

Staying ahead – embracing new technologies in a new digital world

Learning outcomes:

As a result of carefully reading this case study, students should be able to:

- **know** that many businesses have other businesses as their customers (B2B)
- **explain** the importance of marketing orientation, particularly in relation to the printing industry
- **show** how Polestar's B2B customers are involved in the production process
- **explain** why Research and Development is important to leading edge companies
- **outline** the main characteristics of Computer to Plate (CTP) technology
- **describe** some benefits of CTP to the customer
- **describe** some benefits of CTP to the producer
- **outline** the advantages of using specialist machinery and equipment when producing for a large, sophisticated market
- **explain** why training and development are essential if new technologies are to be successfully introduced
- **understand** why business success depends on a willingness to embrace new technology.



Introduction

Today we live in a digital world in which information can be communicated rapidly and efficiently, and in which images, sound and text are far clearer and better defined ('cleaner') than ever before. This case study looks at how one company in particular has responded to the opportunities presented by new digital technology. Polestar is Europe's leading **independent** printing company and is Number 1 in the UK. It continues to be at the forefront of the move towards digital printing within the UK. It has adopted CTP technology so as to provide its brand-leading customers with a competitive edge.



Polestar serves the publishing, retail, travel and direct marketing sectors through the production of catalogues, brochures, magazines, newspapers, packaging and **direct mail**.

If you have recently read a newspaper or magazine, flicked through a holiday brochure, or ordered from a catalogue, then you've probably already come across Polestar. Polestar has certainly come across you; the group printed all of the forms for the UK Census 2001.

Polestar is a **B2B** (Business to Business) company. It sells its products directly to other businesses, including companies with a range of brand names with which you will be familiar. For example:

Some of Polestar's B2B customers	
Magazines	Newspaper supplements
Cosmopolitan	Sunday Times
Radio Times	Saturday Express
Catalogues and Mail order	Retail
Argos	Mothercare
Christies	Tesco Clubcard brochure
Travel	Packaging
Cosmos	Twinnings Tea
Thomson Summer Sun	Colgate toothpaste
Direct mail	E-publishing
World of Wine	Dun and Bradstreet
National Census 2001	Nestlé

Marketing orientation

In today's marketplace, the most successful organisations are those that understand their customers' requirements best and make sure that their expectations are met. This approach to doing business is known as market orientation. It contrasts with the production orientation that characterised many firms within the UK economy up until the late 1970s. In those days, many small printers faced little local competition and tended to tell customers 'We know what you need and what's best for you.'

Today, printers operate in a highly competitive market in which their B2B customers have a clear idea of what they want, can shop around, and are looking for high quality production at competitive prices. Polestar prides itself on being the market leader serving other market leaders in other fields and enabling these customers to be the **best-in-class**.

Market leaders in the catalogue and mail order businesses (Argos, Christies) and in retailing (Tesco) rely on Polestar's innovation and resources to produce outstanding printed material that helps them to achieve their own business goals.

The digital revolution in printing has vastly improved print performance in much the same way that digital imaging (in place of the former analogue technology) provides clearer images on our televisions and better sound on CDs and radios.

New technologies have enabled Polestar to radically change the way it gets its information ready for transferring to 'Ink on Paper' (i.e. printed copy). The Group operates a series of Digital Hubs, where pages in the form of digital files, (usually PDF) are received electronically from customers. The files are then processed, proofed and quality control checked to ensure they are suitable before producing a printing plate.

Vigorous quality controls are in place to ensure data integrity which means customers can rely on the accuracy of the print produced. Value added services are offered, where customers can remotely view, amend and approve their pages via the World Wide Web using standard browser technology anywhere in the world. This system is called Insite.

Polestar uses Synapse InSite™ software on a Prinergy system. This system enables Polestar's customers to:

- submit complete jobs to print over the Internet
- check how the job is progressing
- perform interactive remote proofing and online review of jobs.

The InSite Internet portal allows collaboration with customers wherever they are in the world.

All of Polestar's imaging sites (Watford, Colchester, Leeds, Bradford, East Kilbride) are networked together. When the customer and Polestar's imaging hub are both happy with the digital pages that have been created on the proof, they are transmitted electronically to the appropriate Polestar print site which is the most convenient location for its customers. For example, material for a newspaper's Sunday Supplement will go to a print site that acts as that newspaper's wholesale site. Any hub site can send files to any production site in the group; this makes both distributed production and work-sharing a reality and enables rapid response to any production problems.



The importance of Research and Development

Research and Development (R&D) is a key element of many organisations and, when well planned and used, enables a business to generate increased wealth over a period of time. For a company like Polestar, research involves investigating all the latest technologies that are relevant to the printing industry. Development is the process of trialling and applying relevant technologies. R&D has allowed Polestar to develop its leading position in the printing industry.

For example, as a result of its R&D work, Polestar:

- introduced the first Colour Electronic Page Make Up in the UK (1980/81)



- produced its first Postscript/Desk Top Publishing Magazine in the UK (1991)



- carried out its first 100% digital production (1995/96)



- installed its first CTP system in the UK (1997/98)



R&D is essential to keep ahead of the field. For Polestar's business customers to lead their own fields they require excellence from their suppliers in every aspect of their business, including the most attractive images in magazines and brochures, produced as quickly as possible. Their preferred supplier will therefore always be the one that gives them the best products combined with personal service. Digital production means cleaner images reflecting quality and faster production.

Specialisation

As a firm's market grows, it can take increased advantage of specialisation. Specialisation involves using dedicated equipment and a high quality labour force in ways that concentrate the firm's efforts on those areas in which it excels. Because it is a market leader, Polestar is able to invest in state-of-the-art specialist technology, giving customers the quality and service that they require, and so remain the market leader: a virtuous circle.

CTP technology enables computer-generated pages to be transferred directly on to a printing plate digitally. Previously digital files were imaged on to a film and a plate was made from the film through an analogue process. It is a natural extension of the other computerised front-end processes, such as typesetting, image capture, retouching, design and page make-up.

Examine one of the pictures on this case study with a magnifying glass. You will see that the photograph is made up of black, yellow, pink and light blue dots. The size and amount of these dots changes as the overall colours change across the picture. The printing press has a printing unit for each of these 4 colours, with a tank of each different ink. Each unit has a plate which transfers the right amount of ink into the right place for each of the four colours.

The new technology has enhanced the printing process in many technical areas related to quality. It also reduces the time to set up the printing press and paper/ink wastage.

The benefits to the customers include:

- Speed. This is vital in the fast moving print industry. For example, a newspaper may make a last-minute decision to feature a leading story that has only just broken within its weekend magazine.
- Greater accuracy. All clients will want to see 100% accuracy in its catalogues e.g. no misplaced captions or reversed images.
- Shorter lead time with greater flexibility. Producers of magazines that rely on advertising (e.g. Woman's Own) will want to be able to have their magazines produced quickly and also to show their own clients (e.g. advertisers) what the end product will look like prior to publication. Polestar provides customers with fast, efficient connections to a complete range of Polestar services, via the Internet. Customers can request and receive quotations, orders and other correspondence, as well as being able to track jobs and check proofs online.
- Ability to make last minute changes. Retailers and travel companies, for example, may want to change their prices and some of their offers at the very last minute in response to their competitors marketing initiatives.

There are also benefits to Polestar from CTP. These include being able to:

- focus confidently on customer requirements, because the technology 'can do'
- respond far more flexibly to customer requirements and keep them informed at all stages
- offer competitive pricing - lower costs are passed on to the customer
- train its employees to become multi-skilled and so offer them **job enrichment**. Modern printers who are trained to use CTP are far more aware of their role in creating the end product because they can see it taking shape on the screens in front of them.



All of this contrasts with earlier printing technology, under which printing was a lengthy process involving many manual operations and where print workers concentrated on specific skills (e.g. typesetting, platemaking) rather than on being multi-skilled.

Training and development

Training is the process of building up the skills, knowledge and capabilities of employees so that they can better help the organisation to achieve its objectives. Development involves finding out the needs and aspirations of employees in order to better enable them to develop themselves within an organisation.

Training focuses on the objectives of the organisation. Development focuses on the objectives of the individual employee that can be honoured for the good of the group. A good programme will marry the two, to the benefit of the firm and the individual.

Polestar has therefore engaged in a training and development programme that encourages employees to link their own career aspirations, with the needs of the organisation. A typical Polestar employee is an innovative individual who finds the new technological developments exciting.

Initially, training for Polestar employees needed to take place with the manufacturers of the new systems that have been introduced: some CTP trainees went to Brussels, for example. Increasingly, with growing familiarity with the processes, employees are able to learn 'on the job' as well as on specially designed training courses offered 'in house'. In terms of employee development the rewards are high, as individuals learn new skills and work in a much cleaner, multi-skilled, more sophisticated printing industry.



Conclusion

Digital imaging is having an enormous impact. The images that we have come to expect in magazines, brochures and packaging as well as on our television screens are far more precise and clear than in the past and many of the articles we read cover events that have only just occurred. In the future they are likely to improve still further. Leading business organisations - magazine publishers, travel companies, mail order businesses etc - need to be seen at the forefront of everything they do, and so have turned to CTP and businesses such as Polestar.

To remain 'Number 1', Polestar will need to continually reinvent the way it operates by embracing new technologies and developing the skills of its workforce. One thing is certain: having seen what is possible, tomorrow's customers will be even more demanding than today's.



GLOSSARY

B2B:

Sales by one business to another rather than B2C which involves selling directly to the final consumer.

Best-in-class:

The most successful businesses in a particular group e.g. the best magazine publisher, travel operator, supermarket chain etc.

Direct mail:

Targeted leaflets and publicity that come through your door addressed to you or other occupants.

Independent:

A business that is not a division, sub-division, or part of a larger group.

Job enrichment:

Making work more interesting by improving the content and variety of tasks undertaken by an employee.

For further information about Polestar please browse:

www.polestar-group.com