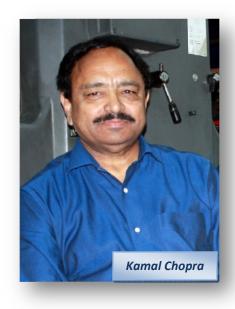
Printing in India Growing: - An Overview

By Kamal Chopra, Chairman, International Relations - AIFMP

Printing and Print – Packaging industry in India is growing; people are taking keen interest in this key industry now. There are more than 36 printing institutes some of these giving even post-graduate education. Every year more than 3500 new printing engineering graduates joins this industry, while still much more get on the spot training in the print shops. Printing especially Packaging printing is now one of the fastest growing sectors in India. It is said that since 1989 the growth of the Printing coupled with Packaging Printing industry is over 14%.



The growth of this sector attributes to the two main reasons, First is the spread of education- according to the 2001 census report literacy growth in India touched nearly 66 per cent. This amazing growth in literacy together



with rising educational levels and rapidly progressing trade and industry in India make the current situation a happy note. Literacy rate is growing; increase in the literacy rate has direct positive effect on the rise of the circulation of the regional papers. The people are first educated in their mother tongue as per their state in which they live e.g. students in Maharashtra are compulsory taught Marathi language and hence they are educated in their state language and the first thing a literate person does is read papers and gain knowledge and hence higher the literacy rate in a state the sales of the dominating regional paper in the state rises. There's little doubt about India's market potential in print media. According to a national survey, 248 million literate adults still don't read any publication. But readership of newspapers and magazines is up by 15% since 1998 to 180 million. It's a reflection of a younger, more educated population, especially in small-town India, feel experts. India has 49,000 publications, but annual revenues total just \$ 1.1 billion. While they can be vibrant and gutsy, most are starved for technology, marketing, and capital to expand. So a handful of publications dominate. With the growth in literacy, the Indian print media industry is expected to grow at CAGR of 5.7% for the period 2009-13 to reach Rs. 213.6 billion from Rs. 161.8 billion in 2008.

Newspaper publishing, which constitutes around 87% for the segment in 2008, is expected to grow to Rs. 184.8 billion in 2013. Magazine publishing is expected to grow to Rs. 28.8 billion in 2013 from Rs. 21.0 billion in 2008 at a CAGR of 6.5%.

Print advertising is expected to have a CAGR of 8.0% and grow from Rs. 103.5 billion in 2008 to Rs. 152.0 billion in 2013. Print industry circulation CAGR is expected to grow at a minimal rate of 1.1% to reach Rs. 61.6 billion in 2013 from Rs. 58.3 billion in 2008.

Growth of Indian Print Media Industry 2009-2013

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In Rs. billion	2008	2009	2010	2011	2012	2013	CAGR
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Newspaper Publishing	140.7	146.4	154.8	166.5	178.1	184.8	5.6%
Magazine Publishing	21.0	22.1	23.4	24.9	27.0	28.8	6.5%
Print Industry Advertising	103.5	111.5	122.5	133.8	145.5	152.0	8.0%
Print Industry Circulation	58.3	57.0	55.7	57.6	59.6	61.6	1.1%

Source: Industry estimates and PwC analysis

GDP Growth - New opportunities for Packaging Printing

Second being, India has consolidated its position as the world's fourth largest economy, behind the United States, China and Japan, in Purchasing Power Parity (PPP), according to the latest World Development Indicators and has the third largest GDP in the entire continent of Asia. It is also the second largest among emerging nations.

India is also one of the few markets in the world which offers high prospects for growth and earning potential in Printing and Packaging industry also. India is one of the largest producers in agriculture worldwide ranking among the top 3 in the production of pulses, milk, sugar and fruit. Thereby the country offers abundant raw material for further processing and packaging. A considerable part of the food production volume so far gets lost due to deficient methods of harvesting and insufficient infrastructure, low hygiene standards and lack of facilities for cooling. A higher degree of food processing could contribute to improve the dire income situation of the rural poor. India is the world's most important producer of tea, the market for bottled water shows an average growth rate of 40% per year. Fruit juices and drinks, too, register comparable yearly increases. The consumption of wine and beer, starting from low levels, is accelerating at 25 and 10% respectively. The domestic market for drugs depicted a healthy growth of about 12% during the past year, for 2010 a 12 to 13% increase is expected. India is ranking fourth by volume worldwide with regard to the manufacture of medicine. Analysts predict the cosmetic market to grow by around 7 % annually in the years to come. These are a few highlights from business reports of VDMA, depicting the packaging industry and its consumer markets in India. It is clear that there is tremendous scope for the growth of the Print – Packaging industry in India.

These may be the two major reasons that Printing and Print - Packaging industry in India is now ranked as the fastest growing in world; as per the NPES/PRIMIR 'World Wide Market

for Print' study, the growth of printing industry in China for 2006 – 2011 is estimated at 60% where as in India the growth is estimated to be 73% in the same period.

Growth of Print Market 2006 - 11

Rank	Country	2006	2011	Growth (2006-
1	India	UUS\$12,131.0	US\$20,990.7	11)
2	Russia	4,257.8	7,192.0	73.0%
3	Venezuela	877.8	1,419.3	68.9%
4	Ukraine	529.6	848.8	61.7%
5	China	41,200.0	65,934.1	60.3%
6	Malaysia	3,504.3	5,503.0	60.0%
7	Indonesia	6,096.5	9,547.8	57.0%
8	Romania	718.2	1,112.2	56.6%
9	Turkey	2,110.9	3,227.9	54.8%
10	Brazil	12,552.2	19,192.2	52.9%
11	Poland	3,004.7	4,579.2	52.9%
12	Thailand	596.9	909.4	52.4%
				52.4%

Source: PRIMIR 'World Wide Market for Print' – study

Printing and Allied Machinery

With this growth in the print market, indeed there is growth in the import of Printing and allied machinery, but alongside increasing imports there is also growth of the indigenous printing and packaging machinery. During the major international printing machinery exhibition - Print Pack 2009 at Delhi we have noticed the impressive growth of the indigenous manufacturing units. Full range of equipment and machinery was displayed alongside the imported machinery. Encouraged by lifting of import restrictions, foreign manufacturers participated fairly in large numbers, but the degree of sophistication in design and excellence in performance achieved by Indian manufacturers was also remarkable. The major European suppliers of printing equipment and machinery are increasingly catering to the high end technology and automation needed for their markets. They are no longer in a position to meet the requirements of the traditional and rural markets, where they are yet to convert and high and sophisticated technology is not in demand. This traditional market offer Indian manufacturers an edge to produce more cost conscious products for such a market. The emerging markets in Asia and Africa have provided ample incentive to the Indian manufacturers of Printing and allied machinery. At the same time Manugraph India has achieved the distinction of being one of the largest manufacturers of the Newspaper printing machines.

Total export of printing, allied machinery and consumables exceeds Rs. 32 billion last year against the total export of Rs. 520 million from this sector, just fifteen years back.

CTP/CTCP

The first attempt at CtP was taken boldly by Deccan Herald and Malayala Manorama in the Newspaper segment and their partial success - made all the others to wait and watch. From my regular interactions with all leading and medium size printers - almost all of them are clear that they will be investing in CtP in the next one or two years. There are around 250 installations in India today in the commercial segment and around 300 in the Newspaper. The installation of CtP in the commercial segment is likely to touch 1800 in the next two years. The CtP revolution in the next two years is likely to be a huge increase in install base of CtPs with printers and some repro houses.

CTP/CTCP machines are not manufactured in India, rather there are dealers of various international brands available in the market. Some of these dealers has worked out a complete package for the printers to migrate them to a 100% digital workflow with CtP. They take care of the entire project and provide consultancy on all aspects starting from Scanning, proofing, page designing, pagemaking, workflow and CtP including man power planning and training of the sales force thus making the transition as smooth as possible.

Printing Ink and Consumables

In consumables Technova Imaging, Mumbai enjoys more than 75% share in the Indian market and is stated to be no 3 in the world market. TechNova is one of the world's largest manufacturers of analog & digital imaging products. Total imaging solution offerings from TechNova include violet & inkjet CtP systems; and a full range of consumables, such as offset printing plates; chemicals; offset inks; inkjet, laser and drafting media for various industries such as printing & publishing, packaging, textiles, engineering, signage, advertising, geology, photography, business graphics and medical imaging. Its overseas offices and distribution network market products to over 51 countries. In the Indian subcontinent, it has over 75% market share in each of its product groups. It has technical and marketing collaborations with Agfa- Gevaert N.V., Toyo Inks, Japan & Hydro-Dynamic Products, U.K.

The size of the Indian Market for Printing Inks Industry is estimated to be approximately US \$400 Million today, and is expected to grow at between 12 - 15% annually in volume terms. There are 7 major players in the line and around 25 - 30 ink makers in the medium size category and an estimated 200 ink makers in the small scale segment.

1	Huber	Estimated turnover Rs. 7000 million annually
2	DIC	Rs. 5000 million Annually
3	Seigwerk	approximately Rs. 1000 – 2000 million annually
4	Sakata	approximately Rs. 2000 million annually
5	Flint	approximately Rs. 1000 – 2000 million annually

6	Organic Coatings	Turnover is estimated at Rs. 500 million.
7	Fujifilm	Sericol is the leader in the Screen & Digital Ink segment.

In terms of tonnage of ink manufactured in India, it is estimated to be 110 million tonnes. The ink demand in the Newspaper Industry grew rapidly over the past 3-4 years by nearly 20%. In spite of the global meltdown, the newspaper industry has grown nearly 25% in readership.

The Packaging Industry which is another main consumer of printing ink, has witnessed a growth of approximately 12.5% and the corrugated packing industry grew by over 8%. The flexible packaging growth is in excess of 15% with the expansion of the food and retail industry. Another area of high growth rates is expected in the Can Coating segment which is presently at 3-4% growth but is expected to show an increase when more food products like meats and seafood are increasingly packaged and the beverage industry expands with increase in consumption of Sodas, Soft Drinks, Tea, Coffee and Beer.

Other segments of Ink consumption in screen printing is showing steady growth trends as there is more demand from the retail segment for POPs, Signage, etc. In the industrial screen printing segment the growth comes from applications in the automotive segment for auto dials, decals for motorcycles and four wheelers, etc.

The Electronic Industry has special demands for inks for PCBs, Membranes and Touch Panels, etc. The Inkjet ink requirement in the country is expanding exponentially with the rapid increase in the population of Digital Printers both Solvent and UV based. Though the majority of inks for this industry is presently imported, there is a growing number of local inks manufacturers who have started offering products to replace imported inks. Watch out for this demand which will be met by indigenous manufacturers and offer a great opportunity for Indian inks makers as well as International Brands who wish to set up manufacturing units in India.

Besides catering to the in land demands the Printing Ink and chemicals are also being exported to various countries. Micro Ink (Huber), the leading player in India has crossed Rs. 5250 million in exports.

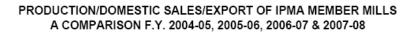
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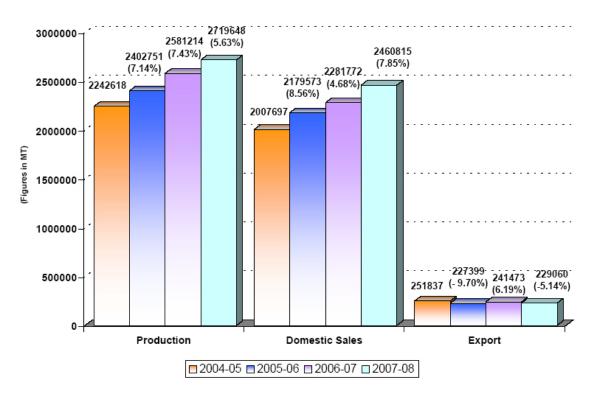
The Indian Paper Industry is among the top 15 global players today, with an output of more than 6 millions tones annually with an estimated turnover of Rs. 150,000 millions. (approx. USD 3400 million). It provides employment to nearly 1.5 million people and contributes Rs 25 billion to the government's kitty. The government regards the paper industry as one of the 35 high priority industries of the country. Paper Industry in India is riding on a strong demand and on an expanding mood to meet the projected demand of 8 million tonnes by 2010 & 13 million tonnes by 2020. A large number of expansion programmes & expansion

of capacities with an outlay of Rs. 100,000 million have been announced covering the various sectors like paper, paperboard, newsprint etc. for investments.

One of the first FDI Projects may come through the proposed Finnish proposal to set up a 400000 tpa capacity plant with an investment of US\$240 million. The expanding Industrial Scenario calls for efforts to tackle related problems:

- Industry needs capital and technology.
- Since energy cost accounts nearly 25 per cent of cost of production there is an urgency to improve energy management and energy consumption.
- Quantum jump in production, called for by the demand projection is possible only by expansion of existing capacity and creation of additional capability. Upgradation of technology and new capacities also involve massive investment.
- Use of agro residues for preparation of pulp also throws up challenges like pollution control, recycling, use of cost effective technology for utilization of agro residues, etc.





Paper industry is primarily dependent upon forest-based raw materials. The first paper mill in India was set up at Sreerampur, West Bengal, in the year 1812. It was based on grasses and jute as raw material. Large scale mechanized technology of papermaking was introduced in India in early 1905. Since then the raw material for the paper industry underwent a number of changes and over a period of time, besides wood and bamboo, other non-conventional raw materials have been developed for use in the papermaking. The Indian pulp and paper industry at present is very well developed and established. Now,

the paper industry is categorized as forest-based, agro-based and others (waste paper, secondary fibre, bast fibbers and market pulp).

In 1951, there were 17 paper mills, and today there are more than 500 units engaged in the manufacture of paper and paperboards and newsprint in India. The pulp & paper industries in India have been categorized into large-scale and small-scale. Those paper industries, which have capacity above 24,000 tonnes per annum, are designated as large-scale paper industries. India is self-sufficient in manufacture of most varieties of paper and paperboards. Import is confined only to certain specialty papers. To meet part of its raw material needs the industry has to rely on imported wood pulp and waste paper.

Indian paper industry has been de-licensed under the Industries (Development & Regulation) Act, 1951 with effect from 17th July, 1997. The interested entrepreneurs are now required to file an Industrial Entrepreneurs' Memorandum (IEM) with the Secretariat for Industrial Assistance (SIA) for setting up a new paper unit or substantial expansion of the existing unit in permissible locations. Foreign Direct Investment (FDI) up to 100% is allowed on automatic route on all activities except those requiring industrial licenses where prior governmental approval is required.

Growth of paper industry in India has been constrained due to high cost of production caused by inadequate availability and high cost of raw materials, power cost and concentration of mills in one particular area. Government has taken several policy measures to remove the bottlenecks of availability of raw materials and infrastructure development. For example, to overcome short supply of raw materials, duty on pulp and waste paper and wood logs/chips has been reduced.

Outlook for paper industry in India looks extremely positive as the demand for upstream market of paper products, like, tissue paper, tea bags, filter paper, light weight online coated paper, medical grade coated paper, etc., is growing up.

Capacity/Quality of Indian Printers

As the world becomes a global village, distance and geographic boundaries are virtually disappearing. In this scenario, brand building is a prerequisite for success and profitability. Many Indian printers are making a name for themselves both in quality and competence. The ranks of Indian printers doing world class printing and winning international awards for the excellence in printing is growing. Increasing number of printers in India are also concentrating on exports and undertaking outsourcing jobs. Printing in India may be growing at 40% but the point to be noted is the capacity of the print has grown a lot more. The US printing industry's growth is worth \$200 billion per year, with the short run business being around \$30 to 40 billion. If even a part of this were to come to India, it would be very dramatic.

Digital Boom

Recent advances in digital technology have prompted many industries to make the transition from analog to digital. Television, cable services, imaging and telecommunications have all been quick to jump aboard and take advantage of the

improved speed or quality that comes with such advances. The Printing industry is no different. Many segments of the printing industry have already adopted digital as a supplement to, or replacement for offset printing, and experts think that digital printing will experience remarkable growth over the next few years. CAP Ventures estimates that the retail value of print in the production copying and digital printing market will grow from \$3.6 billion in 2001 to \$50.5 billion. Industry expert Frank Romano agrees. He predicts that worldwide offset volume will stay flat while digital colour volume will double over the next five years. That sort of growth cannot be ignored, even by small-to-midsize quick print shops that have been printing offset successfully for many years and have been slower to embrace digital.

There's no doubt that new value-added services are the lifeblood of the printing industry, and will become even more critical in the decade to come. Graphic arts service providers need to offer more than just ink on paper, because their customers' businesses are demanding it. Ignoring value-added services such as consulting, mailing and fulfilment, prepress services, and variable information printing will be perilous, as more and more printers develop these non-traditional competencies to be more competitive. The printers that have begun to adopt these services are already seeing key benefits, including improved customer satisfaction, increased profitable revenue and an expanded customer base. While implementing these services may seem daunting, printers won't have to do it alone.

The printing industry in India is currently experiencing many transitions, the latest in the form of Digital Printing. Digital printing branded as 'New Business Printing' is a key area on the rise. Demands from the print customers are increasingly being met with digital printing and related services. The print on demand market is projected to grow by 14%.

In the prophetic words of Bernhard Schreier, the CEO of Heidelberger Druckmaschinen AG 'By putting all the insights in a nut shell, the historic development, the current situation, the social, industrial and political circumstances, it can be stated without any doubt, that by 2015, India will be one of the leading printing nations of the world'.