Goa University

Goa Business School

MBA – 4th semester

Finance Specialization

Different Schemes for Investing

(Final Report)

By: Fayeza Askary
Mentor: Professor Nilesh Borde

09/05/2022

Declaration

I undersigned, hereby declare that the project titled submitted in partial fulfilment for the award of Degree of Master of Business Administration of Goa University is a bonefide record of work done by me under the guidance of Nilesh Borde, Goa Business School. This report has not previously formed the basis for the award of any degree, diploma, or similar title of any University.

09/05/2022

Fayeza Askary

Acknowledgments

Through this acknowledgement I express my sincere gratitude towards all those people who helped me in this project, which has been a learning experience.

This space wouldn’t be enough to extend my warm gratitude towards my project guide Professor Nilesh Borde for his efforts in coordinating with my work and guiding in right direction.

It would be injustice to proceed without acknowledging those vital supports I received from my beloved classmates and friends, without whom I would have been half done.

I also use this space to offer my sincere love to my parent, my life partner and all others who had been there, helping me walk through this work.

Fayeza Askary

Need for the study

The main purpose of this project is to know about different schemes for investing; this helps to know in details about mutual fund, index and top industries of India for investing.
It also helps in understanding different schemes of mutual fund and index funds because my study is about comparing of mutual funds, index funds and portfolio of profitable industries in India.
The project study was done by analyzing of three schemes (Mutual fund, index fund, and portfolio) for investing in India and the result of analysis is that if you are a risk taker and don't have enough time to market survey then mutual fund is suit for you but if you want more returns then by taking risks you can invest in portfolio and I have done the industry analysis of top 5 industries which the others can go through it and start investing on them which is more profitable for them, along with industry analysis I have done the company analysis as well which is top 3 companies in each industries.

Project Objectives

- To determine investing in Mutual fund is better or in direct Index
- To determine investing in Mutual fund is better or in direct equity portfolio using 4Y analysis
- To evaluate if the returns in 1 & 2 above vary significantly

Project Questions

- Should a person invest in Mutual Funds or Direct Equity?
- If in Mutual Funds, which sectors/industries are the best for investment?

Project Methodology

To achieve the objective of studying the stock market data has been collected.
Research methodology carried for this study can be two types:
1. Primary
2. Secondary

PRIMARY:
The data, which has being collected for the first time and it is the original data.
In this project the primary data has been taken from NSE, Prowess IQ and mutualfundsahihai.com.

SECONDARY:
The secondary information is mostly taken from websites, books, journals, etc.

Project Hypothesis

Which is the preferable financial route to invest in: mutual funds, index funds, or a portfolio? The following hypotheses have been taken into account:

H0: There is no significant difference in selecting mutual fund, index fund or portfolio fund for investing

H1: There is a significant difference in investing of Mutual fund, Index and Portfolio.

H2: Investing in Mutual fund might have better return than index and portfolio because of less risk. (less risk = reasonable return)

H3: Investing in Portfolio might have better return than mutual fund and index because of high risk. (high risk = high return)

H4: Investing in Index might have better return than mutual fund and portfolio because of low costs and result is being average. (average is far preferable to losing your hard-earned money in a bad investment)

Contents

Executive Summary

There are a lot of investment avenues available today in the financial market for an investor with an investable surplus. He can invest in Bank Deposits, Corporate Debentures, and Bonds where there is low risk but low return. He may invest in Stock of companies where the risk is high and the returns are also proportionately high. The recent trends in the Stock Market have shown that an average retail investor always lost with periodic bearish tends. People began opting for portfolio managers with expertise in stock markets who would invest on their behalf. Thus we had wealth management services provided by many institutions. However, they proved too costly for a small investor. These investors have found a good shelter with the mutual funds.

Mutual fund industry has seen a lot of changes in past few years with multinational companies coming into the country, bringing in their professional expertise in managing funds worldwide. In the past few months there has been a consolidation phase going on in the mutual fund industry in India. Now investors have a wide range of Schemes to choose from depending on their individual profiles.

You should always remember which there is also risk in mutual fund investment like: Returns Not Guaranteed, General market risk, security specific risk, liquidity risk and so on.

There is another investment avenue by the name of investment portfolio which is a set of financial assets owned by an investor that may include bonds, stocks, currencies, cash and cash equivalents, and commodities. Further, it refers to a group of investments that an investor uses in order to earn a profit while making sure that capital or assets are preserved.

The assets that are included in a portfolio are called asset classes. The investor or financial advisor needs to make sure that there is a good mix of assets in order that balance is maintained, which helps foster capital growth with limited or controlled risk.

My study gives an overview of mutual funds, Index, and portfolio of 5 top industries in India. I have analyzed 10 years returns of mutual funds schemes, company analysis using 4y analysis method and comparing which investing in mutual fund is better and profitable or in stock/index and have given my findings.

Chapter 1

What is Mutual Fund?

A Mutual Fund is a trust that collects money from investors who share a common financial goal, and invest the proceeds in different asset classes, as defined by the investment objective.
Simply put, mutual fund is a financial intermediary, set up with an objective to professionally manage the money pooled from the investors at large. By pooling money together in a mutual fund, investors can enjoy economies of scale and can purchase stocks or bonds at a much lower trading costs compared to direct investing in capital markets. The other advantages are diversification, stock and bond selection by experts, low costs, convenience and flexibility. An investor in a mutual fund scheme receives units which are in accordance with the quantum of money invested by him. These units represent an investor’s proportionate ownership into the assets of a scheme and his liability in case of loss to the fund is limited to the extent of amount invested by him. The pooling of resources is the biggest strength for mutual funds. The relatively lower amounts required for investing into a mutual fund scheme enables small retail investors to enjoy the benefits of professional money management and lends access to different markets, which they otherwise may not be able to access. The investment experts who invest the pooled money on behalf of investors of the scheme are known as 'Fund Managers'. These fund managers take the investment decisions pertaining to the selection of securities and the proportion of investments to be made into them. However, these decisions are governed by certain guidelines which are decided by the investment objective(s), investment pattern of the scheme and are subject to regulatory restrictions. It is this investment objective and investment pattern which also guides the investor in choosing the right fund for his investment purpose.

Today, there are a variety of schemes offered by mutual funds in India, which cater to different categories of investors to suit different financial objectives e.g. some schemes may provide capital protection for the risk-averse investor, whereas some other schemes may provide for capital appreciation by investing in mid or small cap segment of the equity market for the moreaggressive investor. The diversity in investment objectives and mandates has helped to classify and sub-classify the schemes accordingly. The broad classification can be done at the asset classlevels. Thus we have Equity Funds, Bond Funds, Liquid Funds, Balanced Funds, Gilt Funds etc.
These can be further sub-classified into different categories like mid cap funds, small cap funds, sector funds, index funds etc.

Understanding of NAV (Net Asset Value)

Theoretically, any suitable business entity or financial product that deals with the accounting concepts of assets and liabilities can have a NAV. In the context of companies and business entities, the difference between the assets and the liabilities is known as the net assets or the net worth or the capital of the company. The term NAV has gained popularity in relation to the fund valuation and pricing, which is arrived at by dividing the difference between assets and liabilities by the number of shares/units held by the investors. The fund's NAV thereby represents a "per-share" value of the fund, which makes it easier to be used for valuing and transacting in the fund shares.

It is often the case that NAV is close to or equal to the book value of a business. Companies considered to have high growth prospects are traditionally valued more than NAV might suggest. NAV is most frequently compared to market capitalization to find undervalued or overvalued investments. There are also several financial ratios that use multiples of NAV or enterprise value for analysis.

The formula for a mutual fund's NAV calculation is straightforward:

NAV = (Assets - Liabilities) / Total number of outstanding shares

NAV & Mutual Funds

NAV or Net Asset Value is the unit price of a mutual fund scheme. Mutual funds are bought or sold on the basis of NAV. Unlike share prices which changes constantly during the trading hours, the NAV is determined on a daily basis, computed at the end of the day based on closing price of all the securities that the respective mutual fund schemes own after making appropriate adjustments. The expenses (known as TER) of a mutual fund scheme like fund management; administration, distribution etc. are charged proportionately against the assets of the scheme and are adjusted in the scheme NAV.

How are Mutual fund set up?

A mutual fund is set up in the form of a trust, which has Sponsor, Trustees, Asset Management Company (AMC) and Custodian. The trust is established by a sponsor or more than one sponsor who is like a promoter of a company and registered with Securities and Exchange Board of India (SEBI). The trustees of the mutual fund hold its property for the benefit of the unit holders.
Asset Management Company (AMC) approved by SEBI manages the funds by making investments in various types of securities. Custodian, who is registered with SEBI, holds the securities of various schemes of the fund in its custody. The trustees are vested with the general power of superintendence and direction over the AMC. They monitor the performance and compliance of SEBI regulations by the mutual fund. SEBI Regulations require that at least two thirds of the directors of trustee company or board of trustees must be independent i.e. they should not be associated with the sponsors. Also, 50% of the directors of AMC must be independent.

What is the Securities and Exchange Board of India (SEBI)?

The Securities and Exchange Board of India was established in its current incarnation in April 1992, following the passage of the Securities and Exchange Board of India Act by the nation's parliament. It supplanted the Controller of Capital Issues, which had regulated the securities markets under the Capital Issues (Control) Act of 1947, passed just months before India gained independence from the British.

The SEBI headquarters is located in the business district at the Bandra-Kurla Complex in Mumbai. It also has regional offices in the cities of New Delhi, Kolkata, Chennai, and Ahmedabad, and more than a dozen local offices in cities including Bangalore, Jaipur, Guwahati, Patna, Kochi, and Chandigarh.

The Securities and Exchange Board of India (SEBI) is the most important regulator of securities markets in India. SEBI is the counterpart of the Securities and Exchange Commission (SEC) in the U.S. Its stated objective is “to protect the interests of investors in securities and to promote the development of, and to regulate the securities market and for matters connected therewith or incidental thereto.”

Types of Mutual Fund Scheme

Mutual Fund schemes can be classified into different categories and subcategories based on their investment objectives or their maturity periods. Mutual Fund schemes can be classified into three categories based on their maturity periods.

1) Open-ended funds: An open-ended fund or scheme is one that is available for subscriptions and redemptions on a continuous basis. Investors can conveniently buy and sell units at Net Asset Value (NAV) related prices which are declared on a daily basis.

2) Close-ended funds: A close-ended fund or scheme has a stipulated maturity period which can range from a few months to a few years, e.g. 6 months, 5 years or 7 years. i.e. fund is openfor subscription only during a specified period at the time of launch of the scheme which is the New Fund Offer (NFO). Investors can invest in the scheme at the time of the NFO and thereafter, they can buy or sell the units of the scheme on the stock exchanges where the units have to be mandatorily listed.

3) Interval funds: These schemes are a cross between an open-ended and a close-ended structure. These schemes are open for both purchase and redemption during pre-specified intervals (viz. monthly, quarterly, annually etc.) at the prevailing NAV based prices. Interval funds are very similar to close-ended funds, but differ on the following points: -

• They are not required to be listed on the stock exchanges, as they have an in-built redemption window.

• They can make fresh issue of units during the specified interval period, at the prevailing NAV based prices.

• Maturity period is not defined.

4) Exchange Traded Funds: Exchange Traded Funds or ETFs are essentially Index Funds that are listed and traded on exchanges like stocks. They enable investors to gain broad exposure to indices on stock markets in India and in some cases in other countries as well. These indices, if based on certain specific sectors/themes would thus provide exposure to such sectors with relative ease, on a real-time basis and at a lower cost than many other forms of investing.

For example, there are ETFs that track S&P CNX Nifty, BSE Sensex etc. Gold ETF are mutual fund schemes where the underlying investment is in physical gold.

5) Fund of Funds: Fund of Funds (FOF) as the name suggests are schemes which invest in other mutual fund schemes. The concept is popular in markets where there are number of mutual fund offerings and choosing a suitable scheme according to one's objective is tough. Just as a mutual fund scheme (3) invests in a portfolio of securities such as equity, debt etc. The underlying investments for a FOF is the units of other mutual fund scheme(s), either from the same fund family or from other fund houses or from funds domiciled outside the home country(known as overseas feeder fund or fund of funds explained in detail under section types of equity funds).

Classification of Mutual Fund based on Investment Objective

Apart from the above classification, mutual fund schemes can also be classified based on their investment objectives:

Equity Funds: Growth/ Equity oriented schemes are those schemes which predominantly invest in equity and equity related instruments. The objective of such schemes is to provide capital appreciation over the medium to long term. These types of schemes are generally meant for investors with a long-term investment horizon and with a higher risk appetite. Type of Equity Funds:

a) Diversified Funds

• **Multi-Cap Funds:** These funds invest across the market capitalization i.e. in large, mid and small cap companies.

• **Large Cap:** These funds invest predominantly in large companies. Generally, large cap companies experience a slower growth rate and have much lower risk than mid cap companies due to their size. They are also known as blue chip companies.

• **Mid Cap:** These funds invest predominantly in mid cap companies. Most mid cap companies experience higher growth than a large cap company.

• **Small Cap:** Small cap refers to a company that it is relatively new and has lower market capitalization. Of the three, small cap companies represent the most investment risk but also the highest return potential.

• **Tax Saving Fund:** These funds are also known as Equity Linked Savings Schemes (ELSS). In case of ELSS schemes investment up to Rs. 1 lakh qualify for deductions under Section 80C of the Income Tax Act, 1961, however, these schemes have a lock in period of 3 years.

• **Equity–International:** These funds invest in companies of foreign country. The investment could be specific to a country (like the China, US fund etc.) or diversified across countries/ region (like Europe, Asia etc.). By seeking exposure to foreign stocks in portfolio one can spread investment risk and achieve diversification. AMCs generally tie up with a foreign fund (called 'Underlying Fund') and in India they launch a 'Feeder Fund'. The money collected in the feeder fund is invested in the underlying fund. Sometimes AMCs also launch schemes investing directly in equity securities of international companies. In such schemes, the local investors invest in rupees for buying the units. The rupees are converted into foreign currency for investing abroad. Thus, there is an element of foreign currency risk while investing in such schemes. Also, it should be noted that tax treatment of international equity funds is similar to debt funds.

• **Equity Income / Dividend Yield Schemes:** Dividend yield schemes generally invest in a well-diversified portfolio of companies with relatively high dividend yield, which provides a steady stream of cash flows by way of dividend.

b) Sector Funds: Sector funds invest in companies in a particular sector. For example, a banking sector fund will invest only in shares of banking companies. **c) Thematic funds:** Thematic Funds invest in line with an investment theme. For example, an infrastructure thematic fund will invest in shares of companies that are directly or indirectly related to the infrastructure sector.

d) Arbitrage Funds: These funds exploit arbitrage opportunities such that the risk is neutralized, but a return is earned. The arbitrage is sought by taking advantage of a price differential of the same asset between two or more markets, say, taking advantage of the mispricing between the cash and derivatives market. These funds generally have low risk-return trade-off.

Index Funds: Index Funds invests in companies that constitute the index and in the same proportion, in order to replicate a specific market index and provide a rate of return over time that will approximate or match that of the market which they are mirroring subject to tracking error.

Income/ Debt Oriented Funds: Such schemes generally invest in debt securities like Treasury Bills, Government Securities, Bonds and Debentures etc. They are considered less risky than equity schemes, but also offer lower returns.

Gilt Funds: These funds invest exclusively in Government securities. Government securities have no default risk. NAVs of these schemes also fluctuate due to changes in interest rates and other economic factors as is the case with income or debt oriented schemes.

Money Market/Liquid Funds: These funds aim to provide easy liquidity, preservation of capital and moderate income. They invest in safer short-term instruments such as certificates of deposit, commercial paper, etc. These schemes are used mainly by institutions and individuals to park their surplus funds for short periods of time. These funds are more or less insulated from changes in the interest rate in the economy and capture the current yields prevailing in the market.

Hybrid Funds

Balanced Funds: These are the funds that aim at allocating the total assets with it in the portfolio mix of debt and equity instruments. Balanced funds provide investor with an option of single mutual fund that combines both growth and income objectives, by investing in both stocks (for growth) and bonds (for income). Balanced funds are also called equity oriented funds and their tax treatment is similar to an equity fund. Their average returns and risk profile fall somewhere in between growth and debt funds.

Monthly Income Plans: These plans seek to provide regular income by declaring dividends. It therefore invests largely in debt securities. However, a small percentage is invested in equity shares to improve the scheme's yield. Monthly Income Plan are also called debt oriented hybrid schemes. 'Monthly Income' is however not assured and depends on the distributable surplus of the scheme.

Capital Protection Oriented Schemes: These are mutual fund schemes which endeavor to protect the capital invested therein through suitable orientation of its portfolio structure. The orientation towards protection of capital originates from the portfolio structure of the scheme and not from any bank guarantee, insurance cover etc. SEBI stipulations require these type of schemes to be close- ended in nature, listed on the stock exchange and the intended portfolio structure would have to be mandatory rated by a credit rating agency. A typical portfolio structure could be to set aside major portion of the assets for capital safety and could be invested in highly rated debt instruments. The remaining portion would be invested in equity or equity related instruments to provide capital appreciation. Capital Protection Oriented schemes should not be confused with 'Capital Guaranteed' schemes.

Investment Plans/Options available to Investors

Investment Plans

Direct Plan: Under direct plan investors can invest directly with a fund house where in no agent or distributor is involved and thus they can save on costs. The direct plan has a separate NAV, which is generally higher than normal or regular plan as direct plan charges lower expenses because it does not entail paying any commission to agent/distributor and thus gets reflected in the form of higher NAV.

Regular or Normal Plan: Under regular or normal plan investors can invest through an agent or distributor in order to avail their investment advice/services. The regular plan too has a separate NAV, which is generally lower than direct plan as former charges higher expenses in order to pay commission to an intermediary involved.

Investment Options

Growth Option: Under growth option, dividends are not paid out to the unit holders. Income attributable to the unit holders continues to remain invested in the scheme and is reflected in the NAV of units under this option. Investors can realize capital appreciation if any, by way of an increase in NAV of their units by redeeming them.

Dividend Payout Option: Dividends are paid out to the unit holders under this option. However, the NAV of the units falls to the extent of the dividend paid out and applicable statutory levies.

Dividend Re-Investment Option: The dividend that accrues on units under option is re-invested back into the scheme at ex-dividend NAV. Hence investors receive additional units on their investments in lieu of dividends.

Benefits of Mutual Funds

There are two major reasons why most people around the globe are afraid to take investment decisions on their own. One of them is the lack of time to study the pros and cons of different investment opportunities and the other being lack of financial know-how. Apart from that, some financial markets have a steep entry barrier, which prevents a small ticket investor from participating in the growth of that sector. Investment needs across different category of investors are also not common. While some may settle for safety of capital, others may chase returns. There may be others who would want their capital to grow at a steady pace, while some may want to save for retirement or child's education. The need and objective of the investors are truly diverse and one financial product can't fulfill all of them. The emergence of mutual funds in the past decade as a popular investment vehicle is due to the fact (6) that it serves broadly all categories of investors through the plethora of schemes that it offers. The benefits provided by mutual funds far outweigh its shortcomings, and has thus gained wide-spread acceptance.

Following are the key benefits of investing in mutual funds:

- **Professional Management:** Mutual funds provide the benefit of professional management as people's money is managed by experienced fund managers. Investors, who do not have time, inclination and the know-how to manage their investments, can look towards mutual funds as an alternative. It is inexpensive and is ideal for a small ticket investor.
- **Economies of scale:** The way mutual funds are structured gives it a natural advantage. The "pooled" money from a number of investors ensures that mutual funds enjoy economies of scale; it is cheaper compared to investing directly in the capital markets which involves higher charges. This also allows retail investors access to high entry level markets like real estate, and also there is a greater control over costs.

• **Diversification:** Mutual funds provide investors with the benefit of diversification across different companies and sectors. Diversification in simple terms means to spread your portfolio across different instruments, sectors, industries, companies and countries so that the overall portfolio is relatively safeguarded from downturns in one or more sectors, companies or countries. Since small investors do not have enough money to make meaningful investments across different assets, a mutual fund does the job for them.

• **Liquidity:** Open ended mutual funds provide easy liquidity and investors can buy or sell units anytime, at the prevailing NAV based prices. Close-ended schemes are listed on a stock exchange where investors can redeem their units at the prevailing market price. Interval funds which are a cross between a close-ended and an open ended structure also provide periodic liquidity option to its investors.

• **Flexibility:** There are a lot of features in a regular mutual fund scheme, which imparts flexibility to the scheme. An investor can opt for a Systematic Investment Plan (SIP), Systematic Withdrawal Plan (SWP), Systematic Transfer Plan (STP)etc. to plan his cash flow requirements as per his convenience. The wide range of schemes being launched in India by different mutual funds also provides an added flexibility to the investor to build his portfolio accordingly.

• **Convenience:** Mutual fund companies offer convenient routes to investing in their schemes. Investors can invest through the internet or mobile phone in addition to the conventional option of physically filling up an application form and submitting it. Further, as bank details are required to be submitted at the time of investment, redemptions become very convenient as an investor directly receives the proceeds in the bank account.

• **Transparency:** The mutual fund industry in India works on a very transparent basis, and various kind of information is available to their investors through fact sheets, offer documents, annual reports etc.

• **Well Regulated:** Indian Mutual Fund industry is well regulated by the Securities and Exchange Board of India (SEBI). This helps to instill confidence and provides comfort to the investors. The regulatory environment in India is quite healthy, and ensures transparency in the processes and transactions. The best practices adopted by the industry in India have helped them win investors' confidence over the years. The ease and convenience which mutual funds offer and the different variety of schemes made available to the investors creates popularity for mutual funds, which cuts across investor classes and creates a favorable appeal.

Risks of Investing in Mutual Fund

Any investment carries with it an element of risk. Therefore, prior to making an investment, prospective investors should consider the following risk factors.

1. **Returns Not Guaranteed:**

Investors should be aware that by investing in a mutual fund, there is no guarantee of any income distribution, returns or capital appreciation.

2. **General Market Risk**

Any purchase of securities will involve some element of market risk. Hence, a mutual fund may be prone to changing market conditions as a result of:

- global, regional or national economic developments;
- governmental policies or political conditions;
- development in regulatory framework, law and legal issues
- general movements in interest rates;
- broad investor sentiment; and
- external shocks (e.g. natural disasters, war and etc.

In addition, the following risk factors should also be considered:

3. **Security specific risk**

There are many specific risks which apply to the individual security. Some examples include the possibility of a company defaulting on the repayment of the coupon and/or principal of its debentures, and the implications of a company's credit rating being downgraded.

4. **Liquidity risk**

Liquidity risk can be defined as the ease with which a security can be sold at or near its fair value depending on the volume traded in the market.

5. **Inflation risk**

Inflation rate risk is the risk of potential loss in the purchasing power of your investment due to a general increase of consumer prices.

6. **Loan Financing Risk**

If a loan is obtained to finance the purchases of units of any mutual fund, investors will need to understand that:

- Borrowing increases, the possibility for gains as well as losses;
- If the value of the investment falls below a certain level, investors may be asked by the financial institution to top up the collateral or reduce the outstanding loan amount to the required level;
- The borrowing cost may vary over time depending on the fluctuations in interest rates;
- The risks of using loan financing in light of investors' investment objectives, attitude towards risk and financial circumstances should be carefully assessed

7. Risk of Non-Compliance

This refers to the current and prospective risk to the mutual fund and the investors' interest arising from non-conformance with laws, rules, regulations, prescribed practices and internal policies and procedures by the manager.

8. Manager's Risk

The performance of any mutual funds is dependent amongst others on the experience, knowledge, expertise and investment techniques/process adopted by the manager and any lack of the above would have an adverse impact on the fund's performance thereby working to the detriment of Unit holders.

Chapter 2

Index Funds

What are index funds?

As the name suggests, this is a type of fund that invests in the index (Nifty50, Sensex, sectoral indices, etc.). Its performance tends to mirror that of the index it is replicating. This means the scheme will perform in tandem with the index it is tracking, save for a small difference known as tracking error. Index funds are passively managed funds that allow investors to participate intelligently in the stock market. Since the index fund is passively managed, the expense ratio is very low as compared to actively managed funds. Index fund is the safest option for a retail investor who has little or no knowledge about the stock market.

In India majority of the Index funds and ETFs primarily focus on the frontline indexes like Nifty, Nifty Next50, Nifty 100, SENSEX, etc. which are also benchmarked by large cap mutual funds. Hence, as per the SEBI mandate they are unable to invest in the mid and small cap companies. Index funds only remove stocks if are removed from the index.

How should you invest in index funds?

If you want to invest in an index mutual fund in India, you have two options:

1- You can invest in Index Exchange Traded Funds (ETF)

2- Or you can invest in open ended Index funds

Particulars	Index ETFs	Open-Ended Index fund
Procedure to invest	Through a broker/brokerage house	Through the website of the AMC
Demat	Required	Not required
Trade	Can be traded on exchanges	Redeemed through AMC
Pricing	Possibility of discrepancy b/w market price and NAV	Calculated on the basis of NAV
Tracking error	Low	Comparatively higher

A. Index ETF: An ETF is a type of fund that owns underlying assets (shares of stock, bonds, oil futures, gold bullion, foreign currency, etc.) and divides ownership of those assets into shares. ETFs price movements mimic the movements of their underlying assets, in this case the benchmark index. ETFs pool funds from investors to invest in mix of different assets. And like stocks, they can be traded on the stock exchanges during trading hours. And they offer you the diversification of a mutual fund. However, there can be a discrepancy between the price of an ETF and its NAV as it is listed on the stock markets. Index ETFs have to be bought through brokers on the stock exchange, so you need to have a demat account to trade in them. The costs would be marginally lower than open ended index funds.

B. Open-ended index funds: An open-ended index fund is like any normal mutual fund scheme. The only difference is that the fund manager just creates a portfolio that exactly replicates an index (Sensex or Nifty). There is no element of stock selection in the index fund. The only effort the fund manager puts in here is to ensure that the tracking error is kept at the bare minimum so that the performance of the index fund mirrors the performance of the index as closely as possible. Since index funds have no liquidity of their own, they usually have a higher percentage of assets in cash and liquid securities. This leaves room for what is known as a “tracking error”. Basically, this is the difference between a portfolio's returns and the benchmark or index it was meant to mimic. Higher the tracking error, greater the deviation from actual index returns. Since index funds are not listed on the stock exchanges, they do not require demat accounts and one can directly invest in them through the AMCs website.

How do Index Funds Work?

When an index fund tracks a benchmark like the Nifty, its portfolio will have the 50 stocks that comprise Nifty, in the same proportions. An index is a group of securities defining a market segment. These securities can be bond market instruments or equity-oriented instruments like stocks. Some of the most popular indices in India are BSE Sensex and NSE Nifty. Since index funds track a particular index, they fall under passive fund management. The fund manager decides which stocks have to be bought and sold according to the composition of the underlying benchmark. Unlike actively managed funds, there isn’t a standalone team of research analysts to identify opportunities and select stocks as index funds track an index.

While an actively managed fund strives to beat its benchmark, an index fund’s role is to match its performance to that of its index. Index funds typically deliver returns more or less equal to the benchmark. However, there can be a small difference between fund performance and the index. This is referred to as the tracking error. The fund manager must work towards bringing down the tracking error as much as possible.

Who should Invest in Index Funds?

The investment decision in a mutual fund solely depends upon your risk preferences and investment goals. Index funds are ideal for investors who are risk-averse and expect predictable returns. These funds do not require extensive tracking. For example, if you wish to participate in equities but don’t wish to take risks associated with actively managed equity funds, you can choose a Sensex or Nifty index fund. These funds will give you returns matching the upside that the particular index sees. However, if you wish to earn market-beating returns, then you can opt for actively managed funds. The returns of index funds may match the returns of actively managed funds in the short run. However, the actively managed fund tends to perform better in the long term. Investing in these funds is suitable for long-term investors who have an investment horizon of at least 7 years. These funds do carry market and volatility risks and hence suits only those willing to take some risk.

Types of Index Fund

1. Broad Market Index Funds

A Broad Market Index Fund tries to replicate a large segment of the investible stock market. For instance, an Index Fund tracking the NIFTY 500 index is a Broad Market Index Fund because it gives investors exposure to stocks across different sectors and market caps.

One such example is the Motilal Oswal NIFTY 500 Fund. Another example is the Navi Total Market Index Fund that will give investors exposure to 750 stocks across large-cap, mid-cap, small-cap, and even micro-cap companies.

Globally also there are multiple Index Funds. In fact, a good chunk of investment in Index Funds in the US goes into their broad market funds like the Wilshire 5000 Total Market Index Fund, the Russell 3000 ETF, and the Vanguard Total Stock Market Index Fund.

To sum up, Broad Market Index Funds simply look to capture the total performance of the stock market. And therefore, they are an excellent investment option for long-term investors.

Nonetheless, if you invest in a Broad Market Index and you also invest in other Index Funds, then there is bound to be some overlap in the holdings. This overlapping cannot be avoided. But you should not be particularly bothered with the overlapping as long as you are diligently tracking your overall asset allocation across large, mid, and small-cap companies, irrespective of whether you are investing via Mutual Funds or stocks.

2. Market Capitalization Index Funds

Size does matter. It is an aphorism that is deeply entrenched in our society. And more so when it comes to investing. A majority of the available indices are weighted by their market capitalization. For instance, the NIFTY 50, the SENSEX, the NIFTY Next 50, the NIFTY Midcap 150, NIFTY Small cap 250, and the NIFTY 200 are all examples of indices that are market-cap weighted.

We have a blog on what comprises the large-cap, mid-cap, and small-cap universe and how their risk and returns vary. So, we will not go into the details of those aspects here. In this blog, we will focus on explaining the advantages and limitations of market-cap weighted index funds.

Stocks often go through ups and downs. In that context, almost every stock is overvalued or undervalued at any given point in time. In other words, a market cap index gives a higher weight to an overvalued stock and a lower weight to an undervalued stock. So, every additional rupee that gets invested in an Index Fund adds more fuel to the existing distortion. This ends up disproportionately increasing the price of some stocks at the expense of others. Another way to look at it is that Index Funds are partly responsible for extending bull runs by making stocks more and more expensive.

Nonetheless, when these expensive stocks become unsustainably expensive, it eventually leads to a quick and deep market-wide correction. But again, if you are a long-term investor, short-term volatility shouldn’t be a major concern.

3. Equal Weight Index Funds

One way to counteract the over and under weighted-ness of a market-cap weighted index is to go for an equal-weight index. Simply put, an equal-weight index is an index where every stock in the index carries the same weight. For instance, say the index under consideration is NIFTY 50. In that case, all the 50 companies are conceptually weighted at an equal 2%.

In other words, consider an equal weight index like a perfectly balanced ship that is looking to avoid the storms that are often created by price momentum or valuation biases. Traditionally, an equal weight index is more value-oriented. Also, an equal weight index is certainly a lot more diversified as compared to the market-weighted index.

A case in point is the NIFTY 50 index. Here is a table that shows how the equal weight NIFTY 50 index is a lot more diverse in terms of its holdings and sectoral allocation, as compared to the market-cap-weighted NIFTY 50 index.

Top 10 Holdings		
Holding	**Market Cap Weighted NIFTY 50 Index**	**Equal Weight NIFTY 50 Index (Approximate*)**
Reliance Industries	10.70%	2.00%
HDFC Bank	9.03%	2.00%
Infosys	8.07%	2.00%
ICICI Bank	7.25%	2.00%
HDFC	6.70%	2.00%
Tata Consultancy Services	4.59%	2.00%
Kotak Mahindra Bank	3.89%	2.00%
Hindustan Unilever	2.79%	2.00%
Larsen & Toubro	2.78%	2.00%
Bajaj Finance	2.56%	2.00%

<u>The following table shows the weights to the top sectors of the two indices:</u>

Sector	**Market Cap Weighted NIFTY 50 Index**	**Equal Weight NIFTY 50 Index**
Financials	36.7	18.1
Technology	16.7	9.5
Energy	14.4	14.5
FMCG	7.4	9.3
Automobile	5.5	12.6
Construction	5.3	8.1
Healthcare	3.3	8.0
Metals	3.1	6.1
Chemicals	2.4	3.9
Communication	2.1	1.9
Insurance	1.5	3.8
Consumer Durable	1.3	2.3
Services	0.7	1.9

As the table shows, the sectoral allocation of equal-weight indices is more diverse as compared to market-cap weighted indices. To find out the impact of this diversification on performance, let's look at how the NIFTY 50 and the NIFTY 100 have done under the market cap and equal weight approaches.

5 Years Return

	Market Cap Weighted	Equal - Weighted
NIFTY 50	16.9%	14.5%
NIFTY 100	16.4%	13.7%

Return Since Inception		
	Market Cap Weighted	**Equal - Weighted**
NIFTY 50	13.3%	14.3%
NIFTY 100	18.2%	19.4%

On a 5-year basis, the market-cap weighting is the clear winner. But when you compare over a much longer period, the results are different. Returns since the inception of these indices show that the equal weight index has actually outperformed the market cap weight by at least 100 basis points in yearly returns. So a key takeaway is that the equal weight index tends to deliver better returns as compared to a market-weighted index, especially when the investment horizon is long.

4. Factor-Based or Smart Beta Index Funds

The market capitalization approach is the most popular way of creating an index. But it need not be the only way. Other attributes like the PE ratio, the dividend yield, book value, cash flow, sales, etc., can also serve as worthy metrics to build an index. And these metrics can probably do a better job of identifying attractively valued companies to an index portfolio.

Today's computers are a lot more powerful and are quite capable of learning from complex data streams and financial metrics. It is these insights that are then categorized into neatly packaged characteristics called factors. These factors then go by the labels of value, momentum, quality, volatility, etc.

Factors	Characteristic Of Stocks	Usually Captured Through
Value	Low Stock Price Relative To Their Fundamental Value	● Price To Book Value (P/B Ratio) ● Price To Eps (P/E Ratio) ● Price To Sales (P/S Ratio) ● Dividend Yield
Dividend Yield	Above Average & Growing Dividend Yields	● Dividend Yield
Size	Market Capitalization	● Market Capitalization (Total Or Free Float)
Momentum	Strong Past Performance Over Preceding 3 To 6 Months	● Point To Point Past Returns ● Historical Alpha
Low Volatility	Below Average Volatility	● Standard Deviation ● Downside Standard Deviation ● Beta
Quality	Strong Profitability Characteristics	● Return On Equity ● Return On Capital Employed

		● Earnings Stability ● Dividend Growth ● Strength Of Balance Sheet ● Low Financial Leverage ● Cash Flows

Recently, factor-based Index Funds have started gaining traction. You might even have heard of some factor funds in another name as "smart beta funds". Now, most smart-beta funds that are being launched in India consist of a single factor.

For example, the Edelweiss NIFTY 100 Quality 30 index uses the quality factor. This factor is a concoction of multiple metrics like the Return On Equity (ROE), the return on capital, the company's operating cash flows, the debt in the company, etc. Similarly, there are Index Funds and ETFs that use the volatility factor, value factor, momentum factor, etc.

Lately, Mutual Fund companies have also launched some multi-factor funds i.e. Index Funds that use 2 factors and sometimes even 3 factors. These multi-factor Index Funds aim to offer a more comprehensive investing option by managing returns, risk, and volatility in a more efficient manner.

Here are some examples of factor-based Index Funds and ETFs.

- Edelweiss NIFTY 100 Quality 30
- ICICI Prudential NIFTY Low Vol 30
- Kotak Nv20
- ICICI Prudential Nv20
- Nippon India NIFTY 50 Value 20
- UTI NIFTY 200 Momentum 30
- ICICI Prudential Alpha Low Vol 30 (Two Factor Index)

5. Sector-Based Index Funds

Many investors invest in sector-based funds or ETFs. The idea is to invest in businesses belonging to the same industry or sector. For example, there are sector-specific Index Funds and ETFs in banking, technology, healthcare, infrastructure, consumption, etc.

These sectoral funds generally cater to broader categories. But there are Index Funds with a much narrower and specific mandate. For instance, a banking sector Index Fund is based on the broader banking category, but investors can also choose a PSU bank only or a private bank only Index Fund.

Here is a table that shows different sector-based Index Funds and ETFs.

Banking	Aditya Birla Sun Life Banking ETF	Healthcare	Axis Healthcare ETF
Banking	Axis Banking ETF	Healthcare	ICICI Prudential Healthcare ETF
Banking	Hdfc Banking ETF	Technology	Kotak IT ETF
Banking	ICICI Prudential Bank ETF	Technology	SBI – ETF IT

Banking	Motilal Oswal NIFTY Bank Index Fund	Technology	Axis Technology ETF
Banking	UTI Bank ETF	Technology	Nippon India ETF NIFTY IT
Financial Services	Mirae Asset NIFTY Financial Services ETF	FMCG	ICICI Prudential FMCG ETF
PSU Banks	Nippon India ETF PSU Bank Bees	Consumption	ICICI Prudential Consumption ETF
PSU Banks	Kotak PSU Bank ETF	Consumption	SBI ETF Consumption
Private Banks	ICICI Prudential Private Banks ETF	Consumption	Axis Consumption ETF
Private Banks	SBI – ETF Private Bank	Pharma	Nippon India NIFTY Pharma ETF
Private Banks	Tata NIFTY Private Bank ETF	Infrastructure	Nippon India ETF Infra Bees

6. International Index Funds

Earlier in the year, there were barely 3 or 4 passive international funds. But the last 8 months have seen a spate of offerings in the International Index Funds space. Now, there are funds tracking multiple US-specific indices such as the NYSE FANG+ index, the S&P 500 index, and the NASDAQ index.

There are also a couple of funds that track the Hang Seng Index. You can also have access to some of the developed market indices that operate in isolation or as a combination of funds.

Here is a table that shows various passive International Funds launched by Indian Mutual Fund companies:

Scheme	Objective
Mirae Asset NYSE FANG+ ETF FoF	Tracks The NYSE FANG+ Index
Motilal Oswal S&P 500 Index Fund	Tracks The S&P 500 Index
Mirae Asset S&P 500 Top 50 ETF FoF	A Sub-Set Of S&P 500 Tracking The Top 50 Stocks
Aditya Birla Sun Life Nasdaq 100 FoF	Tracks The Nasdaq 100 Index
ICICI Prudential Nasdaq 100 Index Fund	Tracks The Nasdaq 100 Index
Motilal Oswal Nasdaq 100 FoF	Tracks The Nasdaq 100 Index
Kotak Nasdaq 100 FoF	Tracks The Nasdaq 100 Index
Nippon India ETF Hang Seng Bees	Tracks The Hang Seng Index
Mirae Asset Hang Seng Tech ETF	Tracks The Hang Seng Tech Index
Motilal Oswal Msci Eafe Top100 Select Index Fund	A Sub-Set Of Msci Eafe Index Covering 10 Developed Countries And 100 Stocks
HDFC Developed World Indexes FoF	Combination Of ETFs & Index Funds Aiming To Track The Msci World Index

Recently, the past performance of some indices, particularly US-based indices have helped in building warmth with Indian investors. A pleasant consequence of this has been the improving diversification in one’s portfolio.

Take, for example, the NYSE FANG+ index. This index constitutes 10 highly-traded internet and technology stocks (Alibaba, Tesla, Facebook, Twitter, Apple, etc.) in an equal weighting format.
The metric of interest here is the performance correlation of the NYSE FANG+ index with the NIFTY 50 index. The correlation is a mere 0.15, which makes these two indices polar opposites in terms of performance and the kind of companies and sectors that they represent. Therefore, investing in the FANG+ index not only enables essential diversification but also helps address some of the gaps that might be there in your portfolio.

7. Debt Index Funds

There are two major risks that you can face when you invest in debt instruments. One, the price of bonds goes up and down due to change in interest rates. This is called the interest rate risk.
And secondly, the credit risk i.e. the probability of some bonds defaulting because of the issuer of the bond failing to make the payment.
Debt-based Index Funds are not among the most popular products in India. But there are Debt Index Funds like target maturity Index Funds that can be quite useful in mitigating the interest rate risk and credit risk in your portfolio.
Take, for example, the recently launched ICICI Prudential PSU Bond Plus SDL 40:60 Index Fund – September 2027. This is a passively managed scheme that replicates a custom index that consists of 8 AAA-rated PSU bonds and 20 State Development Loans in a 40-60 ratio.
Now, while the scheme is open-ended, this Debt Index Fund comes with a maturity date, which in this case, is the 30th of September 2027. So if an investor stays invested until maturity, then the interest rate risk is eliminated. And since the investments are going into PSU bonds & AAA instruments, the credit risk is largely negligible.
Debt index instruments are getting popular now with many fund houses launching schemes in this category. For instance, Aditya Birla Sun Life NIFTY SDL Plus PSU Bond Sep 2026 60:40 Index Fund and Edelweiss NIFTY PSU Bond Plus SDL Index Fund 2026 are similar to the investment strategy of ICICI Prudential PSU Bond Plus SDL 40:60 Index Fund – Sep 2027. Edelweiss also manages the Bharat Bond Index which is a low-cost, passively managed instrument that invests in AAA-rated public sector bonds.
Similarly, Axis Mutual Fund has a bond fund, Nippon India Mutual Fund has multiple funds, and IDFC Mutual Fund, too, has a few GILT Index Funds that invest only in government securities.

Here are a few target maturity Index Funds from different fund houses:
- Axis AAA Bond Plus SDL ETD – 2026 Maturity FoF
- Nippon India ETF NIFTY CPSE Bond Plus SDL – 2024 Maturity
- Nippon India ETF NIFTY SDL – 2026 Maturity
- IDFC Gilt 2027 Index Fund
- IDFC Gilt 2028 Index Fund

8. Custom Index Funds

A standard index operates on a “one size fits all” model. But as more data processing power gets unleashed, it helps create a pathway for a lot more personalization on basis of what the fund manager wants and what different investor groups seek. And this is where custom indices come in to picture.

Simply put, Custom Index Funds allow institutions and advisory firms to create their own set of investing strategies under a passive framework. Think of it like the architect giving you a basic set of blueprints but allowing you to tweak the construction per your specific requirements.

Taxation of Index Funds

As index funds are a class of equity funds, they are essentially taxed like any other equity fund plan. The dividends offered by an index fund is added to your overall income and taxed at your income tax slab rate. This is referred to as the classical method of taxing dividends in the hands of investors. The rate of taxation of index funds depends on the holding period. Short-term capital gains are realized on redeeming your units within a holding period of one year. These gains are taxed at a flat rate of 15%. Long-term capital gains are those gains that are realized on selling your fund units after a holding period of one year. These gains of up to Rs 1 lakh a year are made tax-exempt. Any gains above this limit attract a tax at the rate of 10%, and indexation is not allowed.

Advantages of index funds

- Low expense ratio: The biggest attraction of passive funds is in their low cost. Since index funds replicate an index, there is no need for a team of analysts for research and helping fund manager find stocks. Even fund managers don’t need to put their expertise in portfolio construction. Additionally, there is no need to manage the risk return balance through buying and/or selling stocks. All these factors make the expense of managing an index fund low, and this translates into low fees for investors.
- Fund manager risk/bias eliminated: When investing in active mutual funds, there is an inherent risk that the fund manager may make an error in judgment due to certain biases or make a decision based on an emotional response. Index funds follow an automated, rule-based investment methodology. The fund manager has a defined protocol on where the money goes and how much he/she needs to follow. Thus, this risk/bias is automatically removed.
- Broad representation & diversification: Investing money in the same stocks and weightages as an index makes sure you get a portfolio that is diversified across stocks and sectors. As the major indices are created to be representative of the overall market, they cover all the key sectors of the economy and within each sector, the relevant stocks. This reduces risk as all sectors or stocks seldom go down at the same time.

Disadvantages of index funds

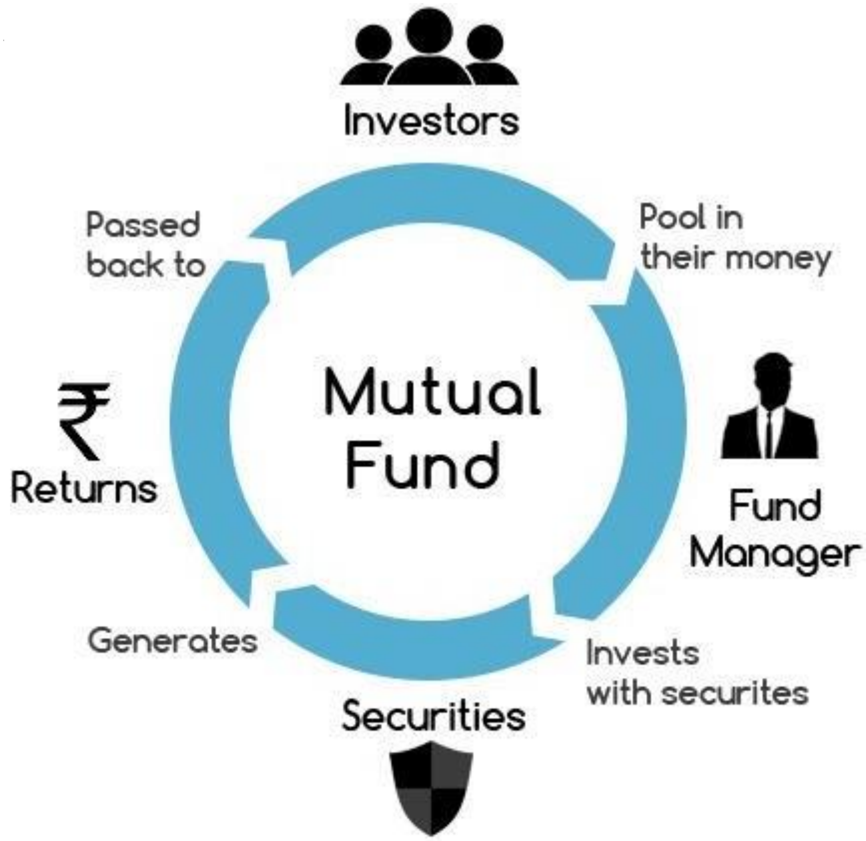
- Very difficult to generate alpha: Though it is difficult and very rare for a fund manager to outperform the stock market consistently, many investors and actively managed funds are able to outperform the market overall. With index funds, the potential to outperform the stock markets is negligible, as they are intended to track the market performance rather than exceed it.
- Limited downside protection: Investing in an index fund, such as one that tracks the Nifty50, will give you the upside when the market is doing well, but also leaves you completely vulnerable to the downside. Additionally, during a market correction, it is difficult to average your costs as the weightages of the underlying index have to be maintained.

- Inability to take advantage of sudden opportunities: Sometimes obvious miss-pricing can occur in the market. For e.g. the ongoing slowdown in the auto sector is a brilliant opportunity to add-up on good quality, beaten down stocks within the sector. But an index fund will not be able to exploit this opportunity to the fullest, thus leading to sub-optimal returns.

Chapter 3

Industry Analysis

Top 5 Indian Industries for Mutual Funds to Invest in



1) Pharmaceutical Industry

Executive Summary

India is often referred to as the "pharmacy to the world", ranking 3rd worldwide in total production volume and 10th by value. As per National Indian Promotion Agency, it is the largest producer of generic medicines and vaccines, occupying 20% volume share in generics and 62% in vaccines.

The Indian pharmaceutical sector is currently valued at US$ 41 bn and is expected to grow to US$ 65 billion industries by 2024. It can be broadly divided into two categories – domestic and exports.

The domestic market size stands at US$13 billion, with acute therapies accounting for 66% of the market share and chronic therapies accounting for 34% of the market share. In the domestic market, anti-invectives (13.6%), cardiac (12.4%) and gastrointestinal (11.5%) have the biggest market share in terms of revenue.

The global market size stands at US$ 943 billion led by the United States with a market size of US$ 439 billion (47%), followed by Europe (15%), China (8%) and Japan (8%). The export market can be further classified into four segments – Active Pharmaceutical Ingredients (APIs) (branded and generic), Formulations (branded and generic), Contract Research and ManufacturingServices (CRAMS), and Biosimilar.

India's ability to manufacture high quality, low priced medicines, presents huge business opportunity for the domestic industry. India's cost of production is approximately 33% lower than that of the US.

Influx of first-time patients into the healthcare ecosystem from the National Health Protection Scheme (NHPS)- a scheme providing free health coverage at the secondary and tertiary level to the poor and vulnerable sections of the population, relaxation of regulations for patented drugs, and increasing spend on preventive healthcare could emerge as major growth drivers for the sector over the next few years.

- In 2017, the Department of Pharmaceuticals released a new National Pharmaceutical Policy. As per the new policy, the department will have control over the National List of Essential Medicines (NLEM), which decides the drugs for which the Government can control the prices.
- The Government of India's Pharma Vision 2020 is aimed at making India a global leader in end-to-end drug manufacturing. As per Union Budget 2019-20, Rs 19 billion has been set aside for research by the Ministry of Health and Family Welfare. The government also plans to set up an early Rs 1000 billion fund to provide boost to companies to manufacture pharmaceutical ingredients domestically.
- 100% Foreign Direct Investment is allowed under automatic route for greenfield pharma and brownfield pharma each, wherein 74% is allowed under the automatic route and thereafter through government approval route.

Market Size

According to the Indian Economic Survey 2021, the domestic market is expected to grow 3x in the next decade. India's domestic pharmaceutical market is estimated at US$ 42 billion in 2021 and likely to reach US$ 65 billion by 2024 and further expand to reach ~US$ 120-130 billion by 2030.

India's biotechnology industry comprises biopharmaceuticals, bio-services, bio-agriculture, bio-industry, and bioinformatics. The Indian biotechnology industry was valued at US$ 64 billion in 2019 and is expected to reach US$ 150 billion by 2025.

India's medical devices market stood at US$ 10.36 billion in FY20. The market is expected to increase at a CAGR of 37% from 2020 to 2025 to reach US$ 50 billion.

As of August 2021, CARE Ratings expect India's pharmaceutical business to develop at an annual rate of ~11% over the next two years to reach more than US$ 60 billion in value.

In the global pharmaceuticals sector, India is a significant and rising player. India is the world's largest supplier of generic medications, accounting for 20% of the worldwide supply by volume and supplying about 60% of the global vaccination demand. The Indian pharmaceutical sector is worth US$ 42 billion and ranks 3rd in terms of volume and 13th in terms of value worldwide.

In August 2021, the Indian pharmaceutical market increased at 17.7% annually, up from 13.7% in July 2020. According to India Ratings & Research, the Indian pharmaceutical market revenue is expected to be over 12% Y-o-Y in FY22.

Exports

India's drugs and pharmaceuticals exports stood at US$ 24.44 billion in FY21. India is the 12th largest exporter of medical goods in the world. The country's pharmaceutical sector contributes 6.6% to the total merchandise exports. As of May 2021, India supplied a total of 586.4 lakh COVID-19 vaccines, comprising grants (81.3 lakh), commercial exports (339.7 lakh) and exports under the COVAX platform (165.5 lakh), to 71 countries. Indian drugs are exported to more than 200 countries in the world, with US being the key market. Generic drugs account for 20% of the global export in terms of volume, making the country the largest provider of generic medicines globally. India's drugs and pharmaceuticals exports stood at US$ 3.76 billion between April 2021 and May 2021. The foreign direct investment (FDI) inflow in the Indian drugs and pharmaceuticals sector stood at US$ 18.12 billion between April 2000 and June 2021. The foreign direct investment (FDI) inflows in the Indian drugs and pharmaceuticals sector reached US$130 million between April 2021 and June 2021. In FY21, North America was the largest market for India's pharma exports with a 34% share and exports to the U.S., Canada and Mexico recorded a growth of 12.6%, 30% and 21.4%, respectively.

Investments and Recent Developments

The Union Cabinet has given its nod for the amendment of existing Foreign Direct Investment (FDI) policy in the pharmaceutical sector in order to allow FDI up to 100% under the automatic route for manufacturing of medical devices subject to certain conditions.

The Indian drugs and pharmaceuticals sector received cumulative FDIs worth US$ 17.99 billion between April 2000 and March 2021.

Some of the recent developments/investments in the Indian pharmaceutical sector are as follows:

- In November 2021, US-based Akston Biosciences announced that it will start the clinical trial of its second-generation COVID-19 vaccine 'AKS-452' in India soon.
- In October 2021, AstraZeneca India launched a Clinical Data and Insights (CDI) division to further strengthen its global presence and manage data-related aspects of its clinical trials.
- In September 2021, the Indian government contributed US$ 4 billion to the pharmaceutical and medical industries.
- In August 2021, Glenmark collaborated with SaNOtize to introduce spray for COVID-19 treatment in India and other Asian markets.
- In August 2021, Uniza Group, an Ahmedabad-based pharmaceutical firm, signed an agreement with Lysulin Inc. (an US-based firm) to introduce Lysulin, a nutritional product for Indian consumers.
- In August 2021, Alkem Laboratories introduced Famotidine and Ibuprofen tablets to treat osteoarthritis and rheumatoid arthritis symptoms in the US.
- In July 2021, Generic Health (an Australia-based subsidiary of Lupin Limited) signed an agreement with Southern Cross Pharma Pty Ltd. (SCP). Under this deal, Lupin will acquire 100% shares of SCP. The acquisition is expected to further strengthen Lupin's foothold in Australia.
- In July 2021, Generic Health (an Australia-based subsidiary of Lupin Limited) signed an agreement with Southern Cross Pharma Pty Ltd. (SCP). Under this deal, Lupin will acquire 100% shares of SCP. The acquisition is expected to further strengthen Lupin's foothold in Australia.
- In June 2021, Sun Pharmaceuticals acquired the patent license for Dapagliflozin from AstraZeneca. The company will be distributing and promoting the drug under the brand name 'Oxra'.
- In June 2021, Lupin Ltd. announced its intention to enter the digital healthcare space in India. It incorporated Lupin Digital Health Ltd., a wholly owned subsidiary, to provide a digital therapeutics platform for medical practitioners and patients in the country.
- In May 2021, Cipla launched a real-time COVID-19 detection kit 'ViraGen' that is based on multiplex polymerase chain reaction (PCR) technology.
- In May 2021, the Government of India invited R&D proposals on critical components and innovations in oxygen concentrators by June 15, 2021.
- In May 2021, Indian Immunologicals Ltd. (IIL) and Bharat Immunologicals and Biologicals Corporation (BIBCOL) inked technology transfer pacts with Bharat Biotech to develop the vaccine locally to boost India's vaccination drive. The two PSUs plan to start production of vaccines by September 2021.

- In May 2021, Eli Lilly & Company issued non-exclusive voluntary licenses to pharmaceutical companies—Cipla Ltd., Lupin Ltd., Natco Pharma & Sun Pharmaceutical Industries Ltd.—to produce and distribute Baricitinib, a drug for treating COVID-19.
- In April 2021, the CSIR-CMERI, Durgapur, indigenously developed the technology of Oxygen Enrichment Unit (OEU). The unit can deliver medical air in the range of ~15 litres per minute, with oxygen purity of >90%. It transferred the technology to MSMEs—Conquerent Control Systems Pvt. Ltd., A B Elasto Products Pvt. Ltd. and Automation Engineers, Mech Air Industries and Auto Malleable.
- In April 2021, National Pharmaceutical Pricing Authority (NPPA) fixed the price of 81 medicines including off-patent anti-diabetic drugs allowing due benefits of patent expiry to the patients.
- In February 2021, Aurobindo Pharma announced plans to procure solar power from two open access projects of NVNR Power and Infra in Hyderabad. The company will acquire 26% share capital in both companies with an US$ 1.5 million investments. The acquisition is expected to be completed by the end of March 2021.
- In February 2021, the Telangana government partnered with Cytiva to open a 'Fast Trak' lab to strengthen the biopharma industry of the state.
- In February 2021, Glenmark Pharmaceuticals Limited launched SUTIB, a generic version of Sunitinib oral capsules, for the treatment of kidney cancer in India.
- In February 2021, Natco Pharma launched Brivaracetam for the treatment of epilepsy in India.
- In February 2021, the Russian Ministry of Health allowed Glenmark Pharmaceuticals to market its novel fixed-dose combination nasal spray in Russia.
- In January 2021, the Central government announced to set up three bulk drug parks at a cost of Rs. 14,300 crores (US$ 1,957 million) to manufacture chemical compounds or active pharmaceutical ingredients (APIs) for medicines and reduce imports from China.
- Pharm Easy received US$ 300 million in July 2021 from its existing investors after acquiring Thyrocare, the diagnostic firm. These funds will be utilised to continue Thyrocare's acquisition process. After the transaction is completed, the online pharmacy plans to float the company on the Indian Stock Exchange.

Government Initiatives

Some of the initiatives taken by the Government to promote the pharmaceutical sector in India are as follows:

- India could restart deliveries of COVID-19 shots to global vaccine-sharing platform COVAX in November-December 2021 for the first time since April 2021. The World Health Organization (WHO), which co-leads COVAX, has been pushing India to resume supplies for the program, particularly after it sent ~4 million doses to neighbors and allies in October 2021.

- In November 2021, PM Mr. Narendra Modi inaugurated the first Global Innovation Summit of the pharmaceuticals sector. The summit will have 12 sessions and over 40 national and international speakers deliberating on a range of subjects including regulatory environment, funding for innovation, industry-academia collaboration and innovation infrastructure.
- In August 2021, Union Health Minister, Mr. Mansukh Mandaviya announced that an additional number of pharmaceutical companies in India are expected to commence manufacturing of anti-coronavirus vaccines by October-November 2021. This move is expected to further boost the vaccination drive across the country.
- In June 2021, Finance Minister Ms. Nirmala Sitharaman announced an additional outlay of Rs. 197,000 crores (US $26,578.3 million) that will be utilized over five years for the pharmaceutical PLI scheme in 13 key sectors such as active pharmaceutical ingredients, drug intermediaries and key starting materials.
- As of August 31, 2021, the PLI scheme received a good response from the industry with a total of 278 applications. This is likely to benefit 55 manufacturers.
- To achieve self-reliance and minimize import dependency in the country's essential bulk drugs, the Department of Pharmaceuticals initiated a PLI scheme to promote domestic manufacturing by setting up greenfield plants with minimum domestic value addition in four separate ‘Target Segments’ with a cumulative outlay of Rs. 6,940 crores (US$ 951.27 million) from FY21 to FY30.
- In May 2021, under Atmanirbhar Bharat 3.0, Mission COVID Suraksha was announced by the Government of India to accelerate development and production of indigenous COVID vaccines. To augment the capacity of indigenous production of Covaxin under the mission, the Department of Biotechnology, Government of India, provided financial support in the form of a grant to vaccine manufacturing facilities for enhanced production capacities, which is expected to reach >10 crore doses per month by September 2021.
- In April 2021, the Union Government decided to streamline and fast-track the regulatory system for COVID-19 vaccines that have been approved for restricted use by the US FDA, EMA, UK MHRA, PMDA Japan or those listed in the WHO Emergency Use Listing (EUL). This decision is likely to facilitate quicker access to foreign vaccines by India and encourage imports.
- In February 2021, the Punjab government announced to establish three pharma parks in the state. Of these, a pharma park has been proposed at Bathinda, spread across ~1,300 acres’ area and project worth ~Rs. 1,800 crores (US$ 245.58 million). Another medical park worth Rs. 180 crores (US$ 24.56 million) has been proposed at Rajpura and the third project, a greenfield project, has been proposed at Wazirabad, Fatehgarh Sahib.
- Under Union Budget 2021-22, the Ministry of Health and Family Welfare has been allocated Rs. 73,932 crores (US$ 10.35 billion) and the Department of Health Research has been allocated Rs. 2,663 crores (US$ 365.68 billion). The government allocated Rs. 37,130 crores (US$ 5.10 billion) to the 'National Health Mission’. PM Aatmanirbhar Swasth Bharat Yojana was allocated Rs. 64,180 crores (US$ 8.80 billion) over six years.

5 Forces Analysis of Pharmaceutical Industry

1) Bargaining Power of Buyer (Low):

● because of the presence of an influencing element, in this case, i.e. the doctor

● presence of government policies like Drug Price Control Order (DPCO), 1970

● except in generic and OTC medicines, the buyer does not normally switch medicines easily.

2) Bargaining Power of Supplier (Low):

The fragmented nature of the industry prevents the suppliers (organic chemical industries and labor force) from having much bargaining power over the manufacturers as the switching cost is low for the manufacturers.

3) Threats of New Entrants (High):

● due to economies of scale in manufacturing, R&D, marketing, distribution and capital requirements

● Existing companies have a huge advantage in terms of the costs involved in launching new drugs and formulations

4) Competition (High):

as the sector is extremely fragmented with around 250- 300 manufacturing and formulation units in the organized sector which contribute to only 70% of the market share of total sales inthe country.

5) Threat of Substitutes (Moderate):

In a developing country like India, traditional medicine plays a major substituting role. According to industry estimates, around 70% of the Indian population supplements and at times even replaces pharmaceutical medicines with traditional medicines.

SWOT Analysis of Pharmaceutical Industry

Strengths:

1. Indian with a population of over a billion is a largely untapped market. In fact, the penetration of modern medicine is less than 30% in India. To put things in perspective, per capita expenditure on health care in India is US$ 93 while the same for countries like Brazil is US$ 453 and Malaysia US$189.

2. The growth of middle class in the country has resulted in fast changing lifestyles in urban and to some extent rural centers. This opens a huge market for lifestyle drugs, which has a very low contribution in the Indian markets.
3. Indian manufacturers are one of the lowest cost producers of drugs in the world. With a scalable labor force, Indian manufactures can produce drugs at 40% to 50% of the cost to the rest of the world. In some cases, this cost is as low as 90%.
4. Indian pharmaceutical industry possesses excellent chemistry and process reengineering skills. This adds to the competitive advantage of the Indian companies. The strength in chemistry skill help Indian companies to develop processes, which are cost effective.

Weakness:

1. The Indian pharma companies are marred by the price regulation. Over a period of time, this regulation has reduced the pricing ability of companies. The NPPA (National Pharma Pricing Authority), which is the authority to decide the various pricing parameters, sets prices of different drugs, which leads to lower profitability for the companies. The companies, which are lowest cost producers, are at advantage while those who cannot produce have either to stop production or bear losses.
2. Indian pharma sector has been marred by lack of product patent, which prevents global pharma companies to introduce new drugs in the country and discourages innovation and drug discovery. But this has provided an upper hand to the Indian pharma companies.
3. Indian pharma market is one of the least penetrated in the world. However, growth has been slow to come by. As a result, Indian majors are relying on exports for growth. To put things in to perspective, India accounts for almost 16% of the world population while the total size of industry is just 1% of the global pharma industry.
4. Due to very low barriers to entry, Indian pharma industry is highly fragmented with about 300 large manufacturing units and about 18,000 small units spread across the country. This makes Indian pharma market increasingly competitive. The industry witnesses price competition, which reduces the growth of the industry in value term. Toput things in perspective, in the year 2003, the industry actually grew by 10.4% but due to price competition, the growth in value terms was 8.2% (prices actually declined by 2.2%)

Opportunities

1. The migration into a product patent based regime is likely to transform industry fortunes in the long term. The new patent product regime will bring with it new innovative drugs. This will increase the profitability of MNC pharma companies and willforce domestic pharma companies to focus more on R&D. This migration could result inconsolidation as well. Very small players may not be able to cope up with the challenging environment and may succumb to giants.

2. Large number of drugs going off-patent in Europe and in the US between 2005 to 2009 offers a big opportunity for the Indian companies to capture this market. Since generic drugs are commodities by nature, Indian producers have the competitive advantage, as they are the lowest cost producers of drugs in the world.
3. Opening up of health insurance sector and the expected growth in per capita income are key growth drivers from a long-term perspective. This leads to the expansion of healthcare industry of which pharma industry is an integral part.
4. Being the lowest cost producer combined with USFDA approved plants, Indian companies can become a global outsourcing hub for pharmaceutical products.

Threats:

1. There are certain concerns over the patent regime regarding its current structure. It might be possible that the new government may change certain provisions of the patentact formulated by the preceding government.
2. Threats from other low cost countries like China and Israel exist. However, on the quality front, India is better placed relative to China. So, differentiation in the contract manufacturing side may wane.
3. The short-term threat for the pharma industry is the uncertainty regarding the implementation of VAT. Though this is likely to have a negative impact in the short-term, the implications over the long-term are positive for the industry.

PESTLE Analysis of Pharmaceutical Industry

Political Factors:

For any business to flourish, it is essential to have a stable political condition. Here are somepolitical conditions which can impact the pharmaceutical industry:

- Most countries maintain frameworks that include guidelines about safety standards, certifications, etcetera. They also mark the banned drugs, which may cause health hazards. If a pharmaceutical company fails to follow those regulations, its business may suffer severely.
- Administrations of most countries try to gain control over the price of the drug to make it affordable for people. It may toll on the growth of pharmaceutical companies.
- Governments of some countries subsidize the pharmaceutical companies to keep the essential drugs within the commoners' reach. It helps the companies to survive in the competitive market.

Economic Factors:

The economy of any direct impacts the businesses. The pharmaceutical industry is also affected when the economic conditions of a country get affected. The PESTEL analysis pharmaceutical industry can identify the economic conditions which can affect the pharmaceutical companies:

- As the economic conditions of the countries are developing with time, the household income of people is also increasing. It may allow them some essential drugs. They may have the urge to buy costlier drugs, which were previously out of reach for many people.
- The researchers are constantly working on drug modification, resulting in more beneficial and potential drug production. As people are buying those drugs, the pharmaceutical industry is also flourishing.
- The average healthcare spending of the families is increasing. If there are aged people in a family, there are more chances of high healthcare expenses. It also includes the cost of medicines. It is also giving the pharmaceutical companies to earn better profit even after following Government guidelines about pricing.

Social Factors:

Socio-cultural factors of any country can impact the industries within the periphery of the country. The pharmaceutical industry is not an exception, and the sociological conditions dominate it gravely. Here are some sociological conditions which can impact the growth of the pharmaceutical industry:

- The lifestyle of people has people incredibly fast yet stagnant. As a result, more people are moving towards obesity. Thus, facing health conditions like diabetes, thyroid, hypertension. The patients need continuous medication to deal with this. Hence the sales of the pharmaceutical companies are also increasing.
- As the healthcare system has improved all over the country, the number of the aging population is also growing. Hence, there is a need for more medicines for them than for the younger ones. It creates a greater demand in pharmaceutical companies resulting in their expansion.
- Many people are concentrating on having a healthy lifestyle while doing exercises, eating healthy. It may result in a decrease in the demand for drugs in the future.

Technological Factors:

The pharmaceutical industry is greatly dependent on technological innovations. The PESTEL analysis pharmaceutical industry can show how the technical conditions can affect the business:

- The pharmaceutical industry is greatly dependent on technology. The research and biotechnological innovations have resulted in the production of drugs that are good in quality and have low production costs. It will allow more people to get access to medicines that they previously could not afford.

- The drugs require proper storage conditions. Technology has made it easier to preserve medicines and transport them without getting harmed due to unpleasant conditions.
- Technology has provided pharmaceutical companies with the chance to reach more companies through campaigns. They can also deliver the medicine at the door, which has increased the reach of the companies. It can also increase the revenue of pharmaceutical companies.

Environmental Factors:

Environment is a significant concern, and the impact of waste materials on the environment has worried the environmentalists. Here are some ecological issues which may affect the pharmaceutical industry:

- As the production of drugs is related to a large carbon footprint, many countries are coming up with regulations to decrease the effect on the environment. As abiding by these regulations may be costly for the new companies, they may fail to establish their business.
- The production of drugs results in the creation of different biotechnological pollutants. They may be hazardous for people's health. The company needs to take care of this waste to maintain the safety of the people.
- Like other companies, pharmaceutical companies may take up some corporate responsibilities towards the environment. They can donate money or campaign for some environmental causes, which can help them create a better image.

Legal Factors:

A nation's legal conditions do not have much direct impact on the pharmaceutical industry. However, there can be some indirect issues that may affect the growth of the pharmaceutical business. The PESTEL analysis pharmaceutical industry can help to point outthe legal aspects which can work on the growth of the pharmaceutical industry:

- As pharmaceutical products are one of the essential ones, the government always uses laws to control the fraud regarding the expiration dates and manufacturing of the batch of drugs. If a company fails to adhere to the set guidelines, it may have to face legal proceedings.
- Pharmaceutical companies are mainly dependent on their database. If they get affected by cyber threats, the customer may lose their confidence in them. It can affect their business as well.
- Pharmaceutical companies should maintain strict legal guidelines while formulating the framework for their business and researches. They ensure the safety of the products. It helps them to avoid legal issues. Thus, allowing them to stay away from the high expenses of proceedings.

2) Steel Industry

Introduction

In October 2021, India was the world's second-largest producer of crude steel, with an output of 9.8 MT. In FY21, the production of crude steel and finished steel stood a 102.49 MT and 94.66 MT, respectively. In FY22, crude steel production in India is estimated to increase by18%, to reach 120 million tons, driven by rising demand from customers. The growth in the Indian steel sector has been driven by domestic availability of raw materials such as iron ore and cost-effective labor. Consequently, the steel sector has been a major contributor to India's manufacturing output.

The Indian steel industry is modern with state-of-the-art steel mills. It has always strived for continuous modernization of older plants and up-gradation to higher energy efficiency levels.

Indian steel industry is classified into three categories - major producers, main producers and secondary producers.

Market Size

In FY21, the production of crude steel and finished steel stood a 102.49 MT and 94.66 MT, respectively. According to CARE Ratings, crude steel production is expected to reach 112-114 MT (million tons), an increase of 8-9% YoY in FY22. The consumption of finished steel stood at 93.43 MT in FY21. Between April 2021 and September 2021, finished steel consumption stood at 49.11 MT.

In May 2021, finished steel production stood at 7.8 MT.

In June 2021, SAIL's crude steel production stood at 1.30 MT and saleable steel production was 1.27 MT.

Exports and imports of finished steel stood at 7.75 MT and 2.37 MT, respectively, in FY22 (until September 2021). In April 2021, India's export rose by 121.6% YoY, compared with 2020. In FY20, India exported 8.24 MT of finished steel.

Investments

Steel industry and its associated mining and metallurgy sectors have seen major investments and developments in the recent past.

According to the data released by Department for Promotion of Industry and Internal Trade (DPIIT), between April 2000 and June 2021, Indian metallurgical industries attracted FDI inflows of US$ 16.0 billion.

In FY22, demand for steel is expected to increase by 17% to 110 million tons, driven by rising construction activities.

Some of the major investments in the Indian steel industry are as follows:

- October 2021, Tata Steel was planning to set up more scrap-based facilities that will have a capacity of at least a billion tons by 2025.

- In October 2021, JSW Steel invested Rs. 150 billion (US$ 19.9 million) to build a steel plant in Jammu and Kashmir and boost manufacturing in the region.
- In October 2021, Arcelor Mittal and Nippon Steel Corp.'s joint venture steel firm in India, announced a plan to expand its operations in the country by investing ~Rs. 1 trillion (US$ 13.34 billion), over 10 years.
- In August 2021, Tata Steel announced to invest Rs. 8,000 crores (US$ 1.08 billion) in capital expenditure to develop operations in India in FY22.
- In August 2021, Arcelor Mittal announced to invest Rs. 1 lakh crore (US$ 13.48 billion) in Gujarat for capacity expansion.
- In August 2021, Tata Steel announced to invest Rs. 3,000 crores (US$ 404.46 million) in Jharkhand to expand capacities over the next three years.
- In August 2021, Jindal Steel & Power Ltd. announced plans to invest US$ 2.4 billion to increase capacity over the next six years to meet the rising demand from customers.
- Between April 2000 and March 2021, Indian metallurgical industries attracted FDIs of US$ 14.74 billion.
- In the next three years from June 2021, JSW Steel is planning to invest Rs. 47,457 crores (US$ 6.36 billion) to increase Vijayanagar's steel plant capacity by 5 MTPA and establish a mining infrastructure in Odisha.
- In June 2021, Mr. T.V. Narendran, the newly elected CII president and MD of Tata Steel, in an interview with The Telegraph, stated that steel companies have firmed their plans to invest ~Rs. 60,000 crores (US$ 8.09 billion) over the next three years—this is being the biggest private sector investment plan announced in recent times.
- In June 2021, Shyam Metalics and Energy Ltd. (SMEL) announced that the company is planning to double its production capacity at an estimated investment of ~Rs. 2,894 crores (US$ 389.72 million) through brownfield expansion at two of its units in the next 3-4 years.
- In April 2021, in a virtual roundtable conference organized by the Indian Chamber of Commerce, Mr. Shin Bongkil, the South Korean Ambassador to India, announced that POSCO, the South Korean steel giant, is planning to set up an integrated steel plant in Odisha at an investment of US$ 12 billion, which would make it the country's biggest FDI project.
- In May 2021, JSW Steel signed a Memorandum of Understanding (MOU) to conduct a feasibility study with its strategic alliance partner JFE Steel Corporation to establish a Grain-oriented Electrical Steel Sheet Manufacturing and Sales JV Company in India.
- In May 2021, JSW Steel announced the steel-making expansion at its Vijayanagar plant by 5 MT every year to 17 MT every year by the financial year ending March 2024.
- In March 2021, JSW Steel completed its takeover of debt-ridden Bhushan Power and Steel Ltd., boosting to the former's overall output to 21.5 mtpa. JSW Steel's has 18 mtpaof capacity, which will hit more than 26 mtpa with the addition of BPSL and a doubling of capacity at JSW Steel's Dolvi steel mill to 10 mtpa.

- In March 2021, Arcelor Mittal Steel signed Rs 50,000 crore deal with Odisha government to setup a steel plant in the state.
- In February 2021, Tata Steel BSL collaborated with FarEye, a software logistics firm to improve its digital transformation process.
- In a move towards becoming self-reliant, Indian steel companies have started boosting steel production capacity. To this end, SAIL announced doubling of its at 5 of its steel plants capacity in September 2020.
- For FY20, JSW Steel set a target of supplying around 1.5 lakh tons of TMT rebar to metro rail projects across the country.
- JSW Steel has planned a US$ 4.14 billion capital expenditure program to increase its overall steel output capacity from 18 million tons to 23 million tons by 2020.
- Ministry of Steel plans to invest US$ 70 million in the eastern region of the country through accelerated development of the sector.
- The production capacity of SAIL is expected to increase from 13 MTPA to 50 MTPA in 2025 with total investment of US$ 24.88 billion.
- Tata Steel has decided to increase the capacity of its Kalinga agar integrated steel plant from 3 million tons to 8 million tons at an investment of US$ 3.64 billion.

Government Initiatives

Some of the other recent Government initiatives in this sector are as follows:

- In October 2021, the government announced guidelines for the approved specialty steel production-linked incentive (PLI) scheme.
- In October 2021, India and Russia signed an MOU to carry out R&D in the steel sector and produce coking coal (used in steel making).
- In July 2021, the Union Cabinet, approved the production-linked incentive (PLI) scheme for specialty steel. The scheme is expected to attract investment worth ~Rs. 400 billion (US$ 5.37 billion) and expand specialty steel capacity by 25 million tons (MT), to 42 MT in FY27, from 18 MT in FY21.
- In June 2021, Minister of Steel & Petroleum & Natural Gas Mr. Dharmendra Pradhan addressed the webinar on 'Making Eastern India a manufacturing hub with respect to metallurgical industries', organized by the Indian Institute of Metals. In 2020, 'Mission Purvodaya' was launched to accelerate development of the eastern states of India (Odisha, Jharkhand, Chhattisgarh, West Bengal and the northern part of Andhra Pradesh) through establishment of an integrated steel hub in Kolkata, West Bengal. Eastern India has the potential to add >75% of the country's incremental steel capacity. It is expected that of the 300 MT capacity by 2030-31, >200 MT can come from this region alone.

- In June 2021, JSW Steel, CSIR-National Chemical Lab (NCL), Scottish Development International (SDI) and India H2 Alliance (IH2A) joined forces to commercialize hydrogen in steel and cement sectors.
- Under the Union Budget 2020-21, the government allocated Rs. 39.25 crore (US$ 5.4 million) to the Ministry of Steel. The budget's focus is on creating infrastructure and manufacturing to propel the economy. In addition, enhanced outlays for key sectors such as defense services, railways, and roads, transport and highways would provide impetus to steel consumption.
- In January 2021, the Ministry of Steel, Government of India, signed a Memorandum of Cooperation (MOC) with the Ministry of Economy, Trade and Industry, Government of Japan, to boost the steel sector through joint activities under the framework of India–Japan Steel Dialogue.
- The Union Cabinet, Government of India approved the National Steel Policy (NSP) 2017, as it intends to create a globally competitive steel industry in India. NSP 2017 envisage 300 million tons (MT) steel-making capacity and 160 KGs per capita steel consumption by 2030-31.
- The Ministry of Steel is facilitating setting up of an industry driven Steel Research and Technology Mission of India (SRTMI) in association with the public and private sector steel companies to spearhead research and development activities in the iron and steel industry at an initial corpus of Rs. 200 crores (US$ 30 million).
- The Government of India raised import duty on most steel items twice, each time by 2.5% and imposed measures including anti-dumping and safeguard duties on iron and steel items.

Five Forces Analysis of Steel Industry

Barriers to entry:

barriers to entry are medium. Following are the factors that vindicate thisview.:

Capital Requirement: Steel industry is a capital intensive business. It is estimated that to set up 1 million tons per annum capacity of integrated steel plant, it requires between Rs 25 bn to Rs 30 bn depending upon the location of the plant and technology used.

1. **Economies of scale:** As far as the sector forces go, scale of operation does matter. Benefits of economies of scale are derived in the form of lower costs, R& D expenses and better bargaining power while sourcing raw materials. It may be noted that those steel companies, which are integrated, have their own mines for key raw materials such as iron ore and coal and this protects them for the potential threat for new entrants to a significant extent.
2. **Government Policy:** The government has a favorable policy for steel manufacturers. However, there are certain discrepancies involved in allocation of iron ore mines and land acquisitions. Furthermore, the regulatory clearances and other issues are some of the major problems for the new entrants.

3. **Product differentiation:** Steel has very low barriers in terms of product differentiation as it doesn't fall into the luxury or specialty goods and thus does not have any substantial price difference. However, certain companies like Tata Steel still enjoy a premium for their products because of its quality and its brand value created more than100 years back. Bargaining power of buyers: Unlike the FMCG or retail sectors, the buyers have a low bargaining power. However, the government may curb or put a ceiling on prices if it feels the need to do so. The steel companies either sell the steel directly to the user industries or through their own distribution networks. Some companies also do exports.

PESTLE Analysis of Steel Industry

POLITICAL ANALYSIS:

Political analysis includes the factors which can influence the business. It is included the political factor which includes the policy offered by the government to the specific sector. Herefor this sector government introduces the National Steel Policy. The main aim for the introduction of this policy is to fill the gap between the demand and supply of the steel. To maximize the production is also main activity is designed under this policy. To increase the production up to million tons is also the main objective of the policy.

Under this policy the special incentives are designed for the steel sector. Incentives like the cut in the duty, zero duty on imports, provision of the land and other infrastructural facilities are the facilities provided for the steel sector. Under this policy the government is encourage to theuse the full opportunities available in the PUBLIC AND PRIVATE PATNERSHIP (PPP). With the growing industry the government is increased the sales tax from the 15%to 20% where as 75% FDI (foreign direct investment) is allowed in the industry this scheme also provides the various concessions in the custom duties. Though there is a rise in the infrastructure facilities in the country but considering the steel industry the present condition of the infrastructure is not sufficient in the nature. because of the lack in infrastructure steel industry is facing many problems

ECONOMICAL ANALYSIS:

STEEL industry is concern to be a very booming industry from past decades. Opening up with the various economies the foreign direct investment is the happened in this sector the various foreign players are interested to invest in the country. Under the various economies schemes there is permission in advance licensing scheme which allows the duty free imports of raw material for exports. But, with the boom in the industry GDP is rising at very slow rate. The steel industry is also facing the problem of the subprime crisis occurs in the united states before 15 months. Because of the subprime crisis there is ill effect occurs in the automobile industry, infrastructure and other business which are related with the steel industry. There is huge gap between the demand and the supply of the steel in the society.

SOCIO- CULTURE ANALYSIS:

The socio culture is one of the important aspect in the analysis of the industry it describes the impact of the particular industry on the society. Likewise, the steel industry also gives the encouragement to the permanent employment to the people but on the other hand it divides the area in to the rural and urban sector because the industry is only in the particular area only which leads to the particular development of that area only and not overall the development. because of the working conditions the people which are employed in the steel industry faced many health problems which are incurable in the nature and many industries are not paying the attention on the health of the employees. Any kind of the allowances are not given to the employees. Steel industry is also responsible for the development in the rural sector which leads to the rise in the standard of the living of the people.

TECHNICAL ANALYSIS:

The traditional technologies are being used from many years in the industry. There is no innovation in the use of the technique in the production process. The Tata steel is developing the same technique is by which the encouragement is given to the trading of the steel. Tata andsail introduces the online trading of the steel. Only the electric furnace is being used now days in the production process but because of the fluctuations in the energy there is wastage in the raw material. The basic technologies are used in the production process are basic arc, induction furnace and electric furnace which are outdated in the nature. Sail the one of the leading steel industry India is planning to set up a plan with PASCO for using the latest technology named â€˜ Fenix €™.

ENVIRONMENTAL ANALYSIS:

Though the steel industry is encouraging the many sectors and the encouraging the development it is creating the unfavorable environment in the nature. The all leading industriesare following the environmental acts which are declared by the governments, though it is creating very bad impact on the environment. Many industries are using the pollution control equipment and energy saving equipment but that is not sufficient in the nature. The least importance is given to the environmental aspect. But the Tata steel is encouraging the ecofriendly system, to reduce the emission the co2 gas during the production process. Tata is developing the Ultra-Low Carbon steel making where there will be reduction in the environmental loss.

LEGAL ANALYSIS:

Government is introducing the various rules and regulations of this particular industry. The government is about to paying the more attention in the health policies of the employees which are working with the steel industry. Special health incentives and rules are introduced inthe steel industry.

SWOT Analysis of Steel Industry

Strengths

India has rich mineral resources. It has abundance of iron ore, coal and many other raw materials required for iron and steel making. It has the fourth largest iron ore reserves (10.3 billion tons) after Russia, Brazil, and Australia. Therefore, many raw materials are available at comparatively lower costs. It has the third largest pool of technical manpower, next to United States and the erstwhile USSR, capable of understanding and assimilating new technologies. Considering quality of workforce, Indian steel industry has low unit labor cost, commensurate with skill. This gets reflected in the lower production cost of steel in India compared to many advanced countries. With such strength of resources, along with vast domestic untapped market, Indian steel industry has the potential to face challenges successfully. The major strengths can be summarized as:

- Abundant resources of iron ore
- Low cost and efficient labor force
- Strong managerial capability
- Strongly globalized industry and emerging global competitiveness
- Modern new plants & modernized old plants
- Strong DRI production base
- Regionally dispersed merchant rolling mills

Weaknesses

This are inherent in the quality and availability of some of the essential raw materials available in India, e.g., high ash content of indigenous coking coal adversely affecting the productive efficiency of iron-making and is generally imported. Also, Steel is a capital intensive industry; steel companies in India are charged an interest rate of around 14% on capital as compared to 2.4% in Japan and 6.4% in USA. In India the advantages of cheap labor get offset by low labor productivity; e.g., at comparable capacities labor productivity of SAIL and TISCO is 75 t/man year and 100 t/man years, for POSCO, Korea and NIPPON, Japan the values are 1345 t/man yearand 980 t/man year. High administered price of essential inputs like electricity puts Indian steel industry at a disadvantage; about 45% of the input costs can be attributed to the administered costs of coal, fuel and electricity. The major weaknesses can be summarized as:

- High cost of energy Higher duties and taxes
- High cost of capital
- Quality of coking coal
- Labor laws
- Dependence on imports for steel manufacturing equipment & technology
- Slow statutory clearances for development of mines

Opportunities

The biggest opportunity before Indian steel sector is that there is enormous scope for increasing consumption of steel in almost all sectors in India. The Indian rural sector remains fairly unexposed to their Multi-faceted use of steel. The usage of steel in cost Effective manner is possible in the area of housing, fencing, structures and other possible applications where steel can substitute other materials which not only could bring about Advantages to users but isalso desirable for conservation of forest resources. Excellent potential exists for enhancing steel consumption in other sectors such as automobiles, packaging, engineering industries, irrigation and water supply in India. The key areas of opportunities can be summarized as:

- Huge Infrastructure demand
- Rapid urbanization
- Increasing demand for consumer durables
- Untapped rural demand
- Increasing interest of foreign steel producers in India

Threats

The linkage between the economic growth of a country and the growth of its steel industry is strong. The growth of the domestic steel industry between 1970 and 1990 was similar to the growth of the economy, which as a whole was sluggish. This strong relation in today’s environment where the growth of the industry has become stagnant owing to the overall slowdown has resulted in enhanced rivalry among existing firms. As the industry is not growingthe only other way to grow is by increasing one’s market share. The Indian steel industry has witnessed spurts of price wars and heavy trade discounts, which has impacted the Indian SteelIndustry.

- Slow growth in infrastructure development
- Market fluctuations and China’s export possibilities
- Global economic slow down

3) FMCG Industry

Introduction

Fast-moving consumer goods (FMCG) sector is India's fourth-largest sector with household and personal care accounting for 50% of FMCG sales in India. Growing awareness, easier access and changing lifestyles have been the key growth drivers for the sector. The urban segment (accounts for a revenue share of around 55%) is the largest contributor to the overall revenue generated by the FMCG sector in India. However, in the last few years, the FMCG market has grown at a faster pace in rural India compared to urban India. Semi-urban and rural segments are growing at a rapid pace and FMCG products account for 50% of the total rural spending.

Market Size

The retail market in India is estimated to reach US$ 1.1 trillion by 2020 from US$ 840 billion in 2017, with modern trade expected to grow at 20 25% per annum, which is likely to boost revenue of FMCG companies. The FMCG market in India is expected to increase at a CAGR of 14.9% to reach US$ 220 billion by 2025, from US$ 110 billion in 2020. According to Nielsen, theIndian FMCG industry grew 9.4% in the January-March quarter of 2021, supported by consumption-led growth and value expansion from higher product prices, particularly for staples. The rural market registered an increase of 14.6% in the same quarter and metro markets recorded positive growth after two quarters. Final consumption expenditure increasedat a CAGR of 5.2% during 2015-20. According to Fitch Solutions, real household spending is projected to increase 9.1% YoY in 2021, after contracting >9.3% in 2020 due to economic impact of the pandemic. The FMCG sector's revenue growth will double from 5-6% in FY21 to 10-12% in FY22, according to CRISIL Ratings. Price increases across product categories will offset the impact of rising raw material prices, along with volume growth and resurgence in demand for discretionary items, are driving growth. The FMCG sector grew by 36.9% in the April-June quarter of 2021 despite lockdowns in various parts of the country.

Number of households shopping on modern-trade channel grew 29.15% YoY in the September quarter and shopping volume on the channel went up by 19.2% YoY.

In September 2021, rural consumption of FMCG increased 58.2% YoY; this is 2x more than the urban consumption (27.7%).

The domestic FMCG market increased 36.9% YoY in April-June 2021.

In the third quarter of FY20 in rural India, FMCG witnessed a double-digit growth recovery of 10.6% due to various government initiatives (such as packaged staples and hygiene categories); high agricultural produce, reverse migration, and a lower unemployment rate. Rise in rural consumption will drive the FMCG market. The Indian processed food market is projected to expand to US$ 470 billion by 2025, up from US$ 263 billion in 2019-20.

FMCG giants such as Johnson & Johnson, Himalaya, Hindustan Unilever, ITC, Lakmé and other companies (that have dominated the Indian market for decades) are now competing with D2C-focused start-ups such as Mamaearth, The Moms Co., Bey Bee, Azah, Nua and Pee Safe. Market giants such as Revlon and Lotus took ~20 years to reach the Rs. 100 crores (US$ 13.4 million) revenue mark, while new-age D2C brands such as Mamaearth and Sugar took four and eightyears, respectively, to achieve that milestone.

Companies with dedicated websites recorded an 88% YoY rise in consumer demand in 2020. Since then, more businesses have begun to adopt the D2C model, and India is now home to >800 D2C brands looking at a US$ 101 billion opportunities by 2025.

E-commerce companies reported sales worth US$ 9.2 billion across platforms in October and November (2021), driven by increased shopping during the festive season. With festive season sales, Flipkart Group emerged as the leader with a 62% market share.

Advertising volumes on television recorded healthy growth in the July-September quarter, registering 461 million seconds of advertising, which is the highest in 2021. FMCG continued to maintain its leadership position with 29% growth in ad volumes against the same period in 2019. Even the e-commerce sector showed a healthy 26% jump over 2020.

Investments/ Developments

The Government has allowed 100% Foreign Direct Investment (FDI) in food processing and single-brand retail and 51% in multi-brand retail. This would bolster employment, supply chain and high visibility for FMCG brands across organized retail markets thereby bolstering consumer spending and encouraging more product launches. The sector witnessed healthy FDIinflows of US$ 18.59 billion from April 2000 to June 2021.

Some of the recent developments in the FMCG sector are as follows:

- In November 2021, Tata Consumer Products (TCPL) signed definitive agreements to acquire 100% equity shares of Tata Smart Foods Limited (TSFL) from Tata Industries Limited for a cash consideration of Rs. 395 crores (US$ 53.13 million). This move was in line with TCPL’s strategic intent to expand into the value-added categories.
- In November 2021, Unilever Plc agreed to sell its global tea business to CVC Capital Partners for EUR 4.5 billion (US$ 5.1 billion. The business being sold—Ekaterra—hosts a portfolio of 34 tea brands including Lipton, PG Tips, Pukka Herbs and TAZO.
- In November 2021, McDonald’s India partnered with an FMCG company ITC to add a differentiated fruit beverage, B Natural, to its Happy Meal, which will be available across all McDonald’s restaurants in South and West India, primarily catering to children aged 3–12 years.
- In October 2021, Procter & Gamble announced an investment of Rs. 500 crores (US$ 66.8 million) in rural India.
- In September 2021, PepsiCo commissioned its Rs. 814 crores (US$ 109.56 million) Kosi Kalan foods facility in Mathura, Uttar Pradesh; it is the company's largest greenfield manufacturing investment in India.
- In September 2021, Vahdam India, an Indian tea brand, raised Rs. 174 crores (US$ 24 million) as part of its Series D round led by IIFL AMC’s Private Equity Fund.

- In September 2021, RP-Sanjiv Goenka Group entered the personal-care segment by launching skin and haircare products, aiming at a revenue of Rs. 400-500 crore (US$ 53.84-67.30 million) in the next 4-5 years
- In September 2021, Adani Wilmar announced the opening of physical stores under the name 'Fortune Mart' that will exclusively sell Fortune and other Adani Wilmar brand products.
- In August 2021, Apnaklub, a Bengaluru-based B2B wholesale marketplace for consumer goods, raised US$ 3.5 million in a seed round from Sequoia Capital India's Surge, increasing the total funds to US$ 5 million.
- In August 2021, Soothe Healthcare, an Indian personal hygiene products brand, raised Rs. 130 crores (US$ 17.54 million) in a Series-C round of funding from A91 Partner Partners.
- In August, Adani Wilmar, a 50/50 joint venture between Adani Group and Singapore-based Wilmar, filed for initial public offering (IPO) to raise up to Rs. 4,500 crores (US$ 607.13 million) for expansion.
- In the fourth quarter of FY21, e-commerce sales of Marico Ltd., Hindustan Unilever Ltd., Dabur India, ITC and Godrej Consumer Products Ltd. were 8%, 6%, 5%, 5%, and 4%, respectively, of the total FMCG sales.
- In July 2021, Emami Ltd. increased its stake (by 15% to 46%) in Helios Lifestyle, which sells male-grooming products under The Man Company brand in line with its ambition to tap emerging online opportunities.
- In July 2021, Tata Consumer Products Ltd. introduced 'Eight O'Clock', America's Original Gourmet Coffee, under D2C, besides Tata Coffee 1868 and Sonnets, as a part of its strategy to enhance its D2C approach for select coffee brands and their specific websites. The company plans to add more brands in the D2C space as these three coffeebrands stabilise.
- In July 2021, HUL launched in-store vending machine model, Smart Fill machine, for its home care products with the aim to reuse and recycle plastic. Smart Fill machine will allow consumers to reuse plastic bottles by refilling products from its brands like Surf Excel, Comfort and Vim.
- As of June 2021, e-commerce share has already touched 7-8% for some of the largest FMCG companies in the country, according to Accenture India.
- In June 2021, Dabur India announced its Rs. 550 crores (US$ 75.6 million) investment to set up a new plant in Madhya Pradesh for manufacturing of food products, ayurvedic medicines and health supplements.
- In May 2021, Tata Digital Ltd., a 100% subsidiary of Tata Sons, acquired a 64.3% stake in supermarket grocery supplies, the business-to-business arm of BigBasket in tandem with Tata Group's strategy to build a digital consumer ecosystem. According to the Economic Times, the deal is worth U$ 1.8-2 billion.

- In May 2021, Nepal-based CG Corp Global, known for its popular noodles brand Wai Wai, announced its plan to invest Rs. 200 crores (27.42 million) to set up two new manufacturing plants in West Bengal and Uttar Pradesh.

Government Initiatives

Some of the major initiatives taken by the Government to promote the FMCG sector in India are as follows:

- In November 2021, Flipkart signed an MoU with the Ministry of Rural Development of the Government of India (MoRD) for their ambitious Deendayal Antyodaya Yojana – National Rural Livelihood Mission (DAY-NRLM) programed to empower local businesses and self-help groups (SHGs) by bringing them into the e-commerce fold.
- On November 11, 2020, Union Cabinet approved the production-linked incentive (PLI) scheme in 10 key sectors (including electronics and white goods) to boost India's manufacturing capabilities, exports and promote the 'Atmanirbhar Bharat' initiative.
- Developments in the packaged food sector will contribute to increased prices for farmer and reduce the high levels of waste. In order to provide support through the PLI scheme, unique product lines—with high-growth potential and capabilities to generate medium- to large-scale jobs—have been established.
- The Government of India has approved 100% FDI in the cash and carry segment and in single-brand retail along with 51% FDI in multi-brand retail.
- The Government has drafted a new Consumer Protection Bill with special emphasis on setting up an extensive mechanism to ensure simple, speedy, accessible, affordable and timely delivery of justice to consumers.
- The Goods and Services Tax (GST) is beneficial for the FMCG industry as many of the FMCG products such as soap, toothpaste and hair oil now come under the 18% tax bracket against the previous rate of 23-24%. Also, GST on food products and hygiene products has been reduced to 0-5% and 12-18% respectively.
- GST is expected to transform logistics in the FMCG sector into a modern and efficient model as all major corporations are remodeling their operations into larger logistics and warehousing.

5 Forces Analysis of FMCG Industry

Threat of substitutes

With high presence of multiple brands in the market, it is not a challenge for consumers to switch from one product to another. Strategic decisions like price point and quality play key roles in attracting consumers. With narrow product differentiation under many brands, it’s rather easy for a consumer to switch to another brand. The threat of substitutes is informed byswitching costs, both immediate and long-term, as well as a buyer's inclination to change.

Competitive rivalry

Many players are expanding into new geographies and categories and modern retail share is expected to be valued $180 billion in 2020. The FMCG industry has been a highly fragmented industry as more companies enter the market. If Wipro is diversifying and expanding its product range in energy drinks, detergents and fabric conditioners, Patanjali will spend US$743.72 million in various food parks across the country. Also, launch of private label brands by big retailers, which are competitively priced with offers and discounts, will limit competition for weak brands.

Bargaining power of buyers

While rising incomes and growing youth population have been key growth drivers of the sector, brand consciousness has also aided demand. With low switching cost inducing customers to shift to other products, there will only be more demand for new products. Also, the availability of same or similar alternatives, backed by strong influence of marketing strategies will help the sector. India’s consumer spending is expected to increase to US$ 3.6 trillion by 2020.

Threat of new entrants

Any new competition in the market poses threat to the existing players in the industry. With investment approvals of up to 100 per cent foreign equity in single brand retail and 51 per cent in multi-brand retail, the market is expected to be crowded. Also, companies will be forced to spend aggressively on advertisement, which will only hurt the business in the long run.

Bargaining power of suppliers

Big FMCG companies are often in a position to dictate prices through local sourcing from a fragmented group or key commodity suppliers. Suppliers can exert pressure on businesses and even buyers by raising prices, lowering quality or reducing product availability. Such decisions mostly affect the buyers.

PESTLE Analysis of FMCG Industry

POLITICAL FACTORS

Political stability: Political stability is one of the important factor which influence the growth of business directly. If Political stability is higher, then it leads to perfection in business & on the other hand if there is instability the business will have to suffer.

Taxation policy: Tax policy of government will affect the price of inputs & it ultimately affect the prices of final products & it will directly affect the sale of product.

Government intervenes: This indicates that at what level the government intervenes in the economy. If the government intervene is more sometimes it helps the organization at large extent.

Subsidies: The subsidies which are provided by government to different organization at different level also help it to grow at faster rate & helps the organization in reducing the finance which is to be funded from outside & it directly reduces interest amount paid in favor of fund raised from outside.

Trading policies: This indicates the policies related to import & export of goods and services from different nations. If the policies are favorable more goods & services will be imported & exported, & on the other hand if policies are unfavorable it will restrict the import & export.

Labor law: Labor law also affect the organization, for example-child labor, a child below 14 year of age cannot work in factory or any hazardous place.

ECONOMICAL FACTORS –

Interest rates: Interest rate directly affect the cost of capital, if the interest rate is higher the cost of capital will increase & if it is lower than cost of capital will be lower. This directly affect the profit of the organization & it's growth.

Tax charges: If the tax charged by the government is lower than it will reduce the product price & if it is higher than it will increase the prices of the products.

Exchange rates: This shows that what is the exchange rate or foreign currency rate. If exchange rate is higher more amount is paid on import of goods & if it lowers less amount is to be paid & on the other hand if it is higher the amount received will be more & if it is lower the amount received will be low.

National income: National income is important factor as if affect the growth of the organization. If per capita income is more the amount spend will be more & if it will be lower the amount spent will be less**.**

Economic growth: Economic growth is important factor in the development of the organization. If economy grows at a higher speed it will directly affect the growth of the organization.

Inflation rate: Inflation means the rise in the value of all the product in the economy, if inflation rate is higher the cost of products will be higher & if inflation rate is lower the cost of product will be lower. This directly affect the growth of the organization.

SOCIO –CULTURAL FACTORS–

Demographics: Demographics is the study of human population in the economy. It helps the organization to divide the markets in different segments to target a large of customers. For Example-according to race, age, gender, family, religion, & sex.

Distribution of income: This shows that how income is distributed in the economy. It directly affects the purchasing power of the buyers. And ultimately leads to increase or decrease in the consumption level of the products.

Changes in life style: Change in life style also leads to increase or decrease in the demand for different commodities. For example-presently LCD & LED TV's have replaced Digital displayed TV set, this shows that the changes in life style of consumers.

Consumerism: This indicates that a large number of options are available while purchasing of goods to consumers, so the choice becomes easy & quality products can be choosing by consumers. So while purchasing a consumer have different choices to select product according to his needs.

Education levels: Education is one of the most important factor which influence the buying power of consumer, while selecting a particular good a consumer should know all its features so it can differentiate them with another product.

Law affect social behavior: Different laws are made by the government to safe guard the rights of consumers. For Example-Consumer protection act, this law indicates that a consumer can file a case against a seller if he finds that he is cheated.

TECHNOLOGICAL FACTORS –

Advancement in technology: New technology helps in economizing the scale of production, this means that new technology helps in increasing the level of production, & reducing the costs of inputs, & maximizing the level of profits.

Discoveries & innovation: Advancement in technology will leads to discoveries & innovations & further improvements in technology so as to improve perfections in the production process.

Competitive forces: Advancement in technology will also leads to competition in the markets, more quality products will be provided to consumers to cover a large number of market.

Automation: Change in technology will leads to automation, this means that with new technology labor required is less as machines are automatic. All the works are done automatically by the machines as earlier it is labor oriented. Now all the work is machine oriented.

Obsolete rate: Day-by-day new inventions are made so the rate of obsolete is higher, as in Computer laptops have replaced the PC. This shows that the technology becomes obsolete very fast.

Research & development: This department plays a vital role in the development of the organization. As this department always do research that what are the demand of the markets & how to make advancements so the organization can survive in the competitive world.

ENVIRONMENTAL FACTORS –

Ecological: The ecological and environment aspects such as weather, climate, &climate changes, which may especially affect industry such as tourism, farming, & insurance. In FMCG Air conditioner's demand increase in summer season.

Environmental issues: Global warming is one of the major issue now-a-days as external factor is becoming a significant issue for firms to consider. Many remedies have been taken to reduce Global warming.

Environmental regulations: Various regulations have been declared by government to safe guard the environment. For example-no company should through its waste in rivers.

LEGAL FACTORS –

Employment law: Employment law provides equal opportunities to every citizen to work & earn his livelihood. It provides equal opportunities to every citizen.

Consumer protection: This law helps to protect the rights of consumers & he can file a caseagainst seller if he fined that he is cheated.

Industry-specific regulations: These laws are related to industry for example-no industry can establish in between cities i.e. it should be outside the cities.

SWOT Analysis of FMCG Industry

Weaknesses

1. Lower scope for investing in technology and achieving economies of scale, especially in small sectors
2. Low exports levels
3. Me-too products, which illegally mimic labels of established brands. These products narrow the scope for FMCG products in rural and semi-urban markets

Opportunities

1. Untapped rural markets
2. Rising income levels, leading to higher purchasing power of consumers
3. Large domestic market with a population of over one billion
4. Export potential
5. High consumer goods spending.

Threats

1. Removal of import restrictions resulting in cheap alternatives to domestic brands
2. Slowdown in rural demand

3. Tax and regulatory structure Threats

Strengths

1. Low operational costs
2. Presence of established distribution networks in both urban and rural areas
3. Presence of well-known brands in the FMCG sect

4) Chemical Industry

Introduction

Covering more than 80,000 commercial products, India's chemical industry is extremely diversified and can be broadly classified into bulk chemicals, specialty chemicals, agrochemicals, petrochemicals, polymers and fertilizers.

Globally, India is the fourth-largest producer of agrochemicals after the United States, Japan and China. India accounts for ~16% of the world production of dyestuffs and dye intermediates.Indian colorants industry has emerged as a key player with a global market share of ~15%. The country's chemicals industry is de-licensed, except for few hazardous chemicals. India holds a strong position in exports and imports of chemicals at a global level and ranks 14th in exports and 8th in imports at global level (excluding pharmaceuticals).

The domestic chemicals sector's small and medium enterprises are expected to showcase 18-23% revenue growth in FY22, owing to an improvement in domestic demand and higher realization due to high prices of chemicals.

India's proximity to the Middle East, the world's source of petrochemicals feedstock, enables itto benefit on economies of scale.

Market Size

The Indian chemicals industry stood at US$ 178 billion in 2019 and is expected to reach US$ 304 billion by 2025 registering a CAGR of 9.3%. The demand for chemicals is expected to expand by 9% per annum by 2025. The chemical industry is expected to contribute US$ 300 billion to India's GDP by 2025.

An investment of Rs. 8 lakh crore (US$ 107.38 billion) is estimated in the Indian chemicals and petrochemicals sector by 2025.

In August 2021, production volumes of key chemicals stood at 935,513 MT and petrochemicals at 1,716,781 MT.

The specialty chemicals constitute 22% of the total chemicals and petrochemicals market in India. The demand for specialty chemicals is expected to rise at a 12% CAGR in 2019-22. Indian manufacturers have recorded a CAGR of 11% in revenue between FY15 and FY21, increasing India's share in the global specialty chemicals market to 4% from 3%, according to the Crisis report. A revival in domestic demand and robust exports will spur a 50% YoY increase in the capex of specialty chemicals manufacturers in FY22 to Rs. 6,000-6,200 crore (US$ 815-842 million). Revenue growth is likely to be 19-20% YoY in FY22, up from 9-10% in FY21, driven by recovery in domestic demand and higher realizations owing to rising crude oil prices and better exports.

The petrochemicals demand is expected to record a 7.5% CAGR between 2019 and 2023, with polymer demand increasing at 8%. The Indian agrochemicals market is expected to register an 8% CAGR to reach US$ 3.7 billion by FY22 and US$ 4.7 billion by FY25.

In October 2021, exports of organic & inorganic chemicals increased 41.93% YoY to reach US$ 2.56 billion.

Investments and Recent Developments

A few recent developments/investments in the Indian chemical sector are as follows:

- In November 2021, Indian Oil Corporation (IOCL) announced plans to invest Rs. 3,681 crores (US$ 495.22 million) to set up India's first mega-scale maleic anhydride unit for manufacturing high-value specialty chemicals at its Panipat Refinery in Haryana.
- In November 2021, Praj Industries Limited and Indian Oil Corporation inked a memorandum of understanding (MoU) to explore opportunities in the production of alcohol-to-jet (ATJ) fuels, 1G & 2G ethanol, compressed bio-gas (CBG) and related opportunities in the biofuels industry.
- In November 2021, Coromandel International announced plans to set up 1,650-metric-tons-per-day sulphuric acid plant at its fertilizer complex in Visakhapatnam with an investment of Rs. 400 crores (US$ 53.69 million).
- On September 30, 2021, Prime Minister, Mr. Narendra Modi, inaugurated the CIPET: Institute of Petrochemicals Technology, Jaipur.
- In October 2021, Nayara Energy announced that it expects 15-20 new integrated petrochemical plants to become operational within the next decade in the country, to meet the rising demand for raw materials used in the plastics and clothing industries.
- In October 2021, Rosneft, Russia, launched a large-scale petrochemical production development programme in India with investments worth ~US$ 750 million at the current implemented stage.
- In September 2021, Bharat Petroleum Corporation (BPCL), announced plans to invest US$ 4.05 billion, to improve petrochemical capacity and refining efficiencies over the next five years.
- The government is planning to hold roadshows in eight overseas markets for the proposed investors' summit planned in January 2022, with focus on the petrochemicals sector, and is eager to attract investors to its newly launched Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR) near the upcoming crude oil refinery in Pachpadra village (in Barmer district, Rajasthan).

- In September 2021, Dorf Ketal Chemicals India Pvt. Ltd., a company headquartered in Mumbai, India; and TriBonds Chemical Co., based in Dammam, the Kingdom of Saudi Arabia, have announced a joint venture (JV) to manufacture water specialty chemicals for applications in the Middle East refining and petrochemical industry. The JV will focus on meeting the energy and water management and processing needs of refineries, petrochemicals, fuel additives, plastics, lubricants, oil field chemicals, catalysts and adsorbents.
- In June 2021, the Rubber Skill Development Council (RSDC) announced that it is expanding its vertical to cover the chemicals and petrochemicals sectors and will be nowknown by the name Rubber, Chemical, Petrochemical Skill Development Council (RCPSDC). The council will implement skill training programmes in chemicals and petrochemicals verticals for the youth across country.
- In January 2020, Ultramarine & pigments have successfully commissioned the Sulphonation plant setup in Nellore, Andhra Pradesh, to manufacture surfactants and specialty chemicals.
- In December 2020, Bhoramdev Cooperative Sugar Factory Kawardha and Chhattisgarh Distillery's subsidiary NKJ Biofuel signed a memorandum of understanding (MoU) for the country's first ethanol plant to be set up in the state under the public-private partnership (PPP) model.
- In November 2020, Indian companies are witnessing interest from strategic investors led by Japan, Korea and Thailand, as they seek to diversify supply chains from China. This includes large deals in FY 2020—KKR's $414 million acquisition of JB Chemicals and Pharmaceuticals Ltd. and Carlyle's $210 million acquisition of SeQuent Scientific Ltd.
- On November 06, 2020, HIL (Hindustan Insecticides Limited) signed a memorandum of understanding with the Department of Chemicals & Petro Chemicals to achieve revenue target of Rs. 451 crores (US$ 60.86 million).
- On November 04, 2020, Pidilite Industries acquired Huntsman Group's Indian subsidiary for Rs. 2,100 crores (US$ 283.38 million) to strengthen adhesives and sealants portfolio that will complement the company's retail portfolio.
- In October 2020, Grasim Industries signed a definitive agreement with Lubrizol Advanced Materials (specialty chemical company) to manufacture and supply chlorinated polyvinyl chloride (CPVC) resin in Gujarat. The initial production is expected to begin in end-2022.

Government Initiatives

The government has started various initiatives such as mandating BIS-like certification for imported chemicals to prevent dumping of cheap and substandard chemicals into the country.

The Indian government recognizes chemical industry as a key growth element and forecast to increase share of the chemical sector to ~25% of the GDP in the manufacturing sector by 2025.

- Under the Union Budget 2021-22, the government allocated Rs. 233.14 crore (US$ 32.2 million) to the Department of Chemicals and Petrochemicals.
- The Government of India is considering launching a production linked incentive (PLI) scheme in the chemical sector to boost domestic manufacturing and exports.
- A 2034 vision for the chemicals and petrochemicals sector has been set up by the government to explore opportunities to improve domestic production, reduce imports and attract investments in the sector. The government plans to implement production-link incentive system with 10-20% output incentives for the agrochemical sector; to create an end-to-end manufacturing ecosystem through the growth of clusters.
- In October 2020, the government urged players in the agrochemicals industry to come out with new molecules of global standards for the farmers' benefit, while CropLife India, the industry body, pitched for stable policies and regulatory regimes to boost growth in the sector.
- 100% FDI is allowed under the automatic route in the chemicals sector with few exceptions that include hazardous chemicals. Total FDI inflow in the chemicals (other than fertilizers) sector reached US$ 18.69 billion between April 2000 and June 2021.
- The government has proposed several incentives for setting up a sourcing or manufacturing platform within an Indian SEZ:
    - Effective April 1, 2020, 100% Income Tax exemption on export income for SEZ units for the first five years, 50% for the next five years thereafter and 50% of the ploughed back export profit for next five years.
    - Single window clearance for central and state-level approvals.
    - Duty free import/domestic procurement of goods for development, operation and maintenance of SEZ units.
- In December 2020, the PCPIR policy is being completely redesigned. Under the new PCPIR Policy 2020-35, a combined investment of Rs. 10 lakh crore (US$ 142 billion) is targeted by 2025, Rs. 15 lakh crore (US$ 213 billion) by 2030 and Rs. 20 lakh crore (US$ 284 billion) by 2035 in all PCPIRs across the country. The four PCPIRs are expected to

generate employment for ~33.83 lakh people. ~3.50 lakh persons have been employedin direct and indirect activities related to PCPIRs by the end of 2020.

5 Forces Analysis of Chemical Industry

competition – HIGH

The chemical industry is intensely competitive. There are large numbers of manufacturers, each vying for a share of the market. In the US alone, there are over 10,000 firms producing in excess of 70,000 products. It is extremely difficult for a manufacturer to differentiate itself from its rivals.

Many chemicals are commodities which are sold purely on the basis of price. The high level of competition can drive prices downwards and firms have to look at ways to provide value-added services if they want to have better price realizations.

threat of new entrants – MEDIUM

Traditionally, the chemical industry has been dominated by players in Europe, the US, and Japan. But the rise of manufacturers in hydrocarbon-producing areas is changing the pattern ofglobal chemical production.

These new producers could possibly pose a greater threat to the incumbents in the years tocome. How much of a challenge they pose will depend on three factors.

- They need to develop their own R&D capabilities. Currently, they are dependent to a large extent on the companies from the US/Europe and Japan for this.
- The new comers would also have to work on their marketing network so that they can sell directly to the consumer.
- They will also have to build their management skills to run operations successfully.

The speed at which these firms develop these capabilities will determine the level of competition that they will offer to the incumbents.

bargaining power of customers – HIGH

With thousands of suppliers to choose from, chemical buyers have a wide range of options. While one of the prime considerations that a buyer would have would obviously be price, there are other factors that influence the purchase decision. Does the supplier make prompt deliveries? Have there been quality problems in the past? Is the supplier com pliant with regulatory norms?

Buyers are increasingly using online portals to research suppliers and find those that best meet their needs. A website that provides access to suppliers can be of great use to a company that requires chemicals. An online portal specializing in the chemical sector can provide a number of details about a supplier's capabilities and past record. These portals can help to significantly increase the bargaining power of buyers.

Bargaining power of suppliers – LOW

As there are thousands of suppliers, their bargaining power is severely limited. Buyers can logon to a B2B portal and obtain details and quotations from companies across the world.

Despite this, it is still possible for some suppliers to retain a hold over certain customers. A client that requires a niche product may have only a limited number of suppliers to choose from. The consumption volumes may be too low to justify the setting up of additional manufacturing facilities by other suppliers.

Substitute products – MEDIUM

Although it is possible for chemical suppliers to develop substitute products to offer to customers, it can be a difficult task to do this. It requires a strong R&D department as well as ahigh degree of knowledge of the client's processes.

However, a supplier who can manufacture a new low-cost product that

PESTLE Analysis of Chemical Industry

Political Factors

- Risk of military invasion
- Level of corruption - especially levels of regulation in Basic Materials sector.
- Bureaucracy and interference in Chemicals - Major Diversified industry by government.
- Legal framework for contract enforcement
- Intellectual property protection
- Trade regulations & tariffs related to Basic Materials
- Favored trading partners
- Anti-trust laws related to Chemicals - Major Diversified
- Pricing regulations – Are there any pricing regulatory mechanism for Basic Materials
- Taxation - tax rates and incentives
- Wage legislation - minimum wage and overtime
- Work week regulations in Chemicals - Major Diversified
- Mandatory employee benefits
- Industrial safety regulations in the Basic Materials sector.
- Product labeling and other requirements in Chemicals - Major Diversified

Economic Factors

- Type of economic system in countries of operation – what type of economic system there is and how stable it is.
- Government intervention in the free market and related Basic Materials
- Exchange rates & stability of host country currency.
- Efficiency of financial markets
- Infrastructure quality in Chemicals - Major Diversified industry
- Comparative advantages of host country and Basic Materials sector in the particular country.
- Skill level of workforce in Chemicals - Major Diversified industry.
- Education level in the economy
- Labor costs and productivity in the economy
- Business cycle stage (e.g. prosperity, recession, recovery)
- Economic growth rate
- Discretionary income
- Unemployment rate
- Inflation rate
- Interest rates

Social Factor

- Demographics and skill level of the population
- Class structure, hierarchy and power structure in the society.
- Education level
- Culture (gender roles, social conventions etc.)
- Entrepreneurial spirit and broader nature of the society. Some societies encourage entrepreneurship while some don't.
- Attitudes (health, environmental consciousness, etc.)
- Leisure interests

Technological Factor

- Recent technological developments by Eastman Chemical Company competitors
- Technology's impact on product offering
- Impact on cost structure in Chemicals - Major Diversified industry
- Impact on value chain structure in Basic Materials sector
- Rate of technological diffusion

Environmental Factor

Before entering new markets or starting a new business in existing market the firm should carefully evaluate the environmental standards that are required to operate in those markets.Some of the environmental factors that a firm should consider beforehand are -

- Weather
- Climate change
- Laws regulating environment pollution
- Air and water pollution regulations in Chemicals - Major Diversified industry
- Recycling
- Waste management in Basic Materials sector
- Attitudes toward “green” or ecological products
- Endangered species
- Attitudes toward and support for renewable energy

Legal Factors

In number of countries, the legal framework and institutions are not robust enough to protect the intellectual property rights of an organization. A firm should carefully evaluate before entering such markets as it can lead to theft of organization’s secret sauce thus the overall competitive edge. Some of the legal factors that Eastman Chemical Company leadership should consider while entering a new market are -

- Anti-trust law in Chemicals - Major Diversified industry and overall in the country.
- Discrimination law
- Copyright, patents / Intellectual property law
- Consumer protection and e-commerce
- Employment law
- Health and safety law
- Data Protection

SWOT Analysis of Chemical Industry

Strengths

- Investment incentive policy
- Educational supply
- Industrial development strength
- Strong local market potential
- Guiding national policies and strategies
- Availability of precious raw materials (soda ash, coal...)

Weaknesses

- No utilization of technological equipment
- Inability of product diversification
- Insufficient hazardous waste processing facilities
- Less awareness on R&D
- Lack of Budget
- Lack of chemical consuming industrial sector

Opportunities

- Human resource availability
- Peace & Security
- Abundant of water & other natural resources
- Abundant hydroelectric power
- Increasing investment in private sector

Threats / Pressures

- High chemical producing company’s competition
- Shortage of Raw Material inputs or resources
- Chemical Environmental Pollution
- Employee health problem
- Fluctuating market prices
- High cost of Technology
- Shortage of budget and financial aids

5) Automobile Industry

Introduction

In 2020, India was the fifth-largest auto market, with ~3.49 million units combined sold in the passenger and commercial vehicles categories. It was the seventh-largest manufacturer of commercial vehicles in 2019.

The two wheelers segment dominate the market in terms of volume owing to a growing middle class and a young population. Moreover, the growing interest of the companies in exploring the rural markets further aided the growth of the sector.

India is also a prominent auto exporter and has strong export growth expectations for the near future. In addition, several initiatives by the Government of India and major automobile players in the Indian market is expected to make India a leader in the two-wheeler and four-wheeler market in the world by 2020.

Market Size

Domestic automobiles production increased at 2.36% CAGR between FY16-20 with 26.36 million vehicles being manufactured in the country in FY20. Overall, domestic automobiles sales increased at 1.29% CAGR between FY16-FY20 with 21.55 million vehicles being sold in FY20.

In FY21, the total passenger vehicles production reached 22,652,108.

In October 2021, the total production volume of passenger vehicles (except for BMW, Mercedes, Tata Motors & Volvo Auto), three wheelers, two wheelers and quadric cycles reached 2,214,745 units.

Two wheelers and passenger vehicles dominate the domestic Indian auto market. Passenger car sales are dominated by small and mid-sized cars. Two wheelers and passenger cars accounted for 80.8% and 12.9% market share, respectively, accounting for a combined sale ofover 20.1 million vehicles in FY20.

In July-September 2021 quarter, the luxury car market registered sales of 8,500 units. Overall, automobile export reached 4.77 million vehicles in FY20, growing at a CAGR of 6.94%during FY16-FY20. Two wheelers made up 73.9% of the vehicles exported, followed by passenger vehicles at 14.2%, three wheelers at 10.5% and commercial vehicles at 1.3%.

Indian automobile exports stood at 1,419,430 units from April 2021 to June 2021 as comparedto 436,500 units in April 2020 to June 2020.

EV sales, excluding E-rickshaws, in India witnessed a growth of 20% and reached 1.56 lakh units in FY20 driven by two wheelers. According to NITI Aayog and Rocky Mountain Institute (RMI) India's EV finance industry is likely to reach Rs. 3.7 lakh crore (US$ 50 billion) in 2030. A report by India Energy Storage Alliance estimated that EV market in India is likely to increase at a CAGR of 36% until 2026. In addition, projection for EV battery market is forecast to expand at aCAGR of 30% during the same period.

- Premium motorbike sales in India recorded seven-fold jump in domestic sales, reaching 13,982 units during April-September 2019. The luxury car market is expected to register sales of 28,000-33,000 units in 2021, up from 20,000-21,000 units sold in 2020. The entry of new manufacturers and new launches is likely to propel this market in 2021.

Investments

To keep up with the growing demand, several auto makers have started investing heavily in various segments of the industry during the last few months. The industry attracted Foreign Direct Investment (FDI) worth US$ 30.51 billion between April 2000 and June 2021 accounting for ~5.5% of the total FDI during the period according to the data released by Department for Promotion of Industry and Internal Trade (DPIIT).

Some of the recent/planned investments and developments in the automobile sector in Indiaare as follows:

- In November 2021, Indian Oil Corporation (IOC) and two other public sector oil firms announced that they will install 22,000 electric vehicle (EV) charging stations over the next 3–5 years.
- In November 2021, Tata Motors announced that they will establish vehicle scrappage centers under a franchise set up at Ahmedabad, Gujarat, by the first quarter of the next fiscal year.
- In November 2021, Skoda Auto announced plans to locally manufacture electric cars in India. However, the firm may bring its first EV, the Enyaq, through the CBU route, before committing to local manufacturing.
- In November 2021, Hero Motor (HMC), the parent company of Hero Cycles, entered a joint venture partnership with Yamaha, a Japanese two-wheeler major, to make electric motors for e-bicycles for the global market.
- In October 2021, Tata Motors announced that private equity group TPG along with ADQ of Abu Dhabi has agreed to invest Rs. 7,500 crores (US$ 1 billion) in its EV division.
- In September 2021, Hero Electric announced plans to expand production capacity at its facility in Ludhiana, Punjab, to >5 lakh units by March 2022, up from the existing capacity of 1 lakh units per year.
- In September 2021, Hero Electric announced plans to expand production capacity at its facility in Ludhiana, Punjab, to >5 lakh units by March 2022, up from the existing capacity of 1 lakh units per year.
- In August 2021, Hindustan Zinc Ltd. announced a US$ 1 billion investments across its eight mines to replace diesel-powered trucks and equipment with battery EVs.
- In July 2021, Maruti Suzuki India announced a Rs. 18,000 crores (US$ 2.42 billion) investment in a new manufacturing facility in Haryana, with an installed capacity of 7.5-10 lakh units per annum. As it prepares to protect its market dominance, the company aims to increase capital spending by 67% to Rs. 4,500 (US$ 605 million) crore in FY22.
- In July 2021, Hyundai Motor India opened its new corporate headquarters in Gurgaon, backed by a Rs. 2,000 crore (US$ 269 million) investment.

- In April 2021, Mahindra & Mahindra announced a three-year investment plan in the electric vehicles segment of Rs. 3,000 crores (US$ 403 million).
- Between January and July 2021, EV component makers, electric commercial vehicles and last-mile delivery companies invested a total of Rs. 25,045 crores (US$ 3.67 billion) on electric vehicles.
- In FY21, passenger vehicles sales reached 27.11 lakhs units, two-wheelers reached 151.19 lakhs units, commercial vehicles sales reached 5.69 lakhs units and for three-wheelers it was 2.16 lakhs units.
- In 2019-20, the total passenger vehicles sales reached ~2.8 million, while ~2.7 million units were sold in FY21.
- In February 2021, the Delhi government started the process to set up 100 vehicle battery charging points across the state to push adoption of electric vehicles.
- In January 2021, Fiat Chrysler Automobiles (FCA) announced an investment of US$ 250 million to expand its local product line-up in India.
- A cumulative investment of ~Rs. 12.5 trillion (US$180 billion) in vehicle production and charging infrastructure would be required until 2030 to meet India's electric vehicle (EV) ambitions.
- In January 2021, Lamborghini announced it is aiming to achieve sales in India higher than the 2019-levels, after recovering from pandemic-induced disruptions.
- In January 2021, Tesla, the electric car maker, set up a R&D center in Bengaluru and registered its subsidiary as Tesla India Motors and Energy Private Limited.

Government Initiatives

The Government of India encourages foreign investment in the automobile sector and hasallowed 100% foreign direct investment (FDI) under the automatic route.

Some of the recent initiatives taken by the Government of India are -

- In November 2021, the union government added >100 advanced technologies, including alternate fuel systems such as compressed natural gas (CNG), Bharat Stage VI compliant flex fuel engines, electronic control units (ECU) for safety, advanced driver assist systems and e-quadric cycles, under the production-linked incentive (PLI) scheme for the automobiles.
- In September 2021, the Union Minister for Road, Transport and Highways, Mr. Nitin Gadkari announced that government is planning to make it mandatory for car manufacturers to produce flex-fuel engines after getting the required permissions from the Supreme Court of India.
- In September 2021, the Indian government issued notification regarding a PLI scheme for automobile and auto components worth Rs. 25,938 crore (US$ 3.49 billion). This scheme is expected to bring investments of over Rs. 42,500 (US$ 5.74 billion) by 2026.

- The Indian government has planned ~US$ 3.5 billion in incentives over a five-year period until 2026 under a revamped scheme to encourage production and export of clean technology vehicles.
- As of June 2021, Rs. 871 crores (US$ 117 million) has been spent under the FAME-II scheme, 87,659 electric vehicles have been supported through incentives and 6,265 electric buses have been sanctioned to various state/city transportation undertakings.
- In July 2021, India inaugurated the national automotive test tracks (NATRAX), which is Asia's longest high-speed track to facilitate automotive testing.
- In Union Budget 2021-22, the government introduced the voluntary vehicle scrappage policy, which is likely to boost demand for new vehicles after removing old unfit vehicles currently plying on the Indian roads.
- In February 2021, the Delhi government started the process to set up 100 vehicle battery charging points across the state to push adoption of electric vehicles.
- The Union Cabinet outlaid Rs. 57,042 crores (US$ 7.81 billion) for automobiles & auto components sector in production-linked incentive (PLI) scheme under the Department of Heavy Industries.
- The Government aims to develop India as a global manufacturing center and a Research and Development (R&D) hub.
- Under NATRIP, the Government of India is planning to set up R&D centers at a total cost of US$ 388.5 million to enable the industry to be on par with global standards.
- The Ministry of Heavy Industries, Government of India has shortlisted 11 cities in the country for introduction of EVs in their public transport systems under the FAME (Faster Adoption and Manufacturing of (Hybrid) and Electric Vehicles in India) scheme. The Government will also set up incubation center for start-ups working in the EVs space.
- In February 2019, the Government of India approved FAME-II scheme with a fund requirement of Rs. 10,000 crores (US$ 1.39 billion) for FY20-22.

Achievements

Following are the achievements of the Indian automotive sector:

- In H12019, automobile manufacturers invested US$ 501 million in India's auto-tech start-ups according to Venture intelligence.
- Investment flow into EV start-ups in 2019 (till end of November) increased nearly 170% to reach US$ 397 million.
- On 29th July 2019, Inter-ministerial panel sanctioned 5,645 electric buses for 65 cities.
- NATRIP's proposal for "Grant-In-Aid for test facility infrastructure for EV performance Certification from NATRIP Implementation Society" under the FAME Scheme was approved by Project Implementation and Sanctioning Committee (PISC) on 3rd January 2019.

- Under NATRIP, following testing and research centers have been established in the country since 2015.
    - International Centre for Automotive Technology (ICAT), Manesar
    - National Institute for Automotive Inspection, Maintenance & Training (NIAIMT), Silchar
    - National Automotive Testing Tracks (NATRAX), Indore
    - Automotive Research Association of India (ARAI), Pune
    - Global Automotive Research Centre (GARC), Chennai
- SAMARTH Udyog - Industry 4.0 centers: 'Demo cum experience' centers are being set up in the country for promoting smart and advanced manufacturing helping SMEs to implement Industry 4.0 (automation and data exchange in manufacturing technology).

5 Forces Analysis of Automobile Industry

Threat of new entrants: Weak

It is difficult for new brands to enter the automobile industry which is because of the large investment required for establishing a car brand. At the initial stage, a huge investment will be required to set up the manufacturing facilities, distribution network and for hiring skilled staff. Another major barrier is the level of competition from the existing brands. Unless a new brand brings an innovative and differentiated product to the market, chances to gain a significant market share are low. While law was not a barrier for the new entrants earlier, legal requirements have grown in recent years, creating one more barrier to entry.

Brand image and reputation can also be major challenges before new players. Brand image and equity are some major advantages for the existing brands. Any new brand would have to focus a lot upon engineering and product quality. Getting access to raw material can be easy but then achieving economies of scale is difficult for small players. Moreover, penetrating new markets is not easy either. Some governments have applied high import taxes to discourage foreign brands. So, there are several factors that minimize the threat from the new players. Apart from Tesla, there is hardly a new brand that has been able to make a significant mark at the international level in the automobile industry.

Bargaining power of suppliers: Weak

The bargaining power of suppliers in the automotive industry is weak for most of them are small players. Only few of them are significant in size. The threat of forward integration is minimum from the suppliers for the reasons discussed in the first category. These suppliers have to play according to the rules set by the car brands. The vehicle brands like BMW, Ford, Toyota and VW hold immense clout because the raw material is always available in plenty andswitching from one supplier to another is not difficult for them. In this way, the bargaining power of suppliers is considerably low.

Bargaining power of buyers: Moderately strong

A large part of the buyers are the small individual buyers that buy single vehicles. However, there are corporations and government agencies that buy fleets of vehicles. Such buyers are in a position to bargain for lower prices. Whether small or large buyers can easily switch to a new brand. There are no big costs involved in switching to another brand or to an alternative mode of transportation. The buyers are price sensitive mostly and would switch to another brand that offers a better product at lower price.

However, none of the buyers whether big corporations or individual small buyers poses a threat of backward integration. Based upon the overall picture their bargaining power is moderately strong. Brands focus on building customer loyalty through design, quality and by offering competitive prices. Competition in the automobile industry has grown intense and changing consumer trends have also led to growth in the bargaining power of customers.

Threat of substitutes: Weak

There are several substitutes and alternative modes of transportation including taxis, buses, trains and planes. However, none of them can provide the kind of accessibility and convenience that owning an automobile does. Your own car will serve you round the clock but if you missed a train or bus you have to wait for another. However, in case of the alternative modes you do not need to worry for maintenance. Still, owning a car is both a matter of convenience and prestige for most. So, the threat of substitutes is weakened. Still, there is some threat from the substitute products where daily commuters may find it cheaper and easier to take a train or bus.

Competitive Rivalry in the industry: Very strong

The number of recognized and influential brands is low and the exit barriers very high. Any brand trying to exit would have to bear large losses. The level of customer loyalty is high and while the industry is large, it has matured. This intensifies the competition for market share. However, different brands target different market segments but yet they overlap. Brands compete on the basis of price, design, quality, technology, customer safety and several other points. Overall, competition in the auto industry is a strong force or rather very strong. Auto firms are investing aggressively in research and development, digitalization as well as marketing and overall customer experience to grow sales and customer base.

Whether in the premium category or the small car segment and SUVs, level of competitive rivalry among leading brands is strong. With higher competition, brands are trying to maximize customer satisfaction and competing to provide the best customer experience. They are also investing in growing their sales and distribution network as well as focus on after sales service is higher now.

PESTLE Analysis of Automobile Industry

Political factors

The Indian automobile industry has attracted many investors. All these are pooled in three main regions despite the expansive size of the country. This is due to the fact that these areas are more developed as compared to other regions. The government has a hand in this becauseit has invested in the development of these regions.

Politically speaking, the automobile industry has greatly benefited from the government of India. The government has set up bodies which help the automobile industry in carrying out research and development. These bodies also maintain a monitoring system for the automobileindustry.

Economic factors

India has also been experiencing economic growth at an average 6% and the automobile industry contributes 22% to the GDP of the country. This makes it a very important income generating activity for the country. This growth has rippled its way to create consumers as there is a huge growing middle class in India. This class of people is increasingly purchasing automobiles and this is evident in the increased sales of certain vehicles in the past decade.

Without economic growth, India would not be able to attract as many foreign investors in the automobile industry. It is thus important for the country to sustain this upward growth as it will affect all its manufacturing industries.

Additionally, the price of certain crucial commodities has also influenced the automobile. Crudeoil and petroleum products always affect the automobile industries. Rise in the world market price of these products makes things expensive and this trickles down to automobile manufacture as well as maintenance.

Social factors

India is fast becoming an automobile industry hub because of its large population. This forms a bustling market for the manufacturers. The tastes of the populations may vary but manufacturers always take note of the fast selling automobiles and create appropriate designs. For instance, in the past three years, there has been a surge of two-wheeler vehicles because oftheir convenience in the country. Many automobile industries have created these vehicles for domestic consumers.

Technological factors

The automobile industry has grown because there are several technological inventions. These are used not only in manufacture of the vehicles but also to reduce expenses for the vehicle buyers. The government is also helping in research and development to ensure that both producers and consumers are happy and encouraged to invest in the automobile industry.

Environmental factors

Environmental factors have influenced automobile industry in India because more investors are opting to manufacture environmental friendly vehicles. These include, vehicles that consume less fuels and emit less fumes. There are also some investors that have chosen to manufacture the electric vehicle in a bid to conserve energy and also the environment.

Legal factors

Legal factors have played a role in the recent expansion of the Indian automobile industry. This is because the industry is extremely incentivized with investors being given 100% foreign direct investment pass. There are also zero taxes for the investors who ship the cars to other countries from their manufacturing bases in India. By easing the legal rules affecting the industry, the government of India has encouraged varied automobile companies to set up shopin the country.

SWOT Analysis of Automobile Industry

Strengths in the SWOT analysis of Automobile industry

1. **Evolving industry:** Automobiles represent freedom and economic growth. Automobiles allow people to live, work and travel in ways that were unimaginable a century ago. Automobiles provides access to markets, to doctors, to jobs. Nearly every automobile trip ends with either an economic transaction or some other benefit to the quality of life.
2. **Continuous product innovation & technological advancement:** With the advent of E-vehicles & alternative fuel such as Shell gas, CNG and others, Automobile Companies are increasing R & D expenditure to drive the next phase of growth through use of renewable sources of energy which may be solar, wind etc.
3. **Growth shifting to Asian markets:** Although American & European market is the pulse of this Industry, but the focus is shifting to developing markets like China, India & other Asian nations because of the rise in disposable income, changing lifestyle & stable economic conditions.
4. **Increasing demand of VFM vehicles:** Intense competition in the matured/developed markets has forced automobile manufacturers to target developing economies. But these developing economies have high demand for VFM products (value for money). In the automobile industry, VFM products would be fuel efficient, high mileage vehicles because majority of customers in these nations prefer vehicles for commuting. On the other hand, developed nations need is of vehicles for interstate travelling, and high speed vehicles suitable for long route with high engine power.
5. **Increase in demand of luxury commercial vehicles:** Companies like VOLVO, Daimler/Chrysler, Bharat Benz are betting high & are targeting the developing nations due to increase in demand of Luxury public transportation system.

6. **Manufacturing facilities in Asian nations to control cost:** In order to control cost & to manage shrinking margins automobile companies like Harley, Volvo, Bharat Benz etc. are building their manufacturing facilities in developing nations like India, China because these nations have cheap workforce, are high in resources & are nearer to developed economies. These are classic conditions of an emerging market.

Weaknesses in the SWOT analysis of Automobile industry

1. **Cars recalled:** Controversies relating to recalling vehicles on account of some technical dis-functionality or non-abidance to govt. led rules is becoming very common.
2. **Bargaining power of consumers:** Over the last 3-4 decades the automobile market has shifted from demand to supply market. Availability of large number of variants, Stiff competition between them, and long list of alternatives to choose fromhas given power to customers to choose whatever they like.
3. **Growth rate of Automobile industry** is the in the hands of the government due to regulations like excise duty, no entry of outside vehicles in the state, decreasing number of validity of registration period & volatility in the fuel prices. These factors always affect the growth of the industry.

Opportunities in the SWOT analysis of Automobile industry

1. **Introducing fuel-efficient vehicles:** Optimization of fuel-driven combustion engines and cost efficiency programs are good opportunities for the automobile market. Emerging markets will be the main growth drivers for a long time to come,and hence fuel efficient cars are the need of the hour.
2. **Strategic Alliances:** Making strategic alliances can be a smart strategy for Automobile companies. By using specialized capabilities & partnering with other companies, they can differentiate their offerings.
3. **Changing lifestyle & customer groups:** Three powerful forces are rolling the auto industry. Shift in consumer demand, expanded regulatory requirements for safety and fuel economy, and the increased availability of data and information. Also with the increase in nuclear families there has been increase in demand of two-wheelers & compact cars and this will grow further.
4. **Market expansion:** Entering new markets like Asian & BRIC nations will result inupsurge in demand of vehicles. After these markets, other markets are likely to emerge soon.
5. **OEM priorities:** Given the increase in electronic content, OEMs need to collaborate with suppliers and experts outside the traditional auto industry. Accomplishing this will require changes in the way OEMs function. OEMs will be looking to their top suppliers to co-invest in new global platforms & this will be thedriving force in the future.

Threats in the SWOT analysis of Automobile industry

1. **Intense Competition:** Presence of such a large number of players in the Automobile industry results into extensive competition, every company eating into others share leaving little scope for new players.
2. **Volatility in the fuel Prices:** At least for the passenger segment fluctuations in the fuel prices remains the determining factor for its growth. Also government regulations relating the use of alternative fuels like CNG. Shell gas is also affectingthe inventories.
3. **Sluggish Economy:** Macroeconomic uncertainty, Recession, un-employment etc. are the economic factors which will daunt the automobile industry for a long period of time.
4. **High fixed cost and investment in R & D:** Due to the fact that mature markets are already overcrowded, industry is shifting towards emerging markets by buildingfacilities, R & D centers in these markets. But the ROI out of these decisions is yetto be capitalized.

Chapter 4

Company Analysis

Introduction to company analysis

Company analysis is a process carried out by investors to evaluate securities, collecting info related to the company's profile, products and services as well as profitability. It is also referred as fundamental analysis.

' A company analysis incorporates basic info about the company, like the mission statement and apparition and the goals and values. During the process of company analysis, an investor also considers the company's history, focusing on events which have contributed in shaping the company.

Also, a company analysis looks into the goods and services proffered by the company. If the company is involved in manufacturing activities, the analysis studies the products produced by the company and also analyzes the demand and quality of these products. Conversely, if it is a service business, the investor studies the services put forward.

In company analysis analysts consider the basic financial variables for the estimation of the intrinsic value of the company. These variables contain sales, profit margin, tax rate, depreciation, asset utilization, sources of financing and other factors. The conduction of further analysis of company include the competitive position of the company in the industry, technological changes, management, labor relations, foreign competition and so on.

The process of conducting a company analysis involves the following steps:

The primary step is to determine the type of analysis which would work best for your company.

Research well about the methods for analysis. In order to perform a company analysis, it is important to understand the expected outcome for doing so. The analysis should provide answer about what is done right and wrong on the basis of a thorough evaluation. It is, therefore, important6 to make the right choice for the analysis methods.

The next step involves implementing the selected method for conducting the financial analysis. It is important for the analysis to include internal and external factors affecting the business.

As a next step, all the major findings should be supported by use of statistics.

The final step involves reviewing the results. The weaknesses are then attempted to be corrected.

The company analysis is used in concluding issues and determining the possible solutions. The company analysis is conducted to provide a picture of the company at a specific time, thus providing the best way of enhancing a company, internally as well as externally.

Company analysis actually provides the indication of the estimated value & potential of the company along with the comprehension of its financial variables. Common stock can be valued by the investors by using dividend discounted model. Similarly, earnings multiplier model can be used for estimation of intrinsic value for a short run. Intrinsic value (or estimated value) is the product of expected multiplier or P/E ratio and the estimated earnings per share (EPS).

Company Analysis using 4Y Analysis Method

What are 4Y Analysis?

This is a kind of company analysis which we can measure the risk of a company by calculation of EPS, OPPS, P/E and Beta which if:

EPS of Company > EPS of Industry
OPPS of Company > OPPS of Industry
P/E of Company < P/E of Industry
Beta < 1

Then this company would be less risky and reasonable option for investing; this is the method which I have been used in my portfolio and company analysis.

What is EPS?

Earnings per share or EPS is an important financial measure, which indicates the profitability of a company. It is calculated by dividing the company's net income with its total number of outstanding shares. It is a tool that market participants use frequently to gauge the profitability of a company before buying its shares.
EPS is the portion of a company's profit that is allocated to every individual share of the stock. It is a term that is of much importance to investors and people who trade in the stock market. The higher the earnings per share of a company, the better is its profitability. While calculating the EPS, it is advisable to use the weighted ratio, as the number of shares outstanding can change over time.

Earnings per share can be calculated in two ways:

1) Earnings per share: Net Income after Tax/Total Number of Outstanding Shares

2) Weighted earnings per share: (Net Income after Tax - Total Dividends)/Total Number of Outstanding Shares

A more diluted version of the ratio also includes convertible shares as well as warrants under outstanding shares. It is considered to be a more expanded version of the basic earnings per share ratio.
For an investor who is primarily interested in a steady source of income, the EPS ratio can tell him/her the room a company has for increasing its existing dividend. Although, EPS is very important and crucial tool for investors, it should not be looked at in isolation. EPS of a company should always be considered in relation to other companies in order to make a more informed and prudent investment decision.

What is OPPS?

Operating profit per share or OPPS means the per share net earnings of the Company for each fiscal year in a Performance Period determined in accordance with generally accepted accounting principles and reported in the Company's audited financial statements for such fiscal year.
We can calculate OPPS by OPAT of EBIT dividing by share outstanding.

What is P/E?

The Price Earnings Ratio (P/E Ratio) is the relationship between a company's stock price and earnings per share (EPS). It is a popular ratio that gives investors a better sense of the value of the company. The P/E ratio shows the expectations of the market and is the price you must pay per unit of current earnings (or future earnings, as the case may be).

Earnings are important when valuing a company's stock because investors want to know how profitable a company is and how profitable it will be in the future. Furthermore, if the company doesn't grow and the current level of earnings remains constant, the P/E can be interpreted as the number of years it will take for the company to pay back the amount paid for each share.

P/E = Stock Price Per Share / Earnings Per Share

Investors want to buy financially sound companies that offer a good return on investment (ROI). Among the many ratios, the P/E is part of the research process for selecting stocks because we can figure out whether we are paying a fair price.

Similar companies within the same industry are grouped together for comparison, regardless of the varying stock prices. Moreover, it's quick and easy to use when we're trying to value a company using earnings. When a high or a low P/E is found, we can quickly assess what kind of stock or company we are dealing with.

High P/E

Companies with a high Price Earnings Ratio are often considered to be growth stocks. This indicates a positive future performance, and investors have higher expectations for future earnings growth and are willing to pay more for them.

The downside to this is that growth stocks are often higher in volatility, and this puts a lot of pressure on companies to do more to justify their higher valuation. For this reason, investing in growth stocks will more likely be seen as a risky investment. Stocks with high P/E ratios can also be considered overvalued.

Low P/E

Companies with a low Price Earnings Ratio are often considered to be value stocks. It means they are undervalued because their stock prices trade lower relative to their fundamentals. This mispricing will be a great bargain and will prompt investors to buy the stock before the market corrects it. And when it does, investors make a profit as a result of a higher stock price. Examples of low P/E stocks can be found in mature industries that pay a steady rate of dividends.

What is Beta?

The beta (β) of an investment security (i.e., a stock) is a measurement of its volatility of returns relative to the entire market. It is used as a measure of risk and is an integral part of the Capital Asset Pricing Model (CAPM). A company with a higher beta has greater risk and also greater expected returns.

The beta coefficient can be interpreted as follows:

$\beta = 1$ exactly as volatile as the market

β >1 more volatile than the market
β <1>0 less volatile than the market
β =0 uncorrelated to the market
β <0 negatively correlated to the market

More Illustration

High β – A company with a β that's greater than 1 is more volatile than the market. For example, a high-risk technology company with a β of 1.75 would have returned 175% of what the market returned in a given period (typically measured weekly).

Low β – A company with a β that's lower than 1 is less volatile than the whole market. As an example, consider an electric utility company with a β of 0.45, which would have returned only 45% of what the market returned in a given period.

Negative β – A company with a negative β is negatively correlated to the returns of the market. For example, a gold company with a β of -0.2, which would have returned -2% when the market was up 10%.

Chapter 5

Findings, Suggestions, Learnings and Conclusion

Findings

- ✓ In this analysis, I discovered that if a person is a risk taker, mutual funds are the best option for him/her; by taking a 12.8 percent risk, he/she can gain 35.5 percent returns, and if an investor is deciding between index and portfolio, portfolio is the best option for him; its risk is 1.4 percent and its daily return is 0.13 percent.
- ✓ Returns Not Guaranteed, General Market Risk, Security Specific Risk, Liquidity Risk, and so on are all risks that you should be aware of while investing in mutual funds.
- ✓ And if you invest in the five industries listed above (3 top companies in each), your portfolio return after derivatives would be 36% per year, whereas the index return would be 21% per year.
- ✓ Stocks, mutual funds, and index funds all offer advantages when used correctly
- ✓ Individual stock investing can provide a better level of portfolio control, as an investor can set his or her allocation based on a certain industry and rapidly quit once he or she has made a significant profit.
- ✓ Mutual funds will help an investor diversify easily with a very small investment.
- ✓ In mutual funds, a dedicated fund manager who is familiar with the Indian markets actively monitors and controls the fund, so inexperienced investors don't have to.
- ✓ An index fund is a mutual fund whose stock portfolio is a clone of an index, such as the Nifty 50, rather than being actively selected by a fund management.
- ✓ The advantage of an index fund is that its portfolio is predictable and it comes at a lower cost

Suggestions

Investors created mutual funds, so the interests of investors must be protected by following these recommendations. Mutual funds can be more useful to ordinary investors if they enhance their quality by establishing standards of conduct, professionalism, and self-regulation:

- ✓ Transparency is a vital component that most mutual funds have missed. Investor confidence, which is a result of transparency, is the most important factor in mutual fund growth. Mutual funds are acquiring vast sums of money without disclosing their investment objectives or portfolios. Mutual funds should publish comprehensive prospectuses for the benefit of investors.
- ✓ Mutual funds' operation need lot of professionalism and expertise. Collecting the funds are easy task but the prudent and professional management should be paid more attention.
- ✓ Mutual funds are expected to keep accurate records and reports of their transactions in order for regulators to supervise them. According to the SEBI investigation report, the records of SBI mutual funds kept by the SBI Main Branch of Bombay have never been

reconciled, and the fund assets have never been physically verified.

- ✓ Generally, the subscribers of mutual funds are of high income and education group and urban area. So the lower and middle income group subscribers of rural areas remain in-tapped. The awareness about mutual funds is quite low in rural and semi-urban areas. To popularize mutual funds in rural areas, some special promotional efforts should be done.
- ✓ Governments should keep their statistics on industries and their growth rates up to date so that it is easier to invest in them or for investors to make better decisions.

Learnings

- I have learnt that investing in mutual fund is profitable and riskier than portfolio and index
- If investor invest in higher risk scheme, then return also greater and if investor invest in lower risk scheme then return also lesser.
- From this study, I have learnt if a person invests in mutual fund scheme then he will get tax benefit on their income.
- There are different types of mutual fund schemes – which invest in different types of securities – in equity as well as debt securities that are suitable for different investor needs.
- Putting all of your money into one industry is often a bad idea. If a market event has a negative impact on that industry, your entire portfolio suffers. To diversify effectively, you must invest in a wide range of industries, businesses, and asset classes. Your investments should be as uncorrelated as possible.
- Pharmaceutical, steel, chemical, FMCG, and automobile are the top five industries in India, according to my industry study, where you can diversify your portfolio and invest.
- You don't need a large sum of money to invest in mutual funds; you may start investing with as little as Rs. 500 per month using a Systematic Investment Plan (SIP).
- Because people's money is managed by competent fund managers, mutual funds provide the benefit of professional management. Mutual funds are a good option for investors who don't have the time, motivation, or know-how to handle their own assets.
- You have no influence over how your money is invested in mutual funds because they are professionally managed, but you do have control over how your money is invested in stocks because you pick where to place your money and only you will be responsible for any losses/profit that occur.
- As my calculations, investing in mutual fund is riskier than portfolio and index funds; Returns Not Guaranteed, General Market Risk, Security Specific Risk, Liquidity Risk, and so on are all risks that you should be aware of while investing in mutual funds.
- Index funds are ideal for investors who are risk-averse and expect predictable returns; Low-risk means stability. the return on a low-risk investment will keep pace with, or slightly outpace, inflation over time. A high-risk investment has the potential to make or lose a lot of money.
- In general, all financial schemes have risk, it's just the amount of risk that matters; I calculated one-year returns for each financial scheme (mutual fund, index, and portfolio) and found that investing in mutual fund is riskier and high returns than the other two, but

there are some limitations in mutual funds as well, such as:

- ✓ **Decisions:**

  Since mutual funds are professionally managed, you do not have any control in how the money in the mutual fund is invested.

- ✓ **Costs:**

  The mutual fund incurs costs to buy and sell investments on the open financial market place. Some of these fees may include advising fees, transaction costs, and fees for marketing and distribution. These fees reduce the returns you make from the investments in your mutual fund.

- ✓ **Projections:**

  Projections are commonly based on past performance, but there is no guarantee that a mutual fund will generate the same level of returns as past years.

- ✓ **Risk:**

  Mutual funds are exposed to risk like any other investment in the financial markets; While mutual funds invest in several sectors, some specialize in certain investments like money market funds, bond funds and stock funds, which carry additional risk of loss.

Successful diversification, on the other hand, can eliminate portfolio risk by holding a combination of investments that do not rely on the same variables to deliver a profit. In reality, though, it is more probable that risks will be minimized and not eliminated entirely.

It is entirely up to you to decide where you wish to invest your money.

Conclusion
For an investor with an investable excess, there are numerous investment options available today in the financial market; a mutual fund is a financial instrument that pools money from different investors. The pooled money is then invested in securities like stocks of listed companies, government bonds, corporate bonds, and money market instruments. The expert and professional fund management help investors outperform the returns of traditional investment vehicles like bank savings accounts and fixed deposits.

Mutual funds are definitely a good investment option for investors who do not have the time and expertise to shortlist, invest and track their investments. Mutual funds are managed by professional experts who dedicate their time to build a portfolio of different asset classes. One can start their investment through small amounts. Also, they can regularly invest through SIPs and develop disciplined investment habits.

Mutual fund investments are subject to market risks. In other words, mutual fund investments are market-linked and hence are subject to market volatility. Therefore, no mutual fund is 100% safe. However, mutual funds are regulated by the Securities Exchange and Board of India (SEBI), and default risk is nil. The level of volatility in mutual funds varies. To put it another way, equity funds invest primarily in shares and are quite sensitive to market fluctuations. Debt mutual funds, on the other hand, invest in a variety of debt instruments issued by the government and corporations, making them less volatile than equity mutual funds.

Unlike bank deposits or government bonds, mutual funds do not guarantee returns. Moreover, in the long term, mutual funds have the capacity to earn high returns in comparison to traditional investment options. Therefore, investors who understand the markets and have the capacity to undertake some volatility can invest in mutual funds.

Index funds are perhaps a unique type of mutual fund investment; They're what's known as risk-free equity investments. These funds try to replicate the performance of a stock index with the best-performing companies. These characteristics make index funds a low-risk investment with better returns, especially when held for longer periods of time.

Portfolio investment is about reducing risk rather than increasing return. It may well be that in certain years, individual investment returns based on security analysis exceed returns from portfolio investment. However, over the long run, portfolio investment is able to deliver a steady rate of return that is on average better than individual investment returns, because of the risk diversification among various investments inside a portfolio.

Diversification doesn’t mean that you don’t face any losses. After the entire process, it is still possible to lose some money when you invest. After all, it is not possible to eliminate risk completely. However, diversification helps you to lower the risk of losses in the market to the minimum possible.
In general, all financial schemes have risk, it's just the amount of risk that matters and It is entirely up to you to decide where you wish to invest your money.

References

1. Ronald J- Jordan and Donald E- Fischer, Security Analysis and Portfolio Management, Sixth Edition
2. Prasanna Chandra, Investment Analysis and Portfolio Management
3. Kundan Kishore, difference between portfolio and mutual fund_ Personal blog
4. Religare Invesco, Understanding Mutual Fund
5. Office of Investors Education and Advocacy, Mutual fund and ETFs (Guide for investors)
6. www.udemy.com , investment analysis and portfolio management (online course)
7. www.investopedia.com
8. www.investor.gov
9. WWW.ibef.org
10. www.prowessiq.cmie.com
11. www.nseindia.com
12. www.mutualfundsahihai.com
13. www.moneycontrol.com