

# The nature of an operations strategy: combining strategic decisions from the resource-based and market-driven viewpoints

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## Keywords

Operations strategy, Marketing, Resources, Decision making

## Abstract

To date, the exact nature and classification of an operations strategy *vis-à-vis* other popular operational solutions have eluded many commentators. Against a background of the various approaches to strategy formulation, including the resource-based and market-driven views, the composition of an operations strategy is discussed in terms of the decisions involved. Research findings conclude that such strategies contain diverse building-blocks initially reflecting various resources, capabilities and competencies. However, their composition and subsequent interconnections are also influenced by the exigencies of the market and other supply network forces. Finally, the work debates how these strategies and their components can be customised to reflect different competitive agendas. This latter aspect breaks new ground, takes the study beyond mere definitions, and has clear implications for both practice and further research.

## Introduction

The research reported breaks new ground in a seminal examination of operations strategies used by organisations. It offers, perhaps for the first time, an analysis of the role, evolution and impact of an operations strategy in the commercial enterprise.

This paper reports theoretical research and, to do this, utilises the strategic perspectives of the resource-based view in suggesting that the development of these strategies is not entirely market-driven. A discussion is provided postulating that such strategies are mainly composed of decisions made regarding certain capabilities, competencies and resources that are blended to reflect market demands.

The work begins by discussing the nature of an operations strategy. Here, definitions are offered and, perhaps for the first time, a genealogy is supplied, in order to locate the operations strategy within a wider classification or systematic structure.

The second section reviews the evolution and background to the development of this type of strategy as a competitive weapon. Here, historical influences and the resource-based and market-driven views of strategy provide essential contributions. The composition of these strategies is discussed, their impact and their potential to offer customisation to particular demand situations; a move closer to agility, responsiveness and customisation of operations. In this section, the resource-based and market-driven perspectives are defined and their applicability to the formulation of operations strategies reviewed, as well as reflecting on the practical application of theories in this area. Finally, part three explores in more depth the exact nature of an operations

strategy using the earlier frameworks discussed. Here, in a move beyond conjecture and definition, an examination is made of the influential factors and decision-making processes involved using a conceptual model. Further, the composition, structure, and linkages of these strategies, as decisional integrative devices, is also conceptualised as a way of providing a reasoned response to the demands of the increasingly volatile marketplace. This has clear implications for both managers and academicians.

## The nature of an operations strategy

The nature of an operations strategy can be initially clarified in its generic form. Slack and Lewis (2002) suggest:

[...] the total pattern of decisions which shape the long-term capabilities of any type of operation and their contribution to overall strategy, through the reconciliation of market requirements with operations resources.

Clearly, a step in the right direction in suggesting that such strategies have dual elements, but perhaps not particularly informative as to how this is achieved. Following a recent research study (Lowson, 2001a), involving a large number of retailers and manufacturers, a further perspective can be offered:

[...] major decisions about, and strategic management of: core competencies, capabilities and processes; technologies; resources; and key tactical activities necessary in any supply network, in order to create and deliver products or services and the value demanded by a customer. The strategic role involves blending these various "building-blocks" into one or more unique, organisational-specific, strategic architectures[1].



Management Decision  
41/6 [2003] 538-549

© MCB UP Limited  
[ISSN 0025-1747]  
[DOI 10.1108/00251740310485181]

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The various composite parts of this definition will be considered in more detail throughout the paper. Hopefully, it is clear that an operations strategy, like any strategy, revolves around a pattern of choices or decisions. The choices involved are concerned less with individual day-to-day, tactical activities and more with the whole transformation system that is part of the organisation and the resources, competencies and capabilities needed. These choices also embrace changes in the wider competitive environment in which the firm is "embedded" (Burrell, 1980). The patterns of decisions tend to be of a medium- to long-term nature and reflect both the core capabilities and competencies of the company, and how it uses resources and technologies to provide sustainable competitive advantage in its particular market sector. The types of judgements necessary for an operations strategy will vary from firm to firm and depend very much on the particular industry. For example, they may concern:

- how to supply particular products and services;
- what capabilities or competencies will be needed in the future;
- what resources will need to be acquired;
- what work flows are necessary;
- what processes and technologies will be required;
- the capacity needed and the levels of flexibility involved;
- human resource levels (skills, training, recruitment, selection and retention);
- quality levels;
- what facilities are needed;
- type of suppliers, relationships with them and sourcing and outsourcing policies; and
- decisions about general operating systems and the resources needed to maintain them.

Before proceeding further, it is instructive to address the current confusion regarding the classification of operations strategies and various popular operational solutions witnessed at a more tactical level. In order to do this, a genealogy is suggested as an overall guideline (see Table I) so as to establish the various levels of decision making in an organisation.

At the bottom of the Table is the distinct *species*. These are the generic decisional building-blocks of an operations strategy, but also can be part of a tactical, operational management approach (*genus*). The building-blocks will, when deployed in practice, contain certain discernible

elements (*sub-species*). Next, groups of building-blocks (*species*) form a particular operational or tactical approach (*genus*). Medium- to long-term strategic decisions are then made about the building-blocks (the *order*) as components of a distinct operations strategy. A particular identifiable type of operations strategy is then evident (the *class*) and constitutes the pattern of organisation or form that is a qualitative set of relations. Thus, the *class* is an identifiable type of operations strategy for a type of operational situation. This pattern of organisation is then physically embodied in the structure, a unique, individual and quantifiable operations strategy evident or actually deployed by an organisation (the physical embodiment of the *class*). The particular *sub-classes*, whereby the strategy is much narrower as used, for example, in a linear chain (supply chain strategy) rather than a network or just part of a chain (logistics), can also be seen. The *class* then forms part of a higher *division* or *phylum* that can be thought of as a generic model of an operations strategy; one that is not of any particular identifiable type, but still contains interrelated decisional "building-blocks". Finally, the generic operations strategy belongs to a larger *kingdom* of business strategies.

Empirical research also tells us that in practice there are a number of differing types or *classes* of operations strategy (Lowson, 2001b). Often, industries will favour particular types. For example, efficient consumer response (Svensson, 2002); strategic sourcing (Jennings, 2002); just-in-time as a strategic intervention (Svensson, 2001); outsourcing (Zhu *et al.*, 2001); strategic alliances (Elmuti and Kathawala, 2001); and supply of value chain strategies (Walters and Lancaster, 2000). It is now possible to consider the evolution of, and background to, the development of the operations strategy as a method by which to achieve or support competitive advantage.

### **The evolution of an operations strategy: from Skinner to the resource-based view**

The study of operations management is a relatively new discipline, when compared with many of the social and natural sciences. However, as Meredith and Amoaka-Gyampah (1990) remark, when it comes to the theories of organisations, business and management:

We in the field of operations management consider our subject to be one of the oldest in business schools; pre-dating the emergence of finance and accounting by decades.

**Table I**  
 Strategic operations genealogy

Decision classification	Decision genealogy Description
<b>Kingdom (the highest category of taxonomic classification)</b>	Organisational business strategies
<b>Division or phylum (a generic group)</b>	A generic model of an operations strategy that is not any particular identifiable type, but still containing interrelated building-block decisions
<b>Class (a grouping of organisms)</b>	An identifiable type of operations strategy (supply network, quick response, efficient consumer response, etc.) demonstrated in a qualitative pattern of organisation. This will then be physically embodied in an individual and quantifiable deployment (the structure) unique to each situation
<b>Sub-class</b>	A narrower operations strategy used in a linear supply chain, value chain or part of the chain (logistics strategy, for example)
<b>Order (taxonomic rank constituting a distinct group)</b>	Strategic decisions made (medium- to long-term) about the various building-blocks of an operations strategy (the <i>order</i> )
<b>Genus (taxonomic grouping containing several species)</b>	Groups of building-blocks (or <i>species</i> ) form a particular operational or tactical approach, such as supply chain management and logistics
<b>Species (individuals with common characteristics – in practice the species will be made up from sub-species or elements)</b>	Individual building-blocks are the species of decisions: core competencies, capabilities and processes; resources; technologies; and certain key tactical activities that are vital to support a particular strategy or unique positioning. These building-blocks are grouped into a <i>class</i> of operations strategy (a specific instance) or described in the generic form (the <i>phylum</i> ). They can also be used at a more tactical level as a particular operational management approach ( <i>genus</i> )

More recently, however, the role of the operations strategy has been recognised. This has developed from the realisation that: first, operations involve more than just manufacturing; second, that operations have a positive strategic contribution at both functional and organisational levels, and; third, that consumer demand may be becoming more complex, dynamic and difficult to satisfy. Three major strategic perspectives can be used to examine the evolution and contribution of operations strategy. First, the growing contemporary popularity of these strategies as a method by which to cope with demand, new demand trends and the drive for higher flexibility and variety; the doctrine of competitiveness and a contribution to competitive advantage; and, the dyadic views of strategy formulation. All three have clear implications for the practising manager as well as for future research in driving operational requirements – a point to which the research will return in the penultimate section detailing the components of an operations strategy.

#### Demand trends

It is increasingly recognised that today's organisations face a huge number of unprecedented, volatile and complex

demands. Harvey (1990) suggests that this new consumer era is typified by a society in pursuit of individualism and the increasing fragmentation of traditional social groups. Goods, whether they be clothes or basic foodstuffs, are no longer merely products with utilitarian values, but represent a patina of symbols, signs, images, and statements of difference (Douglas, 1982). Their symbolic meaning is often of more importance than any other, and it is created, reinforced and sustained through the mechanism of branding. Crook *et al.* (1992) suggest that the brand assumes the status of a "bundle of meanings" in support of a lifestyle, and serves as a signpost through the confusion and clutter of postmodern life. The value of products becomes less with their ability to satisfy primary needs and more in the way they function within society to show who we are and our position or status in life. These signs take on a life of their own, referring not to a real world outside themselves, but to their own "reality" – the system that produces the signs (Harvey, 1990; Kumar, 1995).

#### Flexibility and responsiveness

If this picture of increasing variety in both goods and services and the search for ways

to customise products at an individual level is accepted, it can be seen that many industries are characterised by complexity and dynamism. Unfortunately, modern organisations remain ill-equipped to deal with such uncertainty.

### A short history lesson

At the turn of the twentieth century, manufacturing, for example, was characterised by an emphasis on mass-markets, high volume, and the use of interchangeable parts. When the principles of scientific management, as promulgated by Frederick Taylor and his disciples, were also adopted, it produced a new era of industrial power that was eagerly exploited by the likes of Henry Ford, Isaac Singer and Andrew Carnegie.

The dogma was clear. For utmost efficiency in any factory:

- divide work into the smallest possible components;
- assign the tasks to specialists;
- appoint managers to supervise and make decisions, leaving workers free to concentrate on manual tasks;
- reduce variation to a minimum;
- standardise all inputs and outputs to reduce defects;
- exercise control through a rigid hierarchy which channels communication in the form of exception reports upward and directives downward;
- measure performance by cost, scale, experience, and length of production run; and
- employ forecasting systems in order to anticipate any possible changes.

Then in 1974, Wickham Skinner proposed the idea that manufacturers have to learn to focus their plants (or even departments within plants) on a limited range of technologies, volumes, markets and products, and that strategies, tactics, and services should all be arranged to support that focus. The maxim was that a factory that succeeds in focusing its activities will out-perform one that does not. Costs would be lower than in unfocused operations due to experience curve and scale benefits; consequently focus provides competitive advantage.

There are, however, always trade-offs with such an approach. For example, low cost and flexibility are inappropriate bedfellows. If the market demands greater variety and diversification, the focused factory comes under considerable strain, often alleviated only at the expense of high inventory levels.

As the 1980s were reached, it soon became apparent that organisations operating in this

manner were unable to cope with one particular demand: variety. Fundamental and radical new methods of organisation and management were needed, once the demand for diversity reached a critical level. We are still searching for many of these new approaches (which we now call operations strategies) and the whole “movement” has been typified by calls for developments such as mass customisation.

### Mass customisation

The aim of mass customisation is to provide varied and customised products at the low cost of standardised, mass-produced goods.

As Pine *et al.* (1993) comment:

Mass customisation calls for flexibility and quick responsiveness. In an ever-changing environment, people, processes, units and technology reconfigure to give customers exactly what they want. Management of co-ordinated, independent, capable individuals and an efficient linkage system is crucial. Result: low-cost, high quality, customised goods and services.

Over the last decade, the management literature has been replete with calls for mass-customisation. This “movement” recognises the increasing need for individual, customised and personalised goods and services with the need for volume. The major operational landmarks leading to mass customisation and then its further evolution can be summarised as follows:

- *Mass production.* High volume, standardised goods and services. Low variable cost and economies of scale with little or no variety.
- *Lean production and lean thinking.* Based on the Toyota production system, the removal of all waste from the operations environment.
- *Mass customisation.* Similar to mass production, but with variety. Instead of selecting one variety of a product, each customer provides sufficient information for the product to be tailored to requirements. Needs flexible production processes and delivery capacity. Sometimes also referred to as “superficial customisation”.
- *Agile and flexible operations.* The agile manufacturer aims to produce highly customised products at a cost comparable with mass production, using short lead times. The tailoring of products to demand includes a higher element of service and thus greater added-value. A flexible workforce, structure and production technologies (especially using computer-integrated manufacturing) are all contained within a learning culture, while, externally, the concepts of vertical

integration and long-term partnerships are replaced with short-term, flexible contracts and horizontal outsourcing that allow rapid response through an expansive system of communication networks.

- *Flexible specialisation.* In order to satisfy a new demand pattern moving toward individualisation, a rejection of “Fordism” and mass production. A return to a craft form of production, based upon the use of information technology and customised, short-run manufacture, in a network of small firms operating in niche, segmented markets.
- *Operations strategies.* A new trend is now being witnessed. Recent research (Lowson, 2001a) suggests that many organisations are reacting to these changing demand patterns and increases in variety by adopting an operations strategy. This research also suggests that there are three major implications. First, just as a firm may have more than one product or customer group or operate in more than one market, it will often also use more than one operations strategy. Second, these strategies can often be customised to meet the individual needs of each situation, for example, a particular customer or a main product group – an operations strategy for each individual demand situation. This simple, yet powerful approach provides organisations with the ability to match and respond to the demand complexity of the value stream. Third, these operations strategies can be used as integrative relationship devices in a supply network. As such, they are broader in scope than a functional strategy such as manufacturing or production. The latter perspective raises an important issue; how can the operations strategy be formulated to reflect its context and environment? – a point that will be further explored in section three (the decisional building-blocks of an operations strategy).

#### *The drive for flexibility and variety*

Many of the demand influences discussed above have necessitated practical responses in terms of flexibility. Indeed, many organisations have seen the operations strategy as a route to obtain that flexibility (Lowson, 2002a). Operational flexibility can be witnessed at three commercial levels:

- 1 *At an inter- and intra-organisational level.* A strategic choice: both the firm and its supply and demand systems are concerned with the ability to offer a particular level of flexibility in products or services.

- 2 *At an operational level.* Whether in a distinct operations function or throughout the organisation, a concern for whether the operational activities are capable of sufficient product or service flexibility.
- 3 *At an individual, resource or process and structure level.* Are human resources (whether as individuals or in teams or groups), other resources (machinery, etc.), processes (stages or activities necessary to complete a task) and structures (how the system is organised and governed) sufficiently flexible to match the variety of tasks required and to support levels 1 and 2?

It now seems clear that contemporary use of an operations strategy can be viewed as a route to securing the necessary flexibility (Lowson, 2002a) as well as achieving competitive advantage; something first recognised a decade ago.

#### **The doctrine of competitiveness**

Slack (1991) addressed the notion of a “doctrine of competitiveness” as far as an operations strategy is concerned. Competitiveness, in his view, can be achieved through a manufacturing contribution to creating strategic advantage. In this context, the author refers only to a narrow range of operations strategies (those concerned with physical production); further, it is not clear whether the term “doctrine” is really justified. Nevertheless, he contends that good operations have an impact upon business success. The contention that competitive advantage can be achieved by “making things better” has clear resonance for operations strategies in general and is a good point of departure for considering their competitive priorities.

“Making things better” than the competition involves, according to Slack (1991), five essential propositions:

- 1 *Making things right* – the quality advantage.
- 2 *Making things fast* – the speed advantage.
- 3 *Making things on time* – the dependability advantage.
- 4 *Changing what is made* – the flexibility advantage.
- 5 *Making things cheap* – the cost advantage.

These performance objectives are the foundations of competitiveness as far as manufacturing is concerned. Yet, they also provide an indication of the wider contribution that any operations strategy might offer as an implementer, supporter and driver of the overall business strategy; to translate competitive market requirements into performance objectives (Slack *et al.*,

2001). Clearly, the role of the operations strategy is to ensure, no matter what the particular competitive advantage sought, that these objectives are translated into operational activities.

The third strand to the debate regarding the evolution of an operations strategy concerns its formulation and the major influences upon the content of any strategy; the market-driven and the resource-based views. It is necessary to review both in order to gain an understanding of how an operations strategy is developed.

### Strategy formulation

Essentially, there are currently two major "schools of thought" regarding the formulation of a strategy and the most important influences upon its content[2].

#### Market-driven view

During the 1970s and 1980s the focus of strategic thinking shifted to environmentally-based opportunities. The leading proponent of this approach was Porter (1980, 1985). Porter introduced the five forces model and the concept of generic strategies, the argument being that it is not only the industry that is important, but also the grounds and nature of competition. This competition is provided by rivalry between existing firms, the threat of potential entrants and substitute products and the bargaining power of buyers and suppliers. The generic strategy adopted will offer an organisation three ways of coping with these forces and achieving sustainable competitive advantage: overall cost leadership (traditionally based on economies of scale); differentiation (offering a product or service perceived in the industry as unique); and focus (using low-cost or differentiation in a niche or narrow segment). According to the theory, every business needs to adopt one of these strategies in order to compete, and there are real dangers for a firm that engages in more than one, or fails to undertake any with authority – it is stuck in the middle. A firm in this position:

[...] will compete at a disadvantage because the cost leader, differentiators, or focuser will be better positioned to compete in any segment... Such a firm will be much less profitable than rivals achieving one of the generic strategies (Porter, 1985).

Contemporary prevalent opinion, however, has changed. It is now suggested that companies can "be all things to all people" – or most of them anyway. Good strategy, comments Ghemawat (1999):

[...] embraces the idea that competitive position must consider both relative cost and differentiation, and it recognises the tension

between the two. Positioning, in this view, is an effort to drive the largest possible wedge between cost and differentiation (or price).

Market-driven views are still widely held. Nevertheless, there are those that reject many of the aspects of this approach in favour of the resource-based view.

#### Resource-based view

The resource-based view represents a substantial shift in emphasis towards the individual resources of the organisation and away from the market-driven view. Despite its recent popularity, the concept of resources and capabilities emerged from research into diversification. Wernerfelt (1984), for example, built on the economic theories of Penrose (1959), and viewed companies as a collection of resources, rather than holding purely market positions. The notion of distinctive competencies (first discussed by Selznick (1957) and Ansoff (1965)) was further reiterated by Prahalad and Hamel (1990) in their analysis of key resources, skills and technologies – they called them core competencies. Since the end of the 1980s, the resource-based view has been extended to the field of strategic analysis and strategic choice by identifying the importance of resources in strategy development (Rumelt, 1984).

A resource is a basic element that a firm controls in order to best organise its processes. A person, machine, raw material, knowledge, brand image, and a patent can all be viewed as examples. Often the distinction is made between tangible and intangible resources (Godfrey and Hill, 1995). Kay (1993) identifies three of the most important resources as being: the firm's ability to innovate; its reputation; and its network of relationships – both internal and external.

A resource, or set of resources, can be used to create competitive advantage. The sustainability of this advantage depends upon the ease with which the resources can be imitated or substituted (Peteraf, 1993). When resources are combined they can lead to the formation of competencies and capabilities (Prahalad and Hamel, 1990).

Competencies refer to the fundamental knowledge owned by the firm (knowledge, know-how, experience, innovation, and unique information). To be distinctive they are not confined to functional domains but cut across the firm and its organisational boundaries. Competitive advantage can come from a focus upon key competencies (those things in which the firm specialises or which it does well). Capabilities, meanwhile, reflect an organisation's ability to use its competencies. Capabilities refer to the

dynamic routines acquired by the firm; the managerial capacity to improve continuously the effectiveness of the organisation. Capabilities represent the firm's "collective tacit knowledge of how to initiate or respond to change that is built into an organisation's processes, procedures and systems, and is embedded in models of behaviour, informal networks and personal relationships" (Collis, 1996). It should be noted, however, that resources, capabilities and competencies are dynamic and constantly changing (Teece *et al.*, 1997).

The essence of the resource-based view is its focus on the individual resources, competencies and capabilities of the organisation; rather than a market-based strategy that may have commonalities with others in the industry. Understanding the particular sector is important, but organisations should seek their own individual solutions in that context. Sustainable advantage comes from exploitation of the unique resources of the individual organisation.

The resource-based view draws attention to combinations of these internal resources that are generated and cannot be purchased externally. Organisations are bundles and clusters of resources and managers must develop these in individual ways. These can be managed and combined to create the difference that supports a strategic positioning. However, they cannot be easily re-shuffled to take account of market opportunities; organisations must define opportunities in terms of existing internal capabilities and focus on unique expertise; outsourcing anything that is not central to this (Prahalad and Hamel, 1990).

Sustainable competitive advantage can be built over time based upon unique combinations of resources and competencies. The activities and processes utilising these components are hard to replicate by competitors. Products and technologies offer only a short-term strategic advantage, as they have a relatively limited life span and are easy to copy or improve upon (Teece *et al.*, 1997).

At a strategic level, the importance of these core competencies and resources must be supported in three ways:

- 1 *The value they provide to the customer must be continually augmented.* In other words, determining the activities that the customer values most and working to improve the competencies related to them.
- 2 *Analysis of internal competencies and resources to convert them into goods and services with a market value.* Capitalising upon creativity and innovation to

transpose internal expertise into value for customers that can be sold. The creative conversion of resources and competencies will lead to the development of new and modified goods.

- 3 *Development of new activities and competencies that can be used to enter new markets.* Using existing capabilities for diversification into new and unrelated markets.

The final section of the paper returns to the nature of an operations strategy. In so doing, it moves beyond definitions and establishes, for the first time, an in-depth appreciation of the factors concerned and the decision making involved. As was mentioned earlier, the decisions forming part of the operations strategy can be examined from two perspectives. First, as providing the framework by which the organisation can plan its future response to demand complexity and dynamism (in the guise of increasing variety). Second, as an interface for integrative relationships, and the decision making involved, in a supply network. The conceptual model applied in the next section utilises the frameworks discussed thus far and, as such, has consequent implications for both management practice and research.

### **The decisional building-blocks of an operations strategy**

This final section utilises a conceptual model in order to demonstrate how the strategic decisions involved in formulating an operations strategy reflect both the market (together with its various demands for flexibility and variety) and the resources available to the firm. To achieve this, a contextual model is used that builds upon earlier empirical research. This also allows an explanation, at least in part, of how such strategies can be customised to particular demands and strategic decision making, can integrate the various relationships in the supply network and can reflect external forces.

#### **Operations strategy and the resource-based view**

The earlier definition of an operations strategy hinted at its composition. Recent research (Lowson, 2002b) demonstrated that firms use different operations strategies. These strategies are composed of a long-term pattern of strategic decisions made regarding certain generic building-blocks:

- 1 *Core competencies, capabilities and processes.* These can be thought of as:

- process-based (derived from transformation activities);
- system or co-ordination-based (across the entire operational system);
- organisation-based (across the entire organisation); and
- network-based (covering the whole supply network).

The continuation of certain core tactical activities will be vital to sustain a particular operations strategy or business positioning.

- 2 *Resources.* These depend upon the industry and the firm, but can be considered at two levels:
  - individual resources of the firm (capital equipment, skills, brands and so on); and
  - the way they work together to create competitive advantage.

Given the individuality of the resource-based strategy, resources are classified as being:

- tangible (physical, technological and financial, etc.);
- intangible (communication and information systems, reputation, culture, brands, etc.); and
- human (specialised skills and knowledge, communication and interaction, motivation, etc.).

- 3 *Technologies.* In addition to being a resource used in the general sense (equipment etc.), technology will have an increasingly important role to play as it also includes core technological know-how in product and process innovation across the whole organisation and its supply network.
- 4 *The key tactical activities vital in order to support a particular strategy or positioning.* Certain core tactical activities will be vital to sustain a particular supply network operations strategy or business positioning.

These strategic decisions will of course necessitate the broader consideration of a number of other factors. For example, the core competencies and capabilities will often be at an individual skill level. Here, other behavioural, cultural and structural conditions will all be issues that will affect the decisions involved. In similar vein, the resources of the organisation will rely heavily upon the environment. Their acquisition will not always be without regulation, restriction and competition and, as such, decisions are often complex and of a strategic nature. The acquisition and deployment of technology are also fraught with a number of socio-technical

considerations that will make decisions in this area also potentially very difficult.

In practice, the various decisional building-blocks of an operations strategy are combined into an operations strategy composition matrix (see Figure 1) that lays stress upon their “blending” of these components into a strategic architecture, hence moving beyond isolated decisions toward a policy-making framework.

At this point, a resource-based strategy becomes evident that is composed of future decisions regarding operational processes, activities and resources. Current research, however, leads us to believe that there are three additional factors involved. First, the strategy must also adapt to the competitive environment. Second, as discussed earlier, it must have the ability, importantly, to become customised to certain demands of that environment. Third, such strategies can also be viewed as transformation devices to manage the decisions involved in moving from one strategic position to another.

#### **Market-driven operations strategies and their customisation**

From the composition matrix in Figure 1, we can see that the various components of an operations strategy may be similar across a number of operational situations. At this level, we have only a collection of elements representing the resources, competencies and capabilities as seen in the resource-based view. However, their strategic nature, and inherent competitive advantage, come from the unique way in which they are customised to reflect particular environmental forces (demand for variety and uniqueness etc.). Figure 2 demonstrates the contextual model that shows how the strategy will reflect external concerns. In the Figure, examples of external operational influences are shown (product group demand, behaviour of the supply network and performance of that network) that can shape the different composition matrices and their building-blocks; remembering that a firm will have more than one.

It is suspected that these operational influences or shaping mechanisms will be composed of:

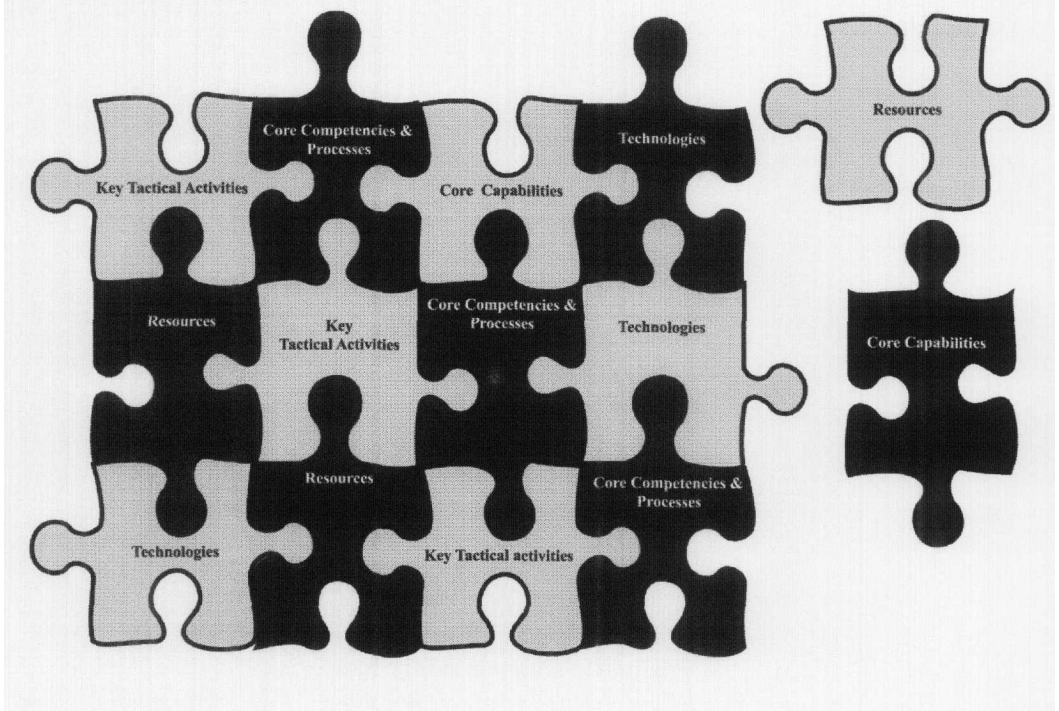
- 1 *Product group demand behaviour:*
  - product attributes;
  - demand patterns; and
  - customer and/or consumer behaviour.
- 2 *Influences associated with the structure of the supply network:*
  - product stream value flows;
  - vertical integration; and
  - individual firms’ size and power.



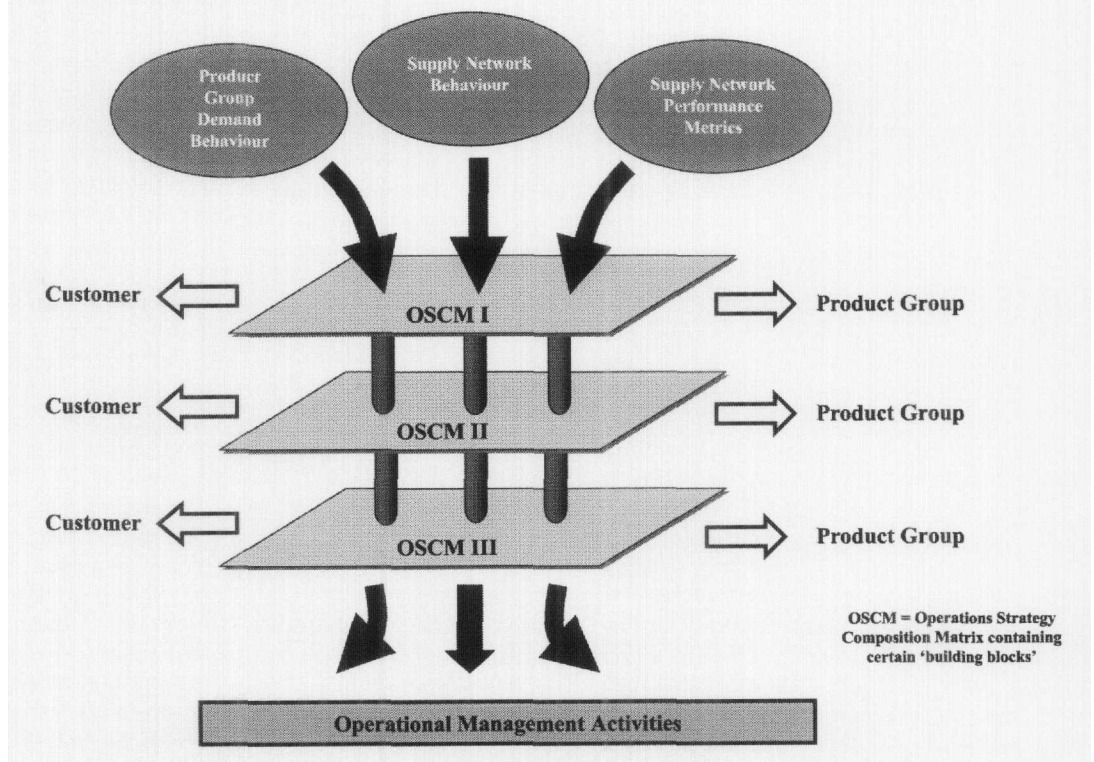
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**Figure 1**  
 Operations strategy composition matrix



**Figure 2**  
 Operations strategy contextual model



- 3 *Influences associated with performance metrics within the supply system.* These we term the LISP interactions as they each form an influence upon the others:
- Lead-time for supply;
  - Inventory at a particular supply pipeline stage;
  - customer service level; and
  - supplier performance, this involving two factors: supplier service level and supplier process time (to convert raw materials or components into finished goods and services).

The three streams in Figure 2 act as an interface or integrative mechanism for each operations strategy composition matrix and will determine, to a degree, not only the building-blocks in the matrix (a particular strategy) but also their unique fusion. That is, once a firm makes decisions to use particular resources and competences – which of these building-blocks are higher order strategic themes, which are less important and which are tightly or loosely coupled. The influential streams also dictate the way in which all the components are interconnected in various relationships. The three streams also reflect both internal and external forces of which a successful strategy has to be cognisant.

A situation is reached whereby the organisation can develop customised operations strategies for an individual customer group and/or product group. This is an important concept. To date, the assumption has often been made that a firm uses only one operations strategy when in fact there may be a number; each tailored to external needs. Thus, each operations strategy will in reality reflect the resource-based as well as the market-driven views of strategy development. In many cases, the decision-making process involved will include a degree of rationality and be evident as a distinct managerial activity. It is also possible that parts of the strategy will be emergent and incremental as certain choices are made regarding the individual building-blocks; the strategy will be constantly evolving to match the exigencies of the situation. This point offers another important insight into the decision-making process described in Figure 2. The identification of the elements or components of a strategy also enable the strategy to reflect the important forces of the organisation's micro-environment; in particular those connected with the demand of the market and the supply network; the operations strategy acts as an interface to

encourage decisions or choices linking the two perspectives.

Finally in Figure 2, the necessary tactical activities to support particular strategic focus can be developed. Here it is interesting to note that the operations strategy in fact acts as an integrative device between the current and future operational situation by allowing certain decisions to be made concerning how products and services will be provided in future markets.

### Conclusion and further research

This paper has attempted to establish some clarification in a number of contentious areas using the latest theoretical research and conceptual thinking. First, the nature of an operations strategy was established together with its *locus* in terms of the many operational approaches reported in academic journals and the popular press. A unique genealogy was offered as a guideline for future research. Second, the evolution and development of the operations strategy was discussed. To do so, various background issues were considered. These included: demand trends and the need for flexibility and variety; the doctrine of competitiveness; and the current dichotomy in strategic thinking between market-driven strategy and the resource-based view. Finally, it was demonstrated, perhaps for the first time, how the decisions forming part of an operations strategy are in fact customised to the exigencies of certain environmental forces. This has immense practical implications for those firms currently grappling with the demands for mass customisation and individualisation of products and services, as it suggests that the decision-making process has to be undertaken at the level of unique products, services and customers.

Further research is always necessary and constructive comments are of course welcome. From the writer's perspective it would seem that there are four key points worthy of consideration. As discussed, the decision-making process involved in composing an operations strategy reflects both the resource-based and the market-driven views of strategy. What is the actual method involved? If the strategic developmental process is indeed rational, at least to a degree, one would expect there to be a distinct managerial activity that could be witnessed within the enterprise. Having, conceptually, identified various strategic building-blocks, further research might well

concentrate on the various internal and external forces that dictate and select the use of particular decisional elements over and above any other. It may well be that there is a strong correlation between particular forces and the use of certain strategic components. It is also evident from this research that the components of an operations strategy also reflect market forces. Again, an understanding is required of how this process works in practice. The implications for, and relevance of, the literature on strategic management, decision making and organisational theory for broadening the field of operational management and the conceptual possibilities related to operations strategy are in themselves a significant signpost for further research. Finally, the work upon customisation is critical. If a firm uses more than one operations strategy, and they tend to be tailored to a particular situation, it may well be possible to assess each of these strategies, and their decisional building-blocks, in terms of performance. For example, some may be "world class", others merely efficient, or some sub-optimal or even dysfunctional.

### Notes

- 1 The author acknowledges that the role of strategic management may not always be rational and planned. Some strategies will be logical and of a breakthrough nature, others will be adaptive, emergent and incremental.
- 2 Here, we accept that there are a number of issues concerning logical or rational viewpoints; incremental strategies; and adaptive, emergent strategies – all debates perhaps beyond the scope of this paper.

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