DON'T LET YOUR CUSTOMERS LEAD YOU ASTRAY
IN DEVELOPING NEW PRODUCTS

Paper presented at the
6th Industrial Marketing and Purchasing Conference
September 24-25 1990, Milan

Axel Johne, City University Business School, London

ABSTRACT

Most studies into product development success have emphasised the need to meet customers' requirements accurately. Fewer studies have considered the role customers can play in product development. This paper reviews the potential benefits and risks associated with close interaction with existing customers in the development of new products in large firms. It draws from empirical findings of a recent study by the author into product development in British and American firms and applies perspectives from the broad field of inter- and intra-firm network analysis.

Correspondence: City University Business School, Barbican Centre, London, England. EC2Y 8HB.
Fax: +44 71 588 2756 (imp90'1.pap)
INTRODUCTION

The importance of product development is becoming more and more widely accepted within British and American firms. Evidence of this trend is reflected not only in the increased number of publications, both practical and theoretical, in this particular area of corporate operations, but also in the increased number of recruitment advertisements for new product personnel. This trend is becoming pronounced even in firms which have in the past rarely ever paused to ask whether their products will equip them to compete effectively in the future.

Within most firms product development is a complex multidisciplinary activity. It is a challenging activity because it involves more than meeting short term profit and growth objectives. In this respect Gluck & Foster (1975) showed long ago how chief executives can become mesmerized by small incremental product development successes, which if pursued in an unquestioning manner can spell long term disaster. The problem occurs because frequently the majority of corporate staff feel comfortable with and unthreatened by incremental product developments, with only a small number of persons usually being able to see the long run risks associated with sticking solely to present product technology and relying solely on the present customer base.

Product development is a particularly challenging activity in large multi-product firms. In these firms, in addition to technological and marketing factors, supply side synergies are usually also important. Balancing technological and marketing considerations with supply side synergies for the purpose of successful long run product development is the subject of this paper. Emphasis is focused on the potential contribution of efficient networking with customers and other business constituents in the quest for effective product development.

This paper will show that customer inputs are only one of several important inputs which can contribute towards successful product development strategy formulation and execution. Efficient networking with customers is important; but, as with all networks, the interaction processes involved need to be managed skilfully within a wider business context to gain maximum advantage.
SPECIAL CHALLENGES IN LARGE FIRMS

Managing in a multi-product or multi-business context poses special challenges for the management of new products. This is because individual businesses in large corporations can rarely pursue their operations in isolation. While a particular business may be encouraged to act independently, a time will usually come when assistance from head office is needed for funding expensive new product initiatives. Also, most managers are likely to find themselves in businesses or business units in which they are asked at certain points of time to take into consideration the strategic interests of other businesses which may conflict with their own immediate interests.

Goold & Campbell (1987) have identified different styles used by head offices for managing constituent parts of large organizations. Three main approaches have been identified:

(i) Strategic control or "coaching"
(ii) Strategic planning or "orchestrating"
(iii) Financial control

For example, the strategic control style is practised in Britain by firms such as Coutaulds, ICI, Plessey and Vickers. In these firms, the centre prefers to leave the initiative in the development of plans to business unit managers, but reviews and criticizes plans (through coaching) and uses reviews to check on the quality of thinking on the part of unit managers.

On the other hand, corporations which practise a strategic planning style give less autonomy to individual businesses because the corporate centre involves itself intimately in framing (or orchestrating) policies for constituent parts. This style is practised in Britain by firms such as BOC, Cadbury-Schweppes, Lex, STC and United Biscuits. Within such companies the centre works with business unit managers to develop strategies which fit in with an explicit overall corporate strategy which is used to co-ordinate and control developments across different businesses.

Financial control firms are very different. In them the corporate centre involves itself hardly at all in steering offspring strategically, preferring to concentrate on monitoring financial performance. In Britain, examples of financial control companies are BTR, Ferranti, GEC, Hanson Trust and Tarmac.

Even though the number of corporations which practise one control style alone is probably small, it is nonetheless important to accept that firms are likely to pursue different styles for controlling and co-ordinating product developments in constituent units. The style adopted by head office will inevitably impose constraints on individual businesses.
Another pressure acting on individual businesses is the international marketplace. It is probably realistic to assert that today all Western businesses compete on a global basis. They do so either directly by selling and manufacturing in an array of world markets, or indirectly because they find themselves in their traditional markets at the receiving end of actions undertaken by competitors who operate on a global basis. Across a wide range of industries, in both Britain and America, firms are now feeling the effects of such global competition. At present the competition comes mainly from Japanese and Korean firms, but in time other Far Eastern competitors can be expected to enter this arena more forcefully.

Some relatively protected industries in Britain and America, such as food manufacturing, have yet to experience the full brunt of global competition. However, even in these industries there is increasing unease at the prospect of heightened foreign competition. Today all firms are potentially at risk from global competitors and therefore an understanding of global business warfare is important for those which want to survive and prosper in the long run.

Hence, in terms of managing product change profitably, few firms can now turn their backs on global markets. Home markets are now frequently too small in size to recoup the investment expenditures required for major product developments. This has led more and more manufacturing firms to consider the potential offered by global markets. For large manufacturing firms it becomes imperative to understand how their own multi-business operations can be linked together to maximize value chain synergies. In the context of the management of this type of product change, there are two important operational questions:

1. Are some product development strategies inherently superior to others?

2. How can best use be made of inputs from customers, as well as from other business constituents, for the purpose of framing business strategy?

THE IMPORTANCE OF STRATEGIC VISION

The essence of business strategy is to build competitive advantage. At best, this will involve creating tomorrow's competitive advantages faster than competitors are able to copy. Many successful competitive strategies flow from ambition or 'vision' provided by top management. It is also possible for innovation to flower from within an organization autonomously, as has been popularized by Burgelman (1984).
Irrespective of how ambition is activated, all ambitious visions will need to be underpinned by careful planning to allocate the resources needed.

Planning the allocation of resources is, of course, no substitute for objective setting. Objective setting and strategy determination are quite different from, and indeed are much greater activities than planning. In a study of successful product developer firms Johne & Snelson (1990), found that top management regularly provides the objectives which are the starting point for the whole competitive management process, but that objectives need to be underpinned by carefully formulated strategic plans.

In British and American firms a great danger exists that top management's vision will not extend beyond satisfying the short-term objectives of shareholders and keeping raiders at bay. This is because British and American corporations are routinely required to account to shareholders on very short time horizons - certainly much shorter than is the case in most Japanese or West German firms. When top management is required to focus on short-term financial results insufficient attention is often given to wider market developments. In these circumstances stagnation can easily become a self-fulfilling prophecy with markets becoming labelled as "mature" because sales growth in them has plateaued through lack of interest and imagination from the top.

When this occurs some firms rely on planning for the purpose of effecting fit between existing opportunities and existing resources. However, this is insufficient on its own, because through lack of strategic vision on the part of top management wider market opportunities may be misread, underestimated or not seen at all. When this happens, it is top management's conception of an industry which has matured - not the industry itself - and no amount of planning from headquarters or elsewhere is likely to overcome the problem.

Canon's entry into the British and American copying market illustrates the advantages of a visionary approach over a mechanistic planning-based approach. For many years it was Xerox which successfully sold a wide range of copiers in both countries using a direct salesforce of considerable size and cost. Canon reconceptualized the market by redesigning copiers so that these could be sold via office product retailers, which obviated the need for national sales forces. The new distribution strategy succeeded because great efforts had been made to make Canon copiers more reliable and simpler. By aiming high, but thinking deep, Canon's top management was able to side-step and nullify Xerox's distribution strengths by making them irrelevant to the market segments which were growing fastest and which they targeted.
COMPETITIVE STRATEGY CHOICE IS ESSENTIAL

"Pursuit of a niche strategy is fine if the aim is to dominate a global niche rather than a simple domestic niche" is an increasingly common assertion made by high achiever product developer firms which operate on an international basis. As was seen in the Canon example above, simple niches are vulnerable to competitors who have a broader vision of market opportunities.

When competition is conducted on a truly global basis, limited vision or aspirations on the part of top management can be extremely dangerous. At worst, it can lead firms to use tools of analysis, like portfolio planning, which are suited to assessing performance in rigidly circumscribed markets, but which are unsuited to analyzing markets which enterprising vision can turn upside-down. The great disadvantage of portfolio planning is that it focuses attention on the supply side, and not on emerging possibilities.

While the pursuit of a simple (often domestic) niche strategy may be realistic for managers being appraised on short term results, it can be dangerous for the long term interests of a business. To concentrate on just a very small part of the potential market for the purpose of generating profits is bound to be limiting. Notwithstanding this limitation, many businesses continue to seek salvation in pursuing simple niches.

In fast-changing markets really successful product development strategies are likely to result from competitive initiation and not merely from competitive imitation. Increased internationalization of business suggests that in more and more industries long term success is becoming linked to performance in the global market, rather than in a simple domestic market. Examples of such industries are consumer electronics; automobiles; machine tools; electronic measurement equipment; cameras; computers; telecommunications equipment.

Businesses which compete globally, or which are faced with competition from global players, will only understand their own vulnerability if they make determined efforts to study the competitive intentions of rivals. Unfortunately, many Western companies have misinterpreted the strategies of Japanese and other Far Eastern firms by watching closely only a few competitive tactics, such as for example, close working with customers. It is important to recognize that these are often the symptoms and not the main causes of competitive success. They are often the result of implementing carefully selected competitive strategies stemming from market-led envisioning orchestrated by their head offices.
Potentially, one of the strongest strategies open to multi-business corporations today is building up strong global brands which can support a whole range of product lines offered by constituent businesses. A strong model appears to be building up brands which are underpinned by core competences - as has been achieved by successful Japanese firms like NEC, Fujitsu, Panasonic (Matsushita), Toshiba, Sony, Seiko, Sharp, Sanyo, Epson, Canon, Minolta and Honda.

Global branding affords benefits at two levels. First, umbrella brands provide strong global market presence, reputation and market leverage. Second, under this umbrella a multi-business firm can then go on to exploit advantages which result from regional manufacturing and design centres, so that products are tailored more closely to local markets. This policy is being successfully pursued internationally by a number of Japanese firms and by some American and British firms also. What such companies are doing is breaking certain commonly accepted 'rules' of strategy. For example, they pursue low cost manufacturing and differentiation simultaneously, which is expressly advised against by some strategy experts such as Porter (1985). However, they do this successfully by strengthening their world presence in the eyes of customers through branding, moving away from standardized world products where it is competitively advantageous, and so provide markets with more carefully targeted new products than could otherwise be the case.

Essentially, what really successful global players do is to create a whole new space or market for themselves which is uniquely suited to their business strengths, as was illustrated in the Canon example. This is much more than finding a niche within an established market. Frequently, the type of space created is off an established product market map and for this reason is less vulnerable to imitation. This new way of approaching opportunities is becoming increasingly important in markets where rapidly changing technology; deregulation, and globalization have undermined the value of traditional industry analysis.

A strategy of global niching presents considerable opportunities for ambitious multi-business firms to redraw the competitive map in their own favour. This will, however, only be possible if they are capable and ready to think outside traditional industry boundaries. The new approach is quite different from simple niching. While the approach is sometimes referred to as exploiting a profitable niche, the distinguishing feature of such new operations is the wider (often global) view of emerging opportunities.

Faced with this new type of competition, defensive minded manufacturers, with no real appreciation of alternative competitive strategies, are often doomed to a perpetual game of catch-up with more skilful competitors. Unfortunately for
them, strategies based on imitation are readily apparent, especially to adversaries who have already mastered these. Not surprisingly, by competing in completely new ways Japanese companies have recently been able to creep up on traditional players in their home markets almost unnoticed. This is because the new competitive approach mostly avoids direct confrontation, concentrating instead on a completely new set of competitive moves, which many traditional players have often not even dreamed about.

The lesson to be drawn by managers in businesses which want to succeed in global product development is to engage in 'competitive innovation', rather than 'competitive imitation'. The essence of competitive innovation is to create to-morrow's competitive advantages faster than competitors can mimic the advantages of to-day. The message is:

Don't just try to do better with what you have got, which represents an asset-based and simple planning approach, but try to configure completely new ways of competing in chosen markets.

Ideally, the markets chosen will be defined differently from the way traditional players conceive them. They are likely to be defined in terms of usage contexts (such as eating out occasions; premium private travel; convenience eating; casual wear etc). And, to reap economies in competing in such a newly defined market, many firms now automatically think in terms of entering several overseas geographical markets simultaneously, rather than simply exploiting a few.

**USING INPUTS FROM CUSTOMERS AND OTHER NETWORKS TO SHARPEN STRATEGY**

When it comes to managing product change on a continuing basis, a business needs to recognize that the physical product is often only one part of a total delivery system. The actions and policies of customers and suppliers can all affect the innovative capacity of what is sometimes referred to as the 'offering system'. It is for this reason that each element of the delivery chain needs to be carefully managed and integrated to generate the greatest possible innovative potential. As has already been stressed, manufacturers with conservative and insular attitudes often pursue low-risk, minor product changes. In a multi-business firm this managerial problem may be compounded by directives from corporate headquarters to maximize short term returns. All of these elements give rise to potentially conflicting pressures for change. A strategic question which therefore needs to be addressed by all businesses is the extent to which suggestions from various business constituents - customers, headquarters and suppliers - should be acted upon by those charged with
guiding a business strategically.

**Networking with customers**

Study of successful product development practice in British and American firms indicates that high achiever firms follow a predominantly market-led approach to product development (Johne & Snelson, 1990). Essentially, the success of these firms results from proactive market interpretation along the lines explained above, rather than from lamely following the suggestions of key customers.

The issue is important. Several analysts (Shaw, 1985; Foxall, 1986; von Hippel, 1986) have shown that lead customers can play an important part in identifying opportunities for profitable product change. Meeting customers' needs is, of course, a prerequisite for successful product change. Nevertheless, a danger exists that a business may end up acting as nothing more than a sub-contractor for key customers, and in this way lose control over its own destiny. It is here that headquarters has an especially important role to play in guarding against businesses being led astray by customers. The danger occurs principally in industrial markets where individual customers can be very powerful indeed. However, the problem also arises in another guise in consumer markets where big retailing chains exert major market power over manufacturers of food, clothing, furniture etc.

For a business to utilize, rather than be totally driven by customers, requires an assessment of two different market dynamics. On the one hand, the business needs to discriminate between different types of customers. Customers which are innovators and market leaders in their own marketplaces are likely to be a critical source of new product ideas. Other types of customers are likely to be less strategically useful for this purpose, suggesting only incremental and low-risk product changes, which support their own limited marketplace thrust. In operational terms emerging trends in the marketplace as a whole need to be weighed against individual customer suggestions. To be competitively successful new products must attract sufficient market support. The trick is, therefore, to utilize innovative customers in the context of the demands and constraints of emerging markets.

**Networking with headquarters**

Depending on their style, the headquarters of some large multi-product firms may want to take responsibility in certain product development decision areas, while leaving individual business units in charge of others. As has already been stressed, global competition in manufactured products can benefit from a broad concept of a product line. The
headquarters' viewpoint is ideally able to provide this. Headquarters can encourage world-scale manufacturing, world-scale distribution, and global brands. However, world-scale distribution and branding are likely to be economical only if the company has a wide and growing range of products. Hence, it is likely to be firms which develop a continuous stream of new products which can best justify the high cost of world brands and their distribution.

Johne and Snelson (1990) found in large British and American manufacturing firms that responsibility for global competitive strategy was often separated from responsibility for business competitive strategy. For example, an individual business might be charged with developing some aspect of the marketing mix (say product features), while headquarters might take the lead in co-ordinating the strategic visions of local selling operations. In this way headquarters can advise on the timing of new product launches, and on the targeted level of market shares in particular markets, taking into account likely competitive actions and reactions from world competitors.

In operational terms this presents potential conflicts between:

* Individual business units and country managers.
* Country managers and product co-ordinators.
* Country managers and international marketing co-ordinators.

Because such conflicts can arise, it is likely that the need for headquarters support will become increasingly important in large and growing manufacturing firms. This is because any business can increase its short-term profitability by cutting costs and engaging in what Doyle (1987) has referred to as 'denominator management' to increase profits. Unfortunately, while many British and American businesses have been forced to concentrate on this type of performance, the headquarters of many Japanese corporations have concentrated on studying how different national markets are evolving, and how opportunities within and across them can be reconceptualized to serve long term global ambitions. Successful product change strategies often take longer to achieve than the time horizons used for short term planning purposes in British and American businesses. It is in this area in particular that headquarters influence is likely to be critically important in global product development.

**Networking with suppliers**

Not only do networked relationships with customers and headquarters have the potential to facilitate product change, but so does networking with suppliers. Many successful manufacturing corporations have now decided to offer an
increasingly wide array of products to meet as closely as possible the demands of individual target markets. Japanese car manufacturers are showing the way in this by offering a very wide variety of models from one assembly line. They do so by approaching the manufacturing process in completely new ways. One way is with the help of selected suppliers with whom they network very closely indeed.

For example, analysts, such as Hayes (1988) and Hayes & Wheelwright (1984), have shown that certain Japanese manufacturing techniques provide the flexibility for improving products quickly and cheaply. One method relies on very close working with suppliers to develop new parts. In this way component suppliers, whose labour costs are lower than those of the carmakers can be involved in designing and assembling modules which are then incorporated wholesale into the finished product.

To encourage suppliers to help in product development in this way some British and American car manufacturers now offer exclusive supply contracts. Consequently, suppliers become locked into a long-term relationship to ensure standards are consistent with the strategic aspirations of manufacturers. All this is very different from the multiple sourcing arrangements of the past, when carmakers used their purchasing power to squeeze every last penny out of the unit prices quoted by component suppliers. The great advantage of involving suppliers in modular product developments is that "manufacturers" can concentrate on their real areas of business expertise - marketing, distribution, and design. In other words, they concentrate on putting together an offering system which is appropriate to the markets being targeted.

By managing the supply network systems in this way, the activities of suppliers become powerful additions to the capabilities of the entire delivery system. To be really effective, such action may need to be driven by the corporate centre. Not only can this generate leverage across the whole market system, but it can also lend credibility to proposals for other activities, such as joint research and development. In this way the entire delivery system can become more responsive to potentially profitable changes in selected markets. With a comprehensive and well thought-through supply chain, innovative companies can both steal a march on, and protect their lead over less skilled product developers.

FOCUSING STRATEGY TO SERVE THE BUSINESS

As companies have enlarged their operations, strenuous efforts have frequently been made to combine the efficiency resulting from functional specialization with the responsiveness of businesses focused on selected markets. The early solution
was the simple management matrix in which executives had two bosses: one was in charge of satisfying a particular market, another was in charge of functional efficiency. However, many corporate leaders are reported as having found even simple matrix structures to result in much confusion and endless rounds of meetings (Dumaine, 1989).

Companies which have embraced the concept of focusing their whole organization squarely on perceived business opportunities, rather than on functional inputs, have swept aside whole tiers of management. Recent examples of this trend in Britain are BP, BT, ICI, British Airways and ICL. However, the resulting flatter business-centred organization does require top management to understand the work of far more subordinates. The result is often that the modern manager regards himself less as someone of importance in the official hierarchy, than as someone networking successfully with others, such as customers, suppliers and headquarters, over whom he has no direct authority.

Johne and Snelson (1990) found that in many successful British and American product developer firms there is evidence that traditional functional structures are now being replaced by new and evolving multi-dimensional structures. However, just as was seen with the advent of matrix structures in the late 1970s, these new complex structures will only work if people want them to work as an integrated network.

**Business-centred structures rely on efficient networking**

What is striking about the practices in these new networked business organizations is that people now matter much more than formal structures. That is not to say that there is no conflict in these new style organizations. There are conflicts. However, the conflicts which arise are of a constructive nature. For the purpose of encouraging best results 'shoot-outs' may be set up to see which product development solution will work best. For example, in the development of IBM's personal computer range several competing teams were charged with coming up with a workable solution. When this is done, the emphasis is frequently on open competition - free from the 'win at someone else's expense' mentality. On the other hand, in traditional organizations there is often a tendency to attempt to solve complex problems through structures which suppress conflict.

When open conflict is countenanced for important purposes, such as product development, it is important that staff are provided with a focus for their endeavours. Such focus is provided by business-centred organizations. In these emphasis is placed first and foremost on desired outputs rather than on achieving efficiency in inputs. In them managers are learning to live with the greater degrees of ambiguity which now typify
Further, it is likely that encouraging staff of large firms to think for themselves and empowering them to act within networks will become increasingly necessary for product development purposes as business environments change at a faster pace. Indeed, it is because of these faster and complex changes that top managers are likely to need more and more help in interpreting opportunities. The leading managers of the 1990s are likely to be persons who will take a broad view, who know when to give away authority within the internal network, rather than relying on giving orders within a formal hierarchy.

In a sense the new business-centred organization, with its emphasis on internal networking, implies almost a non-organization. The theory behind this form of networking is that a successful business is little more than a network of persons with specialized skills which are called upon at appropriate points of time (Easton, 1989). In successful flexible organizations access to needed skills is increasingly seen as more beneficial than ownership of particular skills. This is because important specialist activities can be bought in from outside on a sub-contracted basis. In competitive environments in which markets and technologies can be restructured very quickly, there is a growing realization in many firms that it is people and their network of relationships inside and outside a business who matter much more than the formal organization structure.

The advantage of the network approach is that as opportunities are spotted the business shapes itself into whatever form is necessary to exploit these. In conditions of fast and complex changes, businesses need to learn on a continuing basis if they are to survive. Successful survival will require decision making to be close to the customer, which is the very reason why efficient networking with customers has potentially so much to offer. And in the rough and tumble of competitive activities, it is perhaps not surprising that some businesses have been anxious to decrease operational uncertainties by getting very close to particular customers in developing their new products.

However, as was explained earlier, close contact with selected customers is only one of several networks which need to be nurtured by a business. It was stressed that before entering into a close relationship with particular customers for the purpose of developing new products, it is important for a business to reflect on whether such contact serves its long term interests. Network theory readily acknowledges the reasons behind this need, and by implication, the need for independent strategy determination. For example, Johanson and Mattsson (1987) have stressed that relationships change all the time, and that a firm has direct and specific dependence.
relations with firms with which it has exchange relations. Such dependencies may be mutual, but because "in general, it may be assumed that they are more or less asymetrical in the sense that one party is more dependent on the relationship than the other".

The need to appraise dependencies is, of course, a strategic issue. When the firm is the focus of analysis (as is the case in global product development) it is necessary to assess the strategy behind existing and potential networks in order to appreciate their power in explaining competitive positions. For this purpose we can draw on the link between business strategy and networks provided by Mattsson (1987) who has argued that strategy change will lead to network position change. For example, a firm intent on competing in the positional mode is likely to concentrate on defending an existing set of networks, while one intent on competing in the innovative mode is likely to concentrate on changing existing networks or on entering new ones.

Hence it is network change and not only network efficiency which firms that are pursuing a strategy of competitive innovation (as opposed to fighting a rearguard action as far as product change) must focus on. Such network change presupposes that in such firms top management has carefully appraised the pros and cons of sticking to existing networks for the purpose of safeguarding the future of the business. As was asserted earlier, global product development relies critically on top management's ability to envision how markets might evolve or how these might be revolutionized. Without this ability no amount of planning and 'listening to customers' will provide the insights needed to steer product changes successfully on a global basis.

CONCLUSION

Concentrating on a close working relationship with existing customers is only one of several networks which are useful to a manufacturing business in deciding how its products are to be developed. The relative importance attached to networking with customers compared with that undertaken with suppliers and other business constituents will depend on the strategy being pursued. A defensive strategy is likely to be based heavily on reacting efficiently to the suggestions of existing customers. On the other hand, an innovative strategy is likely to lead a business to use its network in quite different ways. It has been emphasized that top management has ultimate responsibility for envisioning how a business might compete more effectively in the future. In building up strategic vision top management and other staff will almost certainly want to draw information from established network relationships. However desirable such contacts are, great
care needs to be taken in avoiding undue bias which overzealous contact with customers can introduce.

REFERENCES


