The Print Industry:
An Overview

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Researchers: Cheang Chee Yew
Eugene Tan

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For more information about the National Library Board Infoserv products and services, please contact:

Information Services Division
National Library Board
Tel: +65 6332 3255
Fax: +65 6339 0432
Email: cis@nlb.gov.sg

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Printing Industry

Characteristics

The printing industry covers the entire print process from creation through distribution to other non-print services that it offers. So any definition of the industry includes not only the numerous firms that perform the actual printing, but the companies that provide binding and finishing services such as cutting, trimming, die cutting, laminating, mounting and varnishing documents for their clients. (2)

Today’s printing industry is referred to either as the Graphic Communications or Graphic Arts Industry or The Printing and Graphic Arts Industry as it is a combination of print media and visual communication. With developments in digital technology, the industry has been further transformed. (2)

The printing industry has evolved beyond ink-on-paper to include direct mailing and fulfillment services, and increasingly multimedia, graphic design, and web page creation in which graphic design is important to the process. In this expanded definition of printing we also include companies that make up the industry’s supply chain. This group is made up of printing brokers, independent salespeople, recruiting companies, suppliers, trade organisations, educational institutions, graphic service providers, equipment vendors and manufacturers. (2)

Despite changes to the printing industry, the sector is still characterised by small and medium-sized firms who have always combined creativity with industrial production. (1) Most printing firms in the United States employed fewer than 10 people. (3)

Other characteristics of the printing industry are the presence of powerful buyers (publishers, retailers) and suppliers (paper, production equipment and graphics software suppliers, etc.), a product that is often easily substituted, and intense competition between printers, which is exacerbated by over-capacity. Therefore, rising and unstable costs have been accompanied by continuous downward pressure on prices, causing a fall in profitability. (6)

Results of Our Study

Our findings showed that:

- the print sector is in a state of transition in the global economy,
- printers were previously the main channel used in the transmission of information,
- with digitisation, printing become just another channel in the information chain (eg. digital printing has dented the all-important role of the print industry),
- the main challenge is for the print industry future to ensure a successful integration into the global ‘communication’ system. (1) A value chain integration with the publishing industry is inevitable.

MACROLEVEL

State of Industry
Worldwide
Key Issues

The current drop in the amount of printing, according to industry expert Andrew Tribute, is due to the changes in the way information is delivered, combined with massive overcapacity in the industry. These have driven down prices and profit margins. With digital printing continuing to move steadily away from the commercial sector to become an office function, according to the Tribute view successful printers are concentrating on added value customer support, even while the majority of industry investments are still being ploughed into traditional technology in order to increase capacity. (4) (5)

The current changes impacting the print industry are not part of the normal business cycle (caused by the ups and downs of the economy, paper prices, energy prices, interest rates, etc.), but are structural in nature (which redefines a change in how people communicate and print’s role in supporting that communication. Every printer is in the communications business – not the ink-on-paper business). In other words there will be no return to the ‘good old days.’ What is being experienced now is a fundamental, redefining change in how people communicate and print’s role in supporting that communication. (4) (5)

All of which proves that printers and the printing industry cannot generate demand for print. The market decides where the growth in demand will come and in such major sectors as newspapers, periodicals, books and catalogues the trend is downward. On the other hand packaging, advertising and direct mail are on the rise over the long-term. Printers compete for work by the level and quality of service they provide to satisfy their customer’s needs. A printer cannot compete on price alone - they will soon go out of business if they do. So printers need to be more than just put ink on paper, they must add value. (4) (5)

As for the state of technology, Tribute maintains that every element of the print creation and production process is now digital. Digital work flows from customer’s job creation to print delivery. There is now an imperative to link the content (brand) owner into the production chain. (4) (5)

In short, industry consultant Andrew Tribute said firms have to be more than just a printer. They have to provide a total service for clients in print and information management from creation to delivery. Digital printing is an essential complement to offset. Printers are also encouraged to provide Internet-based services to work with clients for job management, processing and job and data management. Another suggestion for the future of printers is for them to develop digital data and repurposing services. And finally, they should become a digital services company instead of just being a mere printer. (4) (5)

MICROLEVEL

Issues affecting
Printing
Companies
Among the factors that drive the need for print services are the economic climate, the Internet and other electronic alternatives to print, and customer demand. The weak economy may cause the print market to grow slower than expected. As more companies get involved in e-commerce and the web, they may work more online and have less need for print. (2)

Drivers for Change in the Print Industry

Numerous trends in opportunities and threats as well as drivers for change emerged from the debates: market forces, technology, human resources (quality of workforce and skills training), communication, enlargement through mergers and globalisation. Common starting features are that the competitiveness and profitability of the printing industry is endangered by structural overcapacity, resulting mainly from increased performance of printing equipment against stable or slowing down demand. However new activity areas resulting from media technologies, more focus on competencies, adding value through adhering to networks, and more creativity in customer services, able to meet the range and depth of customers’ needs, emerged as key factors to sustaining competitiveness. (1)

Eg. of market forces

Hong Kong:
In the current harsh economic climate, players with better resources are in a better position to withstand the market setbacks and even exploit new market opportunities. The bigger companies not only maintain their income; some actually record new levels of profits and expand their operation. Sino United Publishing and Next Media are two outstanding examples. In view of the relatively limited growth potential of the local market, their success owes partly to their ability to move into other Chinese language communities (name the Mainland and Taiwan). The corollary is that small-scale operators who have no major means of expanding regionally, and who have no bigger business umbrella to spread risk and diversify income will suffer. (8)

Eg. of enlargement (through mergers)

Hong Kong:
As the pace of technological change continues to accelerate, some printers may find it difficult to keep up with the latest developments just on their own. To improve their competitiveness and technical know-how, some medium-sized companies in Hong Kong have grouped together to offer a more complete and advanced range of publishing and printing services to their clients. One way to achieve this is through merges and acquisition. (9)
Eg. of Globalisation

Hong Kong:
To reduce operation costs, particularly in post-press services, almost all of HK’s large sized printers, as well as some medium sized ones, have set up production facilities in the Chinese mainland. This trend of plant expansion is expected to continue, helped by the mainland authority lessening its restriction on foreign companies participating in the printing industry”. (9)

Eg. of structural overcapacity

China:
Production in high-end printing market is inadequate, while there overcapacity in the low-end. (7)

UK:
There is a tendency for over investment in new equipment by some companies. In addition, a common tendency exists amongst printers to retain old equipment even after new investments have been made in order to meet possible peaks in demand. (6)

Market demands on the print industry

They are:
• Reduced cost,
• Improved turnaround,
• Improved quality,
• More control and information
• Leveraging on IT – New ways to work, new ways other than print to deliver information. (4) (5)

Prospects for the Print Industry

Demand for print and printed packaging has traditionally been closely linked to GDP but there are now some signs of decoupling. Demographic trends will probably create higher volumes of printing. Print’s overall share of the communications will maintain its gradual decline but this should not preclude continuing volume growth as the overall market continues to expand. Electronic distribution via the Internet and other means will hit some segments such as business forms but on balance will stimulate rather than reduce print demand by creating new opportunities. Environmental regulations may reduce volumes in magazines and direct mail but will probably have little influence on packaging. There are considerably opportunities for innovation in both printing and printed packaging. (6)
Other trends include: a growing proportion of printed output will be sourced from digital and flexo presses; automation of production processes; development of e-business; more customised and diverse outputs and more sophisticated workflow management. There is also likely to be further internationalisation of competition, customers, suppliers, printers and unions. (6)

Three scenarios have been developed for print futures – decline (no growth or growth substantially below GDP), maturity (growth in line with GDP) and rejuvenation (growth above that of GDP). Historical trends and most industry opinion suggest that the maturity scenario is the most likely to develop. However, a minority of those consulted believe that the others are credible futures. (6)

The printing industry has changed greatly over the last decade. This has been a response to new technologies, competition from other media and demands from customers for lower costs, higher quality and more rapid response. A key technical transition has been from analogue processes towards ‘digital workflows’ in which content is received and processed in electronic form. One result of this is heavy investment in information technology (IT) hardware and software and a growing need for IT skills within the industry. Good telecommunications links are also essential. (6) Britain appears to have an even higher percentage of output produced by small companies, and a smaller average size of firm, than many other developed countries. Nonetheless, market pressures, and the entry to, and growth within the UK, of foreign companies, are creating greater consolidation. (6)

Technical and other changes mean that the industry needs less unskilled labour. There is also a changing balance between physical craft skills and computer-based process control and graphics skills. And shop-floor staff is being given greater responsibility for managing print processes. The industry has traditionally recruited from people leaving school at the minimum age but now requires higher average skills in its recruits. The number of new entrants to the industry has also been relatively low in recent years so that the workforce has a high average age. The industry has a patchy take-up of qualification-based training schemes and related initiatives. (6)

**Singapore Print Market: Facts & Figures**

- Total Printing Industry Output: S$2.58 billion (2002)
- Total Value Added by Print Industry: S$1.23 billion (2002)
- Chief Export Markets: US, UK and Australia
- Employment in the Print & Graphic Arts Industry: 17,000 (est.)
- Major Printers: Tien Wah Press Ltd, SPH, SNP Corp, Times Printers, etc
What’s Next for Singapore Printers?

Given the issues facing the print industry, below are some suggestions, adapted mainly from a speech by Lim Chin Tong of the Print and Media Association of Singapore, (10) for Singapore firms to explore to improve their competitiveness.

1. They may like to merge or form an association with the larger publishing/content community to engage in Collaborative Planning, Forecasting and Replenishment (CPFR) – buy equipment, joint shipment, etc

2. Relieve the shortage of appropriate manpower and encourage younger people to join the industry. This is particularly applicable to family businesses.

3. More suitable training programmes are needed to operate complex machineries in the industry.

4. Image makeover for the printing industry. Correct impression that the trade is a sweatshop where workers operate in cramped, hot and dirty environment.

5. Inform the public on the prospects of good job opportunities in the industry. Therefore, job seekers with a relevant diploma or degree will perform the managerial and supervisory functions in the print industry.

6. As the industry is capital-intensive, modern management methods are needed in planning, marketing, planning and customer service to ensure optimum plant utilisation for profitability. Small printers may consider using SME Management Audit for help in this area.

7. Small printing companies need to embrace technology changes to move with the times. Eg, CTP should be adopted. They can approach Spring Singapore’s SME First Stop for assistance in upgrading their business.

8. Printers should face the challenge posed by the electronic medium and make it complementary to its functions.

9. Seek new markets overseas and not rely heavily on a saturated local market. While the larger printing firms like SNP have already invested in Thailand and Hong Kong, smaller companies can rely on IT and telecommunications to extend its market reach beyond Singapore.
Sources:


Scenario Planning of Printing Industries

High Contribution to GDP

- Hong Kong (2.2%; 5.49)
- Singapore (0.9%; 3.43)

Unfavourable offshoring location

Low Contribution to GDP

- UK (0.75%; 3.38)
- China (0.25%; 4.93)

Favourable offshoring location
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Implications for Singapore (For policy makers)

Scenario One: The case of the United Kingdom
The UK has the highest wages for the printing industry amongst the countries (US$30,658) but it has also the highest value added (US$55,295). However, it lags in the availability of skilled labour (54th), which is crucial for a modern printing industry. In the matter of labour productivity, there is some dispute regarding the accuracy of statistics. Some show labour productivity averaging 5% a year from 1994-2000, others show only 0.9% a year. Both numbers, however, lack the manufacturing average of 11.3%.

While the percentage of investments in print technology is commendable for European nations, it is the lowest among those surveyed here. This is due to over-investment in new equipment in the past by some companies. The result is that the UK has one of the lowest capacity utilisation rates of any developed economy. Overcapacity is exacerbated by intense competition between printers which puts pressure on prices, resulting in low profitability. The median return on capital fell from 14.67% in 1999 to 8.63% in 20001.

Opportunities: Like England, the use of English in international business could present opportunities for Singapore printers. Geographically placed in Southeast Asia, Singapore could supply add-on services like translation services in addition to printing.

Risks: Singapore’s high rate of printing technology investments could likewise lead to overcapacity in the printing industries. Like England, fluctuation in exchange rates may dampen Singapore’s printing revenues, especially that Singapore’s printing industry is highly dependent on trade (print trade is 105.3% to that of the domestic print industry).

Scenario Two: The case of Hong Kong
Hong Kong has a similar profile to Singapore in terms of infrastructure (ports and ICT rankings) and wage costs. Its print technology investment is lower because many of the printing activities have relocated to China, especially the Pearl River Delta. Despite lower labour productivity than Singapore’s, the printing industry has a higher contribution to GDP. This is highlighted by the fact that Hong Kong has a stronger domestic printing market than Singapore and is reflected by the Trade Dependency Ratio which shows that trade in printed matter is only 33.4% of the domestic print market. In fact, both its foreign trade and its domestic print market are larger than Singapore’s and for this reason, Hong Kong is a world-renowned printing and publishing hub. The HK printing industry is well-diversified in that it serves both an international audience as well as a domestic audience of Chinese readers. It also hopes to play a part in promoting the rise of a global Chinese readers market. The strength of HK’s printing industry is reflected in the following statistics: There are about 300 book publishers in HK. There are about 55 newspapers including 25 Chinese-language dailies, five English dailies, four other Chinese and eight other English papers, six bilingual papers and seven other language papers. There are a total of 738 magazine publications, of which about 441 are Chinese, 156 English, 125 bilingual and 16 in other languages in 20002.

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Opportunities: Singapore may compete with Hong Kong for a share of the Chinese language readership. The printing industry’s growth has often been correlated with GDP. The Chinese economy has been growing at about close to double figures in recent years. While it has started to cool down recently, it is believed that China should be able to sustain high growth rates. However, Singapore may well have to diversify to markets with large populations like India and Indonesia. There are some indications that the printing industry’s growth rate correlation with GDP may be decoupling and start to correlate with demographics instead.

Risks: Singapore may not have the talent pool in terms of language abilities to compete in the aforementioned countries. Singapore’s own backyard, Southeast Asia is a fragmented market of many languages and cultures. Singapore’s domestic market is too small.

Scenario Three: The case of China
China is lacking in terms of infrastructure (ports and ICT) and skilled labour compared to the other countries. However, it has very low labour costs (US$2,899) and high print technology investment (38%). Such investments are expected to rise in China, where the import of printing equipment has received a boost from its December 2001 entry into the World Trade Organisation, which have sharply reduced import duties. While only 2-5 per cent of machines used in China’s 180,000-odd large and small printing operations are imported, they accounted for about 60 per cent of its total print production. The inflow of such investment in China is expected to further raise efficiency in and the competitiveness of its print industry.

Given its potential as a growing print market, foreign investors often need little encouragement to park their dollars in China. With an economy growing at over 8 per cent in recent years, there has generally been a commensurate rise in the living standards of the people, which in turn has created market opportunities for the print industry. In 2003, there were around 190,000 books, 9,165 magazines and 2,000 newspapers published in China’s 1.3 billion people.

The attraction of China as a destination for foreign print investors would be further enhanced as more skilled workers are produced to meet the needs of the industry. Printing education, both at the tertiary and vocational levels, are available and are supported by foreign organizations such as Japan Association of Graphic Arts Technology and European Funding for Asia Investment.

Trade is poised to become a bigger component of China’s print industry, with its growth as a printing centre likely to raise its Trade Dependency Ratio, which shows that trade in printed matter is only 41.1% of the domestic print market. Trade growth is seen engineered by Guangdong, one of the China’s three main printing hubs along with Beijing and Shanghai (with the latter two serving the domestic market). Guangdong’s printing industry is multi-lingual and export-oriented and it has already become the “printing factory for the US and Europe.” Guangdong, with an already low labour costs, plans to boost its attraction as a printing hub by designating three specific areas in the Pearl River Delta, where foreign print investors can enjoy preferential policies on land use rights and taxation.
Opportunities: Singapore has very little leeway in terms of competing with China in terms of labour and land costs. However, Singapore can relocate some of the more low-skilled labour-intensive activities to neighbouring Malaysia or Batam to take advantage of the low labour costs there. As China is raising the quality of its print workforce, Singapore should likewise do so if it is to maintain the current lead it has over the over Chinese.

Risks: The host countries, Malaysia and Indonesia, may form a printing industry cluster to compete with Singapore.

Sources:


5. Han Shih, Toh. “Mainland invention comes full circle; Top international publishers are outsourcing to the mainland but Hong Kong attracts the high-end jobs.” South China Morning Post. 24 May 2004.