



Sector Innovation Patterns

Joe Tidd, John Bessant, Keith Pavitt

Sector Innovation Patterns

Think about the sector in which your firm (or one with which you are familiar) is active. You could, for example, be looking at a firm involved in children's toy manufacturing. Now try to list the major changes in that sector over the past 25 years in terms of what contributes to competitiveness. Who (which firms) have been the winners and losers and why? You are trying to get a feel in this for how technological change can shape the competitive dynamics of an industry, so think about questions like these:

- How has the industry changed – and how has technology helped (or could it help) deal with these changes?
- What new technologies have emerged – and how have they been used?
- What are the main market demands (e.g. price, quality, design, customization, speed of response, etc.) and how has technology affected the ability of firms to offer these?
- If a new entrant came into the industry what would he/she have to offer to become a market leader – and how might technology help them do so?

You may need to spend some time asking people in your firm or reading about the firm and its wider sector to build up this picture. Summarize your research in the form of short 'bullet points' which highlight the strategic role played by technology. You could use the framework below, which is filled in for the example of a children's toymaker.

Major changes in the industry	Major new technologies	Main market demands and how technology affects them	How to become a market leader
Big influence of TV and films – increasing tie-ins Price pressures push actual manufacturing to the Far East Fashion industry with high risks – and benefits for the right products Costs of new technologies mean fewer players can stay in the game of new product development – so consolidation of the industry	Electronics and programmability TV/Video and computer games – as competitors to traditional toys but also as complements which can extend their range, e.g. Lego bricks plus computer = programmable toys	Strong price pressure – pushes manufacturing to low cost locations – technology relevant in keeping costs low whilst enabling consistent quality Major emphasis on design technologies	Close market understanding and the ability to communicate this deep into the organization and configure products to meet these demands Broad knowledge base – especially in newer technologies like computers and software but also in design of parts Access to distribution networks Strong design and marketing capability