



# INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

## Packaging Industry In India In Post-Covid Era: A Bird's Eye View

Dr. R. Uma Devi,  
Assistant Professor  
Department of Commerce  
Dr. S. R. K. Government Arts College  
(Affiliated to Pondicherry University)  
Yanam-533464  
Puducherry (UT)

### Abstract:

Packaging currently stands as the fifth largest sector in the Indian economy, reflecting its pivotal role in driving industrial growth and innovation. With an annual growth rate of 22-25%, the industry has become a preferred hub for packaging solutions, bolstered by advancements in technology and infrastructure. In response to global sustainability imperatives, the packaging industry in India is undergoing a paradigm shift towards eco-friendly practices and materials. Government initiatives aimed at minimizing plastic packaging and promoting sustainable manufacturing methods are driving industry-wide transformation. The Council of Scientific and Industrial Research (CSIR) has launched the National Mission on Sustainable Packaging Solutions, aiming for a net-zero future through innovation. On this backdrop, present study has been undertaken to glance the Packaging Industry in India in Post-COVID Era.

**Index Terms:** Packaging, Marketing Mix, Sustainability, Eco-friendly and Brand Communication

### 1. CONCEPTUAL FALLACY:

“In coming years, the Indian packaging industry will see substantial growth. The increasing awareness regarding clean water, safe food, and pharmaceuticals along with adoption of next gen digital technologies will aggressively penetrate and drive the Indian packaging industry”

- Thomas Schneider, President of the World Packaging Organisation (WPO).

Packaging is the container for a product – encompassing the physical appearance of the container and including the design, colour, shape, labelling and materials used. Most marketing textbooks consider packaging to be an integral part of the product component of the 4 P's of marketing: product, price, place and promotion. Some argue that packaging serves as a promotional tool rather than merely an extension of the product. Keller considers packaging to be an attribute that is not related to the product. For him it is one of the five elements of the brand – together with the name, the logo and/or graphic symbol, the personality and the slogans. While the main use for packaging can be considered to be protection of the goods inside, packaging also fulfils a key role in that it provides us with a recognizable logo, so that we instantly know which product is inside the package. From the consumer perspective, packaging plays a major role when products are purchased – as both a cue and as a source of information. Packaging is crucial, given that it is the first thing that the public sees before making the final decision to buy.

Packaging is now generally regarded as an essential component of our modern life style and the way business is organized. Packaging is the enclosing of a physical object, typically a product that will be offered for sale. It is the process of preparing items of equipment for transportation and storage and which embraces preservation, identification and packaging of products. Packaging is recognized as an integral part of modern marketing operation, which embraces all phases of activities involved in the transfer of goods and services from the manufacturer to the consumer. Packaging is an important part of the branding process as it plays a

role in communicating the image and identity of a company. Kotler defines packaging as all the activities of designing and producing the container for a product. Packaging can be defined as the wrapping material around a consumer item that serves to contain, identify, describe, protect, display, promote, and otherwise make the product marketable and keep it clean. Packaging is the outer wrapping of a product. It is the intended purpose of the packaging to make a product readily sellable as well as to protect it against damage and prevent it from deterioration while storing. Furthermore the packaging is often the most relevant element of a trademark and conduces to advertising or communication.

Packaging plays a crucial role in brand communication by providing a platform for companies to convey their brand image and message to consumers. The high level of competitiveness between business environments has certainly intensified the marketability of products to meet the needs and wants of customers. To capture and sustain customers' purchase intention, packaging has become an essential tool in the way business organisations conduct their sales promotion. The strategic use of packaging can increase the sales and market share of a particular product and interestingly, even defray and decrease the company's market and promotional costs as more and more customers are attracted to their products.

Packaging is an essential component of almost every product. A product's packaging acts as an 'Eye Catcher', allowing it to stand out from competing goods in today's market environment, which faces stiff competition, and therefore, an edge is required for the product to outshine its rival. Packaging is also instrumental in conveying the product's message to consumers and helps in establishing the visual appeal of a brand; hence, marketers view product packaging as the best possible opportunity to attract consumers to their product. Moreover, the product's packaging is designed to capitalise on the impulse shopping behaviour, especially in large super market chains that account for a significant proportion of purchases made by an average consumer. The main functions of packaging besides marketing is to transmit information, protect the product, provide convenience and add security. Paper and paper products are a major source of materials used to package goods. Paper finds application in packaging due to the many environmental concerns arising from plastic usage. The capacity to recycle paper more than once, along with how simple it is to deal with it as a waste product, serves as an essential method of reducing pollution and costs to an extent.

### 1.1. Features of Packaging

Packaging has a range of features that are designed to protect products and appeal to consumers. Some of the key features of packaging include:

- ❑ **Material:** Packaging can be made from a variety of materials, including plastic, paper, glass, metal, and fabric. The material used depends on the product being packaged, its weight, durability, and environmental impact.
- ❑ **Shape and size:** Packaging can be designed in different shapes and sizes to fit specific products and improve their appearance. For example, rectangular boxes are commonly used for chocolates and other small items, while cylindrical containers are often used for liquids.
- ❑ **Labeling and graphics:** Packaging can be decorated with labeling and graphics to provide information about the product, such as its brand name, ingredients, and usage instructions. The design can also be used to create an attractive and recognizable appearance that stands out on shelves.
- ❑ **Closure:** Packaging can be designed with various types of closures, such as zippers, snap-on lids, and screw caps, to make it easier to open and close and prevent spillage or leakage.
- ❑ **Durability:** Packaging needs to be durable enough to protect products during transportation and storage. This can include using thick, sturdy materials, such as corrugated cardboard or reinforced plastic.
- ❑ **Sustainability:** Packaging can be designed to be environmentally friendly, using materials that can be recycled, reused, or composted. This helps reduce waste and environmental impact.
- ❑ **Convenience:** Packaging can be designed to make products more convenient to use and store, such as resalable bags, easy-pour spouts, and microwave-safe containers.

Overall, packaging plays a critical role in protecting products, enhancing their appearance, and appealing to consumers. By incorporating different features, such as material, shape and size, labeling and graphics, closure, durability, sustainability, and convenience, businesses can create packaging that meets the needs of their products and customers.

## 1. 2. Significance of packaging in marketing

Packaging is an essential component of marketing as it plays a crucial role in creating a positive brand image and influencing consumer behavior. Here are some of the key ways in which packaging is significant in marketing:

- **Brand identity:** Packaging is often the first point of contact between a product and the consumer, and it can help create a memorable brand identity. Packaging design can incorporate logos, colors, and other visual elements that help differentiate a product from competitors and create a consistent brand image across different products.
- **Product differentiation:** Packaging can also be used to differentiate a product from competitors. Packaging design can highlight unique features or benefits of the product, such as its ingredients or functionality, which can help it stand out in a crowded market.
- **Consumer appeal:** Packaging can enhance the overall appeal of a product and influence consumer purchasing decisions. Eye-catching designs, attractive colors, and unique shapes can create a positive impression and encourage consumers to try a product.
- **Informational content:** Packaging can provide important information about a product, such as its ingredients, nutritional information, and usage instructions. This information can be critical in helping consumers make informed purchasing decisions and feel confident about their choices.
- **Convenience:** Packaging can also make a product more convenient to use and store. For example, packaging can be designed to be easy to open and close, resealable, or compact, which can enhance the overall user experience and increase consumer satisfaction.

Overall, packaging is a crucial element of marketing that can influence consumer behavior and create a positive brand image. By incorporating design elements that appeal to consumers, provide important information, and enhance convenience, businesses can leverage packaging to drive sales and build brand loyalty.

## 2. REVIEW OF LITERATURE:

The packaging industry literature highlights the critical role of packaging in marketing, consumer behavior, and sustainability. Packaging acts as a silent salesperson, influencing purchase decisions through visual and informational elements. Modern packaging design increasingly focuses on sustainability, with a growing emphasis on reducing waste and promoting circularity. Product packaging is a Cross-functional and multi-dimensional aspect of marketing that has become increasingly important in consumer need satisfaction, cost savings and the reduction of package material usage leading to substantial improvements in corporate profits.

The role of packaging has increasingly raised its bar to one of those significant tools for marketer's to attract consumers. Packaging acts as a silent communicator, salesman and outfit for the product. Some products wear more expensive outfits than others depending on what marketers is trying to emphasize for their target audience. Orth, Campana, and Malkewitz (2010) stated that designing packaging is an essential part in anticipating a brand image. Sometimes it is designed to carry an impression of being a high quality product while some other time it may design to signify that the price is affordable Orth et al., 2010; Ahmad, Billoo; Lakhan (2012). Consumer's first impression when encountering product is crucial. It can upgrade or damage the brand. Abrams, E. (2010) stated in "Brand Identity meets Economics of Scales," that everything seem on the store's shelf designate the first impression of the brand to consumer.

Investment on packaging may be cheaper or as expensive in price with traditional mass media and public relation, but the return is far more pleasant. Underwood et al., (2001) and Underwood (2003) also mentioned another reason to why packaging as become so significant. There is an increase in recognition that packaging can bring out point of differences and disparity of brand identity. There are many factors marketers have to study upon in maximizing its ability to differentiate its brand among the others for consumers to notice.

Packaging material is used to wrap a product on the exterior to prevent a product from being damages (Ali et al., 2015). Correspondingly, the packaging material is said as the tool to communicate the value of the product to the customer. The perceived quality of the product may affect by the packaging material used and packaging material can avoid the product from being damaged (Farooq, Habib & Aslam, 2015). Following a study of Mutsikiwa and Marumbwa (2013), the material that people used for packaging in the past was mostly natural materials that was easy to obtain without much processing required. Naturally, consumers are more inclined towards a product which has packing material of superb quality compared with a product that has low-quality packaging (Zekiri & Hasani, 2015). They also stated that packaging materials have a strong impact on buying behaviour that will influence the customers' purchase intention. Additionally, Zekiri and Hasani (2015) also stated that packaging materials have a strong impact on buying behaviour that will influence customer purchase intention. However, over time. the materials used for packaging also evolved

into material that is being processed to enhance their quality and durability (Mutsikiwa & Marumbwa, 2013). The material for packaging material is a vital component that keeps the item from being damaged thus incurring losses.

According to Ali et al., (2015) a study on packaging found that the size and shape of packaging will influence the purchase intention of consumers who prefer the design of packaging that is convenient. Consumers will be attracted with the outward appearance of packaging which is large but if the item inside the packaging is small or low in quantity, the customer will not have a repurchase intention towards the particular product again (Ali et al., 2015). Consumers feel the packaging of products in large sizes give them better value in contrast with product packaging that comes in small sizes (Ali et al., 2015). When the consumers cannot define the quality of the product by the appearance of the packaging, the packaging size will have a very strong impact towards the customers' purchase intention (Silayoi & Speece, 2007). According to research done by Agariya et. al. (2012), consumers will have an association with a particular product by seeing the outline shape of the packaging.

### 3. OBJECTIVES OF THE STUDY:

Packaging is crucial due to a variety of reasons. When done properly, the packaging can become a vital factor in your company's performance. In its most fundamental form, packaging safeguards whatever is contained within it. The product's packaging should protect it from damage during transport from the factory to the store and through its way on the rack.

It's a vital marketing tool that supports branding, highlights the product's best qualities, and provides a memorable experience for customers. It's an opportunity to take your company and product to the highest stage.

To be successful in business, one must develop the habit of thinking in terms of exactly who is going to carry out each task and responsibility. AS Packaging is one of the 7 P's Formula of Marketing, the present study is chosen on **"PACKAGING INDUSTRY IN INDIA IN POST- COVID ERA: A BIRD'S EYE VIEW"**.

The Study specially aimed at:

1. To study the Significance of Packaging in Marketing
2. To study the growth and development of Packaging Industry in India.
3. To know about Trends of Packaging Industry in India
4. To evaluate the Marketing Performance and Strategies of Packaging Industry
5. To study the Problems & Challenges faced by Packaging Industry and Initiatives provided by the Government.
6. To know the future prospects of Packaging Industry in India

### 4. DATABASE & METHODOLOGY:

By nature the research strategy for this research is theoretical and deductive. Deductive approach is used. For data collection, survey is involved for collection data. A complete survey was taken to collect all relevant data, questionnaires used as tool of collecting relevant data. The study is based on two sets of data viz., Primary and Secondary. The Primary data was obtained from interviews and discussions with the Proprietor and other Officials relating to the company. The secondary data was obtained from the annual reports and other Books & records of the company.

The collected data was suitably classified and tabulated for the purpose of analysis and interpretation. The study is purely of qualitative in nature rather than quantitative.

### 5. RESULTS & DISCUSSION:

With advancement in technology and general awareness, the packaging sector in India is well poised as most of the raw materials for packaging are abundantly available in the country. Moreover, the per capita spending has increased tremendously, leading to changing rural markets and a growing middle class who demand the best of products. Various upgraded technologies are being used in industry such as aseptic packaging, retort packaging and biodegradable packaging to enhance the life of food product. Moreover, the plastic packaging market is expanding rapidly registering a growth of 20-25 per cent per annum and is valued at 6.8 million tons while the paper packaging industry stands at 7.6 million tons. The packaging industry is poised to grow rapidly led by the increasing use of innovative packaging equipment and the rising flexible packaging market.



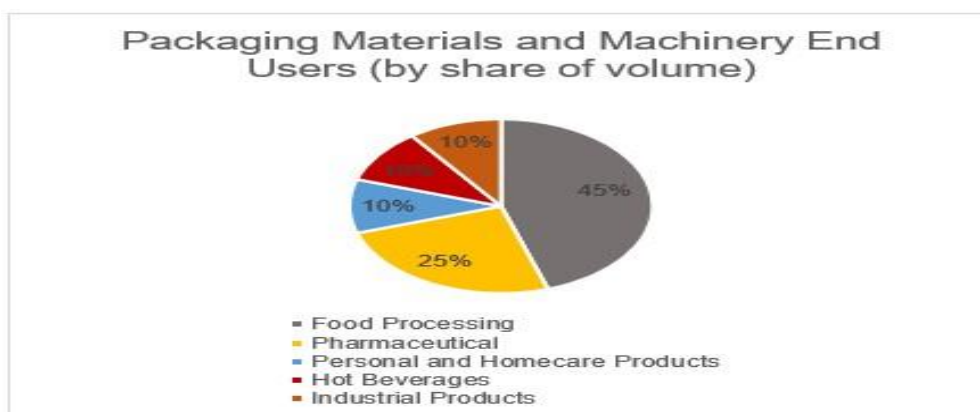
Now-a-days many innovations have been undertaken in Packaging and branding the product in order to attract the customers. Consumers want their products to be hygienic, safe and at the same time to look attractive. MNCs have a very good ecosystem, have a dedicated R&D house, which conducts various research-based experiments using the latest technologies, and are always innovating to ensure that the consumer is benefited. This development has led to healthy competition between our local manufacturers to deliver innovative products, and as a result, the entire ecosystem is gearing up for the change. Likewise, local manufacturers are now importing state-of-the-art machinery to ensure that the packaging is of the highest standards. Consumers who have attended any packaging event of late would be able to identify with the above scenario. Packaging machines for labelling, bar coding and scanning, to metal and plastic packaging – every contraption is now available to local manufacturers.

The India Packaging Market was valued at USD 50.5 billion in 2019, and it is expected to reach USD 204.81 billion by 2025, registering a CAGR of 26.7% during the period of 2020-2025. Packaging is among the high growth industries in India and developing @ 22-25% per annum and becoming a preferred hub for packaging industry. Currently the 5th largest sector of India's economy, the industry has reported steady growth over past several years and shows high potential for much expansion, particularly in the export market. Costs of processing and packaging food can be up to 40% lower than parts of Europe which, combined with India's resources of skilled labour, make it an attractive venue for investment. A high degree of potential exists for almost all user segments which are expanding appreciably - processed foods, hard and soft drinks, fruit and marine products.

### 5.1. Types of Packaging Industry:

The packaging industry can be categorised into two segments: flexible and rigid.

- The rigid sector accounts for 36% of India's total packaging. Corrugated and paperboard boxes are an example of a rigid packaging category that are made using paper as a raw material. These boxes are considered to be one of the safest and most effective methods for packaging and transporting goods. The cellular structure of corrugated boxes, in addition to being lightweight, has great compressive strength, toughness and impact resistance. The procedure of lining, laminating or coating the boxes can assist them to withstand moisture and other harmful elements, protecting the quality and longevity of the product. The packaging of both industrial and consumer items requires corrugated board boxes. They are used for packaging a variety of commodities including textiles, fruits, vegetables, potteries, chemicals and pharmaceuticals.
- The flexible sector comprises 64% of the total packaging. The application of paper in flexible packaging is in the form of bags, sachets, envelopes and so on. The flexible pouch market, which enables small-quantity packaging, has gained momentum due to demand for small packs. Compared to other types of packaging, flexible paper packaging is less expensive, requires less material and is lighter in weight. Flexible paper packaging has become more popular as a result of its high efficiency and low cost. Flexible packaging is a crucial component of versatile packaging, which includes packaging for food and drink, personal care, home care and healthcare, among others.



**Figure 1: Packaging Materials and machinery End Users (by share of volume)**

Source: MISSP and T&A Consulting

## 5.2. The Indian Packaging Industry

The Indian Packaging Industry has made a mark with its exports that comprise flattened cans, printed sheets and components, crown cork, lug caps, plastic film laminates, craft paper, paper board and packaging machinery, while the imports include tinplate, coating and lining compounds and others. In India, the fastest growing packaging segments are laminates and flexible packaging, especially PET and woven sacks. Over the last few years Packaging Industry is an important sector driving technology and innovation growth in the country and adding value to the various manufacturing sectors including agriculture and FMCG segments. The global packaging industry is developing and expanding day by day and Indian packaging industry is also growing rapidly. This growth is primarily driven by factors like growing pharmaceutical, food processing, manufacturing industry, FMCG, healthcare sector and ancillary in the emerging economies like China, India, Brazil, Russia and few other East European countries.

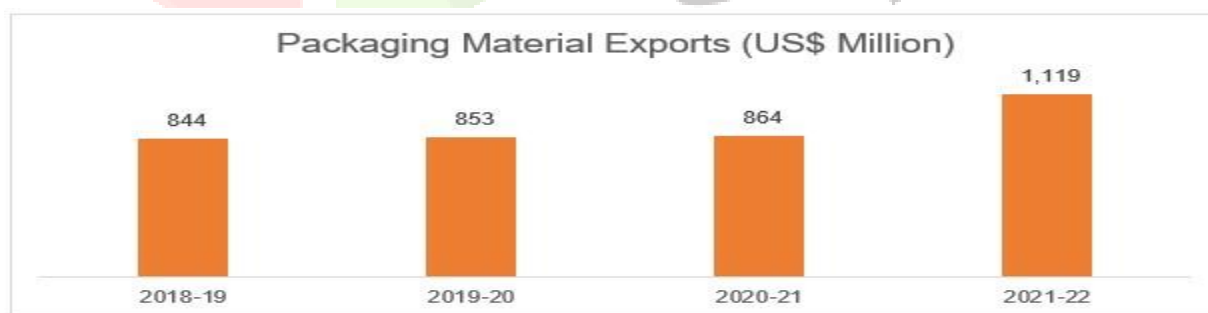
However, at this stage, the industry is eagerly looking forward to the government machinery, which they hope will support them by implementing effective policies that will help them to compete on the international arena. This is where PIAI will play an active role in resolving the issues faced by the packaging industry.

The paper and packaging sector in India is growing rapidly and has significant potential for future expansion. The industry was valued at \$50.5 billion in 2019 and is anticipated to reach \$204.81 billion by 2025, registering a CAGR of 26.7% from 2020 to 2025. The growth in the sector is being driven by a surge in e-commerce, food processing, pharmaceuticals, FMCG, manufacturing industry and healthcare sector. Additionally, numerous government initiatives including 'Make in India' had positive impact on the packaging industry. The paper and packaging industry is currently the fifth largest sector in the Indian economy and has the potential to achieve pricing levels that are about 40% cheaper compared to European regions. The Indian packaging sector has distinguished itself with its exports of flattened cans, printed sheets and components, crown cork, lug caps, plastic film laminates, craft paper, paper board and packaging machinery. The packaging segment with the fastest growth include laminates and flexible packaging, particularly PET and weaved sacks.

India uses paper as a major source of packaging. The paper industry accounts for 5% of global production. Demand for paper continues to rise for the packaging of FMCG products and ready-to-eat food. Packaging-grade paper accounts for 55% of the main types of paper produced domestically in the paper and paperboard industry.

### 5.2.1. Growing Exports of Packaging Material:

India is emerging as a key exporter of packaging materials in the global market. The export of packaging materials from India grew at a CAGR of 9.9% to US\$ 1,119 million in 2021-22 from US\$ 844 million in 2018-19. US remains the major export destination for the packaging industry, followed by the UK, the UAE, Netherlands, and Germany.



**Figure 2: Packaging Material Exports (US \$Million)**

Source: Directorate General of Commercial Intelligence and Statistics

### 5.2.2. Sectors of Application:

The packaging has applications in multiple sectors, two of which key sectors are:

- ❑ **Pharmaceutical:** India boasts of one of the world's largest pharmaceutical markets and therefore produces a huge quantity of plastic pharmaceutical packaging to cater to the needs of the fast growing sector. In the pharmaceutical industry, blister packs are one of the most popular types of packaging. Blister packs are used for tablets, ampoules, syringes and vials, and also used for individual packaging for medication doses while maintaining the integrity of other doses. Primary, secondary and tertiary packaging are the three tiers of packaging typically used in the pharmaceutical sector, and the type of application depends on the drug. The material that initially covers and holds the product is referred to

as the primary packaging system. This includes all the package elements and sub-elements that come into contact with the product or that may have an impact on its duration of life, such as ampoules and vials, prefilled syringes, IV containers and blister packs. Key players in the pharmaceutical packaging include West Pharmaceuticals, Huhtamaki PPL Ltd and SGD Pharma India Ltd.

- **Food and Beverage Packaging:** India has seen a rise in the paper and packaging of food and beverage with an increase in demand, along with new companies in the food and beverage space. The entry and meteoric rise of food delivery service companies such as Zomato and Swiggy have led to growth in the consumption of packaging used for food and beverage. Zomato had even introduced tamper-proof packaging to keep the food safe and fresh. Food packaging has seen significant innovations that focus on highlighting the brand while maintaining the quality and standard of the food product contained within. There is intense competition among local manufacturers to produce cutting-edge products and stand up to MNCs that have a dedicated R&D department to test and eventually deploy the latest technologies. The major players in this space are Evirocor, Tetra Pak and Vinayak Ultra Flex.

### 5.2.3. India Packaging Market Analysis

The Indian packaging market is expected to register a CAGR of 12.60% during the forecast period (2022 - 2027). The demand for packaging in India has expanded drastically, spurred by the rapid growth in consumer markets, especially in processed food, personal care, and pharmaceutical end-user industries. Packaging is India's one of the fastest growing sectors. Over the last few years, the industry has been a key driver of technology and innovation, contributing to various manufacturing sectors, including agriculture and the fast-moving consumer goods (FMCG) sectors. The packaging industry is driven by the factors such as rising population, increasing income levels, and changing lifestyles are anticipated to drive consumption across various industries leading to higher demand for packaging product solutions. Moreover, demand from the rural sector for packaged products is fueled by the growing media penetration through the internet and television.

- On 11<sup>th</sup> November 2021, the government announced the production-linked incentive (PLI scheme) to incentivize firms in 10 sectors to drive local manufacturing and improve exports to control the disruption in the supply chain scenario. In addition, there is Atmanirbhar and the structural reforms, which should boost growth prospects for packaging in India. Furthermore, according to Western India Corrugated Box Manufacturers Association, the market for corrugated boxes in India needs to hike prices by 35% to offset kraft paper and conversion cost hikes to survive the current situation.
- According to the Indian Institute of Packaging (IIP), packaging consumption in India is increased by nearly 200% in the last decade, from 4.3 kilograms Per Person Per Annum (PPPA) in 2010 to 8.6 kilograms pppa in 2020. Despite the sharp growth over the last decade, this industry remains a large space for growth compared to other developed countries worldwide. Furthermore, India is emerging as an organized retail destination globally. The presence of e-commerce is increasing rapidly and is bringing around a revolution in the retail sector, driving the need for packaging. Retailers are now leveraging digital retail channels, thus enabling wider reach out to customers with fewer amounts of money spent on real estate. Thus, organized retail services and the boom in e-commerce offer enormous potential for the future growth of retailing in India, which in turn is promoting the growth of the packaging sector.
- The market is expected to be significantly challenged due to fluctuation in raw materials pricing, dynamic changes in regulatory standards, growing environmental concerns, limited effective recycling of mixed plastic waste, ineffective plastic recovery, and a lack of modern and advanced machinery in India for the packaging sector. The volatile trend in crude oil and demand for polymers in competing applications has been increasing pressure on input costs that fluctuate raw materials prices. Recent disruptions due to Russia's invasion of Ukraine and China's stringent Zero COVID policy caused substantial supply chain difficulties and aggravated the challenges for the packaging sector in India.
- The outbreak of the COVID-19 pandemic in March 2020 and subsequent waves of the virus led to a volatile operating environment with stringent lockdown measures across the country, severely disrupting the packaging industry. This compelled market players and many customers to temporarily scale down or halt operations, resulting in decreased revenues in the first half of the year 2020. As the country lifted restrictions, there was an immediate recovery in the overall economy. As operations quickly normalized, for most of the packaging companies, the loss suffered in the first quarter was covered up in the subsequent months, resulting in a positive revenue increase for 2020 and 2021. The spread of the COVID-19 virus side-tracked the forecasts significantly. However, the impact of the pandemic has varied, largely dependent on the end-user industry. Even with the ongoing- pandemic, the packaging industry in the country has continued to grow steadily, though not at the same scale as in pre-COVID times with the emergence of online retail and e-commerce brands.

- As of October 2021, a sharp price increase of INR 5000 per ton of kraft paper within ten days has been sharp. The Federation of Corrugated Box Manufacturers of India (FCBM) suggested that the price is expected to increase in the coming years. The prime reason behind this surge is coal, the main energy source for paper mills, which has increased from INR 5000 per ton to INR 15000 per ton. This has increased the production cost of paper mills by about INR 3500- 4000 per ton.

#### **5.2.4. India Packaging Industry Segmentation**

The packaging industry is paramount and plays a vital role in the international trade of goods. Packaging may be classified based on its type of use, which is primary packaging, secondary packaging, tertiary packaging, and ancillary packaging. It is also segregated based on the types of materials used, such as plastic, paper, paperboard, glass, and metals. Packaging is used across different end-user sectors in a wide range of industries, such as food and beverage, healthcare, and cosmetics, among other end-user industries. The study also analyzes the packaging machinery sector in the Indian packaging sector landscape.

#### **5.3. Government Initiatives:**

The government has launched the National Packaging initiative which focuses on the following measures to promote the sector:

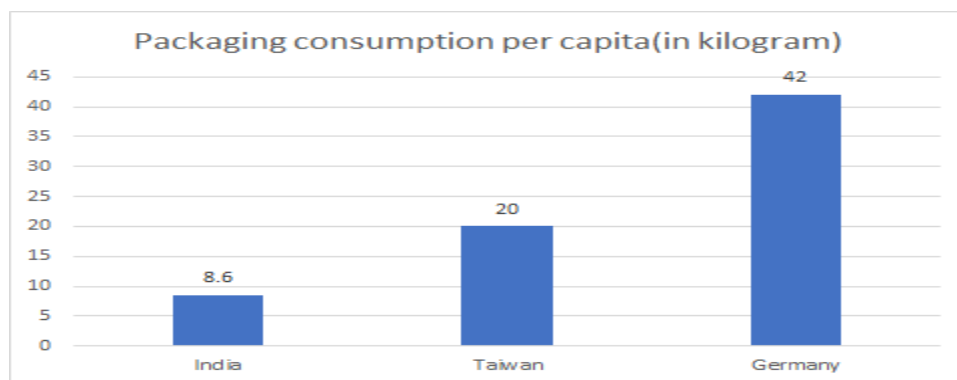
- Set up guidelines and certain requirements for design and material of packaging used
- Promote the process of moving in bulk quantities
- Focus on promotion of centralised industrial activity by encouraging application of necessary and sophisticated infrastructure such as specialised logistic parks with appropriate facilities as well as packaging labs to work on designs and carry out tests
- Encourage processes to reduce packaging waste by establishing material recovery facilities (MRFs)
- Support domestic business to manufacture sophisticated packaging materials
- Develop training facilities and certified programmes of the highest order to maintain availability of skilled labour.

The Indian packaging sector is diverse and caters to a broad sector of industries and products. The government, through its positive promotion of the Make in India policy, has set the packaging sector to grow rapidly due to companies setting up their manufacturing units in the country and using these domestic facilities as a base to export to other countries. The government has implemented a strategy to lower tax rates for new manufacturing companies in order to turn India into a global manufacturing hub. Furthermore, given the need for domestic firms to compete with MNCs, the government is planning to further level the sector among players by launching various initiatives with the aim of promoting the development of packaging, along with technological advancements.

Globally, the packaging industry sector has positioned itself as one of the fastest growing industry across all countries. The industry is worth over \$ 917 billion (in 2019), growing at CAGR 2.8% to reach to \$ 1.05 trillion by 2024. Packaging is an emerging science, an emerging engineering discipline, and a successful contributor to major industries such as pharmaceutical, FMCG and electronics. Packaging is the world's third largest industry following the food industry (1st) and energy (2nd) and the only industry that has to do with every single product produced in an economy.

In India's case, packaging is the fifth largest sector in its economy and is one of the highest growth sectors in the country. According to the Packaging Industry Association of India (PIAI), the sector is growing at CAGR 22% to 25%. Over the last few years, packaging industry has been an important sector driving technology and innovation growth in the country and adding value to the various manufacturing sectors including agriculture and FMCG segments. According to the Indian Institute of Packaging (IIP), the packaging consumption in India has increased 200% in the past decade, rising from 4.3 kg per person per annum (pppa) to 8.6 kg PPPA as on FY20. Even with this steep rise in the last decade, there is significant headroom for growth in this sector when compared to other developed regions across the globe as seen in the following graph.

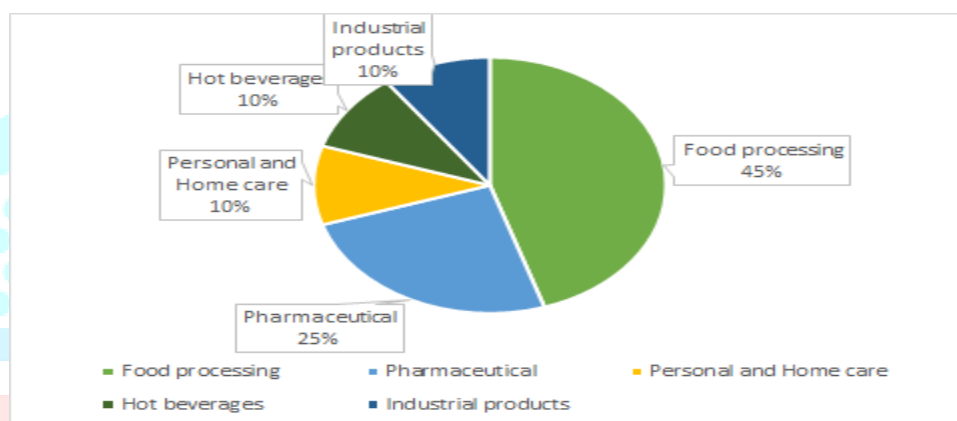




**Figure 4: Packaging Consumption per capita (in kilogram)**

Source: India's packaging consumption up 200 percent in a decade

This rise in consumption is driven by key aspects of the rising Indian economy namely, strong favourable demographics, increasing disposable income levels, rising consumer awareness and demand for processed food. The growth of individual end user segments of food, beverages, FMCG and pharmaceuticals will trickle down into rising demand of packaging solutions. The current consumption of packaging materials by end user industries is as follows:



**Figure 5: Opportunities in Indian packaging sectors**

Source: India's packaging consumption up 200 percent in a decade

### 5.3.1. Foreign Direct Investment (FDI) and Innovations

The government's progressive policies, including permitting 100% FDI through the automatic route, have stimulated foreign investments in the packaging sector. FDI inflows in the Paper and Pulp industry totalled US\$ 1.74 billion from April 2000 to September 2024, highlighting investor confidence in India's packaging landscape. Innovative ventures, such as SIG's establishment of the first aseptic carton packs in Ahmedabad, underscore the industry's commitment to technological advancements and sustainability. With plans to invest Rs. 880 crores (US\$ 106.02 million) between 2023 and 2025, SIG exemplifies the industry's drive towards pioneering solutions.

### 5.3.2. Sustainability Initiatives and Market Trends

In response to global sustainability imperatives, the packaging industry in India is undergoing a paradigm shift towards eco-friendly practices and materials. Government initiatives aimed at minimizing plastic packaging and promoting sustainable manufacturing methods are driving industry-wide transformation. Additionally, the industry's focus on food safety and quality aligns with the burgeoning food processing sector, amplifying demand for innovative packaging solutions. India continues to lead the global paper market, with domestic consumption of packaging paper and paperboard growing at 8.2% in 2023-24.

The Council of Scientific and Industrial Research (CSIR) has launched the National Mission on Sustainable Packaging Solutions, aiming for a net-zero future through innovation. Led by CSIR-NIIST, the initiative focuses on developing sustainable materials, recycling methods, and advanced testing facilities to enhance India's packaging sector and address environmental challenges.

### 5.3.4. Market Dynamics and Future Projections

The expansion of the middle class, enhancements in supply chain infrastructure, and the rise of e-commerce platforms are primary factors driving the packaging industry's growth trajectory. Furthermore, the increasing market size of packed food products, projected to reach Rs. 29,563 crore (US\$ 3.4 billion) by 2027, underscores the industry's pivotal role in supporting diverse sectors. As the industry continues to evolve, leveraging technological innovations and sustainable practices, it is poised to contribute significantly to India's economic landscape.

### 5.4. Recent Developments

- The latest report, "Flexible Packaging Market in India 2024-2028," highlights a substantial expansion, anticipating the market to surge by Rs. 1,35,642 crore (US\$ 15.6 billion) over the next five years at a CAGR of 12.7%, propelled by heightened demand in the FMCG sector.
- In May 2024, Andhra Paper Ltd. signed a Rs. 125 crore (US\$ 14.4 million) deal with Sweden's Valmet AB for a tissue paper production line, following its Rs. 270 crore (US\$ 31.1 million) investment approval for a 100-ton daily capacity machine at its Andhra Pradesh facility.
- In January 2024, Rigid plastic packaging solutions provider Mold-Tek Packaging Ltd (MTPL) opened three manufacturing facilities in Cheyyar (Tamil Nadu), Sultanpur (Telangana), and Panipat (Haryana). The facilities will increase the business' capacity to 5,500 tons annually, bringing the overall capacity to 54,000 tons annually by FY25. The company invested about Rs. 100 crore (US\$ 11.5 million) in these units.
- February 2023: Cosmetics and hair care brand Revlon developed a new package for its 'Top Speed' hair color range exclusively for the Indian market. The brand unveiled a new visual identity for products across India in the coming years.
- September 2022 – West Rock Company, a sustainable paper and packaging solutions provider, acquired an HP Page Wide T1190 Press to complement and expand its portfolio of corrugated printing capabilities. The HP Page Wide T1190 Press is expected to enable West Rock to disrupt the corrugated packaging supply chain and offer superior value to its customers.



- May 2022: Huhtamaki set up its first recycling plant in Maharashtra, India, as part of its Close The Loop initiative. The site is spread across 2,000 square meters and has recyclers around 1,600 kg of post-consumer-used flexible plastic waste daily since it became fully operational. The recycling plant was set up with an investment of Rs. 10 crore (US\$ 1.18 million) as part of the Huhtamaki Foundation's Close The Loop initiative to tackle post-consumer waste and deliver a valuable secondary resource material. It was expected to process post-consumer waste to create resin to produce refined compounds for use in household products for consumers in India.
- SIG, a Swiss based packaging company, laid the foundation of first aseptic carton packs in Ahmedabad in 2023 and plan to invest a sum of Rs. 880 crores (US\$ 106.02 million) over the period of 2023-2025.

### 5.4. A Bright Future Awaits Indian Packaging Industry

In the coming decade, India will focus on transitioning this industry towards sustainability and smart solutions. The implementation of single use plastic ban policy along with a focus on recycling and biodegradability will bring about a major transformation in this sector. Currently, Indian packaging industry consumes more polymers compared to the global average. This indicates a major dependence of the industry on upstream feedstock production (Ethylene, Propylene, Styrene etc.). In fact, India currently imports nearly

1.7 MTPA of Polyethylene (PE) in addition to utilizing around 73% of its domestic ethylene production towards PE. A major portion of this demand for PE is generated by the Indian packaging sector.

This creates a unique opportunity for India to drive this industry towards sustainability, bio-based/paper-based packaging and in effect reduce the import bill and divert the valuable domestic ethylene production towards import substitution of other crucial chemicals/polymers like methyl ethyl ketone, PVC and ethylene oxide.

The packaging sector has a much wider exposure to other sectors of our economy. The growth of these sectors in the coming decade will have a combined effect to take this sector to new heights. Government of India recognised the potential of this sector and released a slew of policies like the single use plastic ban policy, profit linked tax incentive for food packaging, adoption of National Packaging Initiative, to further incentivise innovation in this sector. As a result, there are numerous champions which have come up to the task and have posted significant profits in the last 5 years. There has also been a rise in material technology research-based start-ups to create new sustainable packaging materials.

With this growing awareness and governmental push, the research on eco-friendly and sustainable packaging is steadily on the rise in the country. Sustainability has become a key focus area of many of the packaging solutions manufacturers. Globally, Storopack has a new material called rEPS, made from 100% recycled EPS (Expanded Poly Styrene) providing an attractive solution for companies who wish to use environment friendly packages. In India, the corrugated boxes are becoming popular across industries over polymer-based alternatives such as (EPS) foams. Also, the rise of start-ups like Greendiamz Biotech and Envigreen are tackling different problems across the supply chain of packaging materials to ensure a sustainable and environment friendly growth of this industry in the coming years.

## 6. CONCLUSIONS:

Packaging plays an important role in the marketing context. The right packaging can help a brand carve a unique position in the marketplace and in the minds on consumers. Packaging has a better reach than advertising does, and can set a brand apart from its competitors. It promotes and reinforces the purchase decision not only at the point of purchase, but also every time the product is used. Packaging in different serving sizes can extend a product into new target markets or help to overcome cost barriers. Packaging can even drive the brand choice (especially in the context of children's products). As the market becomes more competitive and shelf space is at a premium, products need to be able to stand out from the crowd and packaging needs to provide more than just functional benefits and information. Under time pressure and in low involvement purchases, less time is spent looking at the detail and information provided on packaging – this is especially true in the FMCG category.

The shape of the package was the significant attribute of communication through the package and an innovative pack design can help to set a brand apart from its competitors. The marketing world is full of examples of brands that have used packaging to carve a unique position in the marketplace. The findings also shows that ease of handling the packages and protection are also weighed highly by respondents. The outlook for the paper and packaging industry in India is optimistic, driven by several factors including the country's growing population, increasing urbanization, and rising disposable incomes. The rapid expansion of e-commerce is fueling demand for packaging materials, while a growing focus on sustainability is prompting the industry to innovate greener solutions.

Government initiatives like "Make in India" and infrastructure development projects are expected to boost manufacturing activities and streamline supply chains. Technological advancements are enhancing productivity and quality, while rising export potential offers opportunities for market expansion. Despite challenges such as fluctuating raw material prices and competition from alternative materials, strategic investments and a commitment to sustainability can help the industry capitalize on opportunities and strengthen its position in the global market.

## References:

- 1) Agariya, A. K., Johari, A., Sharma, H. K., Chandraul, U. N., & Singh, D. (2012). The role of packaging in brand communication. *International Journal of Scientific & Engineering Research*, 3(2), 1-13.
- 2) Akbari, M., Gholizadeh, M. H., & Zomorodi, M. (2014). Purchase intention of products with Islamic labels under time pressure. *Marketing and Branding Research*, 1(1), 14-26.
- 3) Ali, S., Ahmad, S. F., Hussain, S., Ibrahim, M., & Noreen, A. (2015). Impact of product packaging on consumer perception and purchase intention. *Journal of Marketing and Consumer Research*, 10, 1-9.
- 4) Anne, M. M. (2014, June 25). Recycled paper packaging market to grow to \$139B by 2018. Two Sides. Retrieved from <https://twosidesna.org/US/recycled-paper-packaging-market-to-grow-to-139b-by-2018/>
- 5) B. Mohebbi, "The art of packaging: An investigation into the role of color in packaging, marketing, and branding," *Int. J. Organ. Leadersh.*, 2014.
- 6) B. Rundh, "The multi-faceted dimension of packaging: Marketing logistic or marketing tool?," *Br. Food J.*, 2005.
- 7) Farooq, S., Habib, S., & Aslam, S. (2015). Influence of product packaging on consumer purchase intentions. *International Journal of Economics, Commerce and Management*, 3(12), 538–547.
- 8) Hosein, N. (2012). Measuring the purchase intention of visitors to the auto show. *Journal of Management & Marketing Research*, 9(1), 1-17.
- 9) Ibojo, B. O., & Olawepo, G. T. (2015). The relationship between packaging and consumers purchase intention: A case study of Nestlé Nigeria product. *International Business and Management*, 10(1), 72-81.
- 10) Javed, S. A., & Javed, S. (2015). The impact of product's packaging color on customers' buying preferences under time pressure. *Marketing and Branding Research*, 2(1), 4-14.
- 11) Keller, K. (2009). *Strategic brand management: Building, measuring, and managing brand equity* (4th ed.). Upper Saddle River, NJ: Pearson/Prentice Hall.
- 12) L. E. Wells, H. Farley, and G. A. Armstrong, "The importance of packaging design for own-label food brands," *Int. J. Retail Distrib. Manag.*, 2007.
- 13) L. Metcalf, J. S. Hess, J. E. Danes, and J. Singh, "A mixed-methods approach for designing market-driven packaging," *Qual. Mark. Res.*, 2012.
- 14) M. M. Deliya and B. J. Parmar, "Role of Packaging on Consumer Buying Behavior–Patan District," *Glob. J. Manag. Bus. Res.*, 2012.
- 15) P. Silayoi and M. Speece, "Packaging and purchase decisions: An exploratory study on the impact of involvement level and time pressure," *British Food Journal*. 2004.
- 16) P. Silayoi and M. Speece, "The importance of packaging attributes: A conjoint analysis approach," *Eur. J. Mark.*, 2007.
- 17) R. Kuvykaite, A. Dovaliene, and L. Navickiene, "Impact of package elements on consumer's purchase decision," *Econ. Manag.*, 2009.
- 18) R. L. Underwood, "The Communicative Power of Product Packaging: Creating Brand Identity via Lived and Mediated Experience," *J. Mark. Theory Pract.*, 2003.
- 19) R. L. Underwood, N. M. Klein, and R. R. Burke, "Packaging communication: Attentional effects of product imagery," *J. Prod. Brand Manag.*, 2001.
- 20) S. A. Mousavi and M. M. Jahromi, "Examining the Relationship Between Packaging and Consumer Buying Behavior (Case Study: Comparison of Pasteurized 1.5L Milk of Brands Roozaneh and Mihan)," *Indian J. Fundam. Appl. Life Sci. Online Int. J. Available*, 2014.



**Reports:**

- Media Reports
- Press Releases
- Deloitte report
- Department of Industrial Policy and Promotion website
- India Paper Manufacturer Association (IPMA)
- Packaging Industry Association of India (PIAI)
- Indian Flexible Packaging & Folding Carton Manufacturers Association (IFCA)
- All India Plastic Manufacturers Association (AIPMA)

