executive review

Pathways to Value

How UK firms can create more value using innovation strategically

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AIM – the UK's research initiative on management

The Advanced Institute of Management Research (AIM) develops UK-based world-class management research. AIM seeks to identify ways to enhance the competitiveness of the UK economy and its infrastructure through research into management and organisational performance in both the private and public sectors.

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- Working in cooperation with leading international academics and specialists as well as UK policymakers and business leaders…
- Undertaking a wide range of collaborative research projects on management…
- Disseminating ideas and shared learning through publications, reports, workshops and events…
- Fostering new ways of working more effectively with managers and policy makers…
- To enhance UK competitiveness and productivity.

AIM's Objectives

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- Conduct research that will identify actions to enhance the UK's international competitiveness
- Raise the quality and international standing of UK research on management
- Expand the size and capacity of the active UK research base on management
- Engage with practitioners and other users of research within and beyond the UK as co-producers of knowledge about management

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AIM research themes

Current AIM research projects focus on:

UK productivity and performance for the 21st century.
How can UK policy makers evaluate and address concerns surrounding the UK's performance in relation to other countries?
National productivity has been the concern of economists, government policymakers, and corporate decision-makers for some time. Further research by scholars from a range of disciplines is bringing new voices to the debates about how the productivity gap can be measured, and what the UK can do to improve the effectiveness of UK industry and its supporting public services.

Sustaining innovation to achieve competitive advantage and high quality public services.
How can UK managers capture the benefits of innovation while meeting other demands of a competitive and social environment?
Innovation is a key source of competitive advantage and public value through new strategies, products, services and organisational processes. The UK has outstanding exemplars of innovative private and public sector organisations and is investing significantly in its science and skills base to underpin future innovative capacity.

Adapting promising practices to enhance performance across varied organisational contexts.
How can UK managers disseminate their experience whilst learning from others?
Improved management practices are identified as important for enhancing productivity and performance. The main focus is on how evidence behind good or promising practices can be systematically assessed, creatively adapted, successfully implemented and knowledge diffused to other organisations that will benefit.

executive review

Improving the UK's competitive position has become a matter of national importance. The DTI Review of UK Manufacturing Policy, published in July 2004, stressed the need for the UK to become a high value economy[1]. Previous studies including the Porter Report and the DTI Innovation Report[2 3] also emphasised the importance of innovation for UK firms to make the transition from competing on the basis of costs to competing on the basis of value.

As part of its ongoing Innovation Review, the DTI asked a group of AIM Scholars to examine how firms in the UK can create more value. This report is a summary of our findings. It addresses issues that go to the heart of improving the UK's competitive position.

Key findings:

The research identified three key strategies that firms can adopt to create more value. We call these the **Pathways to Value**. Firms can:

- Increase efficiency and effectiveness through the adoption of better practices;
- Innovate to produce products or services that generate more revenue through either higher prices or larger volumes – but remaining at the same position in the value chain;
- Fundamentally change position in the value chain – moving to a position where their products and services inherently generate more value.

These three strategies offer a route to enhanced value creation, but they also represent significant challenges to management. In particular, firms need:

- Access to a workforce with the required skills and training;
- Access to the necessary level of investment;
- Commitment from senior management to long-term change.

These challenges are linked to the ability to acquire and transfer knowledge during the innovation and subsequent implementation process. Addressing these challenges forms the basis of our policy and research recommendations.

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introduction

The recent DTI Review of UK Manufacturing Policy, and the Porter Report, both stress the need for the UK to move "from a location competing on relatively low costs of doing business to a location competing on unique value and innovation".

In a high value economy, the ability to produce innovative products and services using cutting edge technology is the principle source of competitive advantage. At present, however, many UK firms use low skill, low value practices. For them, the move towards creating higher value will require new innovation strategies.

For any firm, the most strategically relevant activities are those that create the greatest value.

The DTI Innovation Report identified three reasons why increasing innovation is now essential for UK firms:

- Globalisation and trade liberalisation means the UK increasingly competes against countries which combine low wage costs with a highly educated workforce. In Korea, for example, labour costs are half those of the UK while the proportion of graduates in the working population is almost identical.
- Technological and scientific advances are changing the world more rapidly than ever before. This is sparking new innovation, which creates more opportunities for businesses to gain competitive advantage.
- Keeping up with consumer tastes is more difficult than ever before. In a world that is always open for business, fashions and information about new products circle the globe almost instantaneously.

The challenge now facing UK businesses, it noted, is "to compete on the basis of unique value"[4].

So how can a UK plc best respond to this challenge? What strategies can UK firms adopt to create more value?

Value and the value chain

Firms create value by taking inputs, such as raw materials and labour, and converting them into outputs – products and services. The value is derived from the way the firm organises its resources.

Each firm has an internal value chain which consists of a number of primary activities: inbound logistics (obtaining the inputs); operations (producing the product or service); outbound logistics (distributing the product or service); marketing and sales (pre sales support); and customer service (post-sales support). These are supported by various secondary activities, such as human resource management and procurement. In turn, the firm's value chain interconnects with that of other firms to form an extended value chain or value system.

For any firm, the most strategically relevant activities are those that create the greatest value. Companies can obtain competitive advantage by performing these activities more cheaply, or more effectively, than their competitors[5]. A successful value strategy is one that optimises the company's value chain and positions the company in the most advantageous place in its value system[6].

The challenge is to ensure the firm’s competencies are deployed in a way that optimises their value. This can be achieved in three basic ways:

- Building increased efficiency and effectiveness into the value chain by adopting efficient means of production (using new technologies, for example) and best working practices (to ensure quality standards, for example);
- Developing and delivering products and services in novel ways;
- Re-positioning the firm in the value chain or re-organising operations.

These three strategic options are the **Pathways to Value**. To implement value creation strategies, however, companies must have the capacity for strategic innovation. Innovation is not simply about invention, or the creation of new ideas. It is also about the implementation – the successful absorption and exploitation of ideas. This may involve large scale workplace reorganisation or re-skilling.

pathways to value

The AIM research identified three key strategies that UK firms can use to become high-value businesses. These **Pathways to Value** are:

1 Adopting best practice;

2 Product, process and service innovation;

3 Repositioning along the value chain.

The adoption of best practice

For any given firm there is an optimal configuration of organisational form and management methods that will yield the greatest benefit. High performance workplaces result from a combination of work and management practices – for example, Total Quality Management, formal team working, job rotation, training, compensation and management performance systems. When successfully implemented, these systems create a unique source of competitive advantage for the firm.

At present, however, the UK lags behind its major competitors in the adoption of best practice[7]. Even where UK firms do adopt best practice, they tend to do so less effectively and extensively[8]. Professionals and skilled workers play an essential role in the adoption of best practice. For implementation to be successful they must sustain and lead change during the adoption process.

Firms must learn, adopt, adapt, and then incorporate new practices as routine.

The process can be characterised as follows:

- Adoption – all events that lead to the decision to transfer a best practice;
- Set up – planning for the implementation of the best practice;
- Implementation – the stage from the launch of the change programme to the execution of the short term actions that have been planned;
- Ramp-up – the stage when the practice is actually applied;
- Integration – final stage of the adoption process, when firms achieve satisfactory results and its use becomes gradually routinised.

Firms must learn, adopt, adapt, and then incorporate new practices as routine. To do this they must be open to new ideas, and able to recognise the value of external knowledge, assimilate and apply it commercially. Companies also need to identify and eliminate the factors that inhibit adoption, such as poor leadership; lack of understanding, communication and knowledge-sharing; and cultural resistance.

One approach to the adoption of best practice is the learning factory. This perspective focuses on knowledge creation collaboration within and without the firm. To create a learning factory environment a firm must:

- Have innovation at its core – generating, codifying and applying knowledge to improve its products structures and processes;
- Use internal sources of information, such as the tacit knowledge of employees, to drive continuous improvement;
- Benefit from improvement derived from external sources of information, such as customers and suppliers;
- Be embedded in an innovation network of collaborators with whom there is information exchange and shared learning[9].

Product, process and service innovation

By producing innovative products, processes and services companies can deliver increased value while remaining at the same position in the value chain. This represents the second **Pathway to Value**.

There are two ways to do this:

- Develop new products and services for which consumers are willing to pay more;
- Develop new products and services for which **more** consumers are willing to pay.

For example, mobile phone companies have adopted the former strategy. They have pursued higher value using technological innovation to develop new mobile phone services, such as the transfer of video files. By contrast the low-cost airlines have delivered increased value by driving down costs and growing market share.

Innovation is essential for product and service development. Companies need to understand how to facilitate innovation. In particular they need to understand the importance of networks in fostering innovation. In the high tech industry, for example, research shows that firms that belong to key innovation networks generate up to 20% more product improvements than firms that do not. Networks provide a number of important benefits. These include:

- Access to external knowledge;
- Risk sharing;
- Access to new markets and technologies;
- Accelerated time to market;
- Pooling complementary skills.

By producing innovative products, processes and services companies can deliver increased value.

Value Innovation

One approach that can be particularly effective is Value Innovation. Rather than creating new products and services in existing markets, this approach aims to create new levels of value that often challenge existing practices and understandings within industries.

For example, instead of targeting new products at existing mobile phone users, Value Innovation suggests that a mobile phone company could create an entirely new type of communication device – a phone for elderly relatives, perhaps, that raises the alarm if they don't check in at regular intervals. In this way the company hopes to create a new market.

The critical factors in Value Innovation are:

- Industry assumptions – value innovators ignore assumptions about the state of their industry and look for significant ideas and important leaps in value to the customer and profits;
- Strategic focus – value innovators do not allow competitors to set the agenda for strategic decision making. Instead they critically examine existing parameters to define new sources of value;
- Customers – value innovators do not seek growth by retaining and expanding the customer base through more customisation. Instead they develop commonalties to define a new market;
- Assets and capabilities – value innovators refuse to be constrained by existing assets and capabilities when assessing business opportunities;
- Product and service offerings – value innovators think beyond established boundaries defined by the products and services the industry traditionally offers. Instead they think in terms of total solutions buyers seek[10].

Re-positioning in the value chain

The third **Path to Value** involves a firm re-positioning itself in the value chain. The trend in value chains, until recently at least, has been towards vertical integration. Firms have sought cost efficiencies through control of more and more of the total supply chain. However, vertical integration is not the only way to extract more value from the value chain. Indeed vertical integration with control via a single management structure has important weaknesses. It relies on the company being good or good enough at every task. This leaves many large, integrated firms vulnerable to new challenges.

Restructuring the value chain can offer increased value benefits to companies. Value-added partnerships are sets of independent, often smaller, firms that work closely together to manage the flow of goods and services along the entire value chain. Each company performs one part of the value-added chain and co-ordinates its activities with the rest of the chain. Structuring the value chain this way can significantly enhance the benefits of the individual competencies contributed by the individual companies.

Restructuring the value chain can offer increased value benefits to companies

Each firm focuses on just one step of the value chain. The flexibility and responsiveness of SMEs is translated along the value chain so that the diversity of the whole chain can become the basis of new ideas and innovation.

Restructuring the value chain – McKesson

The drug wholesaler McKesson underwent a dramatic transformation during the 1980s and 1990s. The firm moved from being one of the largest drug wholesalers in the US to the leading provider of healthcare supply management and information technologies at the centre of a healthcare value added partnership. Its evolution to a value added partner was triggered by fierce competition from large drugstore chains, which were eating into its business with the independent stores that McKesson serviced. McKesson realised that if the independent stores died out, it would soon follow suit. As a result it repositioned itself in the value chain by offered independent drugstores the advantages of computerised systems that they were unable to afford on their own. The company also passed on up-to-date information on sales to its suppliers.

As a result of the shift in its relationship with its value chain partners, McKesson transformed itself into the hub of a large value adding partnership and increased its own value proposition. "McKesson has clearly shifted its traditional role of wholesaler," explained John Hammergren, Chairman and CEO of McKesson Corporation, "to one of a true partner actively engaged in developing solutions to meet the challenges of complex healthcare delivery systems."[11]

Barriers to innovation

Currently, a major inhibitor to UK firms' ability to pursue the **Pathways to Value** is their lack of capacity to successfully absorb new ideas. Absorptive capacity is dependent on a highly skilled workforce and the necessary level of investment.

Despite the fact that skills provision has increased in the UK since the 1980s, many firms are unable to master leading edge technologies or value creation via processes, products or services.

The huge potential benefits available to firms embracing the **Pathways to Value** strategies, will not be realised unless this important issue is addressed.

High-value strategies cannot succeed without the appropriately skilled and trained workers and professionals, capable of sustaining and leading the change.

The SMMT – Overcoming competitive barriers through collaboration

The Society for Motor Manufacturers and Traders (SMMT) is a good example of how industry associations can help firms create value by facilitating knowledge production and skills development.

The SMMT industry forum established a framework to support sustainable world leading competitiveness in the UK vehicle and components industry. Firms can learn about promising practices associated with lean manufacturing techniques through the forum's Master Class, and Supply Chain Group training programmes.

Firms are introduced and trained to conduct value stream mapping, process improvements, team leadership and supply chain management activities. In this way the industry forum engages with firms in response to the pressures of an increasingly global and competitive market place.

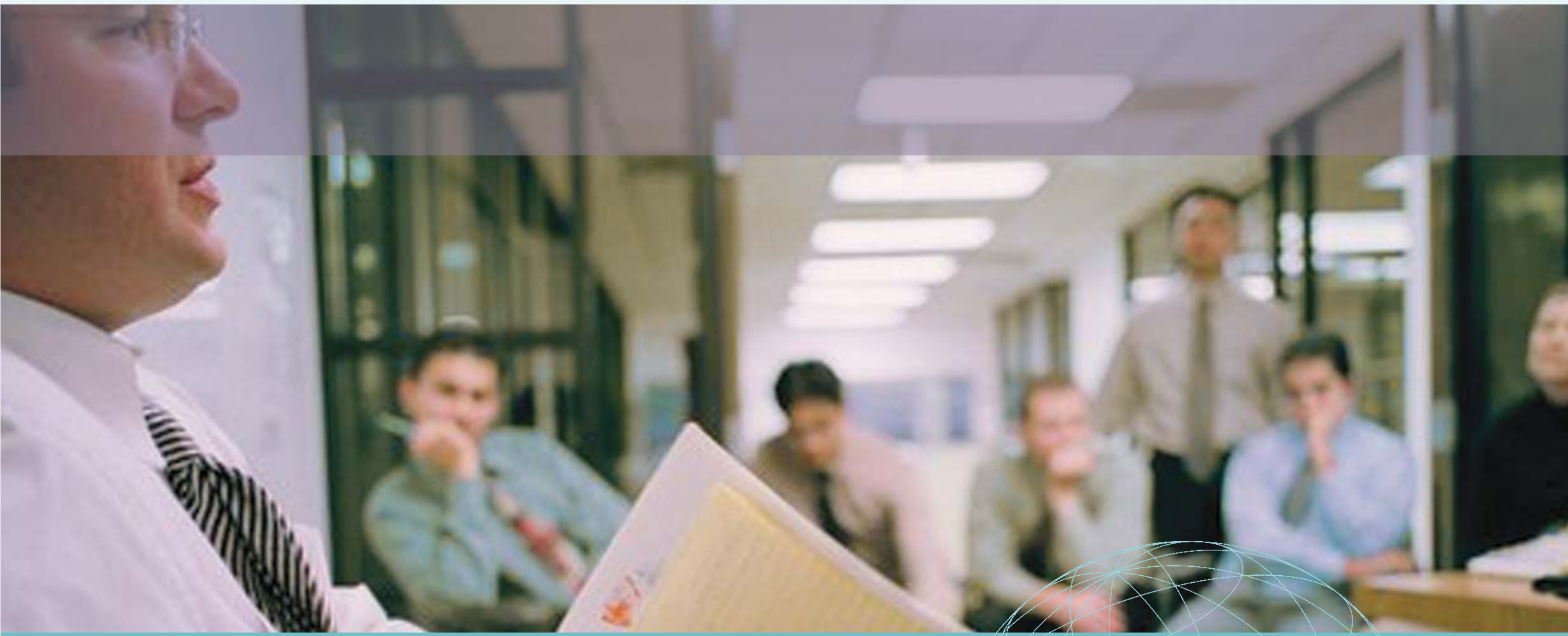
conclusions

Any firm wishing to make the transition to a high-value business has to start with a clear and candid understanding of its true position in the value chain. Before it can consider adopting one of the three **Pathways to Value** it must ensure that the necessary conditions exist – in terms of skills, resources and absorptive capacity.

Critical questions include:

- Is senior management giving sufficient thought to these three high-value strategies?
- Is the company giving the adoption of best practice serious consideration and management resources?
- Would the company be able to create more value from a different point in the value chain?
- How can the company reorganise to deliver better value?
- Is the company ready for a radical shift in the way it thinks about corporate strategy?
- Does it have the necessary infrastructure to support an innovation strategy – and if not what can be done about it?

It is only by addressing these issues that firms will be able to successfully pursue value-enhancing strategies and become high-value businesses.



Implications for policymakers

Policymakers also have a vital role to play. They should:

1 Adopt a broad definition of innovation that explicitly recognises and incorporates the three strategies for enhanced value creation that have been identified. It is especially important to acknowledge that innovation is not just to do with technological innovation.

2 Encourage firms to increase their absorptive capacity – through the use of networks and re-skilling.

3 Recognise that value creation will be best served by the long-term support of firm specific and industry-specific learning, skills development and innovation activities.

4 Address shortcomings among UK firms. Specifically:

- Poor management of change (especially at the integration and assimilation stage of processes and practices new to the firm).[12]
- Organisational rigidities (lack of appropriate workplace re-organisation).
- Poor exploitation of skills.
- Lack of customer focus and external relationships (supply-chain dynamics; inputs from consultants and vendors)

Research Implications:

More research is needed to better understand innovation and the knowledge production process. In particular, future research should examine:

- The processes of innovation at the level of the individual firm (taking into account size, sector, industry and where appropriate the supply chain);
- The link between knowledge, performance and adoption;
- And, specifically, how firms can expand their absorptive capacity to pursue high-value strategies.

[1] The Launch of Competing In the Global Economy: The Government's Manufacturing Strategy Two Years On, July 2004, DTI.

[2] "For the UK, there are three areas that are perceived to result in competitive disadvantages for UK firms: insufficient investment in capital assets and innovation, *positioning on low input cost rather than high value*, and lagging adoption of modern management techniques" – Porter

[3] "UK firms will have to compete more in the future on *unique, high value-added and innovative products and services*. This will require inspirational leadership, stronger management and leadership skills, a highly skilled workforce, a flexible labour market that promotes diversity and fair treatment, and high performance workplaces." – DTI Innovation Report

[4] "Global competition is increasing as a result of trade liberalisation, technological change and reductions in transport and communication costs. UK based businesses will find it increasingly difficult to compete on low costs alone in labour intensive industries exposed to international competition. The challenge for businesses is to compete on the basis of unique value."

[5] Brown, L. (1997) *Competitive Marketing Strategy*, Nelson: Melbourne.

[6] Walters, D., and Lancaster, G. (2000) Implementing Value Strategy through the Value Chain, *Management Decision*, 38/3, pp160-178.

[7] Bessant, J., Caffyn, S. and Gilbert, J. (1996) Learning to Manage Innovation. *Technology Analysis & Strategic Management* 8, 59-70.

[8] Bauer, J.; Birdi, K. Denyer, D.; Leseure, M. and Neely, A.D. (2003) *Adoption of Promising Practice: A Systematic Review of the Evidence.*

[9] Delbridge, R., and Lowe, J. (1998). *Manufacturing in Transition*, Routledge: London.

[10] Kim, C., and Mauborgne, R. (1997) Value Innovation: The Strategic Logic of High Growth, *Harvard Business Review*, (January/February).

[11] Johnston, R., and Lawrence, P.R. (1988) Beyond Vertical Integration – the Rise of the Value-Adding Partnership, *Harvard Business Review*, (July-August).

[12] Financial inhibitors are of significant importance in this context.

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