

**INDUSTRY
SCIENCE
RESOURCES**

COMPETITIVE AUSTRALIA

PRINTING INDUSTRIES ACTION AGENDA

Background Paper 3

Pathways to Growth
and Scenarios



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Navigating the 21st Century

1. Introduction

This background paper is the third in a series of three background papers that underpin the development of the Printing Industries Action Agenda.

Background Paper 1 profiles the industry. It describes what is done now and how well it is done, and examines the directional trends which appear to characterise the industry. It examines and raises issues regarding the implications for the industry of continuing along certain paths. Background Paper 1 illustrates the strengths and weaknesses of the industry at the broad industry structure level, and presents directional findings on key factors such as industry profitability, contribution to the economy, demand for services, productivity, etc.

Background Paper 2 presents a strategic analysis of the industry. It builds on Background Paper 1 to provide a further depth of understanding of the industries' market and internal workings. It identifies where the opportunities for future growth are currently perceived to be, particularly from the perspective of customer needs. The background paper presents a series of Action Plans to enable the industry to achieve a strong competitive advantage over the next one to three years.

Background paper 3 builds on the work of Background Papers 1 and 2 to consider growth pathways for the industry. This background paper develops scenarios for the future of the industry. It defines and signposts alternative pathways to growth in the world settings which may face the industry in the future, over the timeframe of the next five to fifteen years.

1.1 Purpose of this Background paper

The purpose of Background Paper 3 is to:

- Review new growth opportunities;
- Analyse the changes that will be required to capture future opportunities and growth; and
- Assess the printing industries' ability to meet the challenges.

1.2 Why Scenarios?

Scenarios are about painting pictures of the future in which a business may be operating.

The key question to be addressed in the scenario process is whether the enterprise - a firm or a whole industry - is well suited or equipped for the futures that this background paper presents.

Four scenarios have been developed from a process of workshopping, brainstorming and collating information on possible futures. The scenarios that have been developed have implications for both the industry as a whole as well as for individual firms.

The scenarios are based on three pathways to growth. The pathways to growth were identified through an analysis of the opportunities available to firms within the industry, from Background Paper 2 customer surveys, and the key drivers which do or should drive these firms.

The scenarios provide plausible futures aligned with each of these growth pathways, plus an additional scenario that is a transition between two of the pathways. Although this process does not directly address the issue of whether firms are equipped for these futures, it does raise issues that firms need to be aware of and provides suggestions for them on navigating to the future new world. In conjunction with the recommendations of Paper 2, this background paper also provides future directions for the development of the industry as a whole.

The first part of this background paper examines the three Pathways to Growth and their underlying principles. The second part of the paper presents the four scenarios and their rationale. The appendices present additional information that was used in developing these concepts, and that may be useful to businesses seeking to undertake this process at the firm level.

1.3 Snapshots from the Future

It is 2005. There has been steady economic growth for a number of decades. The IT and telecommunications industries dominate the global economy. This is a snapshot of what the Australian printing industry looks like, taken from one of the scenarios developed in this background paper:

Print is Dead! Long Live Print!

At the turn of the millennium there were suggestions that e-media would one day replace printing on paper. Although print continues to survive, there have been major upheavals in the printing industry. This article looks at the last 5 years of the industry ...

Factory Printing

Alex Smith is CEO of one of the most successful print factories in Sydney's western suburbs, BigPrint. His clients are some of the biggest retail chains and mail order companies operating in Australasia. How did he achieve his strong market position?

Five years ago Alex was running a medium-sized printing operation in Campbelltown, based on providing quick-response, short-runs to local businesses and e-customers. "This was damn hard work," reminisces Alex, "for half the year we didn't know where our next job would come from, and for the other half we were completely overworked trying to fill Christmas and Olympic orders.

"Today we have a smooth operation based on the same quick-response, quality printing, but with a much

larger, and more stable, customer base." This change was achieved while most of the industry was undergoing significant changes. Profit margins were falling and more customers were turning to IT companies for their marketing solutions.

"During that time we saw more firms go bust and more M&A's (mergers and acquisitions) than at any other time in the history of the industry," says Jake Fisher, President of the Print Communication Industry Association of Australia (PCIAA).

Alex capitalised on this change, expanding his share of the market, mostly through price competition, whilst acquiring and consolidating targeted companies. "I also centralised the location of all our printing equipment, at the one factory in Sydney, and set up a high-speed distribution network throughout Australasia."

This allowed BigPrint to develop and maintain a steadier stream of orders.

It is 2005, but in a different future. Here technological change rapidly escalates as a result of a replacement for the microchip. Fossil fuels and raw materials cost more and 'green' alternatives become economical. This is a snapshot of what the Australian printing industry looks like, taken from another of the scenarios developed in this background paper:

More Company Information

More Company Information

Information sourced from the World Wide Business News Database

CommPrint.com was voted the Best Business in the Communications Domain in the 2004 Teloptus Business Awards ("Teloptus 2004 Awards Announced", New AFR, 16 December 2004).

"The basis of CommPrint's business success are the partnerships we have formed with our suppliers and our clients over the past 5 years," says Jon Jonson, Chief Team Leader of the company. "What has made us so successful is this business strategy based on partnerships, combined with our innovative approach to using technology and making sure we develop our most important asset - our staff."

Business Strategy

The philosophy of CommPrint is that their customers should always expect and get a good price and high quality as a minimum. But since its establishment in 1999 CommPrint has also sought to provide a high-level of service to their partners above and beyond this base-line. This is what Jonson calls their "Total Business Solution". Jonson has geared the firm to help manage the total visual imaging and marketing needs of their partners. "Our greatest reward is seeing our partner's business grow as well as our own because of the solutions that we provide," says Jonson.

2. PATHWAYS TO GROWTH

2.1 Definition

What is a pathway to growth? This Background paper defines a pathway to growth as:

A future for the industry that improves the industry's key indicators and capitalises on emerging opportunities.

For the purposes of this paper, the options for growth in the industry are considered over the next five to fifteen years. At the end of this timeframe, growth in the industry should be able to be demonstrated by an improvement in the key indicators, for example, by an increase in profitability of the industry.

A number of opportunities have been identified that have been, currently are or will possibly be emerging over the next five to fifteen years. If the industry, or a significant number of firms in the industry, fail to recognise and capitalise on these opportunities then it is unlikely that a high-level of growth will be achieved.

These two components for a successful pathway to growth, improving key indicators and capitalising on emerging opportunities, are mutually inclusive - without one component the industry is unlikely to achieve the other.

The key indicators and the emerging opportunities have been taken from Background papers 1 and 2, respectively, and are presented in more detail in those papers.

2.1.1 Improving Key Indicators

Profitability is the most significant Key Indicator identified in Background Paper 1 to have an impact on the industry's growth. Profitability was identified as an essential indicator of a successful business and/or a successful industry.

The overall trend for the profitability (profit margin) for the Printing, Publishing and Recorded Media sectors (ANZSIC codes 2411-2430) is gradually downwards, whereas 'all industries' is trending upwards. This suggests that the prime competitive thrust chosen by industry is one of price/volume as against services/product differentiation.

Also, the increase in investment and, particularly, investment in capital equipment, without a resulting lift in profitability raises questions about where to invest for future growth. Is the investment in capital equipment, and in technology, appropriate to guarantee growth?

The Key Indicators identified in Background paper 1, and their current trends, are:

KEY INDICATORS	TREND
Profitability	gradually ▼ to 8%; Total Industries ▲ to 9%
Domestic Demand	steady ▲ over the period 1992-98
Investment and investment in capital equipment current hardware	cyclical, overall ▲, but under-utilisation of
Import/Exports	- imports significantly exceed exports (except printing, services to printing and newspapers)
Contribution to the national economy	- relatively flat at 2% of GDP
Industry Structure	99% SMEs (less than 200 employees)
- Number of SMEs	SMEs employ 60% workforce
Employment	- relatively flat; average 10 employees per establishment

These Key Indicators will be important as indicators for successful growth in the industry. If some, or all, of these Key Indicators improve from their current level over the next five to fifteen years, then they are an indication that the industry and firms within the industry have improved on their current situation and hence have achieved growth. [Note that some of these indicators are currently not being measured appropriately or in a sufficient detail and Background paper 1 provides recommendations on the collection of industry statistics.]

In summary the major parameters for the industry identified in Background paper 1 are:

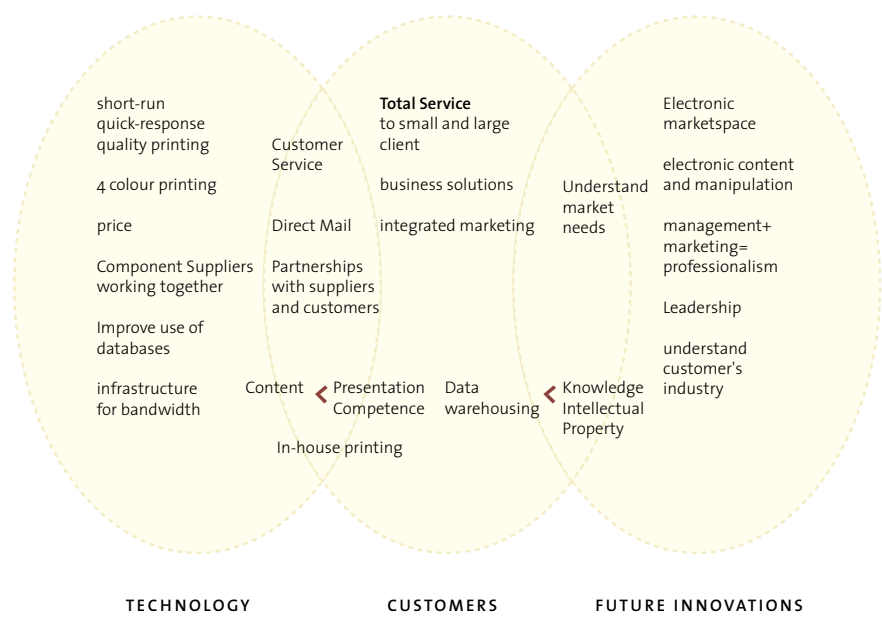
- There is potential for growth in the industry.
- The industry is experiencing slowly declining profit margins.
- Capacity utilisation is low.
- Continued growth in investment in capital equipment appears to be exacerbating the low utilisation.

2.1.2 Capitalising on Emerging Opportunities

Action Plans have been identified in Background Paper 2 through customer surveys and a detailed SWOT analysis. For each of these Action Plans, Background paper 2 outlines the current situation, mission, assessment mechanisms, available resources and timing in order to develop and implement them. Below is a summary of the Action Plans identified in Background paper 2.

Action Plan	Description
Sell total business solutions	To help printing firms deliver 'total business solutions' and develop strong relationships with their customers, to improve the profit-base and long-term competitiveness of the industry.
Invest in your people	To help printing firms invest in their people through solution oriented sales and marketing functions and improved business management practices.
Manage your technology	To help printing firms manage their technology for a competitive advantage and leverage their IT competence to meet the electronic communication technology requirements of the market.
Promote the industry's capabilities	To identify and promote the industry's capability to potential customers and, more broadly, to the Australian community.

These Action Plans operate at the industry and firm-based levels and were developed in Background paper 2 from their customer survey results. By way of summarising the survey results, this Background paper recognises that the opportunities identified from the customer surveys can be grouped according to whether they are related to technology issues; responding to customers; or future innovations.



3. Foundations For Growth

This section develops the rationale for the three pathways to growth, based on the above three areas of opportunities. These are developed according to the customers' needs and expectations and the underlying business principles that appear to drive firms in this industry.

3.1 Three Areas of Opportunities

From the previous section's grouping of the Background paper 2 customer survey results, this Paper has identified three main areas of emerging opportunities:

Area of Opportunity	Description
Technology	<ul style="list-style-type: none"> • driven by and investing in latest technology. • competing on price/volume.
Customers	<ul style="list-style-type: none"> • understanding and responding to a customer's needs. • competing through services/product differentiation. • developing competencies (skill-base and customer-focussed staff).
Future innovations	<ul style="list-style-type: none"> • continually adopting leading edge solutions through innovative leadership. • understanding a customer's industry better than the customer and pre-empting a customer's needs.

These three areas of opportunity have a strong correlation to the three types of customer relationships outlined in *Competing for the Future* by Gary Hamel and C.K. Prahalad:

"There are three types of companies -

1. Companies that try to lead customers where they don't want to go (these are companies that find the idea of being customer-led an insight);
2. Companies that listen to customers and then respond to their articulated needs (needs that are probably already satisfied by smarter competitors); and
3. Companies that lead customers where they want to go, but don't know it yet.

Companies that create the future do more than satisfy customers, they constantly amaze them."

In summary, there are three types of companies, which can be related with the three areas of opportunities:

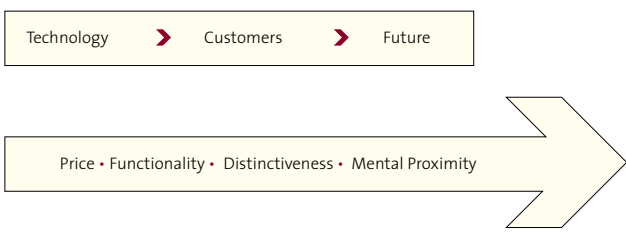
1. Failing customers because Technology is driving business strategy;
2. Customer-led or being focussed on Customers' needs; and
3. Shaping customers' needs through Future innovations and leadership.

A line has been drawn between firms that invest in technology to compete on price/volume and those that use technology in order to address their customers' needs. The former can be considered to be failing customers, and the latter are customer-led.

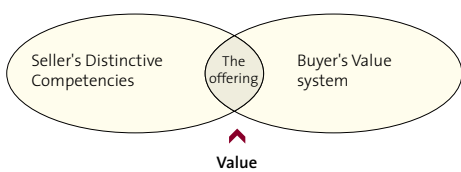
From the customer's perspective, Göran Roos has succinctly outlined what customers might value from a business according to four different levels. Note that the value or offering includes the physical product and also intangibles such as service, risk management, information etc:

Perceived values	Definition	Examples
Price	is the direct monetary cost to the customer.	any companies with a market position based on price
Functionality	is the ability of the product/ service to be used and the need for the offering by the customer.	food sellers (McDonalds), utilities (water, electricity)
Distinctiveness	is the distinguishing trait of the product/service in the mind of the customer (eg brand).	IBM, Swatch, Coca-Cola, Virgin Airlines
Mental Proximity	is the overlap in understanding between customers and a business (eg trust).	The Body Shop, Ikea

These levels directly relate to the three areas of opportunities - it can be argued that as a business moves from Technology to Customers to Future innovations so a customer's value might change from Price to Functionality to Distinctiveness to Mental Proximity:

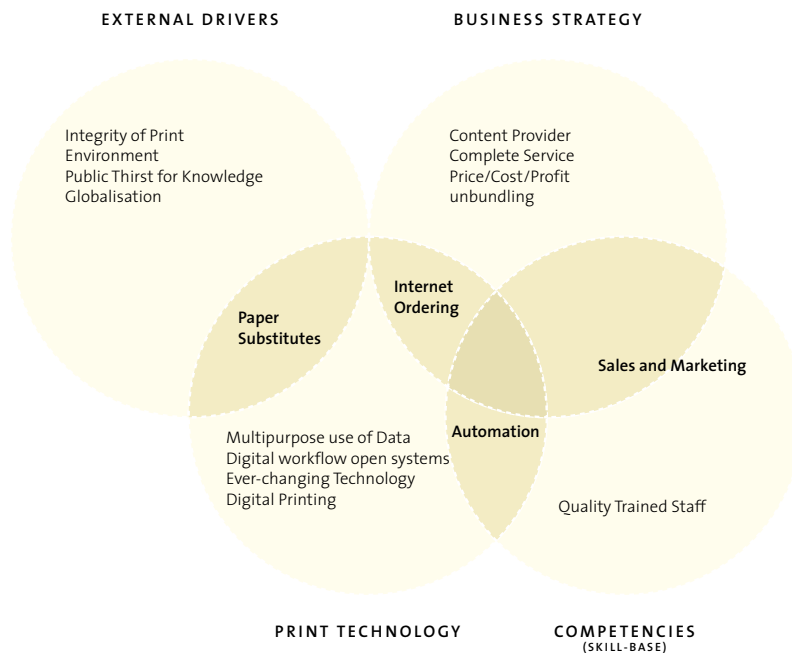


How a business creates and/or capitalises on these values in the mind of its customers is dependent on the firm's Distinctive Competencies (see Appendix 1) and the overlap between them and the customer's value system.

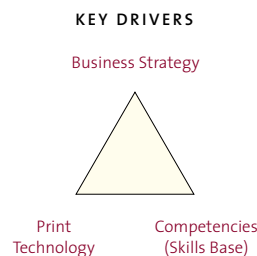


3.2 Key Drivers

As a part of the process to develop the scenarios for this background paper a number of crucial drivers for the industry have been identified. These are the underlying business principles that appear to drive firms in this industry and they have been summarised under three Key Drivers: Business Strategy, Print Technology and Competencies (skill-base); as well as under External Drivers.



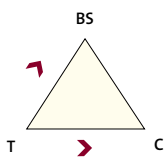
The three Key Drivers are predominantly internal environmental forces that can be influenced by the industry or by businesses within the industry. The industry can also be influenced by forces external to it (eg, globalisation), and these External Drivers will be considered as a part of the Scenarios introduced later in this background paper.



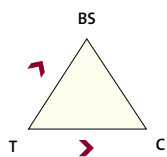
Key Driver	Description
Business Strategy	<ul style="list-style-type: none"> • basis on which a business makes its decisions. • includes competing on price/volume, product/service differentiation, cost leadership, expansion, integration, acquisition, downsizing, franchising, import/export, R&D.
Print Technology	<ul style="list-style-type: none"> • printing technologies that support the industry. • typically the latest, leading edge technologies.
Competencies	<ul style="list-style-type: none"> • knowledge, skills, talents and know-how of staff. • Competencies are only a part of a firm's Distinctive Competencies (see Appendix 1).

Also, these Key Drivers for the industry can be used as the basis to develop industry-wide initiatives, eg, increased training opportunities to develop competencies, assistance with the development of business plans, etc. This information has led to the initiatives developed under the Enhanced Printing Industry Competitive Scheme (EPICS).

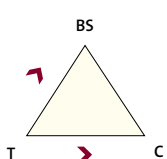
These three Key Drivers suggest three different paradigms under which the industry may or could be operating:



The current paradigm of the industry is for investment in the latest technologies to drive the marketing, and hence business strategy, of the firm as well as dictate the skills required in staff - **Technology driven strategy**.

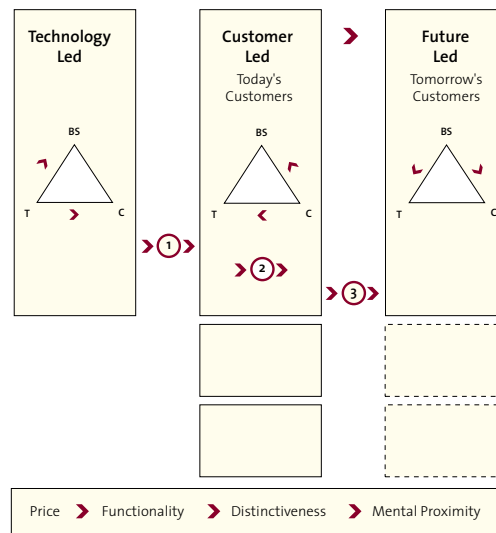


An alternative paradigm is for staff training, particularly in developing customer relationships, to drive the use of available technologies and the types of business strategies pursued - **Mixed skills and customer driven strategy**.



Another paradigm is for the business strategy, including strong leadership and a commitment to innovation, to drive the range of competencies required in staff and the technologies needed to support the strategy - **Vision driven strategy**.

And these three paradigms, emanating from each of the three Key Drivers, can be directly related to the three areas of opportunities:



In summary, three areas of opportunities have been identified from the customer survey results and these can be related to customers' needs and expectations. This background paper has also identified the Key Drivers that can be related to how firms operate in their business environment and that underpins each of these areas of opportunity.

For example, to compete on price/volume firms may need to focus on their capital and print technology to reduce costs and increase turnover. To focus on customers' needs, firms may need to develop the customer relationship, sales and marketing skills of their staff. For firms to develop leading edge solutions and anticipate their customers' needs they may need to focus on their business strategy and leadership.

3.3 Three Pathways to Growth

The pathways for growth can now be summarised as:

- 1 **Technology → Customers** - moving from investing in latest technology (competing on price/volume) to understanding and responding to customers' needs, through developing competencies (skill-base, customer-focussed staff).
- 2 **Customers → Future** - moving from being customer-led to shaping customers' needs and continually adopting leading edge solutions through innovative leadership.
- 3 **Technology → Future** - moving from adopting latest technology to shaping customers' needs within the marketspace.

There is also the possibility for the reverse to provide pathways to growth, but the question has to be asked: why would an innovative, customer-focussed firm wish to move to competing on price/volume alone? Furthermore, the data from Background paper 1 suggests that investment in technology has not resulted in the lifting of industry profitability and hence does not provide a suitable pathway for growth.

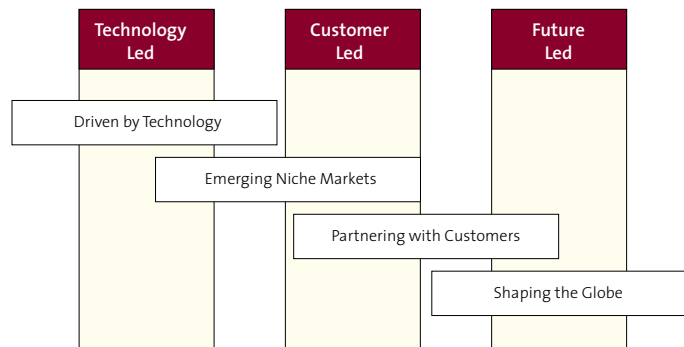
4. Scenarios

Having examined the possibilities for the industry, in terms of the Pathways to Growth, and the key drivers of the industry, a number of workshops were held to develop the scenarios. The workshops:

1. Defined the industry and on which segments of the industry the scenarios might focus;
2. Examined the major forces driving or producing change in the industry (see Key Drivers, section 2,b,ii);
3. Brainstormed a wide range of possible and even unlikely futures for Australia in general;
4. Grouped the futures according to the likely growth pathway under which they may occur;
5. Considered their impact on typical printers from different segments in the industry; and
6. Wrote-up the developed scenarios.

4.1 Four Scenarios

Based on the workshops four scenarios were developed and produced. They were named Driven by Technology, Emerging Niche Markets, Partnering with Customers and Shaping the Globe, and are related to the Pathways to Growth according to:



The scenarios describe how firms within the industry might react to external influences as well as how the industry itself might change - sometimes, but not always, in reaction to these influences. The following four scenarios are divided into three parts:

1. a series of what if questions that were asked to create the scenario;
2. a possible future for each scenario set in the year 2005 from the point-of-view of a printing firm; and
3. possible futures in 2010 and 2015 for each scenario.

Scenarios

1 Driven by Technology

What if ...

- **there is steady economic growth?**
 - the printing industry takes advantage of this growth and increases its own growth? What if it doesn't?
 - strong international trading blocks emerge and there is good access to the Asian market?
- **competing industries dominate?**
 - IT and communications industries dominate and compete effectively against printers?
 - the printing industry has to coexist with other competing industries?
- **the industry structure changes?**
 - the industry is segmented into big print factories and small customised printers?
 - high volume and low margin printers are the most successful industry model?
 - customised printing, niche printing or other low volume printing is not sustainable?
- **the definition and nature of "print" changes?**
- **printers are driven by technology?**
 - technological change continues at a rapid pace based on microchip technology?
 - printers always purchase the latest print technology?
 - printers compete on cost with profit margins falling?
 - printers purchase the latest IT but do not have the expertise to use or maintain it?
 - printers own the databases of text and images, as well as databases of consumers and their preferences?
 - printers outsource their asset management?
 - printers adopt IT as a part of the printing process: prepress + printing + finishing + IT?

The following snapshot of the future was based on answers to these What if... questions:

Print is Dead! Long Live Print!

At the turn of the millennium there were suggestions that e-media would one day replace printing on paper. Although print continues to survive, there have been major upheavals in the printing industry. This article looks at the last 5 years of the industry ...

Factory Printing

Alex Smith is CEO of one of the most successful print factories in Sydney's western suburbs, BigPrint. His clients are some of the biggest retail chains and mail order companies operating in Australasia. How did he achieve his strong market position?

Five years ago Alex was running a medium-sized printing operation in Campbelltown, based on providing quick-response, short-runs to local businesses and e-customers. "This was damn hard work," reminisces Alex, "for half the year we didn't know where our next job would come from, and for the other half we were completely overworked trying to fill Christmas and Olympic orders.

"Today we have a smooth operation based on the same quick-response, quality printing, but with a much larger, and more stable, customer base." This change was achieved while most of the industry was undergoing

significant changes. Profit margins were falling and more customers were turning to IT companies for their marketing solutions.

"During that time we saw more firms go bust and more M&A's (mergers and acquisitions) than at any other time in the history of the industry," says Jake Fisher, President of the Print Communication Industry Association of Australia (PCIAA). Alex capitalised on this change, expanding his share of the market, mostly through price competition, whilst acquiring and consolidating targeted companies. "I also centralised the location of all our printing equipment, at the one factory in Sydney, and set up a high-speed distribution network throughout Australasia."

This allowed BigPrint to develop and maintain a steadier stream of orders. Today they source print jobs from right across the region and maintain these customers through dedicated e-connections.

"This increased bandwidth, resulting from the Government's internet infrastructure project, has revolutionised many firms' ability to receive, print and distribute a customer's print requests," says Jake.

Just to maintain his market position, Alex has had to continually buy in and install the latest print technology in order to meet his customers' demands. This has meant finding and employing a few highly qualified staff to keep the equipment operating - but still the company's capacity utilisation for some equipment remains low.

With other print factories seeking to match Alex's success, particularly in South East Asia, and profit margins continuing to decline, competition is again heating up in the industry. Before long we are likely to see more shake-ups in an industry that has a 500 year old history (see over).

A BRIEF HISTORY OF PRINT

Plato spoke against the idea of writing in the 5th century BC. He believed that being able to write things down, write words on paper or parchment, would ruin our natural capacity for memory.

From the 7th to 15th centuries "printing" was largely in the form of religious manuscripts, entirely constructed by hand. Then in 1452 the printing press was invented by Gutenberg, bringing together the technologies of paper, oil-based ink and the wine-press to print books using movable type ...

The concept of "print" was revolutionised in the late 1990s when it came to mean anything that you can print on paper, a computer screen or to any other media. This included words, graphics, images, icons, holograms, AVIs, MPEGs, MP3s - the list was endless. Combining this with digital presses and digital workflows, the printing industry had an enormous opportunity to capitalise on the next revolution - but it missed the virtual boat.

The IT and communications industries stole the lead even though most of their employees were not educated in graphic design or layout, let alone being able to effectively communicate with images and words. But the printing industry survived on the crumbs thrown to them by their bigger IT cousins - whenever someone needed a better web page design or the occasional bulk printing for a marketing strategy, they managed to find a cheap printer who could do the job.

Two segments of the market survived and even prospered at times: the print factories and the customised market printers. The print factories operated by filling the bulk orders for clients who needed to distribute paper-based products: advertising circulars, mail order catalogues and targeted brochures.

The customised market printers catered to a small clientele who required specialist printing of books, documents, cards and very small runs of other printed products. As we know, this type of printing can be easily done at work or at home, but sometimes we like to have that extra professional appearance to our printed products; that expert touch that current technology just can't quite produce ...

excerpts from *Weekend Magazine*
Weekend Australian, 8-9 January 2005
Cont.

Customised Market Printing

Simone Jackson operates a small printing shop in north-east Melbourne: Professional Printing and Publishing Services (P3S). She specialises in printing books, documents and cards for an irregular market of customers in the local region. "The very highest of quality and reasonable prices is the best way I can serve my customers," says Simone.

Simone began her business in the early 90s as a part of a franchise of short-run, quick-response printshops. But like many in the industry, she found competing against diminishing marginal returns an uphill battle. Instead, she withdrew from the franchise and P3S began to specialise in a more selective range of products.

Like most customised printers today, P3S more closely resembles a craft-

based small business, rather than the printshops of the last decade. "I print everything from personal Christmas cards to movie posters for the local cinema," says Simone. "Most of it is only in very short runs, less than 100, and sometimes I have to dig around out the back to find the right press or ink."

It might sound like something from the 20th century, but Simone is also wired: "The internet is the only way I

can source most of my supplies - especially some of the rarer and special items, like non-animal leather, Russian embossing inks and holo-ready e-paper." Most of her equipment is second- or even third-hand and is kept operating through careful maintenance and global e-sourcing the parts and supplies.

The business' profits tend to slide up and down with the peaks and

troughs in the local economy. With the current steady economic growth and the increasing pursuit of leisure activities by the community Simone has found that "there has been an upsurge in people who want personalised or custom-made products. For example, some people hate the idea of using e-books: they much prefer the feel and touch of leather- or hard-bound traditional paper books, and at the moment I can't print and bind them fast enough."

Simone's business is likely to continue to provide a fair turnover from the small, customised print jobs walking through her door. Printing is still alive in north-east Melbourne, even with the upheavals over the last 5 years, but because of this the industry continues to watch out for threats to its existence.

Beyond 2005, in 2010 and 2015 this is what happened:

2010

- The Australian economy is a near-frictionless market - it is easy to find buyers, but harder to make fat margins, even in the successful IT and telecommunications industry.
- Although there has been steady economic growth for a couple of decades, printers have failed to take advantage of it and competition for the diminishing market is intense.
- Some consumers and companies use print factories for their bulk printing needs, but many prefer to self-print as it is more economical and they possess the latest print technologies.
- Some print factories convert to data management and mining in order to survive as they have the capabilities and infrastructure, but much of this work is being done by IT firms.
- Most customised printers are unable to survive technology changes.

2015

- Buying and managing data becomes harder as microchip technology plateaus - no alternatives have been found to silicon chips, larger systems are required, selling of data is regulated and prices are fixed.
- New communication technologies - virtual reality glasses, hologram movies and earpiece phones - have resulted in a drastic reduction in the use of paper communication.
- The printing, IT and telecommunications industries no longer exist in their traditional form - the communications industry has become fragmented into the types of data products sold.
- The companies that have been successful are focused on selling a particular data product.

Scenarios

2 Emerging Niche Markets

What if ...

- **economic conditions are turbulent and rapidly changing?**

- global economy becomes protectionist - foreign capital is retracted and there is little access to international markets?

- **businesses bring activities in-house?**

- businesses bring in-house activities like printing forms, colour copying, etc.?

- **the industry structure changes?**

- the industry is separated into a small number of large firms and a large number of small firms?
- printers seek niche markets and strategies to operate in those markets?
- pursuing a niche market, focusing on one product, is too risky as a business strategy?
- printers do not have the agility to operate in niche markets - to recognise the niche, gear up and then get out at the appropriate time?
- training and development for printers is on-the-job and by user-pays education?

- **consumer trends change?**

- consumers' habits and markets change?
- consumers seek environmentally friendly products and environmentally aware companies?
- radically new products are developed and product life-cycles change?
- the need for packaging changes?

The following snapshot of the future was based on answering these What if... questions:

printnews

E-News from the
Print Communication
Industries of Australia
17 May 2005

Print and Package with Bobbles

CASE STUDY 5: Package Printing in Penrith

This week we present a case study on the company PackPrint Pty Ltd based in Penrith. PackPrint has recently benefited from the PCIA's new business program StrategyReady, as one of four Demonstration Projects with the program.

PackPrint specialises in printed bobble wrap packaging. A lot of the products we buy come wrapped in bobbles - IT or comm peripherals, fragile porcelain plates and even mail-order plants - and PackPrint has cornered a sizeable share of this market in Australia. They can print any message on bobble wrap: from the words "FRAGILE: HANDLE WITH CARE" to Instructions for Use to marketing and advertising material as bobble wrap is increasingly used as the outer layer in packaging.

"This is a fast growing area of the packaging market, and a niche we have been exploring and developing for a couple of years now," says Robert Wang, CEO of PackPrint. Wang's goal has been to make PackPrint the first port-of-call for companies looking to package their products. "Bobble wrap is a pretty good packaging material for most people's packaging needs," says Wang, "and we can print our product to wrap their product with any sort of message."

Printing on Bumpy Substrates

Back in the early 2000's PackPrint was doing standard package printing for a wide range products and on a wide range of substrates. With the re-structuring of the industry that took place during 2001-2, they found their market being eroded by some of the large print factories that grew out of the mergers and acquisitions taking place in the middle layers of the industry. PackPrint are one of a myriad small to medium businesses that carved out a niche for themselves during this turbulent time - and they did so with the help of Industry and Government programs, beginning with the successful Printing Industry Action Agenda launch in 1999-2000.

"As a part of our printing requests back then, PackPrint would often get jobs for printing on corrugated or non-regular substrates, and we struggled to fill these orders at first. In fact, we resisted tackling this area as most of our equipment was set up for flat or curved substrates," reminisces Wang. "It wasn't until we sat down with the Industry's Client Managers that we realised our core competencies could be developed to respond to these unusual customer requests, and make a reasonable profit as well."

As the print factories continued to erode their traditional profit base, PackPrint further developed their competencies by working with their Client Manager and paid-for consultants. They were assisted in investing in the appropriate print technology, targeting clients and responding to their changing needs and to train and develop their staff to work with both the changing technology and clients.

People Strategy

"We were fighting a losing battle trying to keep our staff from drifting to the big print factories 5 years back," says Wang. At the time the print factories were able to offer very good remuneration packages and conditions of employment. "It wasn't until we sat down with our staff and involved them in development and planning that we could see how they were a core part of the company's strengths."

Although the company sometimes sees its investment in skills and training being lost to other firms, Wang still believes that it is the best way to attract and retain good staff. "It's great to have a couple of fresh-faced apprentices bubbling with new ideas on our staff, but we also need to retain our corporate memory of what we've done, who we've served and staff with the experience to help manage the continual changes in our business."

Continuous Change

And the industry continues to change. The re-structuring is continuing with profit margins falling and print factories, in-sourcing and franchises eroding most printing markets for small to medium printers. In order to survive, firms like PackPrint are having to find new niches in which to carve out their markets. This is where PackPrint has benefited from its involvement in StrategyReady.

"Some of the development activities under StrategyReady have really helped us to look at our processes as well as our product range. In fact, they've helped us to think about a whole new market niche." Wang is looking at developing techniques that can also be used to e-print on a range of products that require a changing message on their surface. Using their technical skills in applying inks to unusual substrates, PackPrint has developed a technique using 3rd generation e-inks to print on everything from bouncing beach balls to hang-glider wings.

"And this great idea only came about because we sat down and listened to what our customers really wanted, and took the time to see the world through their eyes," says Wang. "This might sound pretty philosophical but it worked for us before when we were faced with such radical changes."

StrategyReady

StrategyReady is helping PackPrint to get the processes, people and marketing strategy in place and working in order to capitalise on this opportunity. The program has also helped them to re-assess their competitors as well as their customers: "We are starting to see the print factories as customers, rather than just competitors. We have certain types of expertise, or attention to detail that can fill some of the orders that the factories are getting. In many cases, we can do a much better job for a reasonable price, and then the factories' customers benefit when we can fill their orders.

"Also, our service is one of the strong competitive advantages we have over some of the big firms - they're just not on the customers' level, they don't see the same problems and issues that the customers have, and aren't as ready to solve them." PackPrint is working more closely with their suppliers, as a result of StrategyReady, and they are looking to improve the networks in their supply and value chains in order to reduce costs and address their customers' needs.

"At the end of the day, it's all about serving your customers' needs," says Wang, "particularly as the market itself continues to change."

John Frakes, printnews Editor

NEXT WEEK:

OUR EXPOSÉ ON THE FRANCHISES.

Are they really out-competing the small, independent printers? Will they be driving the next big shake-up in the industry? Will the McPrinters ultimately dominate?

AND WHERE HAVE ALL THE MEDIUM-SIZED PRINTERS GONE?

Beyond 2005, in 2010 and 2015 this is what happened:

2010

- Consumers are ordering predominantly via the web and because of this packaging is simplified with consumers demanding minimal packaging and the amount of printing on products is greatly reduced.
- Some printers distribute and store products that they once printed, although specialist distribution networks and JIT delivery makes this line of business increasingly competitive.
- The number and size of large printing companies is declining as the turbulent economic conditions make it harder for them to exist, particularly with the need to update technologies.
- Some small companies are able to offer services that previously only the large companies could provide, for example, many small firms unify under one banner to receive e-orders that they fill under arrangement, called 'print churning', and act as a type of loose franchise.
- There is a premium on specialisation with sustainable markets for companies able to provide tailored and customised goods and services for targeted groups of consumers.
- Some niche printers diversify to print on unusual or new wave products - agility is the only way to survive, and first movers into a niche market often capture that market while it lasts.
- Many companies are finding it harder to hire and retain employees. Some highly employable individuals act as roaming contracted agents, serving many companies at the same time.

2015

- Companies without impeccable environmental records are boycotted by consumers, on this basis alone many printers go out of business.
- Some niche printers have become successful printing on completely new products - fashionable e-clothing, all-in-one household appliances and even body printing - as well as more traditional printing on any surface that requires permanent information.

Scenarios

3 Partnering with Customers

What if ...

- **the rate of technological change rapidly increases?**
 - technological change escalates as a result of a replacement for the microchip?
 - new display technologies change consumers' print needs?
 - printers do not purchase the latest technology?
 - access to information becomes restricted as the internet is superseded by a new privatised network?
- **energy costs rise substantially?**
 - fossil fuels and raw materials cost more and 'green' alternatives become economical?
- **businesses outsource most of their peripheral or non-core activities?**
 - printers take advantage of this outsourcing by delivering more services and solutions to businesses?
- **businesses trade and source globally?**
 - printers compete globally?
 - printers and their clients trade globally?
- **printers are focused on building customer relationships?**
 - printers add value for their customers?
 - printers and their clients develop strategic partnerships?
 - printers are recognised as world class service providers?
 - printers are focused on training and personal development of staff?
 - printing firms operate within team-based structures?

The following snapshot of the future was based on answering these What if... questions:

e-shares
Research Centre

Quick Search:

COMMPRINT.COM LIMITED

TICKER: CPC

DATA REPORTED IN: AUSTRALIAN DOLLARS

COUNTRY: AUSTRALIA

FISCAL YEAR ENDS: JUNE

Company Summary

Business Description:

CommPrint.com Ltd is Australia's fourth largest public company specialising in printing and publishing. The company's principal activities include retail and promotional printing and e-printing - in line with their client's visual imaging and marketing needs. The company conducts its activities primarily in Australia, with subsidiary activities in Southeast Asia, New Zealand, and the Pacific Rim (APEC Trade Zone). Media and e-media production accounted for 80% of fiscal 2003-4 revenues and publishing 20%.

More Company Information

Information sourced from the World Wide Business News Database

CommPrint.com was voted the Best Business in the Communications Domain in the 2004 Teloptus Business Awards ("Teloptus 2004 Awards Announced", New AFR, 16 December 2004).

"The basis of CommPrint's business success are the partnerships we have formed with our suppliers and our clients over the past 5 years," says Jon Jonson, Chief Team Leader of the company. "What has made us so successful is this business strategy based on partnerships, combined with our innovative approach to using technology and making sure we develop our most important asset - our staff."

Business Strategy

The philosophy of CommPrint is that their customers should always expect and get a good price and high quality as a minimum. But since its establishment in 1999 CommPrint has also sought to provide a high-level of service to their partners above and beyond this base-line. This is what Jonson calls their "Total Business Solution". Jonson has geared the firm to help manage the total visual imaging and marketing needs of their partners. "Our greatest reward is seeing our partner's business grow as well as our own because of the solutions that we provide," says Jonson.

This service strategy has grown out of the need to keep up with rapidly changing technologies in the communications domain, as well as the changing needs of their customers.

Leasing Technology

"When we set up this business in 1999, we were finding that more and more of our customers had easy access to high quality printing technology at work and at home," says Jonson. "To stay ahead we had to keep purchasing the latest, fastest and highest-quality presses." Around the turn of the millenium, as this rate of technological change really took off, Jonson made a decision to purchase less and less of their equipment as new and to seek second-hand presses or favourable leasing arrangements for new presses. At the time, this gave them a strong edge over their competitors.

Now CommPrint leases most of their equipment. "All of our CTP, 10-colour and e-book presses, colour-copiers, finishing equipment and workstations are leased, even right down to each of our wrist-phones," says Jonson. "Some of it is second-hand and occasionally temperamental, but we can only thank our expert techies, both here and with our suppliers, for helping us to achieve our high-level of capacity utilisation. And to fill our larger orders, we have benefited greatly from our partnerships with the major print factories here and in South-East Asia."

Developing Staff

The partnering concept has been extended within the company: staff also own shares and work within networked teams throughout the company's offices. "The closer working relationships between all of our teams has resulted in improved cost efficiencies," says Jonson. "For example, the networking between print managers, techies and even designers has maintained the quality but reduce the quantity of subs (both paper and e-paper), inks, finishes and washes being used. Of course, the Greens have also been most impressed by this achievement.

"Leasing and outsourcing most of our equipment needs has freed up a tremendous amount of working capital that has been used in staff development and training. I know that everyone in our company has benefited from our tech courses in order to keep-up with the latest IT and print techniques." On top of this CommPrint runs scenario planning and team building exercises for staff to develop a "healthy and happy workplace". Jonson tells us that "these workshops have provided a common goal for us and allow CommPrint's future directions to be mapped out and planned by all." ("Australia's Most Successful Businesses", Business Review Daily, 19 August 2004)

Sourcing Globally:

CommPrint's Global Sourcing Team have achieved some impressive cost savings over the last year as they continue to fill the company's resource needs globally. Through this team, CommPrint has built solid relationships and partnerships with some of the best global suppliers, as well as bridging the gaps in their value chains and distribution networks.

Jon Jonson, Chief Team Leader, tells us that the Team has also delivered on some of the more unusual requests from customers - for example, sourcing the very latest holo-ready e-paper, before any of their competitors, although this first mover base lasted a whole day before the next shipment! They even exposed the new marketing strategy for TeleWork™, prior to its launch, which was a coup for both CommPrint and their major partner Work@Home™, giving them an edge in developing and distributing a counter-strategy for their partner. (E-Bus-News, 9:11am, 3 July 2004)

Another example of adopting a basic business strategy on the Web is that of CommPrint.com. As Jon Jonson, Chief Team Leader, told us: "our Web marketing campaigns are based on a straight-forward, simple concept - on delivering a good price and a high quality to our customers. This is because it's difficult to establish a personal, long-term relationship via the Web ... but it can certainly be used to attract the one-offs through the door. After that, it is up to us to provide that personal, expert and friendly service to them - our new partners." ("Old and New Web Strategies", E-Strategy Magazine, 23 April 2004)

Beyond 2005, in 2010 and 2015 this is what happened:

2010

- Technological change has continued at a rapid pace - new types of information storage systems are being marketed including basic nanotechnology devices and photonic computers.
- Comparative advantage and information ownership is short-lived, and even first-movers and knowledge owners have difficulty in capturing markets.
- Strategic alliances between firms, large and small, and even with customers are the best ways to guarantee a steady turnover.
- Multinational corporations are operating like governments within some regions, but with this power comes a high level of responsibility to their customers and stakeholders.
- Printers that have aligned themselves with these multinationals and global brands have survived whilst they work closely with them to satisfy their needs.
- Printing firms diversify further to deliver more services for their partners - providing embedded or comprehensive services, integrated solutions and distribution control.
- Some printers operate in 3 shifts according to the 3 main timezones - Americas, East Asia/Australia, Europe - in order to deliver 24 hour service.

2015

- Nanotechnology and high-speed computers are commonplace in industry and in the home.
- The world has become segregated into multinational states, partly controlled by corporations whose decisions are affected by Internet democracy - direct voting by e-citizens.
- Paper has mostly been replaced by the new technologies, but those printers who survived have continued to diversify and shift as their customers' needs have changed.

Scenarios

4 Shaping the Globe

What if ...

- **the global economy is cyclic?**
 - strong local economies cross-trade with other local economies?
- **IT and telecommunications industries maintain steady growth?**
 - Internet and e-commerce thrive?
 - e-commerce becomes the dominant way of trading?
 - price/cost of information is 'affordable' to consumers because of competitive pressures?
- **businesses go global, but remaining local?**
 - businesses take advantage of local expertise?
 - businesses form clusters to benefit from having industries in close proximity?
- **global branding is a powerful consumer influence?**
 - printers take advantage of global branding trends?
 - printers form alliances to market and advertise their clients?
- **printers diversify beyond their traditional activities?**
 - printers undertake and manage non-core activities?
 - printers benefit from the commercial ownership of their IP?
 - printers have the ability to deliver their outputs overseas?
 - printers change of the public perception of printers and printing?
 - printers form strategic alliances with publishers, IT and other media and communications companies?

The following snapshot of the future was based on answering these What if... questions:

Chat-on-line

Communication
Domain

GLOBALPRINT

Alex Gerard

GLOBALPRINT

Sandy Taylor

GLOBALPRINT

Jack Morney

GLOBALPRINT

Sandy Taylor

GLOBALPRINT

Tam Ryan

GLOBALPRINT

Hewlitt Tuang

GLOBALPRINT

Sandy Taylor

GLOBALPRINT

Tam Ryan

GLOBALPRINT

Sandy Taylor

Competencies

John Smith

Competencies

Sandy Taylor

Competencies

Tam Ryan

Competencies

Sandy Taylor

GLOBALPRINT

Alex Diprose

Competencies

Sandy Taylor

Competencies

Brian Shipway

Competencies

Sandy Taylor

Competencies

John Smith

Competencies

Sandy Taylor

Competencies

Hewlitt Tuang

Competencies

Sandy Taylor

icons™

Brian Shipway

icons™

Sandy Taylor

icons™

Ron Howard

icons™

Sandy Taylor

icons™

Brian Shipway

icons™

Sandy Taylor

Welcome to chat-on-line

In today's discussion session we chat with Sandy Taylor, CEO of GlobalPrint. GlobalPrint is one of Australia's foremost image communication companies. It specialises in communicating and marketing for some of the big brands on the world stage, including Nikidas®, Copsi-Cola® and McKings®.

GlobalPrint grew from a medium-sized printing firm in the early 2000s to a leader in understanding and shaping market dynamics. Now GlobalPrint shapes its customer's image and branding in order to effectively target their markets.

The chat lines are now open - please feel free to post your questions to Sandy.

Alex Gerard, Communications Moderator, chat-on-line

Thanks for your questions Tam and Hewlitt. Yes, GlobalPrint made a deliberate decision in 2000-1 to expand our activities from more traditional printing to print communication - on paper, e-paper and holo, and via snail mail, web and e-phone. This was for two reasons:

1. We had competencies in visual communication, layout, design, workflows and processes; and
2. The IT and traditional telecommunication industries were increasingly trying to steal our market - in image communication.

We set about trying to understand our customers' markets in order to anticipate their needs. But to do this we had to first know and then develop our core competencies into something that could not be copied, would ensure our customers stayed with us and that our costs could not be eroded.

One of our key competencies back in 2001 was value-adding to our customer's designs and visual products - we knew how to improve their image and hence their branding. We also knew how to make the most of available media for reproducing their image.

And because of this we bought into our customers' images - because of our value-adding we now owned some of the image and its intellectual property. This meant that we had an alliance with our customers, with their brand as a part of the common property.

But it didn't stop there, it grew until, in some cases, we became the public face of the company - not that GlobalPrint is the company ... it's just that our alliance is so strong and that we manage their imaging and marketing needs so well. Whenever the public sees Nikidas® or Copsi-Cola® it is our images, the alliance's, that they are responding to.

Yes, that's true Brian, GlobalPrint owns a range of icons™, some of which you use everyday. It started out in much the same way as with owning a share of our customers' images - we also bought, acquired and designed our own icons - small images that, in some cases, became universally recognised and used. We took out IP or trademarks on them and started to collect the royalties as people (companies and the public) used them.

Now, they form the backbone of our income stream, and they are one of our best distinctive competencies:

- they can't be copied (because we owned them);
- our image alliances ensured that our customers would stay; and
- they provided a steady funding-base that could not easily be eroded.

Chat-on-line

Communication
Domain

Leadership

Sandy Taylor

Leadership

Stephen Wye

Leadership

Jack Morney

Leadership

Sandy Taylor

Leadership

Tam Ryan

Leadership

Hewlett Tuang

Ideas

John Smith

Ideas

Sandy Taylor

Ideas

Sandy Taylor

Ideas

John Smith

Ideas

Sandy Taylor

Ideas

Tam Ryan

Ideas

Sandy Taylor

Ideas

Alex Diprose

Ideas

Sandy Taylor

Competitive

Brian Shipway

Competitive

Sandy Taylor

Competitive

John Smith

Competitive

Sandy Taylor

Thankyou All

Alex Gerard

I should also point out that this didn't happen over night - as well as learning to understand our customers' markets, we also had to understand our own operations. We had to ask ourselves:

- What technologies do we need to succeed? How should we be utilising and financing them?
- What do our staff need to succeed and actively contribute to the company?
- What should our business strategy be? How should we market ourselves?

Above all, we recognised that we needed strong leadership that could find the right strategy - and once we set in place a competitive strategy, the answers came mostly from our staff.

Well, our ability to generate new ideas is wrapped up with our staff and our location. Australia has always been known as a place of inventors and innovators, and we've simply tapped into that strength. In fact, I often argue that it is because of our local strengths that we have been able to go global.

Globalisation talks about how everyone is a part of the global marketplace, but you still have to be located somewhere local. And we see our strengths being in this local region, but our reach is worldwide through our alliances and our own marketing.

We have also been an active promoter of the cluster in which we are located. This also means that if we don't have the expertise for a particular job, then we can find those skills locally, within this marketing, imaging and communications cluster. We also keep in mind the expertise available globally that we might need.

So we stay local, but go global.

In order to remain competitive we have to make sure that our distinctive competencies remain valid and can't be copied, our customers remain loyal and we can remain a leader on prices.

We continue to diversify our customer-base and our market in order to maintain our image communication niche, but we remain faithful to the same types of products and services - our

icons™, our image expertise and our alliances.

We also continue to engage our staff and our alliances in strategic development, scenario planning, SWOT analyses and all the other business tools that make sense for our future growth.

This, we hope, should give us the competitive strategy to survive and prosper during the cycles in the global economy for the foreseeable future, as we have done since the year 2000.

Beyond 2005, in 2010 and 2015 this is what happened:

2010

- Going global is the assumed business method, but with some community-oriented companies successfully based within local regions.
- Most delivery overseas is done by local companies - information and products are shared as companies reach global markets through alliances.
- New computer or icon-based languages have emerged, particularly for the rapid communication of concepts and ideas.
- Alliances have blurred the distinction between the printing, IT and media industries - they operate in what has been called the communications domain.
- Many companies have accumulated expertise and knowledge at the local level, and there is less need for immigration and emigration.

2015

- New languages have emerged for cross-cultural e-communication - communications companies that own or operate in these languages have been very successful.
- The value of branding has increased - the cost to produce has not changed, but the potential market has increased greatly, with entertainment and edutainment branding very lucrative.
- Every conceivable avenue for communication is being filled, called 'brand infilling' - successful marketers and communicators have taken advantage of the profits to be made in branding everything.
- There is a premium on operating a strong 'home-base' - in achieving that unique critical mass of skills, expertise, suppliers and local institutions. These home-bases are being used by alliances of global companies to maintain local clusters, innovation centres or networks to help them shape the future.

4.2 Validation of the Scenarios

The scenarios were considered against the outputs from Background Papers 1 and 2. Rather than working through all the outputs against every scenario, this Background paper considers only two of the scenarios against a summary of the outputs. The two scenarios were decided by considering:

- What scenario is the most probable - ie, which scenario is the industry most likely to follow, particularly if the current trends are considered?
- What is the most desired and achievable? It may be that the most desirable scenario is unlikely to be achieved, or may only be achieved by some of the leading firms. For example, the fourth scenario, Shaping the Globe, may be highly desirable for some firms, but the opportunities may never present themselves and may not be achievable by 2005.

It was decided that the most likely scenario, according to current trends, is the first scenario, Driven by Technology. The most desired and achievable is the third scenario, Partnering with Customers. The second scenario, Emerging Niche Markets, was seen as a transition between the first and third scenarios, and a more desirable future would be one in which most firms managed to move into the third scenario.

The following table considers the key indicators from Background paper 1 against the two selected scenarios. The question was asked: What is the likely trend for each key indicator under each scenario?

Background paper 3 Scenarios

BACKGROUND PAPER 1 KEY INDICATORS	FIRST SCENARIO DRIVEN BY TECHNOLOGY	THIRD SCENARIO PARTNERING WITH CUSTOMERS
Profitability gradually ▼ to 8%; Total Industries ▲ to 9%	▼ due to continuing under the price/ volume strategy and high capital costs	▲ due to meeting customers' needs - either firm's ▲ profitability, or - they leave the industry because they are unable to compete on either price/volume or differentiation
Domestic Demand steady ▲ over the period 1992-98 than for other scenario	▲ current indicator and consumer demand,	▲ due to increase in market, even higher although mixed in the short-term
Investment and investment in capital equipment cyclical, overall ▲, but under-utilisation of current hardware	- overall under-utilisation - except for web offset which has adequate utilisation - some improvement due to rationalisation and increasing availability of new technology	▲ utilisation - particularly for SMEs as they will know and prepare for customers' needs - ▲ investment in knowledge building activities, eg market research
Imports / Exports imports significantly exceed exports (except printing, services to and newspapers)	small potential for increase in exports; essentially static	▲ exports, particularly those related to knowledge ▼ imports - replacements known from customers' needs
Contribution to the national economy relatively flat at 2_% GDP (printing & publishing)	▲ Marginal increase	▲ everything up including contribution to the Knowledge Based Economy
Industry Structure 99% SMEs (less than 200 employees) - Number of SMEs ▲	get big; get small or leave - further polarisation in the industry	still many small firms, but with linkages (networks) - no real change as some dropout and some new firms
Employment relatively flat; SMEs employ 60% workforce; average 10 employees per firm	▼ total employment ▲ average per firm	▲ total employment % of employees in large firms ▼ as small firms ▲ ▲ non-production workers

Note that if the industry follows the first scenario then the current trends are likely to continue in the same direction. If the third scenario is followed then there is a general improvement in the key indicators and this suggests that this future is a better growth pathway to pursue.

The following table considers the Action Plans from Background paper 2 against the two selected scenarios. The question was asked: Can each Action Plan be achieved under each scenario?

Background paper 3 Scenarios

BACKGROUND PAPER 2 ACTION PLANS	FIRST SCENARIO DRIVEN BY TECHNOLOGY	THIRD SCENARIO PARTNERING WITH CUSTOMERS
Sell total business solutions	Difficult to achieve this Plan Opportunity under this scenario, as firms selling solutions need to understand their customers' needs. Firms in this scenario are blinkered by their technology focus.	Yes - including addressing both articulated and unarticulated customer needs: <ul style="list-style-type: none"> ┌ articulated └ unarticulated - may offer another window of opportunity.
Invest in your people	Some success in achieving this Plan as printers will need the right people to survive a technology-led future. May not survive long due to lack of focus on customers and training staff to manage this.	Yes - provided a conscious choice is made by printers to invest in customer-focused staff, with the right skills and experience.
Manage your technology	Yes - maintaining a technology focus helps facilitate printers to achieve this Action Plan. Need to convince client to let firms manage their IT needs.	Yes - focussing on customers helps printers address their IT needs. Need to convince client to let firms manage their IT needs.
	◀ need a customer and IT focus ▶	
Promote the industry's capability	Restricted due to firms maintaining an IT focus and, perhaps, not recognising the need for such a vehicle. Capabilities are technology driven.	Yes - as firms are customer focussed and this may provide them with another avenue to target customers and change their perceptions. Capabilities are customer driven.

Again, if the industry follows the first scenario then implementing the Action Plans is likely to be more difficult than if the industry follows the third scenario. This also indicates that this is a better growth pathway for the industry to follow to capitalise on these emerging opportunities.

4.3 Awarenesses

A series of issues that appear to cross all four scenarios have been identified. These issues or awarenesses are developing issues that the printing industry and firms within the industry should be aware of and maintain a watching brief over, and they include:

Economy

- National economic conditions and the impact of the global economy and trade

Industry in general

- Developments in the IT, telecommunications and media industries - the communications domain - and blurring of industry boundaries
- Key leaders and innovators in other industries

Printing industry

- Changing perception of printers and the nature/definition of "print"
- Re-structuring of the printing industry
- Declining profit margins and declining return on investments
- Low capacity utilisation and indications of rising levels of capital investment
- Accessing and using industry and government support programs

Business strategy

- General trends in business strategies, eg, outsourcing versus bringing activities in-house
- Competitive pricing, high quality and reliability
- Creating and leading an innovative company
- Addressing customers' needs, including providing total business solutions
- Opportunities in providing through-chain business solutions and services
- Shaping customers' needs for new products and services
- Achieving a sustainable competitive advantage

People

- Empowering staff and providing training and skills development

Technology

- Technological change and the appropriate use of print and other technologies

Consumers

- Changing consumer trends, habits and markets
- Societal issues, for example, environmental, community or local issues

5. Navigating the 21st Century

The issues highlighted in the scenarios and appendices, and summarised by the awarenesses, suggest there are two ways for businesses within the industry to move forward:

- By 'entrepreneurial invention' - new customer value potential is discovered and/or a new and more efficient way of creating already established customer value is invented.
- By building on the existing Distinctive Competencies to build new ones which are better adapted to the new business circumstances envisaged.

Strategies to build new Distinctive Competencies for the future need to be based on leveraging of the existing Distinctive Competencies. The task of building the business for the future has the following characteristics:

- It needs to be a new and unique combination of competencies, which can be exploited in a positive feedback loop
 - success strengthening Distinctive Competencies and Distinctive Competencies generating further success.
- It needs to be created on the basis of the current business leveraging existing Distinctive Competencies.

The following summary of suggestions for firms provides a basis upon which to navigate the new world of printing in the 21st century, over the period from 2000 to 2005:

Manage technological change. Don't let it manage you

- Technological change will continue at rapid pace for the foreseeable future.
- Newer and faster printing machines will be built.
- Acquiring the latest technology will not guarantee profitability.

Find new ways to compete for emerging opportunities

- Higher value opportunities will be in providing through-chain business solutions.
- Customers want to deal with printers who know how to create and sustain long-term business partnerships.

To compete successfully, develop enterprise based distinctive competencies

- You will have to focus more on business planning and skills development to compete for higher value opportunities.
- It will not be enough just to have these to be successful. Distinctive competencies will be the basis of success and these are more likely to emerge through comprehensive planning and enterprise based skills development.
- Distinctive competencies are more likely to emerge if you add leadership, staff empowerment and a climate of learning to your firm's strengths in business planning, skills development and technology management.

Aim for Competitive Advantage

- Distinctive competencies will be the foundation on which your enterprise's competitive advantages will be built.
- You will have competitive advantage when:
 - Competitors find it difficult to copy your business
 - Customers want to stay with you for a long term
 - Your cost base can not be eroded

6. Actions and Recommendations

On the issue of responding to future trends, the industry:

Increase awareness of the issues raised in this Background paper, particularly by encouraging firms to consider the different futures that may occur and whether they are prepared for them. Industry should also encourage firms to undertake the scenario process for themselves using the self-help diagnostic tools to be developed as a recommendation of Background paper 2.

Specifically, that industry:

- Conduct annual or bi-annual review of possible scenarios for industry's future growth and development, and disseminate to industry.

1. References

Kees Van Der Heijden (1996) *Scenarios: the art of strategic conversation*. John Wiley & Sons

Rowan Gibson (ed.), Michael Porter and Gary Hamel (1997) *Rethinking the Future*. Nicholas Brealey Publishing

R. Wise and P. Baumgartner (1999) *Go Downstream: The New Profit Imperative in Manufacturing*. Harvard Business Review, September-October 1999

Appendices

These Appendices look at:

1. The principles underlying business building.
2. The methodology for exposing the business to alternative scenarios.

1. Business building

The first part of this appendix provides a precis of key concepts in business building by Kees Van Der Heijden in his text entitled Scenarios: the art of strategic conversation.

i) Profit Potential

Profit Potential as central issue

Firms represent success by establishing value and this can be done in two ways:

- Creating surplus for stakeholders.
- Creating the expectation among existing or potential stakeholders that they will be able to create a surplus and grow in the future.

The aim can be defined as creating profit potential - this is not the same as 'profit'. Management cannot rely on strategy alone for profitability. Strategy facilitates, but actual profit is earned in day-to-day operations.

To understand the concept of profit potential we need to consider the thought processes of a new entrepreneur. Success results from a combination of three ideas:

- Finding new ways to create value for customers
- Bringing together a combination of competencies that create this value.
- Creating uniqueness in this formula in order to appropriate part of the value created.



The offering is the vehicle by which the seller and customer are linked to exploit the supplier competencies in the customer value system.

The offering includes all aspects of the supplier/customer interface, including physical product and also intangibles such as service, risk management, information etc.

ii) Distinctive Competencies

The Importance of Distinctive Competencies to the idea of profit potential and business success

Distinctive Competencies as the basis for customer value

The creation of a successful product is the result of the supplier competencies in the total customer value creation potential.

When a new combination of competencies can be easily emulated by competitors success will be short-lived.

Conversely, there may be something distinct or unique about a combination of competencies which makes it difficult for competitors to emulate. In the situation part of the value created may be appropriated by the supplier.

The degree to which this value may be appropriated depends on the relative power of the customers in the bargaining process. In turn customer power is determined by the alternatives open to them.

Thus positioning with respect to the competition must be addressed.

The power of other stakeholders also has to be considered in the process of value creation. These may include:

- Equipment and material suppliers
- Employees
- Competitors
- Financiers
- Government

Ultimately however, the power of the supplying firm to appropriate value relates to the degree of uniqueness of the competencies brought to bear in creating the product.

A prerequisite to value appropriation is that the competencies individually or the system of competencies with their interactions are difficult to imitate by potential competitors.

It is important to distinguish the idea of Distinctive Competency from 'strengths'. Many strengths firms believe they have, are not very unique and easily copied by the existing or new competitors.

If a business consists only of strengths then long term profit potential is vulnerable.

Sources of Distinctive Competencies

Distinctive Competencies are created within a firm over time and uniquely belong to it.

A useful question to bear in mind in considering the basis for future business success is the following:

What is unique about this particular formula and why are others unable to emulate it?

In regard to the generation of Distinctive Competencies we might ask why competitors would be restrained from copying the success formula.

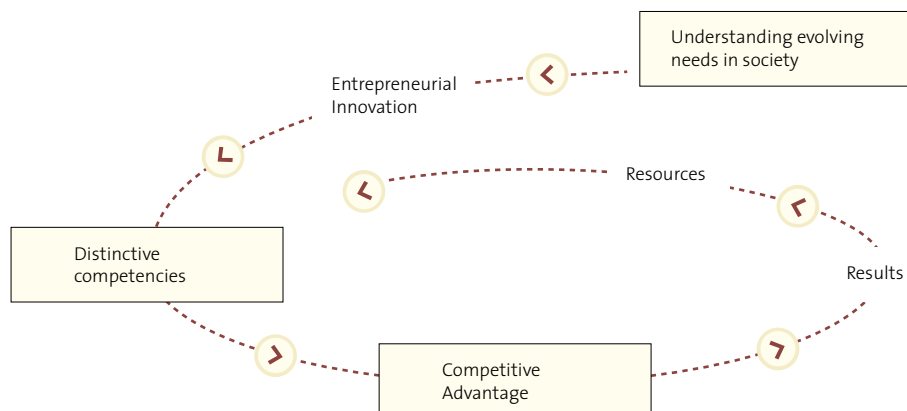
There are five fundamental sources of distinctiveness and these are in two main categories:

- Uncodified institutional knowledge
 - Held by networked people
 - Embedded in processes
- Irreversible investments
 - Investments in reputation
 - In legal protection
 - In specialised assets

In relation to the first source, competencies must belong to the firm and exclusively to individual members because of the possibility they may easily 'walk'. So a distinction needs to be made between personal knowledge and institutional knowledge.

The second source emphasises that competitors have to incur costs in order to compete for the profit potential.

CAUSAL LOOP DIAGRAM INSIGHT INTO THE DRIVING FORCES FOR SUCCESS



Uniqueness can derive from Distinctive Competencies individually or from their combination. A business is strong and difficult to emulate if the set of underlying Distinctive Competencies reinforce each other.

However, Distinctive Competencies depreciate over time and especially so in current highly dynamic times. Therefore continuous change and agility/flexibility are essential for survival. It must be borne in mind that:

- Eventually competitors will find ways to emulate the Distinctive Competency, and/or
- The overlap between the competency and the customer value system diminishes because of changing customer values.

Distinctive Competencies and Competitive Advantage

Competitive advantage is a function of Distinctive Competencies. It translates into profit potential in two ways:

- Distinctive Competencies are used to create a differentiated product or service - characteristics can not be matched by the competition and the customer is prepared to pay a premium price. Profit potential derives from this premium price.
- Distinctive Competencies are used to create a unique low-cost way of creating non-differentiated product. The supplier is able to make available a competitively priced alternative with some additional margin left to create a profitable operation. Profit potential derives from cost leadership.

Differentiated Product or Service

Here a product/ service is distinguished in its characteristics from the others on the market in a way that results in additional customer value.

If competitors can not match the distinctive elements, part of the additional customer value can be appropriated by the supplier.

There are generally two sources of differentiation:

- Generational - involving a capability to produce offerings with unique attributes - including quality, design, cost, availability and support.
- Relational - involving a dynamic capability to produce a uniquely fitting product, based on a superior relationship between supplier and customer including image and access resulting from effective communication and understanding.

It should be noted that differentiation requires a deep understanding of what creates value for the customer.

A Distinctive Competency of the supplier might be based on an ability to 'read the customer's mind' better than competitors

Unique product differentiation must ultimately derive from joint conceptual work. Product research is not enough. Continuous concept research is required.

Cost Leadership

Customer value is sometimes easy to determine; especially when products/ services have become 'commodities' - when open market trading has created standardised and clearly defined products for which there is a continuing market.

In these situations:

- The value the supplier contributes to the customer is equal to the established market price of the product (as the customer has plenty of alternative opportunities to acquire the product at that price).
- Significant long-term profit performance may be created by superior cost performance.

Competitive Bases for Industry in the Future

In the text entitled "Rethinking the Future", edited by Rowan Gibson, Michael Porter and Gary Hamel argue that companies and industry have to rethink the basis for competition and, in fact, the nature of their industry.

In order to cope with and develop good strategy for the changing nature of competition, businesses need to:

- understand the structural evolution of their industry, as well as the firm's own unique position in it, and learn how to reinvent their existing competitive environment; and/or
- create a fundamentally new environment in order to satisfy the unarticulated needs of customers and give the company a unique position.
- undertake trade-offs between what your competitors do and what your company does.

Hamel sees competition as increasingly not competition between players in a well-structured industry to divide economic surplus, but as competition to influence the shape of emerging opportunity areas. Hence, competition to shape these emerging opportunity areas has become ever more critical to a firm's future profit potential.

Hamel prefers to consider 'opportunity domains', rather than industries. He believes that focusing on industry tends to restrict companies to considering competitors lying within their industry - rather, competitors may lie outside an 'industry' and try to invent new competitive space.

iii) Specific Strategies

Strategies for companies or groups of companies within the industry have been outlined below.

The competitive strategies that can be adopted by firms, as suggested by Working Group 1, come down to one or a combination of the following:

Competitive strategy	Description
Product/service differentiation	A differentiated product or service is produced if the nature of the market allows a price premium on product differentiation, and if it has a system of distinctive competencies allowing it to put a product/service on the market with enough unique features in design, quality, support availability, etc to make the customer want to pay the premium price.
Cost leadership	An enterprise is a cost leader if it has a system of distinctive competencies which allows it to make a product/service available at a cost consistently below any competition.
Strong market niche position	An enterprise that can rapidly capitalise on opportunities to exploit new technologies and develop new products can establish a strong market niche position, particularly as economies of scale are less crucial for the firm's competitiveness. Some of these new market niches offer printers the opportunity to reach the individual customer with personalised products and services.

** Scenarios: the art of strategic conversation, Kees Van Der Heijden*

Listed below are some of the more traditional business strategies, which may or may not lead to a more competitive industry. These strategies may be required in order to expand or rationalise the industry in order to achieve a growth pathway, and include:

- expand, integrate, acquire, merge, franchise;
- downsize, rationalise, focus on core business;
- undertake R&D and innovation; and
- adopt an international strategy, import/export, seek foreign investment.

One method for expanding the industry, and potentially maintaining growth, is for companies to move downstream, particularly down the value chain to services. Downstream markets:

- offer large, new sources of revenue;
- tend to have higher margins and require fewer assets than manufacturing products; and
- tend to provide steady, service-revenue streams.

Successful downstream business models tend to adopt one of the four basic strategies:

DOWNSTREAM MODEL	STRATEGY	EXAMPLES
Embedded services	Building traditional downstream services into a product, often using new digital technologies	Honeywell, traditionally selling discrete aircraft components, developed a new product which ties the aircraft's systems together with microprocessors and software.
Comprehensive services	Launching suites of services for customers from the position of a product supplier	GE Locomotive, in their traditional market, have teamed up with GE Capital to finance a range of other rail assets, manage a variety of outsource operations and refurbish and resell locomotive assets.
Integrated solutions	Combining products and services into a seamless offering that addresses customer needs	Nokia, for many years a 2nd-tier player in cellular equipment, went beyond its traditional products and addressed all the equipment and service needs of the cellular carriers that are its customers.
Distribution control	Entering the customers' business - moving forward in the value chain to gain control over lucrative distribution activities	Coca-Cola experienced the sharpest increase in its value after it moved downstream to consolidate its independent bottlers into the largest, most integrated network in the beverage industry.

* *Go Downstream: The New Profit Imperative in Manufacturing*, R. Wise and P. Baumgartner, *Harvard Business Review*, September-October 1999.

2. Developing Scenarios

The central issue

The prime question to be addressed at the scenario building phase is:

Is the enterprise (firm and/or industry) well suited/equipped for the futures that are presented in this background paper?

The process involves considering the business - the characterisation of it according to Appendix 1 - against scenarios of futures to be encountered. The latter being characterisations of the future business environment to establish the degree of fit. This involves:

- Wind-tunnelling - subjecting the model to tests to assess strengths and weaknesses.
- Not just 'accepting' or 'rejecting' alternatives. Rather, it is an iterative process of adjustment and improvement until a model of the business is developed which is sufficiently robust to deal with the whole range of environments that might develop.

A fundamental rule

A fundamental rule for the scenario building phase is this:

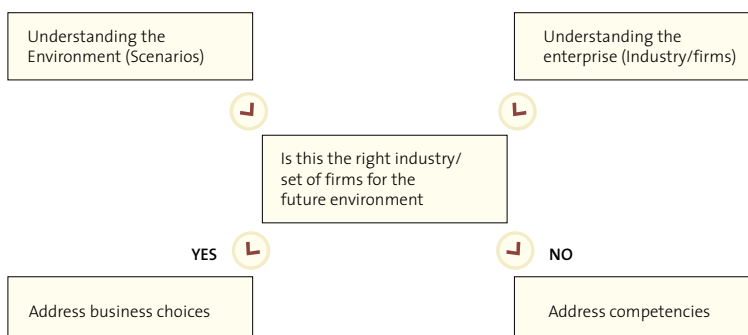
Once we have decided on the set of scenarios of the future which are considered relevant to our situation, each scenario is treated as equally plausible.

The strategic fit

A business has embedded in it a limited number of key factors and Distinctive Competencies which are or will be brought together to meet societal need and create value in a customer system.

While going through the scenarios, the analysis addresses the following questions:

- Will the customer value system overlap sufficiently with the competence system envisaged to create significant new and surplus value?
- Will the enterprise be able to appropriate enough of the surplus for its own development? Will its competency system be capable of being defended against competitive emulation?



In the case where the fit is strong, strategic questions concentrate on funding new areas where the competency system can be exploited and this can take two forms:

- The offering that constitutes the interface with the customer stands and the enterprise looks for new markets or market segments.
- The enterprise looks for new areas where the competency system can be made to create customer value.

Here, business strategy revolves around business options.

In the case where the fit is weak, then the enterprise has to address how to change the competency system.

Strategy in the latter case revolves around the development of new capability options.

i) Scenario Building

In his text Kees Van Der Heijden has summarised a number of methods for building scenarios. The methods require understanding and characterising the enterprise - a firm or a whole industry - and then applying a logical approach to developing the set of scenarios, typically involving discussion sessions with the key decision-makers.

It should be noted that scenarios usually focus on the external environment - factors impacting on the firm from the outside or external to the industry sector. To do this, though, they also have to consider the driving forces and opportunities within the firm or industry, and then to consider the impact on these of the external environment. Some of Van Der Heijden's suggested methods are outlined below.

Step-by-Step (Inductive) Method

This method builds step-by-step on the data available and allows the structure of the scenarios to emerge by itself. There are a couple of possible approaches:

- *Level of events approach* - the understanding and new insights, determined from identifying the key drivers and other factors, are turned into illustrative events. These events are then clustered in a logical way to form the scenarios.
- *Level of structure/logic approach* - the understanding from the preparatory phase is expressed in bits of logical relationship. These are then linked to form snippets, connecting up a few events through a cause and effect relationship. These snippets are then clustered in a logical way to form the scenarios.

Structural (Deductive) Method

This method aims to first discover structure in the data and use it as a framework for deciding the set of scenarios to be developed. Again, there are a few different approaches:

- *Key events approach* - a limited number of key events are determined which will have an overriding influence on possible futures. Choices based on these events, or a series of these events, are used to develop the scenarios.
- *Key trends approach* - a few key trends, determined from the structured data, which may compete for dominance in the future are used to develop the scenarios.

- *Key structural variables and driving forces approach* - two or three key structural variables or driving forces are determined. Expressing each of these driving force variables in terms of opposite ways in which they could play a part in the future leads to four or eight scenarios, for two or three variables respectively.

Which method is the most appropriate for building scenarios for your firm or industry? The Step-by-Step Method is useful for a group with divergent interests who have the time to develop a large number of events or snippets and then develop the emerging scenarios step-by-step. The Structural Method is a more systematic approach and the information from the Working Groups can be used to develop these scenarios.

It is important in developing the scenarios to

- Avoid good/bad mode
- Predetermined events or opportunities need to end up in all scenarios

In his text entitled "The Art of the Long View", Peter Schwartz provides an alternative,

seven step method to developing and using scenarios:

- Step One: Identify Focal Issue or Decision
- Step Two: Key Forces/Factors in the Local Environment
- Step Three: Rank by Importance and Uncertainty
- Step Four: Select the Scenario Logics
- Step Five: Flesh Out the Scenarios
- Step Six: Implications
- Step Seven: Selection of the Leading Indicators or Signposts