

Printing and Packaging Sector



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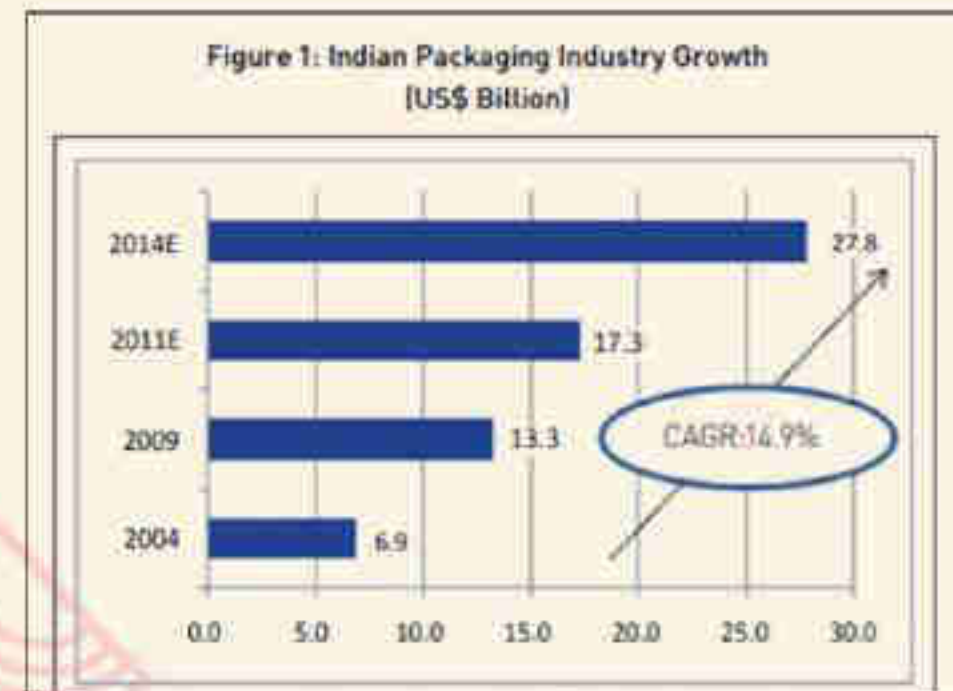
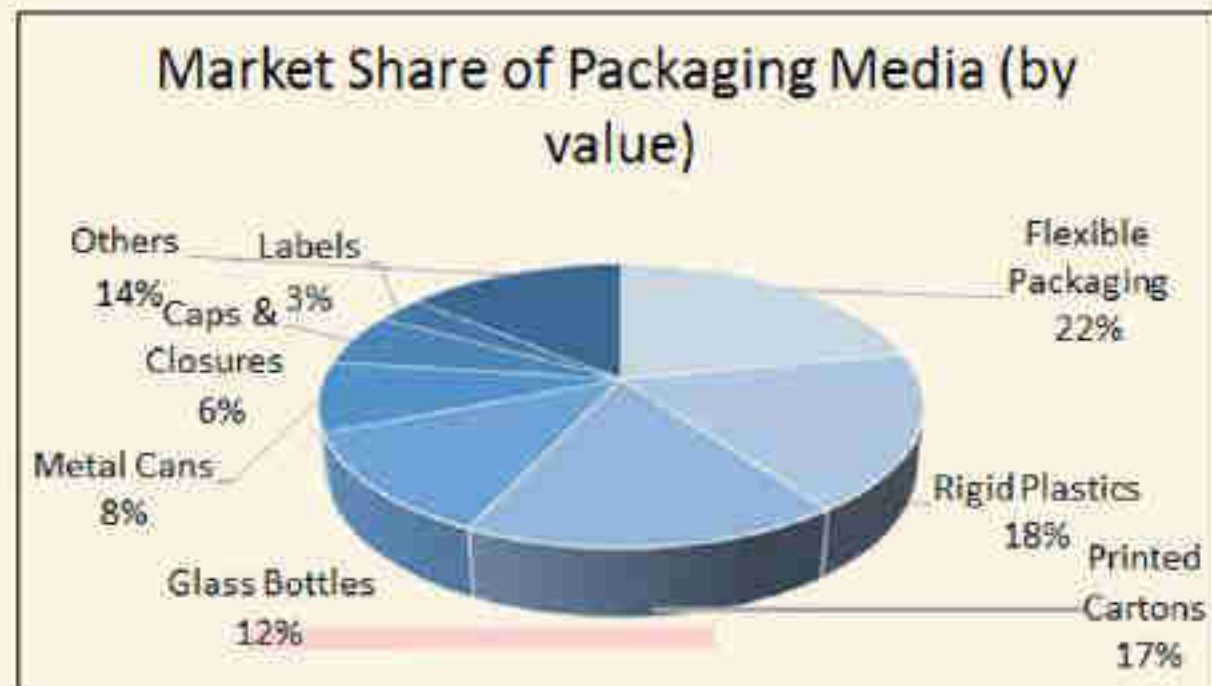
INDUSTRY OVERVIEW

The print industry constitutes around 4% of the global market, while per capita packaging consumption in India is quite low at 8.7 kilograms as compared to countries like Germany and Taiwan where it is 42 kilograms and 19 kilograms, respectively

Study suggests, and experts too claim that the growth in the packaging industry in India is mainly driven by the food and pharmaceutical packaging sectors

The large and growing Indian middle class along with the growth in organized retailing in the country are fueling the growth in the packaging industry

With the rapid growth of exports, which requires superior packaging standards for the international market, the need for adopting better packaging methods, materials and machinery to ensure quality has become very important for Indian businesses



Materials used in Packaging

Material	Packaging type	Preferred in applications
Paper and board	Cartons, boxes, bags, wrappers	Light weight, lower cost, easy disposal and availability
Plastics	Cartons, bags, wrappers, pouches, bottles, containers, caps, pallets	Existing technology, light weight, corrosion resistance, versatility of use, attractive designing
Aluminium	Collapsible tube, foils, containers, cans, closures	Good barrier properties, grease proof, shrink proof, tasteless and odourless
Glass	Bottles, jars, jugs	Transparent, good strength, high rigidity, gas and water-vapour barrier, chemically inert
Tinplate	Cans, containers, caps	Strength, good barrier properties, long shelf life, reusable, ease of recycling
Laminates (plastic and paper)	Pouches, films, tubes, bags	Strength, good barrier properties, grease resistance, heat-seal property, attractive designing

Sources: Journal of Indian Institute of Packaging, IMACS Research



PLANT AND MACHINERY

Packaging machinery can be:

- Purchased as standard, off-the-shelf equipment
- Purchased custom-made or custom-tailored to specific operations
- Manufactured or modified by in-house engineers and maintenance staff



Bakery goods shrinkwrapped by shrink film, heat sealer and heat tunnel on roller conveyor



High speed conveyor with stationary bar code scanner for sorting



Label printer applicator applying a label to adjacent panels of a corrugated box



Robots used to palletize bread



Automatic stretch wrapping machine



Equipment used for making molded pulp components and molding packaging from straw^[37]



A semi-automatic rotary arm stretch wrapper



Equipment for thermoforming packages at NASA



Automated labeling line for wine bottles



Shrink film wrap being applied on PET bottles



Pharmaceutical packaging line



Filling machinery for bag-in-box

Business Opportunities

- Indian packaging industry is highly fragmented with a large number of small scale companies and a few large integrated players. According to one estimate, there are more than 22,000 registered packaging companies in India, more than 85 percent of which are MSMEs.
- The larger companies are highly capitalized and usually involved across the higher value added activities like material production, innovative products and design and higher volume supplies catering to the larger demand segments like F&B and cosmetics. The MSMEs in India are usually companies involved in the lower value added activities like conversion, filling and production.
- The organized sector in India accounts for roughly 50 percent of the volumes whereas the balance is highly fragmented and distributed. Globally the scenario is somewhat more consolidated – roughly 75 percent of the global packaging industry by value is accounted for by 20 percent of the largest integrated global players.

In India, as the industry grows and matures, there is expected to be a trend towards consolidation as the supply side companies merge and acquire smaller companies to increase scale, reduce competition and improve bargaining power with the customers.

Exhibit 2: Companies by Net Sales

Company	Net Sales/Rs Cr
Uflex	3,079.03
Jindal Polyfilm	2,366.63
Parekh Aluminex	1,369.75
Time Technoplast	920.74
Polyplex Corp	897.2
Ausom Enterp	862.97
Paper Products	821.24
Garware Poly	788.36
Bilcare	752.6
Ester Ind	699.58

Source: Money Control as of October 2012

Exhibit 3: Companies by Market Capitalization

Company	Market Cap-BSE/Rs Cr
Time Technoplast Ltd.	990.71
Jindal Poly Films	873.75
Uflex	813.10
ESS-DEE Aluminium	809.69
Polyplex Corporation	664.32
Bilcare Ltd.	603.11
Essel Propack	594.63
Paper Products	467.02
Parekh Aluminex	441.71
Flexituff International	416.14

Source: Money Control as of 11 October 2012

Government Schemes and Licenses



New Packaging Norms on Standard Pack Sizes- As per the new norms on packaging, players will have to mandatorily pack items in standard sizes only, taking away the leeway to tweak weight to accommodate rising raw material costs, without impacting prices for the consumer. Small pack sizes, vital as recruiter packs for new consumers, are exempt from the new rules.



Food Safety And Standards (Packaging And Labeling) Regulations, 2011 - The Food Safety and Standards Authority of India proposed to make Food Safety and Standards Regulations provides clearly defined labeling requirements for all the foods packaged in India. It gives clear guidelines on labeling a packaged food, covering things like date of manufacture and best used by, date of packaging, not for infants, etc. The law also covers the general requirements for packaging a food product and gives clear legal guidelines regarding this.



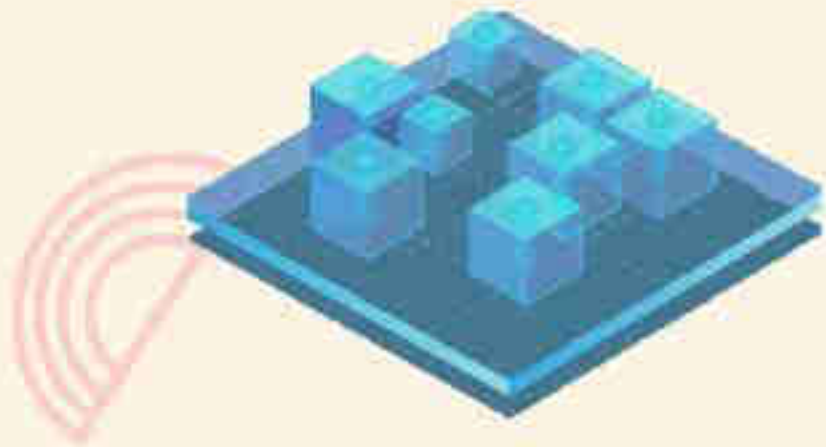
Ban on usage of flexible plastics for tobacco products / Ban on Gutkha /Chewing tobacco - Supreme Court of India banned the usage of flexible plastics for tobacco products. This notification was aimed at clearing the impact that these millions of smaller sachet packs were having on the overall environment and also the cities' ecological systems.

Marketing of the Business

Digital printing revolution - Digital printing allows packagers far more latitude in personalization and customizing options than mechanical processes like typesetting did.

Personalized packaging - Reports cite that 70% of marketers believe personalization has a strong or extremely strong impact on their customers. There's no one-size-fits-all in personalized packaging. In fact, that's the core philosophy behind this trend. Personalization allows a company to promote their name and brand in a forceful way that stands out from competitors.

Transparency & Clean labels - Brands showcase the clean and transparent trend in 2020 with the implementation of Smart Label. The label code immediately connects consumers to a landing page with transparent information about how clean this choice may be.



Future of the Industry



★ Technical Innovations ★

Modified Atmospheric Packaging (MAP) is said to have great potential to increase the shelf life of a number of perishable products including dairy, meat (both cooked as well as raw) fruit and vegetables. Because these foods get spoiled due to the development of oxidative rancidity and or the growth of microorganisms, MAP packaging holds great promise.

★ Energy Conservation ★

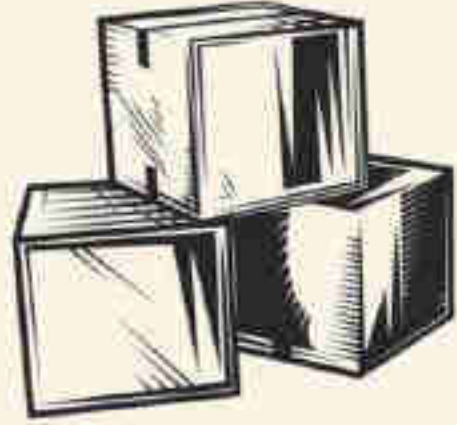
Energy conservation has an attendant benefit of helping cut costs for the packaging sector and has resulted in innovations in some feeder industries as well. Schneider Packaging Equipment Co's Sustainability Measurement Option, allows tracking of energy consumption and equipment performance which means companies can now track their carbon footprint more precisely.

★ Innovation in shape/design ★

Cube shaped containers are gaining popularity for their ease of stacking in transit and warehouses, and also for the minimizing/ eliminating void.

Colleges in this Field

Name of the college	Degree
Central University of Haryana, Mahendergarh	B.Tech Printing and Packaging Technology
Government Polytechnic, Nagpur	Diploma in Packaging Technology
Indian Institute of Technology Roorkee	M.Tech Packaging Technology
College of Engineering, Guindy	ME Printing and Packaging Technology
Guru Jambheshwar University of Science and Technology, Hisar	B.Tech Packaging Technology
GH Patel College of Engineering and Technology, Anand	ME Packaging Technology
SIES Graduate School of Technology, Navi Mumbai	B.Tech Printing and Packaging Technology
Makhanlal Chaturvedi National University of Journalism and Communication, Bhopal	B.Tech Printing and Packaging
Institute of Mass Communication and Media Technology, Kurukshetra University, Kurukshetra	B.Tech Printing, Graphics and Packaging
Jawaharlal Nehru Government Polytechnic, Ramanthapur	Diploma in Packaging Technology
Mathabhanga Government Polytechnic, Cooch Behar	Diploma in Packaging Technology
Advanced Plastics Product Simulation and Evaluation Centre, Tamot	Diploma in Packaging Technology



THANK
YOU

