

## Design Control to Achieve Strategic Advantage

Philip Boxer and Robin Wensley<sup>1</sup>

BRL Ltd and Warwick University

*Insert box on ‘The Presenting Problem’*

In today's current turbulent competitive environment, the stable assumptions which allowed large firms to organise themselves in terms of divisions and units are continually under challenge. We hear often of the issues of converging technologies, restructuring of distribution and market systems, and the degree to which supply chains change under the twin pressures of flexibility and effectiveness. Even this understates the problem. As the competitive market environment changes, it also becomes less ordered and systematic. As a result, the additional commercial challenge of getting closer to the customer implies increasingly that each business unit must itself respond in different ways to the demands of each of its significant customers.

How then, in the diversified firm, is it possible to have a strategic process which both sustains the demands for short term performance, while at the same time enabling new competitive configurations to arise? How is such a process to create future commercial advantages, while at the same time recognising the very specific nature of the demands faced by each individual unit in response to its own particular customers? The traditional forms of strategy process, based on stable and relatively unchanging notions such as industry sectors and value chains, would appear to have limited value in such circumstances. But what are the alternatives?

To answer these questions, we need to ask two fundamental questions about our understanding of the nature of organisations and market competition:

1. what underlies the nature and purpose of a commercial organisation and
2. what do we really mean by getting close to the customer?

Given a better understanding of these two questions, we can then address not only the issue of what constitutes an appropriate strategy process at the unit level, which we will call a *micro-strategy*; but also what constitutes an appropriate strategy process at the corporate level – a *macro-process* – which can facilitate and enable the continuing achievement of advantage at the ‘micro’ level.

*Insert box on ‘design control and the nature of organisations’*

Why are these two questions so important? The issue of the nature of the organisation itself helps us to recognise the problem of the strategy ceiling in any strategy process: the fact that we seem to be able to go only so far in questioning the assumptions and nature of the organisation itself. This is perfectly all right when the competitive challenge does not require us to raise such questions, but when it does, being more revolutionary must

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<sup>1</sup> Address for correspondence: Professor Robin Wensley, Warwick Business School, Warwick University, Coventry, CV4 7AL, Tel +44 1203 523923 Fax +44 1203 524628 e-mail : Robin.Wensley @ warwick.ac.uk

mean questioning and challenging many previously taken-for-granted assumptions. Raising the strategy ceiling, as part of a strategy process, ensures that all members of the management team come to share a common understanding of the logic and rationale behind the strategy itself at an appropriate *level* of assumptions.

*Insert box on ‘value ladders and getting close to the customer’*

Looking closely at the issue of getting close to the customer enables us to see that there is actually an important distinction between getting ‘close’ to the customer, in sense of physical proximity, and getting ‘involved’ with the customer, in terms of a recognition of the particular nature of the customer’s requirements and context. This takes us from the notion of Value Chains to one of Value Ladders, representing more complex levels of engagement with customers; and Value Constellations, representing the active management of dynamic groupings of suppliers and customers. Working at higher levels on value ladders requires higher levels of strategy ceiling.

*Insert box on ‘value chains and constellations’*

Of course, any organisation has to be concerned about its internal identity and coherence as much as its competitive viability. Modern commercial organisations find themselves trying to sustain a greater degree of coherence than the totality of the market-places in which they operate, while at the same time trying to sustain a degree of internal diversity and flexibility, compared with an administrative bureaucracy, in order to enhance their viability and chances of long-term survival. This means that the fundamental issue of degree of customer involvement is translated into strategic design choices involving both value ladder complexity, where customers experience a flexible and responsive service; and value chain complexity, where new and improved forms of standardised service are offered which themselves require redesigning whole value chains.

*Insert box on ‘value ladder complexity versus value-chain complexity’*

To develop effective unit strategies in this context, there needs to be flexibility in the design of the specific organisational context within which products and services are delivered to the customers. It is this context that determines the quality of the relationship that can be sustained with the customer. The prime concern of top management and their support staff becomes, therefore, one of managing the development and deployment of new forms of knowledge through the ways in which unit managers are enabled to frame their business activities.

We therefore have to recognise that in such situations neither the unit management, because to a considerable extent their current experience is with the existing rather than a future way of organising their relationships with their customers, nor the central management, because any solution depends on detailed and context specific information about customers and markets, know beforehand how to organise to compete effectively. In such situations, which we have termed ‘Box 4’ – see insert – the essential requirement of the strategy process is that it becomes critical and developmental: existing data and knowledge are pushed to the limits in terms of understanding both the nature of customer demands and the possible corporate responses.

*Insert box on 'Box 4 and key criteria for a critical strategy process'*

In practice this means developing a number of processes in parallel, so that the 'strategy process' becomes a *combined* strategy process, in which the key demand on leadership is to be able to hold the balance between these processes in such a way that their combined effects can emerge through organisational learning.

*Insert box on 'Combined Strategy Process'*

*Insert box on 'The Next Stage'*

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## THE PRESENTING PROBLEM

A well established multinational engineering company recently conducted a strategy review. They had developed a clear strategy to become a first tier supplier on a global basis for a number of major motor vehicle manufacturers. They had seen themselves as well placed to do this, given both their technical expertise and their international coverage, which was unrivalled compared to that of their major competitors. However, the strategy review was required because somewhat unexpected problems had emerged in the process of implementing the new strategy. Whilst major customers had proved enthusiastic about the proposals in the earlier stages, it was now becoming clear that each expected the total organisation to be configured around their own specific requirements for an integrated first tier supplier. Unfortunately, it appeared to be less and less possible to design an organisation which met more than one of these sets of demands: it was beginning to look as if it would only be possible to become such a supplier for one customer, and therefore to look as if the original strategy was seriously flawed.

## THE NEXT STAGE

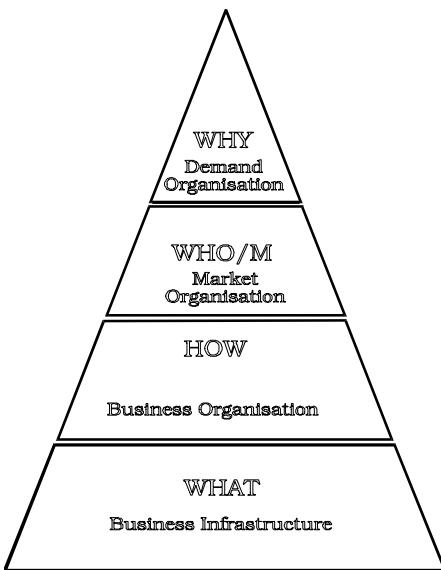
The development of a proper strategy process enabled the company to look much more closely at the organisational design problem they were facing. Obviously, given the need to use common technical and operational resources, it was not possible to have a single organisation generating the multiple design responses required by the various individual key customers: the answer lay in the creation of a number of virtual organisations, drawing on common resources from within a corporate framework, which could achieve such a degree of flexibility based on being able to create a dynamic balance between strategy process at the centre and that in the individual units.

## DESIGN CONTROL AND THE NATURE OF ORGANISATION

Any commercial business can be viewed as a designed response to customer needs. Hence *design control* designates a response in terms of a particular configuration of people, knowledge and assets in relation to a particular context of customer need.

The symbol ‘ $\Lambda$ ’ is referring to this which we choose its resemblance to exercising of this expressed in terms *organisational* business’s capabilities can be

If a business is configuration of maintaining the organisation, then identified as different kinds of organisation of the business.



a shorthand way of design control response, as a symbol because of levels of hierarchy. The design control is of the *levels of context* within which the competencies and deployed effectively.

described in terms of the its activities crucial to viability of its these *levels* can be corresponding to explanation of the

Four levels can usefully be identified

- WHAT: business infrastructure (what the business actually consists of)
- HOW: business organisation (how are the structures of the business organised)
- WHO/M: market organisation ('who' is the business in relation to a 'whom' of customers/clients )
- WHY: demand organisation (what is the framework of technologies organising the needs which are constitutive of the forms of demand which the supply-and-demand relations of the market organisation support).

Thus, the nature of the design control response ( $\Lambda$ ) can be formulated in terms of different levels of explanation concerning the what, how, for whom and why of the design: what does the business do ( $\Lambda_1$ ), how is this organised ( $\Lambda_2$ ), who organises it in relation to whom (which customers) ( $\Lambda_3$ ), and what are the why's and wherefore's of the business and its customers in assuming these designs ( $\Lambda_4$ ).

When considering the *strategy ceiling* of an organisation, we are concerned with the level below which there is a common understanding of the logic and rationale behind strategy.

## GETTING CLOSER TO THE CUSTOMER AND VALUE LADDERS

Different businesses are often competing on the basis of different perceptions of demand organisation, particularly in high technology and high service industries. Here, where being able to exercise design control is central to establishing competitive advantage, there is a requirement to rethink the units of analysis for competitiveness (Prahalad and Hamel 1994). When the particular dimensions along which design control is being established by a business are *relative* to demand organisation, then the forms of competitive advantage have to become *relational*. The pursuit of advantage becomes even more clearly the pursuit of market inefficiencies, since markets can only be at their most efficient when whole sectors are operating under a common  $\Lambda_4$ . Differentiated  $\Lambda_4$ s create market 'inefficiencies', enabling individual firms to achieve above-average profitability within the context of their chosen  $\Lambda_4$ . Under these circumstances, where individual businesses are employing different design responses, we speak of *value ladders*, there being a distinct Value Ladder for each distinct  $\Lambda_4$ .

A Value Ladder is a description of the manner in which design control can be exercised over the relevant value chains. Thus the higher up the value ladder an individual business is competing, the more it is able to engage with the specifics of individual customer/client requirements and the dynamics of its industry structure. We can represent this as the distinction between going 'downstream', getting 'closer' to the customer, and going 'up the ladder', getting more 'involved' with the customer/client's business

Thus, a fast-food might be very but not at all barrister or a very involved but close physical necessarily meanings and 'involvement' concept of involves more

	Customised		
		integrated third tier supplier	Barrister
	Standardised	Commodity Supplier	Bank Teller
		Distant	Close
			counter or a bank teller close to the customer, involved; whereas a researcher might be not at all close: being in proximity does not involve sharing concerns. Thus involves introducing the 'customisation', which than proximity.

## VALUE CHAINS AND CONSTELLATIONS

In some industries the rate of change is slow, and the strategic problems facing the industry can be formulated in terms of assets as they have been configured, rather than in terms of the forms of design control within the industry. The industry under these circumstances can be described in terms of *value chains*, reflecting the particular way in which the assets have been configured. In Porter's terms (1985), the value chain for a firm is the particular design configuration of activities within the firm that are constitutive of its capacity to create margin. Industry structure is therefore described in terms of how these value chains link together. This description in terms of value chains has the advantage of enabling the process to operate at a lower level (below  $\Lambda_4$ ) in terms of strategies, where the forms of competitive advantage can be *positional*. Under these circumstances, a universal demand organisation can be defined, reflected in the particular form of the value chain, and reflecting the fact that the industry as a whole is formed under common why's and wherefore's ( $\Lambda_4$ ). Advantage therefore comes from the nature of the ( $\Lambda_3$ ) positions which can be taken up within this ( $\Lambda_4$ ) context. This universality was first clearly recognised in the academic domain by Spender (1989), with his articulation of 'industry recipes': common assumptions within the industry as to its nature.

In more dynamic environments, however, the forms of competitive advantage are *relational* and we have to speak in terms of value ladders (see previous box). This is very similar to the idea of moving from value chain to value constellation as described by Normann and Ramfrez (1993):

“ To win, a company must write the script, mobilise and train the players and make the customer the final arbiter of success and failure. To go on winning, a company must create a dialogue with its customers in order to repeat this performance over and over again and keep its offering competitive. Companies create value when they make not only their offerings more intelligent but their customers and suppliers more intelligent as well .. companies must continuously reassess and redesign”

Recent writing has begun to emphasise the importance of looking at businesses in terms other than the asset-based/economic ones. Prahalad and Hamel (1990) define the core competencies for the organisation as a whole as those that can be applied to a number of different customer situations to add value. What unites these approaches is an emphasis on *design control*. ‘Design’ is being used here in a broad sense of the overall design configuration of people, know-how and resources - a systemic view of the organisation, which, for instance, informs Senge's (1990) approach to organisational learning. Particular configurations of assets associated with positions of competitive advantage are seen as the consequence of exercising *design control*. A particular Value Ladder is therefore the result of de-composing an end-users 'design problem' into a series of subordinate problems, each one of which itself demands particular forms of design control.

## 'VALUE LADDER' COMPLEXITY VERSUS 'VALUE-CHAIN' COMPLEXITY

In many businesses, meeting customers' needs comes to depend increasingly on software instead of hardware; and technologies introduce more and more possibilities for alternative design approaches.. Nowhere is this truer than in the service and media industries. The competitive emphasis shifts from providing better versions of a product from a value chain, to one of developing value chains which are better able to provide products tailor-made to customers' needs. The Value Chain complexity therefore becomes subordinate to the design approach deployed directly opposite the customer's needs - the Value Ladder complexity

In *defence contracting*, the ways in which the end-user requirement (the military) formulates its demands are affected by the ways in which their needs are mediated by available technologies. New technologies make possible new ways of formulating needs as demands. As a result of this, new Value Ladder design approaches can be developed which in their turn give rise to whole new value chain infrastructures. *Car manufacturers*, such as Nissan and Daewoo in the UK, and GM through the Saturn project in the USA, develop new design formulations of their products and services, and re-structure the existing value chain infrastructures supporting them, in order to create new infrastructures in terms of arrangements for dealerships, and their relationship with manufacturers. *Retail operations* as diverse as white goods, fast-food and banking, such as Dixons, McDonalds, and Lloyds respectively, make trade-offs between 'de-skilling' the front line operation, with compensating increases in the complexity of the supporting Value Chain infrastructures.

But not all of the loss of complexity in the front-line operation is compensated for in this way. Shifts in the way such trade-offs are made may result in a significant increase in the amounts of shadow work (Illich 1981) left to the consumer of the service. Where the supplier has a local monopoly or a strong market position, this is likely to go unnoticed, at least in the short-run. In other cases, in the name of customer flexibility, there is also an effective transfer of work to the customer from the supplier, such as, most obviously, in a number of self-service contexts. The irony of this is that it would appear that customers sometimes prefer this form of service because of the degree of autonomy and choice that becomes available as a result.

Finally, the whole problematic of pollution and environmental sustainability can be understood in these terms. The *environmental effects* of a business are considered to be part of the Value Ladder complexity which the business (usually) is not including in its definition of its relationships with its environment<sup>2</sup>. In the recent Brent Spar incident, it became clearly apparent that Shell's relationship with its customers could not be neatly divorced from their response to the environmental impacts of some of its commercial decisions, even when they had apparently followed proper international legal procedures.

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<sup>2</sup> For an interesting example of corporate response to environmental issues see the 3M example in Shrivastava (1995).

#### BOX 4 AND THE KEY CRITERIA FOR A CRITICAL STRATEGY PROCESS

In their 1987 book “Strategies and Styles”, Goold and Campbell identified three idealised forms of relationship between the corporate centre and business units, based on the type of planning relationship and the type of control exercised. In terms of design control ( $\Lambda$ ), we can interpret these as different forms of Corporate Process, which involve different assumptions about the knowledge of how to organise to compete effectively. The diagram indicates that their types excluded the situation in which neither the centre nor the unit had this prior design knowledge. Box 4 is the antithesis of strategic control, and the process is explicitly developmental. Existing formulations of design control/response are called into question in a *critical process* which push the limits of what both Centre and units know. If the other three forms of corporate process are concerned with adding value to existing positions or  $\Lambda$ 's, then 'Box 4' is concerned with creating new  $\Lambda$  formulations.

Box 4 is a rather parenting (Goold, 1994), which is in sense that the business than the Centre, so that strategic development horizontal linkages, *alliance* with other experience. Two kinds effective intervention 'horizontal parenting', shift the boundaries of

	SBU knows $\Lambda$	SBU doesn't know $\Lambda$
Centre knows $\Lambda$	Strategic control	Strategic planning
Centre doesn't know $\Lambda$	Financial control	'Box 4'

special case of 'Horizontal' Campbell and Alexander general paradoxical, in the 'knows' as much as or more the major sources of its lie elsewhere - through based on relationships of sources of knowledge and of process can support an to address questions of and therefore, in effect, to Box 4.

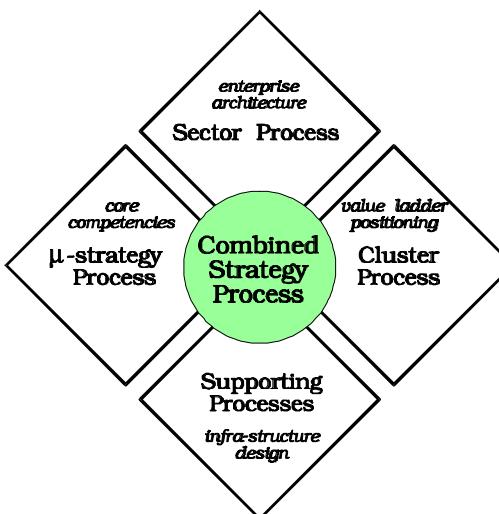
Firstly, an examination of the forms of demand organisation being addressed by different units to see how they relate to each other, and in the process how each suggests different ways of formulating the other units' competitive advantage. In effect this is a *macro-process* in which the diversity and variety of  $\Lambda$ 's are being used as a basis for suggesting new positions and new ways of configuring units - it is the corollary of questioning the systems of control which go with exercising financial control. The role of information, and the way in which it is or is not used to support new forms of thinking, whether as a learning or a control process, becomes crucial at this stage.

Secondly, an examination of the fine grain of the way each unit exercises design control itself - exactly how it is a response to the customer's needs. This is in essence a *micro-process* which calls into question the  $\Lambda$ s from 'underneath'/bottom-up. Of course these two processes inform each other. The macro-process is questioning the forms of knowledge and understanding of the Centre, and the micro-process that of the units - each approaches 'Box 4' by pushing the edges of 'what is known'.

## COMBINED STRATEGY PROCESS

A strategy process would normally start from some set of assumptions about value chain organisation, and from the possible forms of positional advantage that could be held within it. The management team of the assumed Strategic Business Unit would then work through the strength of the boundary conditions and competitive dynamics associated with that position; and it would establish a segmentation of the markets through which its value could be realised. In keeping with the economics paradigm within which it was conceived, this approach would aim to extract optimal ‘rents’ from the ‘property rights’ implied by the defensibility of its positioning. Within this framework of positioning in relation to market segments, ‘implementation’ issues would then be addressed through (e.g.) process re-engineering, in order to achieve a better alignment between the market segments and the underlying business processes.

Looked at ‘from above’, the increasingly dynamic nature of value chain organisation makes it difficult both *priori* definitions of groups of competitors in relation to common (Evans & Wurster, 1997) it difficult to know how market, since the which customers buy to as much change as positions supplying the Day & Rangan, 1997) below’, positions look clustering may themselves be but which can be engineering processes not aligned with them.



to establish an *a* position, in terms of doing similar things, sets of customers (Anderson, 1997). It also makes to segment the channels through which they are themselves subject to the nature of the channels. (Anderson, 1997) Looked at ‘from above’, like ways of competencies which are judged competitively, destroyed by re-engineering processes not aligned with them.

Combined Strategy Process resolves these difficulties by creating an explicitly dual West-East focus between, on the one hand, developing and strengthening the ‘core’-ness of competencies in their own right; and, on the other hand, understanding the changing logics of demand organisation at which business propositions may be targeted, in terms of Value Ladders and the sustainability of those propositions. Set against this is then a North-South focus between Sector Process, considering how all the different parts of the enterprise come together dynamically as market organisation; and infrastructure design, concerned with managing the supporting processes that enable the East-West focus to deliver value.

And the challenge facing leadership of Combined Process? Simplicity is no longer waiting there to be discovered (or acquired), named and held up as ‘vision’. It has to be constructed, emerging through processes that enable the organisation to learn how to be simple about what the customer wants.