

Export Performance Of Plastic Industry In India – An Analysis

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Abstract:

In India, the plastic industry has recently developed. The growth of both the domestic and export market be influenced by the timely policies of the government. India has made good progress in the use of commodity plastics to serve some important sectors like agriculture and packaging. If plastics are to support other important sectors like transportation, electronics, aerospace, and defense, considerable efforts are needed on the use of engineering plastics. The use of plastics could also be increased in areas like housing sanitation, food processing, water management, and automobiles. The study will enable us to determine the significant changes occurred in the last decade. Plastics will endure being a development industry, with improving prospects for new investments in polymerization and downstream processing capacity. This is in contrast to the situation in various other countries, where growth prospects are limited, either because of stagnant demand or due to the historical overbuilding. The study aims to analyse these changing trends in India's plastic export volume, composition, and direction during the last one decade. To conduct the study secondary data is collected from several government reports – Handbook of Statistics on Indian Economy, Export Import Data Bank, etc.

Keywords: *Plastic Industry, Export performance, Plastic Products, Plastic sticker.*

INTRODUCTION

The chemical industry is critical for the economic development of any country. Indian chemical sector accounts for ~13% of the gross value added by the industries segment. With

Asia's increasing contribution to the global chemical industry, India emerges as one of the focus destinations for chemical companies worldwide. The chemical industry is critical for the economic development of any country as it offers products and solutions for virtually all sectors of the economy. A wide variety of plastics raw materials are produced to meet the material needs of different sectors of the economy. These polymeric materials are broadly categorized as a commodity, engineering, and specialty plastics. Commodity plastics are the major products that account for the bulk of the plastics and in turn for the petrochemical industry. Commodity plastics comprise of Polyethylene (PE), Polypropylene (PP), Polyvinyl Chloride (PVC) and Polystyrene. While engineering and specialty plastics are plastics that exhibit superior mechanical and thermal properties in a wide range of conditions over and above more commonly used commodity plastics and are used for a specific purpose. These include styrene derivatives (PS/EPS & SAN/ABS), polycarbonate, polymethyl methacrylate, polycarbonates, poly oxy methylene (POM) plastics, etc. There are three broad types of PE, viz: Low-density Polyethylene (LDPE), High-density Polyethylene (HDPE) and Linear Low-density Polyethylene (LLDPE). Major plastic materials like PE and PP are derived from Ethylene and Propylene respectively, while other plastics such as PVC, PS & ABS and PC are produced from benzene, butadiene, and other feedstock.

Indian Plastic industry is nearly five decades old and it is still in the developing stage, compared to the developed countries. The industry is growing slowly keeping pace with domestic demand. The consumption of plastic in India is increasing every year and now the per capita consumption is 1.7Kg. 13Kg. is the world average and 60Kg. in developed countries. Now the plastic industry has a very important role in the national economy. About 60,000 units mostly in the small scale sector are engaged in producing plastic goods for an ever-expanding international market. The overall investment in this sector is around Rs.28,350 crore. The industry provides direct employment to 12.5 lakh people and indirect employment to 70 to 80 lakh people. At present commodity plastic production reached 5 Million Tonnes. The industry registered a growth rate of 18.8 percent. The total value of the production of plastic goods in this country is estimated to be over 1.0,000 crore.

LITERATURE REVIEW

Santanu Mandal (2011) in his study “Porter’s Five Forces of Analysis of the Indian Plastic Industry” has analyzed the plastic industry of India in terms of Michael E. Porter of Harvard Business School in 1979. Porter’s five forces are 1. Bargaining power of suppliers 2. Bargaining power of buyers 3. Internal Rivalry 4. Entry 5. The threat of substitutes. So far as the porter’s five forces analysis of this industry is concerned, bargaining powers of suppliers is low while that of buyers is high. Entry is difficult and it entails the incumbent to have significant capital to invest if it wants to enter this industry. On the substitute front, there are a lot of researches going on and recent anti-plastic campaigns have already given way to many new replacements for plastic as seen above, thereby indicating high threat from substitutes. In the internal rivalry context, the rivalry is high and firms often engage in price wars. It is easy for small firms to change prices and increase market share but the large ones find difficult to switch quickly. On the whole, plastics are essential for today’s standard of living and they help in improving the quality of life. It is expected that plastics will continue to grow dynamically

Hamed Bin Al-Oufi (2006) says that in export business information is more important to market the product successfully. Government support is required. Export institutions should increase the export quantity. To compete effectively with other food-exporting countries and maximize foreign exchange earnings, a country like Oman, for example, must ensure its food products which are not only demonstrably safe but of sufficiently high quality to be acceptable and competitive. Consumers in different markets have different patterns, trends, and preferences, and consequently, local exporters have to be aware of such characteristics. Local exporters seem very weak to face the challenge due to the shortage of raw material at home and strict trade legislations from abroad. The Government, through its different institutions such as the Omani Center for Investment Promotion and Export Development (OCIPED), can play a pivotal role in strengthening exports by exploring new markets such as Asia and Africa. Information on overseas markets is not available to individual exporters, therefore, the government needs to provide assistance for individual companies to secure the marketing information as a public service.

Venkatesh, R. and Kumaran, K have analysed the export performance of coir industry in India. The research design adopted in this project is descriptive research. The study covers a period

of 10 years. The period selected for the study is between 2007-2008 and 2016-2017. The study is purely based on the secondary data relating to the export of coir and coir products namely Coir Fibre, Coir Pith, Coir Rope, Coir Rugs, Coir Yam, Curled Coir Geo-Textiles, Handloom Mats, Handloom Mattings, Powerloom Mats, Powerloom Mattings, Rubberized Coir, Tufted Mats and Coir Other Sorts. analysis of export performance of coir industry products shows that the export performance of Handloom Mats, Power loom Mats, Rubberized Coir and Tufted Mats have increased gradually after globalization. The export performance of other coir products showed a wavering trend except the export of Curled Coir which shows a decreasing trend. The export performance of Handloom Mats, Power loom Mats, Rubberized Coir and Tufted Mats is satisfactory.

OBJECTIVES OF THE STUDY

- Study the conceptual framework of the plastic industry of India.
- Analyze the export performance of plastic products from the period 2008-2009 to 2017-2018.

METHODOLOGY

The research design will ensure that the research is conducted effectively and efficiently. The research design adopted in this project is descriptive research. The study covers a period of 10 years. The period selected for the study is between 2008-2009 and 2017-2018. The study is purely based on the secondary data relating to the export performance Furniture of plastics, moulded suitcases, Plastic Sticker for Garment of Polyurethane Foam, Plastic Container for Audio and Video Cassettes and Floppy Disk, Artificial Flowers of Plastic, Moulds for Rubber & Plastic, Plastic Insulated winding wires, dolls of Plastics, restaurant decorations of Plastics, Frames and Mountings of Plastics. The data to substantiate the research analysis were downloaded from the websites and extracted from the Export import data bank. In addition, the required data have been collected from the website sources.

ANALYSIS OF EXPORT PERFORMANCE OF PLASTIC PRODUCTS

In this analysis, the export performance of plastic products in India is analyzed. The export performance is assessed with the help of summary statistical tools. In addition, to find out the association between the various plastic products exported. The export performance of 10

plastic Products viz., Furniture of plastics, moulded suitcases, Plastic Sticker for Garment of Polyurethane Foam, Plastic Container for Audio and Video Cassettes and Floppy Disk, Artificial Flowers of Plastic, Moulds for Rubber & Plastic, Plastic Insulated Winding Wires, Dolls of Plastics, Restaurant Decorations of Plastics, Frames and Mountings of Plastics.

The above plastic products have been analyzed for the period of 10 years (2008-2009 to 2017-2018) and the results are presented hereunder:

**Table 1: Export performance of Furniture of Plastics(For the period
2008-2009 to 2017- 2018)**

Value in Indian Rupees (lakhs)

YEAR	VALUE	(%)
2008-2009	2196.21	5.51
2009-2010	2238.00	5.61
2010-2011	2168.47	5.44
2011-2012	2561.83	6.42
2012-2013	3596.27	9.02
2013-2014	4758.56	11.93
2014-2015	6022.55	15.10
2015-2016	6010.14	15.07
2016-2017	5196.02	13.03
2017-2018	5140.29	12.89
Total	39888.34	100.00
Mean	3988.83	
STD DEV	1611.78	
CV	40.41	
Skewness	0.01	
Kurtosis	-1.98	
CAGR	0.10	

Source: Export import data bank

The table reveals that the export performance of Furniture of plastics from the year 2008-2009 to 2017-2018. It was found that the export value indicated an increasing trend from 2008-2009 to 2017-2018. In the years 2008-2009, 2,196.21 (5.51 percent) of Furniture of plastics were earned and it gradually increased in the following years resulting in Rs.5, 140.29 lakhs (12.89 percent) in the year 2017-2018.

The overall mean value of Furniture of plastics quantity is value amounts to Rs.39,88.83 lakhs. The Co-efficient of Variation 40.41 for value, it shows the stability of value earned in all the years of study. Skewness is 0.01 for value, which denotes that the distribution is positively skewed and the frequencies in the distribution are spread over a greater range of values on high-value end i.e., the excess tail is on the right-hand side. The kurtosis value of -1.98 states that the curve is less peaked than the normal curve. The Compound Annual Growth Rate of Furniture of plastics is 0.10% for value earned during the study period.

Table 2: Export performance of plastic Moulded Suitcase(For the period 2008-2009 to 2017- 2018)

Value in Indian Rupees (lakhs)

YEAR	VALUE	(%)
2008-2009	9568.43	6.73
2009-2010	6249.08	4.40
2010-2011	11127.26	7.83
2011-2012	12542.00	8.83
2012-2013	15164.40	10.67
2013-2014	17230.29	12.12
2014-2015	16224.23	11.42
2015-2016	16309.01	11.48
2016-2017	16608.95	11.69
2017-2018	21087.78	14.84
Total	142111.43	100.00
Mean	14211.14	

STD DEV	4330.26	
CV	30.47	
Skewness	-0.43	
Kurtosis	-0.01	
CAGR	0.09	

Source: Export import data bank

The table reveals that the export performance of plastic moulded suitcases from the year 2008-2009 to 2017-2018. It was found that the export value indicated an increasing trend from 2008-2009 to 2017-2018. In the year 2008-2009, 9568.43 (6.73percent) of plastic moulded suitcases were earned and it gradually increased in the following years resulting in Rs.21087.78 lakhs (14.84percent) in the year 2017-2018.

The overall mean value of plastic moulded suitcases quantity is value amounts to Rs.14211.14 lakhs. The Co-efficient of Variation 30.47 for value, it shows the stability of value earned in all the years of study. Skewness is -0.43 for value, which denotes that the distribution is positively skewed and the frequencies in the distribution are spread over a greater range of values on high-value end i.e., the excess tail, is on the right-hand side. The kurtosis value of -0.01 states that the curve is less peaked than the normal curve. The Compound Annual Growth Rate of is 0.09% for plastic moulded suitcases value earned during the study period.

Table 3: Export performance of Plastic Sticker for Garment of Polyurethane Foam
(For the period 2008-2009 to 2017- 2018)

Value in Indian Rupees (lakhs)		
YEAR	VALUE	(%)
2008-2009	69.34	15.05
2009-2010	96.75	21.00
2010-2011	43.28	9.39
2011-2012	41.87	9.09
2012-2013	76.78	16.66
2013-2014	9.65	2.09

2014-2015	26.43	5.74
2015-2016	56.15	12.19
2016-2017	15.54	3.37
2017-2018	24.99	5.42
Total	460.78	100.00
Mean	46.08	
STD DEV	28.42	
CV	61.68	
Skewness	0.48	
Kurtosis	-0.74	
CAGR	-0.11	

Source: Export import data bank

The table reveals that the export performance of plastic stickers for the garment of polyurethane foam from the year 2008-2009 to 2017-2018. It was found that the export value indicated an increasing trend from 2008-2009 to 2017-2018. In the years 2008-2009, 69.34(15.05 percent) of the plastic sticker for the garment of polyurethane foam were earned and it gradually increased in the following years resulting in Rs. 24.99 lakhs (5.42percent) in the year 2017-2018.

The overall mean value of plastic stickers for the garment of polyurethane foam quantity is value amounts to Rs. 46.08 lakhs. The Co-efficient of Variation 61.68 for value, it shows the stability of value earned in all the years of study. Skewness is 0.48for value, which denotes that the distribution is positively skewed and the frequencies in the distribution are spread over a greater range of values on high-value end i.e., the excess tail is on the right-hand side. The kurtosis value of -0.74 states that the curve is less peaked than the normal curve. The Compound Annual Growth Rate of is -0.11 % for a plastic sticker for the garment of polyurethane foam value earned during the study period.

Table 4: Export performance of Plastic Container for Audio and Video Cassettes and Floppy Disk(For the period 2008-2009 to 2017- 2018

Value in Indian Rupees (lakhs)

YEAR	VALUE	(%)
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2008-2009	949.39	12.80
2009-2010	737.84	9.95
2010-2011	583.32	7.86
2011-2012	884.43	11.92
2012-2013	1530.92	20.64
2013-2014	783.78	10.57
2014-2015	786.13	10.60
2015-2016	372.52	5.02
2016-2017	276.03	3.72
2017-2018	513.38	6.92
Total	7417.74	100.00
Mean	741.77	
STD DEV	352.84	
CV	47.57	
Skewness	1.06	
Kurtosis	2.13	
CAGR	-0.07	

Source: Export import data bank

The table reveals that the export performance of plastic container for audio and video cassettes and floppy disk from the year 2008-2009 to 2017-2018. It was found that the export value indicated an increasing trend from 2008-2009 to 2017-2018. In the year 2008-2009, 949.39 (12.80 percent) of plastic containers for audio and video cassettes and floppy disk were earned and it gradually increased in the following years resulting in Rs. 513.38 lakhs (6.92 percent) in the year 2017-2018.

The overall mean value of plastic container for audio and video cassettes and floppy disk quantity is value amounts to Rs. 46.08 lakhs. The Co-efficient of Variation 47.57for value, it shows the stability of value earned in all the years of study. Skewness is 1.06for value, which denotes that the distribution is positively skewed and the frequencies in the distribution are

spread over a greater range of values on high-value end i.e., the excess tail is on the right-hand side. The kurtosis value of 2.13 states that the curve is less peaked than the normal curve. The Compound Annual Growth Rate is -0.07 % for the plastic container for audio and video cassettes and floppy disk value earned during the study period.

Table 5: Export performance of Artificial Flowers of Plastic (For the period 2008-2009 to 2017- 2018)

Value in Indian Rupees (lakhs)

YEAR	VALUE	(%)
2008-2009	499.08	20.49
2009-2010	241.64	9.92
2010-2011	211.82	8.70
2011-2012	133.91	5.50
2012-2013	212.25	8.71
2013-2014	258.81	10.63
2014-2015	186.79	7.67
2015-2016	240.67	9.88
2016-2017	241.93	9.93
2017-2018	208.95	8.58
Total	2435.85	100.00
Mean	243.59	
STD DEV	96.59	
CV	39.65	
Skewness	2.32	
Kurtosis	6.74	
CAGR	-0.09	

Source: Export-Import data bank

From the table reveals that the export performance of artificial flowers etc of plastic from the year 2008-2009 to 2017-2018. It was found that the export value indicated an increasing

trend from 2008-2009 to 2017-2018. In the years 2008-2009, 499.08 (20.49percent) of artificial flowers,etc of plastic were earned and it gradually increased in the following years resulting in Rs. 208.95lakhs (8.58percent) in the year 2017-2018.

The overall mean value of artificial flowers of plastic quantity is value amounts to Rs. 243.59lakhs. The Co-efficient of Variation 39.65 for value, it shows the stability of value earned in all the years of study. Skewness is 2.32for value, which denotes that the distribution is positively skewed and the frequencies in the distribution are spread over a greater range of values on high-value end i.e., the excess tail is on the right-hand side. The kurtosis value of 6.74 states that the curve is less peaked than the normal curve. The Compound Annual Growth Rate is -0.09 % for artificial flowers of plastic value earned during the study period.

**Table 6: Export performance of other Moulds for Rubber &Plastic
(For the period 2008-2009 to 2017- 2018)**

Value in Indian Rupees (lakhs)

YEAR	VALUE	(%)
2008-2009	7828.04	3.94
2009-2010	9068.42	4.57
2010-2011	10303.38	5.19
2011-2012	15647.99	7.88
2012-2013	16801.71	8.46
2013-2014	22022.37	11.09
2014-2015	24525.53	12.35
2015-2016	26047.40	13.12

2016-2017	32842.28	16.54
2017-2018	33513.28	16.87
Total	198600.4	100.00
Mean	19860.04	
STD DEV	9424.13	
CV	47.45	
Skewness	0.18	
Kurtosis	-1.34	
CAGR	0.18	

Source: Export import data bank

The table reveals that the export performance of other moulds for rubber & plastic from the year 2008-2009 to 2017-2018. It was found that the export value indicated an increasing trend from 2008-2009 to 2017-2018. In the years 2008-2009, 7828.04 (3.94percent) of other Moulds for rubber & plastic were earned and it gradually increased in the following years resulting in Rs. 33513.28lakhs (16.87percent) in the year 2017-2018.

The overall mean value of other Moulds for rubber & plastic quantity is value amounts to Rs. 19860.04 lakhs. The Co-efficient of Variation 47.45 for value, it shows the stability of value earned in all the years of study. Skewness is 0.18for value, which denotes that the distribution is positively skewed and the frequencies in the distribution are spread over a greater range of values on high-value end i.e., the excess tail is on the right-hand side. The kurtosis value of -1.34 states that the curve is less peaked than the normal curve. The Compound Annual Growth Rate of is 0.18 % for other Moulds for rubber & plastic value earned during the study period.

Table 7:Export performance of Plastic Insulated Winding Wires(For the period 2008-2009 to 2017- 2018)

Value in Indian Rupees (lakhs)

YEAR	VALUE	(%)
2008-2009	7691.87	11.05
2009-2010	5021.21	7.21

2010-2011	4818.45	6.92
2011-2012	6182.88	8.88
2012-2013	6452.15	9.27
2013-2014	6424.20	9.23
2014-2015	8022.02	11.52
2015-2016	7609.84	10.93
2016-2017	6200.82	8.91
2017-2018	11197.52	16.08
Total	69620.96	100.00
Mean	6962.10	
STD DEV	1829.17	
CV	26.27	
Skewness	1.35	
Kurtosis	2.67	
CAGR	0.04	

Source: Export import data bank

The table reveals that the export performance of plastic insulated winding wires from the year 2008-2009 to 2017-2018. It was found that the export value indicated an increasing trend from 2008-2009 to 2017-2018. In the year 2008-2009, 7691.87 (11.05percent) of plastic insulated winding wires were earned and it gradually increased in the following years resulting in Rs. 11197.52lakhs (16.08 percent) in the year 2017-2018. The overall mean value of plastic insulated winding wires quantity is value amounts to Rs. 6962.10 lakhs. The Co-efficient of Variation 26.27for value, it shows the stability of value earned in all the years of study. Skewness is 1.35 for value, which denotes that the distribution is positively skewed and the frequencies in the distribution are spread over a greater range of values on high-value end i.e., the excess tail is on the right-hand side. The kurtosis value of 2.67states that the curve is less peaked than the normal curve. The Compound Annual Growth Rate is 0.04% for plastic insulated winding wires value earned during the study period.

Table 8: Export performance of Dolls of Plastics(For the period 2008-2009 to 2017- 2018)**Value in Indian Rupees (lakhs)**

YEAR	VALUE	(%)
2008-2009	833.65	0.92
2009-2010	997.37	1.10
2010-2011	1496.17	1.64
2011-2012	1469.86	1.61
2012-2013	2862.67	3.14
2013-2014	7964.04	8.75
2014-2015	10396.88	11.42
2015-2016	22504.66	24.72
2016-2017	19009.58	20.88
2017-2018	23488.91	25.81
Total	91023.79	100.00
Mean	9102.38	
STD DEV	9290.52	
CV	102.07	
Skewness	0.72	
Kurtosis	-1.35	
CAGR	0.45	

Source: Export import data bank

The table reveals that the export performance of dolls of plastics from the year 2008-2009 to 2017-2018. It was found that the export value indicated an increasing trend from 2008-2009 to 2017-2018. In the year 2008-2009, 833.65 (0.92 percent) of dolls of plastics were earned and it gradually increased in the following years resulting in Rs. 23488.91 lakhs (25.81 percent) in the year 2017-2018.

The overall mean value of dolls of plastics quantity is value amounts to Rs. 9102.38 lakhs. The Co-efficient of Variation 102.07 for value, it shows the stability of value earned in all the years of study. Skewness is 0.72 for value, which denotes that the distribution is positively skewed and the frequencies in the distribution are spread over a greater range of values on high-

value end i.e., the excess tail is on the right-hand side. The kurtosis value of -1.35 states that the curve is less peaked than the normal curve. The Compound Annual Growth Rate of is 0.45% for dolls of plastics value earned during the study period.

Table 9: Export performance of Restaurant Decorations of Plastics(For the period 2008-2009 to 2017- 2018)

Value in Indian Rupees (lakhs)

YEAR	VALUE	(%)
2008-2009	10.22	7.22
2009-2010	44.24	31.25
2010-2011	18.85	13.31
2011-2012	4.54	3.21
2012-2013	28.82	20.36
2013-2014	14.68	10.37
2014-2015	8.40	5.93
2015-2016	4.66	3.29
2016-2017	5.37	3.79
2017-2018	1.80	1.27
Total	141.58	100.00
Mean	14.16	
STD DEV	13.35	
CV	94.28	
Skewness	1.51	
Kurtosis	1.94	
CAGR		

Source: Export import data bank

The table reveals that the export performance of restaurant decorations of plastics from the year 2008-2009 to 2017-2018. It was found that the export value indicated an increasing trend from 2008-2009 to 2017-2018. In the year 2008-2009, 10.22 (7.22 percent) of restaurant decorations of plastics were earned and it gradually increased in the following years resulting in Rs. 1.80 lakhs (1.27 percent) in the year 2017-2018.

The overall mean value of restaurant decorations of plastics quantity is value amounts to Rs. 14.16lakhs. The Co-efficient of Variation 94.28for value, it shows the stability of value earned in all the years of study. Skewness is 1.51for value, which denotes that the distribution is positively skewed and the frequencies in the distribution are spread over a greater range of values on high-value end i.e., the excess tail is on the right-hand side. The kurtosis value of 1.94states that the curve is less peaked than the normal curve. The Compound Annual Growth Rate of is -0.18% for restaurant decorations of plastics value earned during the study period.

Table 10: Export performance of Frames and Mountings of Plastics(For the period 2008-2009 to 2017- 2018)

Value in Indian Rupees (lakhs)

YEAR	VALUE	(%)
2008-2009	241.41	5.46
2009-2010	206.25	4.67
2010-2011	243.11	5.50
2011-2012	426.80	9.66
2012-2013	474.59	10.74
2013-2014	476.27	10.78
2014-2015	252.48	5.72
2015-2016	603.27	13.66
2016-2017	843.38	19.09
2017-2018	649.92	14.71
Total	4417.48	100.00
Mean	441.75	
STD DEV	211.90	
CV	47.97	
Skewness	0.62	
Kurtosis	-0.43	
CAGR	0.12	

Source: Export import data bank

The table reveals that the export performance of frames and mountings of plastics from the year 2008-2009 to 2017-2018. It was found that the export value indicated an increasing trend from 2008-2009 to 2017-2018. In the year 2008-2009, 241.41 (5.46percent) of frames and mountings of plastics were earned and it gradually increased in the following years resulting in Rs.649.92 lakhs (14.71 percent) in the year 2017-2018.

The overall mean value of frames and mountings of plastics quantity is value amounts to Rs. 441.75lakhs. The Co-efficient of Variation 0.62for value, it shows the stability of value earned in all the years of study. Skewness is 1.51for value, which denotes that the distribution is positively skewed and the frequencies in the distribution are spread over a greater range of values on high-value end i.e., the excess tail is on the right-hand side. The kurtosis value of -0.43 states that the curve is less peaked than the normal curve. The Compound Annual Growth Rate is 0.12% for frames and mountings of plastics value earned during the study period.

FINDINGS AND DISCUSSION

The Compound Annual Growth Rate of Furniture of plastics is 0.10% for value earned, 0.09% for plastic moulded suitcases -0.11 % for a plastic sticker for the garment of polyurethane foam, -0.07 % for the plastic container for audio and video cassettes and floppy disk, -0.09 % for artificial flowers of plastic value 0.18 % for other Moulds for rubber & plastic, 0.04% for plastic insulated winding wires, 0.45% for dolls of plastics, -0.18% for restaurant decorations of plastics 0.12% for frames and mountings of plastics value earned during the study period

Plastic is a very essential material that only helps to create daily-used items but it can have multiple impacts on other sectors of the economy. The plastic industry in India has grown significantly and has export potential. Nevertheless, with the profitable market condition, the industry is failing to achieve it. There are several challenges that this industry is facing. In order to compete globally, the industry should focus to work on the lacking to reap the tremendous level of benefits for India. Keeping all these challenges in mind, the government should also take a policy that will favor the plastic industry to grow more in India.

Innovative funding mechanisms, incentives, subsidies for bio-based and recycled plastic product development, and other possible sustainable alternative solutions may help expedite the research and innovation capabilities along with market outreach. Plastic waste management has to be assessed on a case-to-case basis in conjunction with climate and geographical location. Sustainable plastic waste management solutions and alternatives call for effective stakeholder engagement and capacity building

CONCLUSION

The Indian plastic industry clearly has the potential to continue its fast growth. However, over the next few years, competition in the industry is expected to increase considerably, as a result of global trends, which will become applicable to the liberalizing economy of the country. To survive the competition, both polymer manufacturers and processors will need to adopt radically new methods and approaches to reduce costs, improve market and customer service and management of performance.

Hence, it is clear that plastics will continue to be a growth industry, with boosting prospects for fresh investments in polymerization and downstream processing capacity. This is in contrast to the situation in various other countries, where growth prospects are limited, either because of stagnant demand or due to the historical overbuilding. In such countries, the overall outlook would be far less promising, with the key imperatives being cost-cutting and capacity rationalization.

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