metals and stones? (Tick your answers in the given boxes)

| | Tick here |
|---|---|
| Wealth Creation | |
| Hobby to make collection | |
| Raising the standard of living | |
| Secure financial backup | |
| Future benefit | |

15. Which challenges faces by you while investing in alternative avenues? (Tick your response)

| | Tick here |
|---|---|
| Lack of information of awareness about the product | |
| Limitation of availability of reliable information | |
| Inconvenient investment | |
| Security concerns purity / Authenticity | |

## Preference for investing in Precious Metals and Stones:

16. State your satisfaction level towards investing in precious metals and stones. (Rate your response)

| | Highly Satisfied | Satisfied | Neutral | Dissatisfied | Highly Dissatisfied |
|---|---|---|---|---|---|
| Gold | | | | | |
| Silver | | | | | |
| Platinum | | | | | |
| Diamond | | | | | |
| Emerald | | | | | |
| Sapphire | | | | | |
| Ruby | | | | | |
| Pearl | | | | | |

17. Is investing in alternative investment useful for diversification of investment? (Rate your response)

| | Highly Useful | Useful | Neutral | Not USeful | Highly Not Useful |
|---|---|---|---|---|---|
| Gold | | | | | |
| Silver | | | | | |
| Platinum | | | | | |
| Diamond | | | | | |
| Emerald | | | | | |
| Sapphire | | | | | |
| Ruby | | | | | |
| Pearl | | | | | |