# CHAPTER 1: INTRODUCTION

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## 1.1 OVERVIEW OF PHARMACEUTICAL INDUSTRY

All phases of drug and pharmaceutical research, manufacturing, and marketing fall under the purview of the pharmaceutical industry. Pharmaceutical companies primarily deal in the sale of pharmaceuticals, both generic and brand name, and medical supplies. There are a number of regulations placed on pharmaceutical drugs worldwide. In response to the numerous legal and practical constraints, the pharmaceutical industry has expanded into a vast and varied organisation. Outsourcing has also left its mark on the pharmaceutical industry, with some companies opting to keep as much of their work as possible within the company while others striking deals with external supplier and research enterprises or specialised manufacturers to handle certain aspects of the drug evolution process on their behalf. Since the pharmaceutical industry generates a lot of money and is highly competitive, every pharmaceutical company strives to be the best in the business and discover new ways to treat diseases. It is hoped that this industry will be able to adapt and develop in the future.

#### 1.1.1 GLOBAL PHARMACEUTICAL INDUSTRY

The annual value of the pharmaceutical sector is estimated at US\$ 300 billion, with an increase to US\$ 400 billion in the next three years. More than a third of the pharmaceuticals market is dominated by the top 10 companies, all of which generate more than US\$10 billion in yearly revenue and have profit margins of around 30%. There are six located in the United States, and four in Europe. It is anticipated that the pharmaceutical markets in North and South America, Europe, and Japan will continue to account for 85% of the worldwide market well into the 21st century. Currently, companies invest one-third of their gross profit into marketing and advertising, which is roughly twice as much as they invest into R&D.

WHO states that "an underlying conflict of interest between the legitimate corporate objectives of manufacturers and the social, medical, and economic demands of patients and the public for the most rational selection and usage of pharmaceuticals" has emerged as a result of this pressure to increase profits. This is especially true in cases

where drug manufacturers are the primary source of information about which medications work best. Similarly, pharmaceutical companies spend 50 times more on advertising than the government does on public health information in the UK, despite the fact that the medical community there provides more impartial, publicly funded information than in many other nations.

To address this problem, the World Health Assembly developed the WHO Ethical Standards for Medicinal Drug Promotion in 1988. These standards are based on the commitment to the responsible use of medicines. Nonetheless, a number of specialists say that these guidelines have been largely disregarded, as has the industry's own International Federation of Pharmaceutical Manufacturers' Associations' voluntary Code of Pharmaceutical Practices (PharMA).

Particularly in the field of research and development (R&D) for drugs to treat neglected diseases, conflicts of interest are widespread. The pharmaceutical industry is privately funded and oversees the production of new medicines for the general public. The profit imperative guarantees that only those drugs will be developed that will provide a substantial return on investment for the pharmaceutical firm. As a result, pharmaceuticals aimed at the developed world are prioritised above those aimed at the developing world, where the majority of patients cannot afford them.

Some of the largest drug corporations contribute to health improvement through public-private partnerships. In a number of instances, international firms and foundations have donated free drugs or products to aid in disease eradication efforts. Smith Albendazole is Kline Beecham's medicine of choice for treating lymphatic filariasis (elephantiasis), and the company promised the WHO US\$ 500 million worth of the drug. In order to combat the spread of guinea worm illness (dracunculiasis), American Home Products donated non-toxic larvicide, while the DuPont Company gave away cloth water filters at no cost. About 800,000 people a year in some 35 countries can now be treated with multidrug treatment (MDT) for tuberculosis thanks to a generous donation from the Japanese Nippon Foundation. All medical services provided to patients are provided at no cost to them.

#### 1.1.2 INDIAN PHARMACEUTICAL INDUSTRY

The Indian pharmaceutical business is booming, as evidenced by the data from the previous year. Records show that revenue was roughly US\$1 billion in 1990 and US\$30,000,000,000 in 2015. The total value of exports in 2015 was roughly \$15 billion. Therefore, India ranks third in the world in terms of output rate and fifteenth in terms of volume. This amounts to about 10% of the world's demand by volume and 1.5% by weight. When it comes to generic quality, India is in fourth place worldwide. For both dosage form and bulk actives, India ranks seventeenth in export volume. India exports pharmaceuticals to over 201 different nations, including those with highly regulated pharmaceutical markets like the USA, Western Europe, Japan, and Australia. It has expanded tremendously in terms of both stock and infrastructure, as well as in terms of the technological foundations upon which they are built. It has adapted its way of life and devotion to oddness to suit the shifting circumstances in which it has existed. Huge medications from all the major therapeutic areas, many of which need sophisticated manufacturing processes, have been produced by the pharmaceutical industry.

Without a shadow of a doubt, India will be the demographic superpower of the future. The national growth rate in 2015 was 1.3%. As of this writing, India has a population of around 1,300,000,000 people. The United Nations predicts that during the next five years, India's population will surpass China's. Estimates suggest that by 2030, this number will hit 1.5 billion, and that by 2050, it will continue to rise and hit 1.7 billion. This typically occurs when the probability of dying decreases, giving birth to the hope that one might survive. The average lifespan has increased from 58 years in 1990 to 68 years in 2015.

In 2015, India contributed more than 3.3% of world GDP, or \$2.074 trillion, to the global economy, as reported by the World Bank. In 2017, the nominal gross domestic product (GDP) was valued at \$2.454 trillion US. India's GDP is projected to grow to overtake the United Kingdom's by 2025, making it the sixth largest economy in the world. The rapid economic development in India has allowed it to overtake China as the world's leading economy. According to the India Monetary Fund, India's GDP grew by 7.2% in 2017 despite its heterogeneous economic structure.

By volume, India's pharmaceutical business is third globally, and by value, it ranks thirteenth, according to a study conducted by equity master. The market is dominated

by label generics, which account for between 70% and 80% of the total market. Even though the Indian pharmaceutical business is widely viewed as a fiercely competitive one, consolidation has emerged as a major force in recent years.

India has risen to prominence on the international pharmaceutical stage. In addition, the country has a sizable pool of scientists and engineers that can propel the industry to new heights.

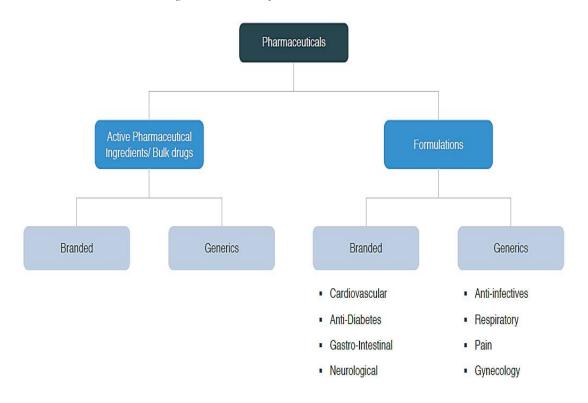


Figure 1: Structure of Pharmaceutical Indian in India

Source: IBEF.org

To facilitate the distribution of Tenofovir Alafenamide (TAF), a generic anti-AIDS medicine, to 112 developing countries, the Medicines Patents Pool, which is supported by the United Nations, has inked six sub-licenses with Aurobindo, Cipla, Desano, Emcure, Hetero Labs, and Laurus Labs.

When it comes to pharmaceutical production, India is in the top six worldwide. There are around 150 countries that have purchased Indian vaccines. In terms of global sales, India accounts for between 40 and 70 percent of the WHO's DPT and BCG markets and 90 percent of the measles vaccine market. Through non-governmental organisations (NGOs) like the Clinton Foundation, the Bill & Melinda Gates Foundation, Doctors

Without Borders, the United Nations Conference on Trade and Development, etc., over 70% of patients in underdeveloped nations get access to Indian pharmaceuticals. India's manufacturing sector is booming, with 10,500 factories and 3,000 pharmaceutical firms currently operating in the country. There are about 1,400 manufacturing facilities in India that have been granted WHO GMP certification. The number of USFDA-approved facilities in India is 584, while the country has about 1,105 CEPs and more than 950 TGA approvals.

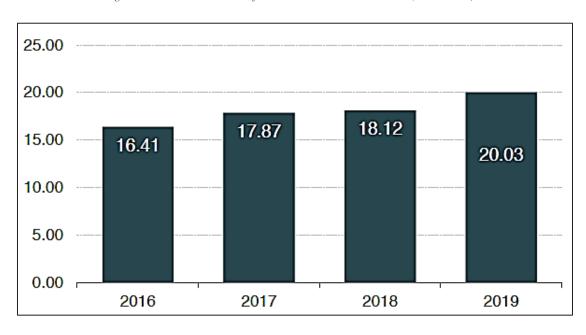


Figure 2: "Annual Turnover of Indian Pharmaceutical Market (US\$ billion)"

Source: IBEF.org

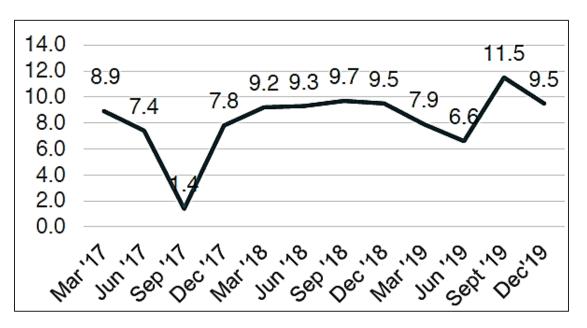


Figure 3: "Quarterly Growth in Indian Pharma Market (%)"

Source: IBEF.org

Globally, India has been granted access to more than 90% of the anti-retroviral (ARV), anti-tubercular, and anti-malarial (WHO pre-qualified) formulations available. Due to cheaper labour and materials, the cost of manufacturing in India is just about 35%-40% of that in the US. India is one of the world's leading suppliers of generic formulations. In 2013–14, pharmaceuticals accounted for 15% of India's total exports, totaling \$15 billion. India is a major exporter of pharmaceuticals, including active pharmaceutical ingredients and finished pharmaceutical products. The country's pharmaceutical industry generates roughly 1.4% of global pharmaceutical market revenue and 10% of global pharmaceutical production. The government of India has recently announced a number of initiatives aimed at fostering the growth of the country's pharmaceutical sector. The Indian government is actively working to raise the quality of medical education, increase the number of hospitals, improve access to primary care, and better regulate the pharmaceutical industry. The government of India is dedicated to establishing reliable healthcare provisioning infrastructure. By 2016, the Indian pharmaceutical market is projected to be worth \$US27 billion. When it comes to meeting the rising demand for healthcare in both developed and developing nations, India is poised to become a major driving force.

## 1.1.3 EVOLUTION OF PHARMACEUTICAL SECTOR IN INDIA

The pharmaceutical sector in India has through four distinct stages of development. In the first stage, which occurred before the year 1970, foreign companies largely ignored indigenous competition and controlled the Indian market. In the second tier, we have the years 1970–1990. During this time period, a plethora of domestic firms emerged. The Indian Patent Act of 1970 was enacted at this period. Programs to facilitate exportation were initiated at this time. From 1990 to 2010, the third era was in effect. As a result of recent trade liberalisation, Indian companies are setting up shop in other nations. As a result of the passage of the Patents Act in 2005, chemical patents are now available in India. During this time period, India has emerged as a leading manufacturer of generic pharmaceuticals.

#### 1.1.4 INDIA'S POSITION IN GLOBAL

There are four distinct segments within the pharmaceutical sector. In terms of research and development in the pharmaceuticals industry, India is ranked third globally. In 2018, it is expected that the market for manufacturing services and contracts would be worth at least \$18,000,000,000. India also leads the world in the amount of its exports of formulation activities. About fourteen percent of the market space is occupied by these establishments. Based on these numbers, the Bio-similar market might be worth \$40,000,000,000 by 2030, up from an estimated \$1,400,000,000 in 2016. In terms of international trade, India rose from a ranking of sixteen in 2004 to tenth place in 2013.

Exports to other continents have expanded thanks to India's expertise in producing generic pharmaceuticals. Revenue-wise, generic pharmaceuticals dominated the Indian pharmaceutical sector by a factor of 70%. India is the leading provider of generic drugs, accounting for almost 20% of the market worldwide. Exports of pharmaceuticals from the country are now competitive with those of other developed countries.

The success of India's pharmaceutical industry is a good indicator of the country's overall economic health. Over €1100 billion (\$1500 billion) is generated annually in the pharmaceutical industry, with developing countries being the primary drivers of this growth. These economies have consistently outperformed more established ones during the past five years. This highlights India's growing role in the global market. More than \$27 billion was generated by the Indian pharmaceutical industry in 2016, and that number is expected to surpass \$55 billion by 2020, thanks in large part to the country's patent legislation, which went into effect in 1970. At the moment, India is responsible for 10% of the world's pharmaceutical output and 2.4% of its net value.

## 1.1.5 RESEARCH & DEVELOPMENT

The manufacturing sector in India has started to make necessary adjustments to its processes in light of the current climate. Businesses are finding their place in the competitive global market by looking for alternatives to generic pharmaceuticals and then challenging the patent through legal means. However, many capable of doing so have prioritised something much more ambitious: the development of novel molecules. However, the initial outlay is substantial, and companies are drawn in by the prospect of high returns, thus they are a serious contender in the international pharmaceutical

markets. This has led some local businesses to put money into R&D projects or form partnerships in order to profit from such endeavours.

The pharmaceutical industry's intellectual property rights have been a contentious issue on a global basis. Historically, marketed and generic pharmaceutical companies have been at odds over IPR issues. India has not spared the IPR dispute, which is unfortunate given the country's large rural population's need for basic medical care. Although Indian authorities were first unwilling to provide robust IPR protection, they now recognise the need and value of such protection for the benefit of business.

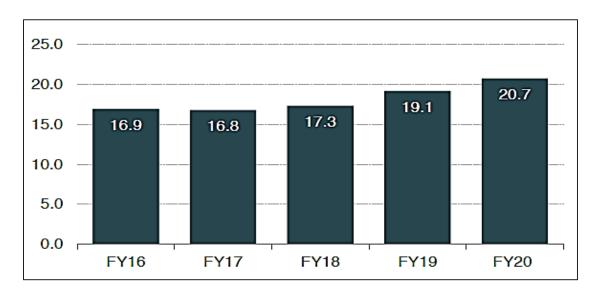
This was the year when the (Indian) Patents Act was signed into law. The pharmaceuticals patent provisions make up the bulk of the Indian Patents Act, 1970. A large number of foreign pharmaceutical firms with operations in India have contributed thanks to this authority. These multi-national corporations have recently invested in India and are considering contracting with the country, and not just because of its traditional strengths. From 2005 to 2010, both domestic and international companies collaborated on the development of India's patented pharmaceuticals industry. Therefore, 3,488 patented products have been accepted by the Indian Patents Office, as reported by KPMG.

#### 1.1.6 MARKET SIZE

India Ratings, a division of the Fitch Group, forecasts that the pharmaceutical business in India would increase by 20% per year over the next five years. As of March 2014, India had 523 pharmaceutical facilities registered with the US Food and Drug Administration (FDA), more than any other country.

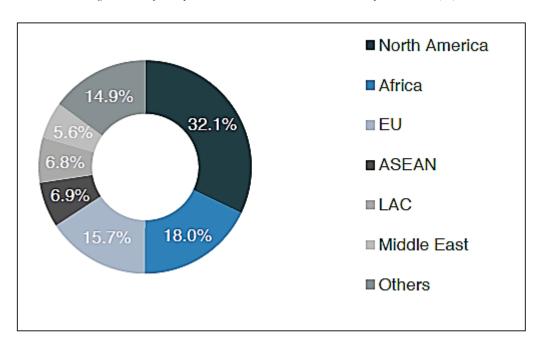
We anticipate domestic pharmaceutical industry growth of 10–12% in FY15, up from 9% in FY14, per data from a recent poll by Centrum Broking. The analysis highlighted the rapid increase of 11.9% seen in October 2014 for domestic medications.

Figure 4: Pharmaceutical Exports from India (US\$ billion)



Source: IBEF.org

Figure 5 : Major Export Destinations in India's Pharma Export in FY19 (%)



Source: IBEF.org

According to market research firm AIOCD Pharma softech AWACS, in November 2014, Gujarat recorded the greatest growth rate in the pharmaceutical sector at 22.4%, outpacing the industry's growth average of 10.9%.

According to a trade group, India's biotechnology sector, which includes sectors such as biopharmaceuticals, bio-services, bio-farming, bio-industry, and bioinformatics, is

expected to grow at a rate of nearly 20% in FY15, which means it may reach US\$7 billion. Over Rs 12,600 crore (US\$ 2.03 billion) of income is generated from the biopharma industry, making up over 62% of total sales. Vaccines, treatments, and diagnostics are all included under biopharmaceuticals.

It is projected that by 2016, India will own 7.2% of the global market for generic active pharmaceutical ingredients (API). In terms of both Abbreviated New Drug Applications (ANDAs) and Drug Master Files, this country is second only to the United States globally (DMFs).

The pharmaceutical market in the country was worth US\$ 12 billion in 2013, up 9.4 percent from the year before; by 2020, it is expected to be worth US\$ 55 billion, a CAGR of 23.9%. With 72% of the market, branded pharmaceuticals dominate the Indian pharmaceutical business.

India's pharmaceutical exports surged to US\$ 10.1 billion at a CAGR of 26.1 percent between FY06 and FY13, a significant growth in both value and volume. The country is already the leading producer of generic drugs, and this trend is only anticipated to continue in the years ahead. Generic medicines account for 20% of global exports by value.

The government of India plans to establish a venture capital fund with a total of US\$ 640 million to support medical study and enhance the country's pharmaceutical industry. According to the government's Department of Pharmaceutics, "Pharma Vision 2020" aims to transform India into a global centre for the entire drug development process.

Because of the large untapped potential of India's rural market (70 percent of the population), pharmaceutical companies should pay close attention to the country. Several companies are bolstering the distribution infrastructure in rural areas. Additionally, India's clinical trials sector has the potential to attract substantial investments.

## 1.1.7 BUSINESS OPPORTUNITY

At the outset, it is important to highlight that India's pharmaceutical industry is almost alone in having achieved exceptional growth, domestic R&D, added value,

geographical expansion, and diversification; it has also contributed to the betterment of the health of millions of people by making medicines more readily available at more reasonable prices. Since Indian medicine is known to be both inexpensive and effective, the industry has been able to export its wares to many different countries. Indian pharmaceutical companies have extensive capabilities in the wide ranging areas of drug research and technology, placing them at the forefront of the country's science-based industrial sector. It's a leader among developing countries in terms of healthcare infrastructure, drug affordability, and product variety. Pain relievers, antibiotics, and even complex cardiac compounds are all currently produced in the area. These factors have contributed to India's growing sense of independence in the region. The country has become a low-cost industrial hub thanks to its large domestic market and its abundance of qualified workers who command low wages. Capital expenditures have increased significantly in the Indian pharmaceutical business over the years. In addition to being a big employer, it also generated revenue through exports.

An abundance of skilled people with deep knowledge in management and technology may be found in India. Numerous people are fluent speakers, and it is commonly used in the English language. It's not hard to gain access to first-rate services. The Indian Pharmaceutical Industry has been successful in part because to the country's enormous pool of highly educated and trained scientists and engineers, which has allowed indigenous enterprises to pioneer innovative methods of producing even the most complex pharmaceutical goods.

The record of accomplishment has been stellar, especially in the realm of enhanced cost-beneficial chemical synthesis for various medicinal compounds. It offers a variety of bulk medications and can ship even high-tech bulk pharmaceuticals.

The constitution of India has been in place for 53 years, which has allowed the country to develop a solid legal framework and secure financial markets. The corporate and industrial world on a global scale is now widely understood.

After a long dry spell, the multinational pharmaceutical business in India is seeing some bright new possibilities. The pharmaceutical industry's widespread consolidation has reached India.

With a predicted annual growth rate of 14%, the Indian pharmaceutical business is forecast to increase employment in India in 2014, creating an additional 45,000 job openings. Many bright young people see the pharmaceutical business as a safe haven from the pitfalls of economic downturn and stagnation, and so they set their sights on a future there. This industry also trained a large number of highly qualified professionals in related fields, such as research, science, medicine, and project management.

With a predicted annual growth rate of 14%, the Indian pharmaceutical business is forecast to increase employment in India in 2014, creating an additional 45,000 job openings. Many bright young people see the pharmaceutical business as a safe haven in times of economic uncertainty because of its historical record of constant growth and lack of downturns. Expert researchers, scientists, medics, and project managers all came from this industry.

Despite widespread disapproval from multinational corporations and media outlets around the world, the Indian pharmaceutical sector has made significant technical advancements in recent years. Indian firms didn't invest as much money in R&D as they would have wanted due to low profit margins in the industry, but Indian scientists made some of the top breakthroughs in the medical area. The increasing number of patent applications from India is indicative of this trend, with the Council of Scientific and Industrial Research (CSIR) and the Indian Institutes of Technology (IITs) accounting for a disproportionate share. The national apex organisation, the Council for Scientific and Industrial Research, made a notable move when it strongly encouraged its experts to seek patents in addition to publishing research publications. This shift in strategy, according to the CSIR director-general, has given Indian scientists a leg up on their competitors elsewhere (Jolly, 2001). As the hearing on the proposed new patent legislation approached, those in favour of the product-patent regime were able to highlight the dramatic uptick in patent applications filed after 1995, when foreign investment in India began to expand.

The low standard of quality in the Indian pharmaceutical business is well known. This low pricing environment is sustained by the remarkably low cost of manufacturing. The availability of inexpensive labour and a large pool of qualified scientists has drastically reduced the cost of development in India. The vast majority of India's population lives in the middle and lower middle classes, making it difficult to provide them with access

to affordable pharmaceuticals and cutting-edge medical treatment. Many more Indians can afford to take care of their health thanks to the pharmaceutical industry in the country.

Since Indian medicine is known to be both inexpensive and effective, the industry has been able to export its wares to many different countries. The country has become a low-cost industrial hub thanks to its large domestic market and its abundance of qualified workers who command low wages.

## 1.2 OVERVIEW OF RETAIL INDUSTRY

#### 1.2.1 GLOBAL RETAIL INDUSTRY

Throughout the second half of the twentieth century, supermarkets became the preeminent form of grocery retail in both Europe and North America. It's not hard to figure out why supermarkets have become so successful in the food retail industry. Supermarkets emerged as a result of the growing need for food shopping and eating convenience, as well as the rise in automobile ownership. Supermarkets were able to diversify their product lines as consumer disposable incomes climbed and people sought out more convenient options as well as novel flavours and mental stimulation. The development of the bar code made it possible for a store to keep track of thousands of products and their prices, which ultimately led to 'just-in-time' stock replenishment and the potential to stock tens of thousands of unique products. Electronic warehouse management systems and computer-controlled distribution centres synchronised stock levels with customer demand. A superstore appeared.

In the previous ten years, there have been few constants on the international retail scene. The fact that Wal-Mart was recognised as the best store in the world back then and still is today is one of the few commonalities between the two eras. There is not much about the current climate that resembles the mid-1990s, save for the dominance of Wal-Mart. There have been significant shifts in the global economy, consumer preferences, and retail operating systems over the past six years.

Due to oversaturation in domestic markets, intense rivalry, and limiting legislation, big food retailers have been ruthlessly forced into the globalisation mode. A lot of governments have opened their economies to free markets and outside investment since

the mid-1990s, which is great news for many stores. However, a more immediate worry has been the worldwide economic slowdown due to massive cuts in IT and other capital spending by corporations. Shoppers, especially in developed nations, have become increasingly price-conscious and frugal.

Due to oversaturation in domestic markets, intense rivalry, and limiting legislation, big food retailers have been ruthlessly forced into the globalisation mode. Many countries have liberalised their economy since the mid-1990s, welcoming the free trade and international investment that has benefited many stores. However, a more immediate worry has been the worldwide economic slowdown due to massive cuts in IT and other capital spending by corporations. The average consumer, especially in developed nations, is now considerably more price-conscious and budget-conscious.

From a pragmatic standpoint, working professionals have voiced their viewpoint that deflation, lack of pricing power, global over-capacity, cheap borrowing rates, economic stagnation, a drop in worldwide tourism, and a drop in consumer confidence are retailers' primary concerns in 2003. However, technology innovations were already ingrained in retail institutions long before the global economic slump compelled merchants to track expenses more effectively. In the last six years, technology has emerged as the true enabler for the retail industry. Retailers' supply chain innovations began to flourish in the second half of the 1990s and have persisted to the present day. Despite the hype around automation and reduced prices, many stores' primary focus remains demand-driven: expanding into international markets. More than half (53%) of the top 200 retailers only sold their wares in one country as recently as four years ago. The percentage of those who trade with only one country has dropped to 44% in recent years. In the years to come, this tendency towards globalisation is likely to accelerate. Sales growth and higher economies of scale offer too many advantages to be disregarded.

## 1.2.2 INDIAN RETAIL INDUSTRY

With the advent of so many new competitors, the Indian retail business has become one of the most exciting and rapid-fire in the world. Over 10% of GDP and 8% of total employment can be attributed to this sector. Regarding retail tourism, India ranks fifth worldwide. United Nations Conference on Trade and Development 2019 Business-to-

Consumer (B2C) E-commerce Index rated India at #73. According to the World Bank's Doing Business 2020 report, India is the 63rd best place to set up shop internationally.

Indian retail will expand rapidly thanks to the country's sizable middle class and relatively untapped retail sector, both of which attract multinational retail giants looking to expand into emerging countries. Branded products in the areas of clothing, cosmetics, footwear, watches, beverages, food, and jewellery are becoming increasingly popular among urban Indian consumers as their disposable income rises. According to a recent study by the Boston Consulting Group, India's retail sector will be worth a staggering US\$ 2 trillion by 2032. (BCG).

If you're looking for a place to go shopping, India is the sixth most popular country in the world. India was placed number sixteen on the Foreign Direct Investment Confidence Index.

## 1.2.3 MARKET SIZE

During the period between 2019 and 2030, Kearney Research predicts that the retail sector in India would expand at a CAGR of 9%, from a value of \$779 billion in 2019 to \$1,407 billion in 2026 and more than \$1.8 trillion in 2030. In FY20, brick and mortar (B&M) businesses in India are projected to see a revenue growth of Rs. 10,000-12,000 crore (US\$ 1.39-2.77 billion). It is projected that by the end of 2021, the direct selling sector in India will be worth \$2.14 billion. Despite the pandemic, online shopping has continued to thrive, and a new estimate predicts that by 2026, the online retail business in India would be worth US\$120-140 billion, an increase of 25-30% annually. India's consumer market is still strong despite facing unprecedented difficulties. In 2021, personal consumption was estimated to be between Rs. 130 and Rs. 140 trillion (US\$ 1.63 and US\$ 1.75 trillion), driven by rising prosperity, improved access, greater understanding, and more optimistic perspectives. The number of online shoppers in India ranks third worldwide (only behind China, the US). By 2030, it's projected that the modern logistics powerhouses would have delivered 2.5 billion D2C shipments directly to consumers. The percentage of used-car purchases made online is projected to increase by a factor of 9 during the next decade.

\*CAGR 9% 1884 267 124 1407 186 89 779 705 102 87 38 883 1,119 449 2019 2020 2026F 2030F Food & Grocery Lifestyle Electronics Others

Figure 6: Market Size of India Retail Industry

Source: Ibef.org

#### 1.2.4 ROAD AHEAD

As a result of the COVID-19 epidemic, shoppers' tastes, routines, and mindsets have shifted during the previous two years. This significantly affects how people make purchases and use resources. Today's innovative retail companies around the world employ cutting-edge business techniques to seize emerging sales prospects. No longer do customers differentiate between in-store and online purchases. As a result, prominent corporations are exploring various approaches to designing omnichannel shopping experiences. Retailers are experimenting with revenue models to enhance their consumer value offer, and they are doing so by utilising both well-established e-commerce platforms and traditional tactics.

The country's e-commerce market is growing consistently. Increasing product variety at ever-decreasing prices is what customers enjoy most these days. It's safe to say that e-commerce will continue to be a game-changer in the retail sector in the next years. To reach more customers in tier II and tier III cities with a smaller real estate investment, retailers should take advantage of digital retail channels (E-commerce). Due to the growth of the middle class in India, the online retail sector is expected to

more than double from its current value of US\$ 55 billion in 2021 to US\$ 350 billion in 2030. By 2024, the proportion of purchases made on the Internet is projected to rise from the current 4.7% to 10.7%. Rising incomes, favourable demographics, the arrival of international firms, and expanding urbanisation all bode well for the industry's long-term prospects.

## 1.3 CONCEPT OF PROFITABILITY

Earning money is a company's primary goal. A business can be thought of as any endeavour pursued for financial gain. Accordingly, making money is central to any business, as implied by the term's very meaning. One way to evaluate a company's effectiveness is by looking at how much money it makes. It's the litmus test for how well the company is doing overall. A company's bottom line is the central tenet around which everything else revolves. Every company needs to be able to turn a profit in order to stay in business. If the company can't turn a profit, its assets will eventually be depleted. The company's very survival is in stake if the current situation persists. Simply said, a company cannot survive without earnings. A company has no future if its operations are not profitable. Employees, as well as customers, benefit from a successful business because of the opportunity for advancement and increased job security it provides.

There is a distinction to be made between profit and profitability. Revenue minus expenses equals profit, while profitability describes a company's potential to turn a profit. The success of a company's operations can be evaluated by a study of its profit margins. Additionally, it is used to evaluate the relative effectiveness of various organisations. Examining a company's bottom line might shed light on how well its various processes were managed. Investors can benefit greatly from this kind of examination while making investments.

Profitability can be broken down into its component parts, profit and ability. Earnings are defined as cash inflows less outgoings. Ability can be defined as a company's potential to generate a profit. An organization's potential indicates its potential for profit and its efficacy as a business.

So, the ability to make a profit is a measure of how well an instrument generates a return on investment. Profitability, per Weston and Brigham, is the sum of a company's wise choices.

So, there is a distinction between profit and profitability. Return on assets, rather than monetary gains, is the standard by which profitability is assessed. When evaluating a business' profitability, it is important to consider how much output a given quantity of assets can generate.

Percentages and other ratios are frequently used to illustrate profitability. However, Profitability and Efficiency are not synonymous. Efficiency is measured in more ways than just profit. Although profits are a good indicator of efficiency, a profitable business could nonetheless be inefficient, and vice versa.

Since profit is an absolute number, it cannot be used to gauge whether or not the company is generating sufficient revenue or making progress towards its efficiency goals. Profit figures do not provide a reliable basis for comparing businesses over time or between industries. The profitability numbers will assist you answer such a situation quickly. Ratios and percentages are handy tools for comparing two or more companies across time, or analysing trends. Profitability ratios are one type of such metric. That's why it makes sense to think of profits as a relative phrase that can help you compare businesses or gauge the strength of a correlation with other factors.

# 1.4 COMPANY PROFILE

## 1. Abbott India Ltd

Abbott India Ltd. is a major player in the Indian pharmaceutical market, producing both in-house and through a network of third-party contract manufacturers and facilities located around the country. The majority of the Company's product sales occur in India, where they are distributed by third-party vendors. It caters to a wide range of therapeutic areas, including Women's Health, with its extensive product catalogue and suite of solutions. Gastroenterology Chemistry of the Central Nervous System Medicines for Multiple Illnesses, Vaccines for the General Public, etc. Products like Brufen, Prothiaden, Thyronorm, and Leptos are sold all over the world. We're split up into four departments. Products related to gastroenterology and pain treatment are promoted by

Primary Care. Treatment options for thyroid disease, excess body fat, diabetes, and BPH can be found at the Specialty Care-Methabolics and Urology department. The Specialty Care-Neuroscience business unit offers a wide selection of specialised pharmaceuticals for both the neurological and mental health markets. Products like Forane Sevorane and Survanta are available from Hospital Care, all of which are used in the anesthesiology and neonatology fields. On August 22, 1944, what is now known as Abbott India Ltd. was formally incorporated as Boots Pure Drug Company (India) Ltd. On November 1st, 1971, the business changed its name to The Boots Company (India) Ltd; on January 1st, 1991, it changed its name again, this time to Boots Pharmaceuticals Ltd. On October 31, 1995, the company changed its name to Knoll Pharmaceuticals Ltd. On July 1, 2002, it adopted its current name, Abbott India Ltd. In 2002, the business sold its Jejuri Undertakings, together with all of its assets and liabilities. Lenbrook Pharmaceuticals Ltd, a wholly owned subsidiary, was merged with the parent business in 2003. Production of capsules at the company's 27 million capsules per year facility began in 2004. The capacity was raised to 56,000,000 in 2005. They also launched a new initiative to manufacture nutritional products with an installed capacity of 600 tonnes per year. The company's Tablet production capacity grew by 236 million units in 2006, to a total of 686 million units. The number of Tablets that can be manufactured was raised by 769 million in 2008, bringing the total to 1455 million. They released Brugel, a new formulation for sprains and strains, and Digene Total, a buffered tablet of pantoprazole for fast and persistent antacid action. There was also the introduction of Thyronorm 150 Digene Sugar Free Tablet and Gel. In a meeting on July 9, 2008, the Buy-Back Committee of Abbott India's Board of Directors voted to repurchase 7,97,500 fully paid-up equity shares of the firm through a tender offer at a price of Rs 630 per share. In separate meetings on November 24, 2010, the boards of directors for both Abbott India Ltd. and Solvay Pharma India Ltd. accepted the draught proposal to merge the two companies in accordance with sections 391 to 394 of the Companies Act 1956.

## 2. Alkem Laboratories Ltd

Main office located in Mumbai, India The Indian pharmaceutical giant Alkem Laboratories Limited has international reach as a subsidiary of a larger conglomerate. The business's primary activities include research and development, manufacturing, and retail distribution of pharmaceutical and nutraceutical goods. The firm

manufactures and sells generic versions of brand-name pharmaceuticals, active pharmaceutical ingredients (APIs), and nutraceuticals in the Indian and international markets. Alkem, with more than 800 brands in its portfolio, is the fifth largest pharmaceutical firm in India. Although the United States is the company's primary market, its foreign footprint extends to more than 40 countries. On August 8, 1973, Alkem Laboratories Ltd was founded as a private limited company in Patna, India, under the Companies Act 1956. On October 26, 1988, the firm was deemed to be a public limited company in accordance with section 43A(2) of the Companies Act 1956. The Company changed its name to "Alkem Laboratories Limited" on October 26, 1988, after passing a resolution under section 21 of the Companies Act 1956 and receiving a new certificate of incorporation on August 21, 2001. Established in 1978, the Taloja Maharashtra factory was the company's first of its kind. The company first opened its factory in Mandwa, Maharashtra, in 1992; by 2005, it had expanded to include an API facility. The firm established an R&D facility in Taloja, Maharashtra, to work on ANDA development in 2003. The company's anti-infective medicine, Taxim, achieved a first for the Indian pharmaceutical industry in 2006 by surpassing Rs 100 crore in domestic sales. Company X submitted their first Amlodipine ANDA to the FDA in 2007. The first ANDA approval for Amlodipine in the United States was granted to the business that year. During the year, the firm also bought Pharmacor Pty Ltd., an Australian generic pharmaceuticals manufacturer. In 2010, Alkem Laboratories bought the US generic marketing firm Ascend Laboratories. The Indian biosimilars developer Enzene was bought by the business in 2011. On February 7th, 2017, Alkem Laboratories announced that it had formed a partnership with Haw Par India Pvt Ltd., a wholly owned subsidiary of Haw Par Healthcare Ltd., Singapore, to promote, sell, and distribute the Tiger Balm brand solely in India. Over-the-counter (OTC) product sales for Tiger Balm will be handled by Alkem Healthcare. The Tiger Balm product line is well-known around the world as an effective treatment for a variety of aches and pains, including those caused by muscle strains, sprains, and rheumatoid arthritis. For than a century already, millions of people in over a hundred different nations have put their faith in its special formula of herbs, which originates from ancient China. On March 29, 2017, Alkem Laboratories announced that the USFDA has issued an Establishment Inspection Report (EIR) for its Ankaleshwar API facility, which had been examined in December 2016. The US Food and Drug Administration has finished their examination and declared the facility to be in compliance. On December 5-9, 2016, the USFDA conducted an inspection at the Ankaleshwar API production facility, issuing a Form 483 with three observations. After this, the corporation promptly submitted a CAPA to the authorities outlining its intentions to fix the problem in the future. The US Food and Drug Administration has approved the CAPA.

## 3. Aurobindo Pharma Ltd

On December 26, 1986, the private limited firm Aurobindo Pharma Limited (APL) was established as one of the top five producers of semi synthetic penicillins around the world. It was started by Mr. P.V.Ramaprasad Reddy, Mr. K.Nityananda Reddy, and a small but dedicated team of professionals. Manufacturing and distribution of APIs, intermediates, and generic formulations are all part of APL's business plan. Aurobindo's extensive product line covers 6 main categories (antibiotics, anti-retrovirals, central nervous system, GI, and allergic), with 65 active pharmaceutical ingredients (APIs) in the non-antibiotic segment and over 55 APIs in the antibiotic category. With 9 highly equipped research and development centres and 24 manufacturing sites spread around the globe that all adhere to Good Manufacturing Practice and ISO standards, APL is up and running. Aurobindo Pharma has located foreign branches serving more than 150 nations. In order to develop a comprehensive product range for the regulated markets, the Company has sped up its DMF/ANDA submissions schedule. The Company has submitted 337 DMFs (Drug Master Files), including 110 with the US FDA, 133 in Europe (including the EDQM), and 102 in other countries. This is a very high filing. The company began producing semi synthetic penicillins (SSPs) in 1988–1989 at its single unit in Pondicherry and became public in 1992. Another firm, Chaitanya Organics Pvt. Ltd., established a factory in 1992 to produce CMIC Chloride, a bulk medication intermediate, in Pashamylaram, located close to Hyderabad. It eventually amalgamated with the corporation in the late '90s. In April of 1994, production of the pharmaceutical formulation unit began in a commercial capacity. In 1995, Aurobindo Pharma went public by offering its stock on several stock markets around the country. In 1997, the company formed a partnership with Glaxo (India), the Indian branch of the UK-based multinational, to supply its global demand for bulk drugs. The company began marketing paediatric formulations such auronim suspension in 1998. In 1999-2000, the firm expanded its product line by introducing a variety of Cephalosporins (Oral & Sterile), anti-virals, macrolides, antiulcerants, quinolones, semi-synthetic penicillins, and formulations for the domestic and international markets. In 2000, APL invested \$1,000,000 into Joint Ventures for its US formulations business.

## 4. Cipla Ltd

Cipla Ltd. is a major pharmaceutical firm in India. New drug formulations are the company's main focus, and they offer a large selection of pharmaceuticals. More than fifteen hundred medicines covering numerous therapeutic areas are available. In 1935, Chemical Industrial & Pharmaceutical Laboratories Ltd. (Cipla Ltd) was established. The creator of Cipla, Khwaja Abdul Hamied, did not receive any compensation from the company for the transfer of his patents and proprietary formulations for many pharmaceuticals and medicines. Cipla was established on August 17, 1935, as a public limited company with an authorised capital of Rs 6 lakh. As demand for medicines decreases during World War II, the firm begins manufacturing fine chemicals in 1941, devoting its resources to the war effort. With the goal of becoming technologically independent, the firm established its first research section in 1952. The company's second plant, located in Vikhroli, Mumbai, began producing fine chemicals, with a concentration on natural products, in 1960. As of 1968, ampicillin has never before been produced in the United States. In 1972, the firm established a branch in Bangalore dedicated to the scientific cultivation of medicinal plants. Medicinal aerosols for asthma were first introduced in 1976. The company was honoured with the Chemexcil Award for Export Excellence in 1980. The company's fourth factory, located in Patalganga, Maharashtra, began producing goods there in 1982. They worked with the National Chemical Laboratory Pune in 1984 to create the anti-cancer medicines vinblastine and vincristine. In addition, they got the Sir P C Ray Award for creating in-house technology that allows for the local production of several essential medications. The company's drug manufacturing facilities received US FDA approval in 1985 for producing drugs in bulk. They were awarded the National Award for Successful Commercialization of Publicly Funded R&D in 1988. Together with the Indian Institute of Chemical Technology, the business released etoposide, a significant advancement in cancer chemotherapy, in 1991. Zidovudine, an antiviral medication, was produced with the technological assistance of the Indian Institute of Chemical Technology in Hyderabad. In 1994, business operations began in the company's fifth factory, located in Kurkumbh, Maharashtra. The first dry powder inhaler, the see-through Rotahaler, was released in 1997. The drug lamivudine was first made available to the public in

1998. As a result, they join an elite group of pharmaceutical companies that provide all three medications necessary for retroviral combination therapy. When it comes to stopping the spread of HIV from mother to child, the antiretroviral medicine Nevirapine has been the gold standard since its 1999 introduction. CFC-free inhalers were first introduced by the corporation in the year 2000, a full decade before the deadline to eliminate CFCs from pharmaceuticals. In 2002, the business established four cuttingedge production centres in the Indian state of Goa. The innovative inhaled long-acting anticholinergic bronchodilator TIOVA (Tiotropium bromide) was introduced in 2003 for use as a once-daily maintenance treatment for patients with chronic obstructive pulmonary disease (COPD). In addition, they started up the second stage of production in Goa. In 2005, the company established a cutting-edge facility in Baddi, Himachal Pradesh, to produce various formulations. A cutting-edge plant for producing pharmaceutical formulations was established in Sikkim in 2007. A new anti-malarial combination medicine was developed and will be supplied to the world's poor through a partnership between the corporation and the worldwide non-profit Drugs for Neglected Diseases Initiative (DNDi) that was established in February 2007. For a total of Rs 95 crore, the business transferred the rights to manufacture and sell their emergency contraception brand, i-pill, to Piramal Healthcare Ltd in India during the 2009-10 fiscal year. Furthermore, they formed a strategic partnership with Stempeutics Research Pvt. Ltd., a company backed by the Manipal Group, in order to secure exclusive rights to market Stempeutics's stem cell-based products. Cipla will provide up to Rs.50 crore in seed funding for early-stage R&D of these drugs. During the month of April 2010, the company's Special Economic Zone (SEZ) project in Indore, Madhya Pradesh, began commercial manufacturing of pharmaceutical formulations.

## 5. Divis Laboratories Ltd

In the pharmaceutical industry, Divi's Laboratories Ltd. is among the top producers of APIs, intermediates, and nutraceuticals. With two manufacturing facilities and a global customer base of 100 countries, the Company is a major player in the API industry. Specifically, it produces APIs, intermediates, and nutraceutical components, the vast majority of which are shipped abroad. In addition to its generics division, the Company also operates a custom synthesis business, which it uses to assist innovator pharmaceutical firms with the production of gramme scale quantities of their patented products, beginning with clinical trial quantities and continuing through launch and late

life cycle management. It has a portfolio of almost 160 medications covering a wide range of therapeutic areas, making it one of India's major pharmaceutical businesses. At the moment, it has a global market presence and six operational factories. For the purpose of expanding the availability of the business's Nutra products to clients in the United States and Europe, M/s. Divis Laboratories (USA) Inc. and M/s. Divi's Laboratories Europe AG were established as wholly owned subsidiaries of the parent company. Both in Sanathnagar, Hyderabad, and at the factories itself, the firm maintains research and development facilities. Custom synthesis contract research for MNC firms, as well as future generics, are the main activities of the Sanathnagar Research Centre. This includes activities such as route design, route selection, building a gram-scale process, and structural confirmation. Formed in 1990 as Divis Research Center (DRC), Divis Laboratories Ltd has always placed a premium on R&D. In 1991-1993, the business created various commercial procedures for intermediates and bulk actives, which it offers to key manufacturers. To better represent their expanding business in 1994, they rebranded as Divis Laboratories Ltd. Choutuppal (Unit I) was opened as a production facility by the corporation in 1995, and it is located not far from Hyderabad. U.K.-based certification body SGS-Yarsley awarded our firm ISO-9002 compliance status in 1997. A "Certificate of Suitability" (CoS) for the company's Naproxen was issued by the European Directorate in 1999. The business was awarded OHSAS-18001 status by BVQI, a London-based certification body, for its health and safety management procedures in 2001. The company's second factory (Unit II), located in Chippada, a suburb of Visakhapatnam, began construction that same year. In 2003, they established the DRC-Vizag to conduct primary research in a few carefully chosen subsets of the corporate world.

## 6. Dr Reddys Laboratories Ltd

Dr. Reddy's Laboratories, Ltd. (DRL) is a multinational pharmaceutical corporation with a mission to improve human health via the discovery, development, and commercialization of novel therapeutics at accessible prices. Dr. Reddy's provides a variety of products and services, such as Active Pharmaceutical Ingredients (APIs), custom pharmaceutical services, generics, biosimilars, and differentiated formulations, through its three divisions: Pharmaceutical Services &Active Ingredients, Global Generics, and Proprietary Products. The fields of gastroenterology, cardiovascular health, diabetes, oncology, pain management, and dermatology are the company's

primary therapeutic focuses. Dr. Reddy's is present in a wide variety of international markets. Europe, the United States of America, India, and the Commonwealth of Independent States (CIS) are some of its most important markets. In 1984, Dr. Reddy's Laboratories was founded in Hyderabad, India. Dr. Anji Reddy invested Rs 25 lakh in the startup of his company. The company got its start producing API in a 60-tonne facility close to Hyderabad, India, and its first product was a single medication. In 1986, the company's stock began trading on the Bombay Stock Exchange. Methyldopa exports helped them break into the global market. A first USFDA approval for Ibuprofen API was received in 1987. To further develop their Bulk Actives division, in 1988 they purchased Benzex Laboratories Pvt Ltd. In 1990, the company began sending shipments of ciprofloxacin and norfloxacin to countries in Europe and Asia. Exports of pharmaceuticals to Russia first started in 1991. The company began its medication research programme and the Dr. Reddy's Research Foundation in 1993. The doses plant, designed to serve countries with strict regulations like the United States, was completed in 1994. The company first began operating in Russia as a joint venture in 1995. It wasn't until 1997 that the first ANDA for ranitidine was submitted to the FDA in the United States. The Indian pharmaceutical company American Remedies Ltd was bought by the firm in 1999. In 2000, the company amalgamated with another member of its group, Cheminor Drugs Ltd, becoming the third largest pharmaceutical firm in India. In 2001, the business began selling Fluoxetine in capsule form. It was the first time an Indian business has been granted US market exclusivity for a generic medication for 180 days. Plus, they introduced Ranitidine, their first generic medicine, to the American public. The first international purchases were undertaken in 2002, when BMS Laboratories Limited and Meridian Healthcare in the United Kingdom were purchased by the corporation. The first generic drug sold under the Dr. Reddy's brand name was Ibuprofen, released in 2003. They purchased Roche's API Business, which was based in Mexico, in 2005. The company spent Rs 480 million in 2006 to purchase Betapharm, the fourth largest generics manufacturer in Germany. Reditux, the first biosimilar monoclonal antibody (MAb), was introduced in 2007 by the business for the treatment of Non-Hodgkins lymphoma. Along the way, they grew into India's most successful pharmaceutical company. In 2008-2009, the firm purchased the small molecules division of DowPharma, operating as Chirotech Technology Ltd, the Shreveport, Louisiana, manufacturing facility of BASF Corporation, operating as Dr. Reddy's Laboratories, Louisiana, LLC, and the Italian firm Jet Generici SRL, which

sells generic finished dosages. Additional subsidiaries include Perlecan Pharma Pvt. Ltd., Macred India Pvt. Ltd., and Dr. Reddy's Laboratories ILAC Ticaret. In the fiscal year 2009–10, Dr. Reddy's Pharmaceuticals Limited merged with Perlecan Pharmaceuticals Private Limited, creating Dr. Reddy's Pharma SEZ Ltd as a whollyowned subsidiary for the purpose of formula manufacture in a Special Economic Zone. The remaining 30% of Dr. Reddy's (Australia) Pty Ltd. was purchased by the firm as well.

## 7. Lupin Ltd

Lupin is a leading worldwide pharmaceutical company that develops, manufactures, and distributes APIs, biotechnology products, and branded and generic formulations. The company is an industry leader in tuberculosis treatment and cephalosporins, as well as a major player in cardiovascular disease, diabetes, asthma, paediatric CNS, GI, antiinfective, and NSAID therapy. Lupin Chemicals Ltd. was founded in 1983 and later changed its name to Lupin Ltd. The Cephalexin Plant in Mandideep and the 7 ADCA Plant in Ankleshwar both went into operation for the firm in 1987. In 1989, the firm joined forces with a Thai company to become Lupin Chemicals (Thailand) Ltd. Mandideep has been producing injectable cephalosporin since 1991. The company's Fermentation Plant at Tarapur, Maharashtra, was established in 1992. In addition, at Mandideep, a Sterile Plant for Bulk Injectable Cephalosporins was activated. After merging with Lupin Laboratories Ltd in 2001, the company became known simply as Lupin Ltd. Cephalosporin bulk actives have been shipped to their American alliance partners. On top of that, they ordered a brand new bulk active plant to produce oral cephalosporins, which has already been approved by the FDA in the United States. The business opened its new Anti-TB facility in Aurangabad in 2002. In 2003, they established Lupin Pharmaceuticals Inc. USA to handle business, marketing, and research and development in the United States. The firm established a new location in Jammu in 2006. In 2007, the firm bought Rubamin Laboratories Ltd., a company situated in Vadodara. They also bought Kyowa Pharmaceutical Industry Company Limited, a major Japanese generic pharmaceuticals manufacturer. Following completion of its dosage plant in Jammu, they launched full-scale commercial manufacturing. A new final dosage facility was also established in Indore. The company gained permission for 10 new goods in the Japan-Kyowa market from the Ministry of Health and Labour Welfare in 2008-09.

#### 8. Sun Pharmaceutical Industries Ltd

When its affiliates and subsidiaries are counted in, Sun Pharmaceutical Industries Limited (Sun Pharma) is the largest generic pharmaceutical company in India and the eighth largest in the United States. It is one of the most successful Indian pharmaceutical corporations operating in developing economies and the largest Indian pharmaceutical company in the United States. The company produces and sells pharmaceutical formulations for a variety of chronic and acute treatments. Antiretroviral drugs (ARVs), over-the-counter medicines (OTCs), pharmaceutical ingredients (APIs), and intermediates are all included. In addition to tablets, capsules, injectables, inhalers, ointments, creams, and liquids, the product portfolio of approximately 2000 high quality compounds also includes a wide variety of other dosage forms. In 2022, the firm signed licence and supply agreements with Cassiopea SpA to distribute Winlevi (clascoterone cream 1%). Winlevi, an unique pharmacological mechanism for the topical treatment of acne in patients aged 12 and above, was approved by the US Food and Drug Administration (USFDA) in August-2020. Two critical Phase 3 clinical trials of Winlevi for the topical treatment of acne vulgaris were presented by Sun Pharma in March 2022, reinforcing the drug's clinical profile. The Abbreviated New Drug Application (ANDA) for Amphotericin B Liposome for injection 50 mg/vial single-dose vial was approved by the US Food and Drug Administration (FDA) in 2022. A generic version of Revlimid (lenalidomide capsules) in the United States was agreed upon in June 2021 by Sun Pharma and Celgene Corporation, a wholly-owned subsidiary of Bristol Myers Squibb. CARITEC is a novel obstetric medicine for the prevention of postpartum haemorrhage, and in June 2021, Sun Pharma and Ferring Pharmaceuticals signed a licence agreement to comarket the treatment (PPH). Sun Pharma's innovative new Chericof 12 cough syrup hit the shelves in India in September 2021.

## 9. Torrent Pharmaceuticals Ltd

The Torrent Group's flagship company, Torrent Pharmaceuticals Limited, is a major player in the Indian and international pharmaceutical markets. The company has a strong foothold in the Indian market for therapeutics targeting the cardiovascular system, the central nervous system, the digestive system, and the treatment of diabetes. It operates in regulated and emerging markets, including the United States, Europe,

Brazil, and the rest of the world, giving it a significant international footprint in more than 40 nations. The company's 12 wholly-owned subsidiaries serve as its bases of operations in nations like the United States, Germany, and Brazil. Apart from this, it has a US \$40 million state-of-the-art research and development centre in Bhat, close to Ahmedabad. Originally called Trinity Laboratories, Torrent Pharmaceuticals Limited was established in 1959 by the late Shri U. N. Mehta. When Trinity went public again, on July 15, 1972, it was under the name Torrent Pharmaceuticals Limited, having previously been known as Trinity. The Company has 15 subsidiaries as of the end of the fiscal year in 2020, and three of them are "step down" subsidiaries. The Torrent Pharma (UK) Limited subsidiary Aptil Pharma Limited. As of the 15th of October 2019, Aptil's UK operations were amalgamated with those of Torrent Pharma (UK) Limited, as the former company had formally dissolved. In 2021, the company released Dapagliflozin and Rivaroxaban for cardiovascular therapy and Brivaracetam for CNS treatment. Treatment for pain and inflammation using Obeticholic Acid in the gastrointestinal system and NDDS Tapentadol Nasal Spray. The Company has 14 subsidiaries as of March 31, 2021; two of these are "step down" subsidiaries. As of March 16, 2021, Torrent Pharma GmbH's wholly-owned subsidiary Norispharm GmbH was dissolved. In 2022, the company signed a non-exclusive licence to produce and sell a generic version of PAXLOVID, as well as voluntary licences to produce and sell Baricitinib and Molnupiravir. There were four new offerings in 2021–2022. On March 31st, 2022, the Company had a total of 14 subsidiaries, three of which were "step down" subsidiaries. On August 17, 2021, the Company and its subsidiary TPL (Malta) Limited incorporated in Malta; TPL (Malta) Limited is a wholly owned subsidiary of the Company; and Torrent Pharma (Malta) Limited is a completely owned subsidiary of TPL (Malta) Limited. In addition, the Company's wholly-owned subsidiaries in Romania, Torrent Pharma SRL, and France, Torrent Pharma France S.A.S., were liquidated as of the 11th and 13th of January, 2022.

## 10. Zydus Lifesciences Ltd

One of the top innovation-driven pharmaceutical companies in India, Zydus Lifesciences Ltd. (previously known as Cadila Healthcare Ltd.), manufactures, markets, and sells finished dosage human formulations (generics, branded generics, and specialty formulations, including biosimilars and vaccines), active pharmaceutical ingredients (APIs), animal healthcare products, and cosmetics. The company has

production sites in the Indian states of Gujarat (Ahmedabad, Ankleshwar, and Vadodara), Goa (Ponda), Maharashtra (Raigad), and Himachal Pradesh (Solan). The company was established in May 1995 and changed its status to a public limited company in July 1996. Its founder was the late promoter Mr. Ramanbhai B. Patel. Pharmaceuticals, including human formulations, veterinary formulations, bulk drugs, diagnostics, herbal goods, skin care products, and over-the-counter products are among the company's operations. As a result, the sale and disposal of the Undertaking was completed on July 14, 2021. In the year 2022, Zydus Animal Health and Investments Limited (ZAHL), a wholly owned subsidiary of the Company, sold its Animal Healthcare Established Markets Undertaking to Zenex Animal Health India Private Limited (Purchaser) through a slump sale for a lump sum consideration of Rs. 29210 million. A chemical with the brand name "Oxemia" was introduced in India in March 2022. It introduced Trastuzumab Emtansine, the first biosimilar of Kadcyla's antibody drug conjugate (ADC), in India. This medicine is extremely effective for treating both early and advanced HER2 positive breast cancer. The USFDA gave it a provisional approval for a New Drug Application (NDA) for tablets containing sitagliptin base. For the acquisition of NULIBRY (Fosdenopterin) for Injection to lower the risk of mortality in patients with molybdenum cofactor deficiency (MoCD) Type A, an extremely rare and serious paediatric genetic condition, Sentynl and BridgeBio Pharma agreed into an asset purchase agreement in 2022.

## 11. Aditya Birla Fashion & Retail Ltd

In May of 2015, the branded apparel businesses of the Aditya Birla Group, including the Madura Fashion division of Aditya Birla Nuvo Ltd. (ABNL) and ABNL's subsidiaries Pantaloons Fashion & Retail Limited (PFRL) and Madura Garments Lifestyle Retail Company Limited (MGLRCL), were consolidated into a new company called Aditya Birla Fashion and Retail Ltd. (ABFRL), formerly known as Pantaloons Fashion & Retail Limited. Following the company's consolidation in 2015, PFRL changed its name to Aditya Birla Fashion and Retail Limited on January 12, 2016. When it comes to the fashion and lifestyle industries in India, ABFRL is unrivalled. It is home to the largest fashion retail network in India, with over 8000 stores spread throughout more than 900 cities and towns, not counting the more than 28585 EBOs and 3468 value stores that make up the network. The Company has the most impressive collection of premier fashion brands and retail formats of any pure-play fashion and

leisure company. It currently operates a retail chain selling branded clothing and accessories as well as manufacturing those items. The Company formed a collaboration with Shantanu & Nikhil for special occasion attire and purchased the Jaypore brand in FY 2020. The Company's 2021 fiscal year was highlighted by the addition of two of India's most renowned fashion designers, Sabyasachi Mukherjee and Tarun Tahiliani, as strategic partners. Marigold Lane, a premium women's ethnic fashion brand, and Tasva, a premium men's ethnic wear brand, will be the Company's two new organic forays in FY 2022. A 52.4% interest in "House of Masaba Lifestyle Private Limited" was purchased by the company. It made an effort to broaden its product offering by expanding its men's clothing selection in addition to its women's. By introducing new products across departments, from menswear to womenswear to childrenswear to its already robust online store, Pantaloons was able to bolster the quality of its private label offerings. TASVA is a new brand that has been introduced.

## 12. Avenue Supermarts Ltd

On May 12, 2000, in Mumbai, Maharashtra, Avenue Supermarkets was established as a Private Limited Company in accordance with the Companies Act 1956 under the name Avenue Supermarts Private Limited. Following the shareholders' vote at the ExtraOrdinary General Meeting to convert the company from private to public status, the name was changed to Avenue Supermarts Limited. After Avenue E-Commerce Limited allotted shares on a preferential basis to Avenue Supermarts (ASL) and other applicants of the offer on March 7, 2018, ASL declared that its shareholding in Avenue E-Commerce Limited had decreased from 100% to 99.66%. At the end of the 2018-2019 fiscal year, there were 176 outlets in operation, thanks to the addition of 21 new locations. There were 176 DMart locations as of March 31, 2019, with a total retail space of 5.9 million square feet. During 2019–2020, Avenue Supermarkets added 38 new locations. Its subsidiary, Avenue E-commerce Limited, expanded by 22 stores and renovated two others to use as distribution centres in fiscal year 2020–21. Company maintained a total of 39 warehouses as of March 31, 2021, in addition to 7 packing facilities. A record 50 new stores were opened by the company in 2021-22, marking a period of unprecedented growth. Over 500 additional zip codes in 9 different cities in Mumbai were accessible thanks to this expansion. Urbanized Area Pune To wit: Bangalore and Hyderabad Ahmedabad We visited Surat, Vadodara, Bhopal, and Indore. The company had 40 distribution centres and 7 packing facilities as of March 31, 2022.

## 13. Bella Casa Fashion & Retail Ltd

Founded on February 5, 1996, Bella Casa Fashion & Retail Limited is a limited liability company. The business produces furniture, home accessories, and both women's and men's traditional clothing. The business uses a wide variety of distribution methods to sell its wares. The company's manufacturing facility in Jaipur is 550000 square feet in size, making it capable of producing 12 million units per annum. Additionally, the company has established third party, which has resulted in the hiring of an additional 1000 people and the expansion of the brand into more than 400 districts. The current capacity of the corporation to manufacture clothing and furniture is approximately 500 crore. At the outset, creative teams take cues for consumer-friendly fashion from celebrity and street style, as well as high-performance sportswear. With the help of cutting-edge computer-aided design (CAD) software, the company's designers may quickly modify a suggested design's silhouette, fabric trimmings, and other aspects, and then quickly and easily communicate those modifications to their partner fabric mills. The company's manufacturing procedure is well organised to guarantee high productivity and product quality. Today, production is shifting from the old manufacturing model to the lean system, in which workers on the assembly line learn to execute a wide range of production tasks and assume responsibility for the quality of the final goods they produce. Since its inception, the Company's mission has been to provide the bedding textiles the hedonistic customer desires in order to realise his or her vision of the perfect bedroom. Products like sheets and comforters are made using the ideal blend of nature, science, and art. At the end of each exciting day, a perfectly made dohar is served. Every Indian woman should check out the western apparel labels carried by 'Bella of the Company,' which sell both online and in physical stores around the country. One of the most popular lines for Indian women, thanks to a hip and adaptable selection of western styles.

## 14. Cantabil Retail India Ltd

Clothing is made and sold by Cantabil Retail India Ltd, a New Delhi-based wholesaler and retailer. The firm's primary focus is on the design, production, branding, and sale of clothing under the Cantabil and La Fanso labels. The company's stores can be found

in shopping centres and other high-traffic areas of Tier I and Tier II cities. There are two types of storefronts used by the corporation, both of which are franchised. The company operates three manufacturing and two finishing plants in Delhi, as well as four storage facilities. Three separate production facilities are being set up by outside companies for use solely by this one. The business outsources its cutting and stitching to one of 73 factories thanks to a series of fabrication partnerships. The company operates two distinct retail outlet networks, one under the Cantabil brand name and the other under the La Fanso brand name, where customers can purchase products from those lines exclusively. The 'Cantabil' provides a full selection of business attire, cocktail attire, casual wear, and ultracasual wear for men, women, and children from the middle class and upwards. The 'La Fanso' label produces ultra-casual and formally styled clothing for men in the lowest to moderate income bracket. In addition to clothing, they also sell a variety of accessories under their label, including ties, belts, socks, caps, and handkerchiefs. On February 9, 1989, the firm now known as Cantabil Retail India Ltd was incorporated in India under the name Kapish Sales Pvt Ltd. At its inception, the company dealt in the distribution of various garment accessories. The establishment of the Sonipat, Haryana garment washing and finishing factory is well underway and is scheduled to open by the end of December 2010. The company wants to establish a sizable integrated manufacturing plant in Bahadurgarh, Haryana, to accommodate its expansion and lessen its reliance on outside fabricators. Before March of 2012, the company hopes to have opened 180 "Cantabil" brand stores.

## 15. Future Enterprises Ltd

A retailer by the name of Pantaloon Retail India Limited (PRIL) was founded in Mumbai, India on October 12, 1987. Fashion, food, general retail, home, leisure and entertainment, financial services, communications, and wellness are just some of the company's many areas of business that it serves via its many delivery mechanisms and the Lifestyle' and Value' formats. Over six million square feet of retail space can be found at the Company's 51 locations across the United States. Its 35 Pantaloons Stores, 5 Central Malls, and other concepts all aim to serve the Lifestyle' market. It operates 78 Big Bazaar supermarkets, 113 Food Bazaars, and various other formats within the Value' retailing sector. In 1991, the company introduced BARE, an Indian denim label. May of 1992 was the IPO's (initial public offering) debut. In 1994, the firm began distributing branded products through multi-brand retail outlets around the country, and

it also opened the Pantaloon Shoppe, an exclusive menswear store in franchisee format, across the country. The company's formal shirt line, John Miller, was introduced to the market in 1995. In 1997, Pantaloons, India's version of a department store, opened in Kolkata. Following the introduction of India's first hypermarket chain in 2001 (Big Bazaar, "Is se sasta aur accha kahi nahin"), a supermarket chain known as Food Bazaar was established in the subsequent year. In 2004, the corporation launched 'Central,' the first continuous shopping mall in Bangalore and all of India. The company's fashionable Fashion Station chain opened in 2005, and in the same year, a little larger' (aLL), a boutique catering specifically to customers with larger busts, was introduced. The company's financial arm, Future Capital Holdings, launched the Kshitij and Horizon real estate funds and the Indivision private equity fund in 2006. In 2006, stores around the country opened in a wide variety of formats, including Collection I Furniture Bazaar, Shoe Factory EZone Depot, and futurebazaar.com. In 2006, on July 31st, the company signed a memorandum of understanding (MOU) with Blue Foods Private Limited to form a 50/50 Joint Venture Company to establish food courts and specialty restaurants across the country. The company began its joint venture with the Indian division of Staples, a US-based office supplies retailer, in January of 2008. In February 2008, Pantaloon gave Wipro Infotech a USD 50 million contract to handle all of their IT needs over the course of five years. In the beginning of 2008, the corporation opened its Big Bazaar flagship hypermarket retail outlet in the city of Barrdhaman. In April of 2008, Pantaloons rolled out its TASHAN Collection, a specialised line of movie goods, to all 40 of its outlets.

## 16. Heads UP Ventures Ltd

Incorporated on February 12, 2011, as Mandhana Retail Ventures Limited, the company later changed its name to The Mandhana Retail Ventures Limited on September 26, 2016. On December 23, 2010, Mandhana Industries Limited (MIL), the Demerged Company, entered into a global exclusive Brand License Agreement with "Being Human - The Salman Khan Foundation" to utilise the trademark and logo of "Being Human" for all garment lines beginning on January 1, 2011. Following Scheme approval, MIL and the Salman Khan Foundation entered into a Termination Agreement for their prior Brand License Agreement on August 24, 2016, and our company entered into a Global Exclusive Trademark License Agreement on the same date to design,

manufacture, retail, and distribute men's and women's apparel and accessories under the "Being Human" trademark until March 31, 2020.

# 17. Shoppers Stop Ltd

Shoppers Stop Limited operates as a department store chain that sells a wide range of consumer goods to the general public. As of the 31st of March, 2019, the company was able to conduct business in 83 of these outlets spread throughout several locations in India. Shoppers Stop Limited (SS), a key player in the Indian retail sector, was founded by K Raheja Corp in 1991 and established as a private limited company on June 16, 1997. The company's first store opened in a Mumbai suburb. Everyone knows Shopper's Stop because of the excellent quality of its goods and services and, most importantly, because it offers customers a convenient one-stop shopping environment. It operates in the Indian cities of Mumbai and Delhi and sells a wide variety of things, including clothing, shoes, fragrances, cosmetics, jewellery, leather goods, home decor, electronics, books, music, and toys. Delhi India Cities: Kolkata, Chennai, Bangalore, and Hyderabad Pune The Indian cities of Jaipur and Gurgaon. In 1991, a store was launched in Andheri, a suburb of Mumbai, selling only men's clothing. In 1992, women's clothing was first made available. The next year, in 1993, the firm expanded to include items for kids and those that aren't clothes. In 2019, the Company expanded its retail footprint by opening two department stores in the cities of Noida and Nasik. With these new additions, the Company now operates a total of 83 stores (five of which are located in airports), 12 HomeStop locations, and 115 beauty-focused stores in a variety of formats.

## 18. Trent Ltd

Trent Ltd. is an Indian retail operations firm that owns and runs a number of different retail chains around the country. The company deals in the retail and wholesale of various goods, including clothing, shoes, accessories, games, and more. It's open for business in the "Westside," "Landmark," "Zudio," and "Utsa" store types. Westside is one of India's largest and fastest-growing retail chains, and the corporation also runs the hypermarket chain Star Bazaar and the family entertainment format shop Landmark. They have a presence in 74 cities with 200 Westside department stores ranging in size from 1600-2400 square feet. The stores on the Westside are stocked with a wide variety of products and services. Among these are shoes, clothing for men, women, and

children, makeup, fragrance, accessories for the home, lingerie, and presents, and furniture, among other things. Coffee shops, spacious interiors, and convenient locations all contribute to a more pleasurable shopping experience for patrons. Trent also runs the hypermarket chain Star Bazaar, which sells a wide variety of things at low costs, including food, drink, health and beauty aids, technology, and home furnishings. In addition to its extensive selection of imported goods, Star Bazaar carries a wide variety of trendy clothing designed in-house for men, women, and children. Trent has been working with Tesco and its Indian wholly-owned subsidiary Star Bazaar as a franchisee and wholesale supplier since 2008. Trent owns 76% of Landmark Ltd, a store chain that caters to families by selling toys, books for adults and teens, products linked to sports, technology accessories, video games, and stationary. Trent's partnership with the Inditex group for Zara outlets is distinct from their other endeavour. Trent's partnership with the British firm Lakeland has resulted in the introduction of an original line of cookware. Currently, there are locations in both Pune and Bengaluru. Trent Ltd. first started out as Lakme Ltd. in 1952. Trent Ltd (formerly known as Littlewoods International (India) Ltd) was purchased by the firm in its entirety from Littlewoods International Ltd UK in March 1998 for a total of Rs 11.09 crore. Effective July 1, 1998, Trent Ltd was merged into the company, and effective June 15, 1999, the company's name was changed from Lakme Ltd to Trent Ltd. After selling their cosmetics division to Hindustan Lever in 1997, the company diversified into the retail sector. Westside, a lifestyle retail chain, was founded by the firm in 1998. On December 15, 1998, they launched in Hyderabad, and on March 5, 1999, they opened in Chennai. A Hughes Road location opened on April 28, 1999, and a second store in Pune, India, debuted in August of 2000. In April 2001, the business launched a 12,000-square-foot Westside store in Karol Bagh, New Delhi, and in June 2001, it opened an 18,000-square-foot store in Kolkata. In 2002-03, the parent company established Fiora Services Ltd as a wholly-owned subsidiary to handle all of the firm's sourcing, clearing, and shipping needs. During the year, the firm expanded with two new store openings in New Delhi and Nagpur. In 2003-2004, the firm established a presence in the Indian cities of Mumbai, Ahmedabad, Noida, Mulund, and Bangalore. To its range of businesses, Company in 2019 added 33 additional outlets. There are now a total of 49 retail outlets in the Mumbai area, 11 of which were opened in FY' 2020. Bangalore, Hyderabad, Kolhapur, and Pune. By 2020, they had made significant strides towards a unified in-store and online experience under the Westside banner,

opening up the brand to a wider customer base. In 2022, the company opened 36 more outlets and merged or acquired 10 others.

## 19. V2 Retail Ltd

In India, Vishal Retail Ltd. is among the most rapidly expanding retail conglomerates. Clothing, non-clothing, and FMCG are just some of the product categories represented by the firm's catalogue. The company offers a wide variety of ready-to-wear clothing, as well as home goods, such as shoes, watches, toys, toiletries, groceries, sporting goods, crockery, novelties, and gifts. In addition to VRL Infrastructure Ltd, the company also operates VRL Foods Ltd, VRL Movers Ltd, VRL Consumers Goods Ltd, VRL Fashions Ltd, and VRL Infrastructure Ltd. When it comes to family fashion, Vishal Retail Ltd has you covered at prices that won't break the bank. Their stores have options for shoppers of all budgets. Over 70000 products are available in the showrooms, covering any and all domestic requirements. Customers benefit from lower prices as a result of bulk central procurement of goods and services. On July 23, 2001, Vishal Retail Private Ltd. was incorporated to become Vishal Retail Ltd. When Vishal Garments & The Vishal Garments was a sole proprietorship, the company bought it in November 2001. Their first shop in Delhi opened in 2002. The Gurgaon, India, production facility was established in 2003 after the company purchased the assets of Vishal Fashions Private Ltd and Vishal Apparels. In 2004, the company opened its largest store, an 80000 sq ft establishment in New Delhi. This business went public on February 20, 2006. The company expanded into new locations in 2006–07, including Patna, Bihar, Karnal, Haryana, and Dahisar, Maharashtra. The company decided to diversify its operations in 2007-08, so it spun off five new companies: VRL Foods Ltd, VRL Movers Ltd, VRL Consumer Goods Ltd, VRL Fashions Ltd, and VRL Infrastructure Ltd. Additionally, they established manufacturing facilities in Manesar and Dehradun, with annual output capacities of 1.5 million units from each location. The result is three factories with an annual production capacity of 4.5 million units for the company. Over the course of the year, the company expanded to 52 new locations, with 16 located in a Tier-I city, 16 in a Tier-II city, and 34 located in a Tier-III city. As a result, there are now a total of 29 warehouses, each with a space of approximately 581640 square feet, in a total area of approximately 1.1 million square feet. Also, they increased their truck fleet size by 40%, from 68 to 98 vehicles. The number of stores for this chain in India was 182 as of March 9th, 2009. In March of 2008, the company

and Hindustan Petroleum Corporation Ltd. entered into an agreement under which Hindustan Petroleum Corporation Ltd. would make available to the company retail and/or warehouse space at certain retail locations. They started with two stores as a pilot project and planned to expand to twenty-five. The company has ambitious plans to expand into nine new formats, including two categories of clothing stores (fashion mart and men's and women's clothing stores) as well as the restaurant and consumer goods industries. Franchisee model store openings will reduce startup costs and protect the parent company from potential failure. The potential implementation of a convenience model is another area of focus for the firm's research and development team (small formats through franchisee). The ideal square footage for such shops is between 800 and 2000 feet.

## 20. V-Mart Retail Ltd

V-Mart Retail Ltd is in the business of "Value Retailing," selling ready-to-wear clothing, accessories, and more through a network of stores in different cities across India. The company's stores, which it operates, are branded as V-Mart. V-Mart was an early adopter in the retail sector in India, opening stores in places like Sultanpur, Ujjain, and Motihari. The majority of the firm's business takes place in Tier-II and Tier-III cities, where it operates a network of so-called "value retail" department stores selling apparel, general merchandise, and kirana to families. The majority of the company's stores in Metro Tier-I, Tier-II, and Tier-III cities are freestanding establishments on the high streets and in the commercial districts of these cities. The store has about 8,000 square feet of floor space. Value retailing is used to appeal to the rising 'aspiring class' and'middle class' of consumers by taking into account their income levels, socioeconomic demographics, and other factors when making product recommendations. On July 24, 2002, in the state of West Bengal, V-Mart Retail Ltd was founded as Varin Commercial Private Limited. Having opened its first "V-Mart" in Ahmedabad, Gujarat, in October 2003, the company has since expanded to a total of 62 stores, which it owns and operates, across 53 cities and 10 states and union territories, covering a combined area of 5.06 lac Sq. Ft. Its outlets can be found in New Delhi. Gujarat The State of Uttar Pradesh India's Bihar and Punjab capital of Chandigarh Haryana Kashmir and Jammu State of Rajasthan and the state of Madhya Pradesh. On July 11, 2006, the company's name was changed to V-Mart Retail Private Limited. When it became a public limited company on July 11, 2008, it changed its

name again, this time to V-Mart Retail Limited. The company's public issue of equity shares, worth a total of Rs. 36435 million, was successfully completed in February 2013. The company's initial public offering was 1.19 times oversubscribed. Noninstitutional investors and retail investors each subscribed to their portion of the offer at lower rates than qualified institutional buyers (1.52 times vs. 1.39 and 0.79 times, respectively). As of 31 March 2014, the company had opened 23 V-Mart stores totaling 712256 square feet. Three stores closed during the year due to low traffic, poor sales, and a loss of money. The company implemented a space policy at the stores during the fiscal year under review with the intention of giving preference to the business line that is more likely to generate profits from the retail real estate it is given. The company's back-end and front-end processes were continuously improved through the year thanks to a number of initiatives. The company's primary goals included improving its supply chain management capabilities, investing in infrastructure, and attracting and retaining top talent. Over the course of the year, the company leased warehouse space. The company added 20 stores in 2020-21, bringing the total to 279. The states of Uttar Pradesh and Bihar, the Company's two largest markets, accounted for the bulk of these new store openings, while the states of Rajasthan, Assam, Madhya Pradesh, and Jharkhand opened the remaining locations. During the year, seven stores were shut down due to the company's financial situation. By way of an Assets transfer Agreement dated December 31, 2022, the Company acquired 74 retail outlets and 1 distribution centre from Arvind Lifestyle Brands Ltd, an indirect wholly-owned subsidiary of Arvind Fashions, for an undisclosed sum of money (ATA). Throughout the year, the corporation shut down 12 locations. In FY 2021-22, Company established a marketing property, i.e. fashion ka pyar har tyohar, as the sole communication icon to bind all its festival-related communication. For the occasion, a digital video film titled Break Free Live Free was released to encourage people to go out into the streets dressed in their latest fashions and to celebrate the unlocked period. The summertime celebrations of Holi and Eid were combined. It was the impetus for an improvement in the quality of communication, which resulted in an upgrade from the Limbo photoshoot style to a more conventional outdoor shoot for Autumn/Winter 21/22 and Spring/Summer 22.