

Introduction

Throughout the 20th century, the pace of technological advancement has increased dramatically. The digital revolution, now upon us, will see further massive steps forward. This case study looks at the ways in which Sony has been able to stay at the leading edge of the new technologies.

Sony Corporation is the leading manufacturer of audio, video, communications and information technology products for the consumer and professional markets. Its music, pictures and computer entertainment operations make Sony one of the most comprehensive companies in the world. Founded in 1946, Sony has been at the forefront of technological advances and now has 1,041 consolidated companies, 65 affiliated subsidiaries and employs more than 177,000 people throughout the world. Sony recorded world wide sales in excess of \$56 billion in the year ending March 1999.

Sony has developed a wide product portfolio which includes goods that have become integral parts of modern lifestyles; the first Japanese magnetic tape and tape recorder in 1950, the transistor radio in 1955, the first all-transistor television set in 1960, the first colour video cassette recorder in 1971. In 1979, Sony launched the Walkman Personal Stereo, which has sold 150 million units world wide. It is the single best selling consumer electronics product ever and has become a way of life for a generation. The compact disc and MiniDisc systems have radically changed the music industry and, more recently, Sony has introduced DVD-video. Sony has not only been a market leader in consumer electronics, but has also become a major player in the worlds of professional broadcasting, telecommunications, PC technology and now the Internet. The positioning of the Sony brand products has been equally important, with the accent on quality and innovation.



Markets

Today the world of consumer electronics can effectively be divided into four separate markets:

- the entertainment world of music and games
- the personal computing sector
- communications with cellular telephones
- the wired world of television, video and cable set top boxes.

These four market segments are rapidly merging as digital technology dramatically increases the potential in each area. For example, television has, to date, been largely limited in terms of content and application, but it is essentially just a box of electronics. Many of the latest televisions have the capability of Internet access and many experts believe that the future will see the integration of the personal computer and television. Sony's aim is to create a network environment within the home from which consumers can access specific video or audio selections whenever they want.

Anticipation with innovation

In order to harness the potential of digital technology for the purposes of providing enjoyment to people around the world, Sony has developed a concept called Digital Dream Kids. Sony wants to identify the dreams of the young, digitally literate generation of consumers and translate them into unique, fun products and exciting applications, supplying products that fulfil



the dreams of their customers. To achieve this requires a seamless merging of content, hardware and technology. This concept has become central to the corporate strategy for Sony.

The key to success in this challenging and highly competitive technological marketplace is effective innovation and the continual development of new products. All new product development has to go through a number of stages. New products have to be conceived, a process of imagination, creativity and inspiration. These new ideas must then be screened and evaluated from both production and financial perspectives. Successful ideas will be developed in the laboratory and undergo thorough test marketing before they can be launched. Market research is crucially important throughout these processes, both of the potential market and of the product, but often with such innovative products as the PlayStation and Walkman, Sony is anticipating a desire that consumers have yet to appreciate. Sony has literally created the market for these products. Market research is vital in keeping in touch with consumers' dreams.

Not only do the Sony designers and engineers have to be of the highest calibre in their own fields, but they must also be able to empathise with the Digital Dream Kids. All research and development is carried out using Sony's 'earth-conscious approach', designed to use fewer natural resources in production and operation, and in line with the overall corporate mission statement. Research is both short term, looking at specific products, and with a long term view, investigating, for example, new materials or bionic processes.

The digital revolution

The television has done more to shape the way we live our lives than most 20th century inventions. Television is now at the beginning of a digital revolution, which will transform the medium over the next decade. Until 1998, television pictures have only been broadcast using an analogue system, this means using radio waves to transmit the signal. Not only does this use up a large amount of the radio spectrum, but also these waves are easily distorted, causing interference and fuzzy pictures.

Digital television uses the same language as computers and compact discs, breaking the information to binary bits, a series of ones and zeros, which are then transmitted to the television. Unlike with analogue, these signals cannot be degraded, resulting in far superior quality of pictures and sound. Reception by aerial, satellite or cable has meant that consumers can now receive up to 164 different channels as well as home shopping, banking and information services. Internet access and cheaper phone calls are also available options.



Partnerships

A series of business alliances and partnerships with both computer and broadcasting companies have strengthened Sony's position within both these markets. Sony helped to pioneer the development of digital formats for audio-visual products, starting with the compact disc. It is now pushing forward with its mission to consolidate the audio-visual and information technology industries. Its product mix has placed the company in a unique position to be able to do this. All future product development has to conform to Sony's Video Audio Integrated Operation (VAIO) strategy, with the aim that

all products brought to the market place will not only be compatible with each other, but that, in time, can become one. Connectivity brings much greater flexibility than the traditional stand-alone products. For example, the new Sony digital camcorders have an interface to allow the downloading of images directly onto the PC for editing. In June 1999, Sony launched the WEGA Digital flat Widescreen television that includes an array of extra programming to enhance the potential of the set and state of the art digital picture and sound quality. The digital television is being developed so that in the future it will meet all the consumer needs, a one-stop entertainment shop.



Progression - pioneers of the market

The pace of technological progress has forced fundamental changes on the corporate structure, with Sony Corporation adopting a horizontal, rather than vertical organisational structure for the first time in its fifty year history. This was designed to speed up decision making and market responsiveness. Sony has had to restructure all ten of its individual product companies so that they can adopt common platforms using the PC technology. This is a long-term strategy and the success cannot be measured in short-term market shares. As Nobuyuki Idei, the President of Sony, said in 1995 “The digital revolution will shake out the total business platform so that brand image and production power and even the best technology will not be enough. As the information and digital revolution spreads, Sony will continue to change dramatically.”



Under these circumstances, marketing becomes pivotal. As Idei noted in 1995, “Marketing is not just a function within Sony, it is a cornerstone of our business philosophy. We are dedicated to a process of constant technological innovation, and marketing plays a vital role in this process.” Sony has always held the view that good marketing involves pioneering the market, which comes down to market creation. Simply producing goods that meet a market’s current needs will lead to the firm falling behind in the long run. Central to Sony’s marketing mix therefore is the innovative product, creating and pioneering a market and a demand from the consumer.

Throughout its history, Sony has been associated with unique products based on advanced technology and concentrating on performance, ease of operation and design. Unlike its main rivals, in an exceptionally competitive market, Sony has not proved to be the biggest spender when it comes to promotion. Sony uses a combination of TV advertising, national press, consumer, trade and specialist magazine coverage. Editorial features and double and single page adverts in newspapers, youth and lifestyle magazines target the consumers in line with the overall Digital Dream Kids strategy, an example of promotional and marketing strategies matching the corporate objectives. Recent advertising campaigns have followed this up with “Do you dream in Sony?” a slogan that has special significance for all Sony stakeholders.

Continuous improvement

All Sony factories are driven by a desire to improve quality and reduce cost, employing lean production and just in time manufacturing techniques to maintain a competitive cost advantage and therefore lower prices. Sony also tries to instil a belief in ‘Kaizen’, or continuous improvement throughout the organisation, always striving to find better methods of manufacturing its products. This is reflected in its considerable investment in research and development, not only into the products, but also into the manufacturing processes. Sony also tries to pass on this philosophy to its suppliers and partners. In addition, the development of a highly efficient distributor network, from the factory right through to the retailer and customer, has helped to build the brand image, making Sony one of the most respected names in the world. Sony refers to this line of contact as the ‘value chain’.



Conclusion



The impact of technological change on a firm is usually considered an external influence. By taking such an essential role, driving the markets forward through its innovative research and development, Sony has been able to become a proactive force, rather than having to react to changes. By internalising much of the technological advances, Sony put itself in a strong position to fulfil its goals and objectives. However, Sony has only been able to achieve this by being prepared to change and adapt from within.