
PRODUCT ADAPTATION FOR EXPORT

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Foreword

This book is one of a series produced by the International Trade Centre, UNCTAD/GATT, Geneva, in collaboration with the Export Promotion Bureau, Pakistan and funded by the United Nations Development Programme. Its aim is to assist the export activities of the Pakistani business community; to make them more profitable and better able to withstand the forces of an increasingly competitive international economy.

All the texts in the series have been prepared by experts in the relevant field in collaboration with a team of authors and consultants from Pakistan and elsewhere. Allama Iqbal Open University, Islamabad, has provided helpful support and advice without which the project could not have proceeded. The booklet is also to be used for their diploma course on Export Management.

The main contributor to this book was Don Weller.

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1 Introduction

Most of us are now and again caught out by our own ignorance. I can remember scoffing at a marketing technique which I had never met with before. It was too new to have been thoroughly tested and shown to be reliable, I sneered. Then it was proved to me that it was in use before I was born, and I already had a few grey hairs. A few more appeared overnight.

This book may introduce you to some practices which are unfamiliar. Indeed, it would not be of much use to you if it told you only what you knew already. But do not make my mistake and dismiss them as too new to have a proven practical value. All the methods advocated have been widely applied.

Except where it is clearly stated, they are also successfully used in small firms.

New exporters enter several new worlds at once. Part of the purpose of this book is to show you how the most successful of your foreign rivals get their products right for their own customers.

If you want to do well in export markets, then it is usually a good plan to begin by emulating the skills of your more experienced competitors. Later you may be able to outdo them. I hope that day is not far away and wish you every success. I am sure it will come, if you always remember that exporting often demands new approaches to marketing in general, and product modification in particular.

2 Products

2.1 Key facts about products

If a firm is to earn money by exporting, it must make products which people abroad want to buy. Success in developing attractive products is more readily achieved by thinking through the problems in a methodical way. As your starting point you should bear in mind exactly what is meant by a 'product'.

What is a product?

First it is important to recognise the distinction between 'products' and 'product types'.

A car, for example, is a 'product type'. But if the Toyota Car Corporation were to add a new model to its range, it would have developed a 'new product', not a new product type. It would not matter whether it had merely changed the shape of the body of an existing model, or whether it had also introduced a new engine design and mounted the body on five wheels, the product type would still be a car. Only if a completely new form of land transportation had been developed, would a new 'product type' have been created.

In the same way, if Fortune Carpets were to change its standard carpet yarn from 100% wool to a blend of 70% wool and 30% nylon, its new carpet range would consist of new products rather than new product types.

The importance of the distinction is easy to appreciate. New product types are usually difficult and expensive to create, and the size of the potential market for them is hard to calculate. In contrast, quite small changes to products can offer significant advantages to current users of an existing and well accepted product type, and win a warm welcome both from them and from those who have previously preferred an alternative. Such small changes are often called product adaptations.

In other words, markets are usually much better prepared to buy new products than to take a giant step forward by adopting a strange new product type.

However, while it is less risky to develop new products than to create new product types, it is, as this book will show, by no means a simple task. But how well you can prosper from simple but carefully planned product changes, which convince people that they offer the best value for money, can be seen from the success of Japanese car manufacturers. Their models are not strikingly different from those of many of their competitors, but have nevertheless won large market shares.

The components of a product

Manufacturers tend to think of products solely as the goods which are made in their factories. It is much more constructive; however, to consider the way customers see the *benefits* which they believe they are buying. Those benefits may stem from both physical and emotional factors related to:

- The physical core
- The package
- The service
- The brand name
- The product and its manufacturer's images.

For smaller manufacturers the first three are usually the most important.

The physical core

The key point about the physical core, or the product made in the factory, is that it should be designed and manufactured not to factory standards but to those of the customer. Furniture manufacturers, for instance, often stress the craftsmanship and the high quality of the materials, which have gone into the making of their products. Users, in contrast, may be more interested in whether the drawers of a sideboard slide easily in and out; or whether a wardrobe is deep enough to hold a man's suits.

This is not to say that users do not appreciate good workmanship and high quality materials. But while users who can afford only a modest price are often prepared to accept relatively inferior materials, and a standard of craftsmanship below the highest, they want to be sure that their purchases are well suited to perform the function for which they are intended.

This fact applies not only to furniture but, for example, to clothing, kitchen utensils, radios, sewing machines, pottery and indeed almost all consumer goods, as well as to industrial products.

In turn this means that functional requirements may vary from country to country. In some export markets, for example, people may, on average, be much shorter in stature than buyers in Pakistan and may therefore want tables and chairs with shorter legs than those usually acceptable at home. Again, if markets in temperate climates are sought, it might be possible to use cheaper and less heat-resistant glues than are normally necessary for furniture manufactured for sale locally.

Accurate knowledge of a foreign market's needs may therefore show that savings, rather than additional manufacturing costs are available.

Styling is sometimes more important than functionality because in the case of many types of goods it creates in customers' eyes the only real differences between competing products. It may not, for example, be possible for a layman to discern the differences in wearing properties between several makes of carpet, and his choice will in consequence depend on his design preferences.

Such preferences in taste can vary greatly from country to country. Furniture which perfectly fits into the decor of a standard Spanish home may well, for example, look out of place in Germany.

Moreover, in industrialised countries some managements are becoming anxious to woo and retain high grade workers by providing the best possible working conditions. Sometimes their efforts extend to choosing the equipment that harmonises with the work environment, which they have set out to create. Orders for looms have, for instance, been lost because their supplier refused to offer them in especially painted light blue frames.

Before a decision on market entry is reached, it is therefore wise to determine:

- *The product modifications necessary to ensure market acceptance.*
- *The technical and financial feasibility of using new raw materials or retooling if such changes are essential.*
- *The savings or increases in running costs likely to result from manufacturing adjustment.*
- *Whether the market could bear the resulting prices.*

The package

Often packaging can be as important as the physical core. Often, also, two forms of package are necessary.

The bulk packs protect both industrial goods and the sales packs of consumer goods during their journeys from supplier to customer. When the customer is in a distant country, it is likely to receive rougher treatment than is usual during transportation to a domestic customer. It must therefore be strong enough to withstand transfer from lorry to train to ship in its country of origin, and the reverse process at the foreign destination. It must also be capable of withstanding foul weather while it stands on docksides and depots awaiting reloading.

Possibly also customers abroad may insist on bulk packs of a different size from those at home in order to simplify handling during transfer and warehousing.

For these reasons some exporters make trial shipments of several alternative export packs before deciding which offers the best value in terms of strength, weather resistance and ease of handling.

While the sales pack also gives protection, in the case of consumer goods it often has a much more important role - it helps to sell the product. Ways in which it can do so include:

- Attracting the notice of shoppers
- Distinguishing the product from its competitors
- Making it easy for shopkeepers to stack a display
- Informing shoppers of the contents
- Explaining the product's use.

In consequence, the size, shape and colour, together with the size and arrangement of brand symbols and the presentation of written information are critical. Particularly this is the case in industrialised countries where goods sell extensively through supermarkets, without the aid of sales staff.

The service

Many would-be exporters shy away from the notion of serving foreign customers on the grounds that the cost would be prohibitive. Certainly it is impossible for many companies to fly servicemen to the far corners of the earth at the drop of a hat, but two facts are important to recognise:

- Some forms of servicing are very inexpensive.
- Most buyers are more willing to buy from firms who treat their problems sympathetically.
- The better the service provided with a product, therefore, the better it is likely to sell.

In consequence, it is wise to supply the best service which can be afforded. Some cheap forms of servicing which will help to make buyers feel you are considerate, customer-conscious and worth dealing with are the following:

- Ensuring that goods are shipped on time.
- Using quality control methods which prevent goods below the standard of sales samples from being shipped.
- Never trying to raise the price once an order has been accepted, even though an increase in manufacturing costs will reduce the profit margin.
- Supplying up-to-date price lists.
- Keeping customers well informed of changes in stock levels and delivery dates.
- Treating complaints promptly and seriously, and making reparations whenever they are clearly justified.

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- Refraining from trying to squeeze a customer's profit margins unnecessarily, when you know that they are normal for his type of business in his country.
 - Supplying especially requested information immediately and routinely corresponding in a prompt and business-like manner.

Such practices usually make common sense in the home market. But in markets where customers find it slower, more expensive and more difficult to communicate with you, it is even more important to treat them as unwritten laws.

Imagine the worries of a small British wholesaler who has been promised a consignment of carpets from Pakistan by a ship due to reach London by 31st August. Suppose the diary of subsequent events ran like this:

10th September: The sales manager bursts angrily into his office, and yells that several shops to whom he has resold part of the consignment have threatened to cancel their orders because of late delivery. The buyer loses patience and sends a telegram to Pakistan. There is no reply.

27th September: The buyer gets up at 2 a.m. to phone the supplier. The voice at the other end of the line is unsympathetic and uninformative.

10th October: He is summoned to the managing director's office, told that two important customers have been lost through his inefficiency, and threatened with dismissal. That night he has a nightmare.

11th October: The buyer creeps into his office to find an unapologetic letter from Pakistan giving a new and near arrival date. He is slightly cheered, but remains firm in his resolve never again to deal with the supplier.

Do you blame him? What would you have done? Make a brief note of the mistakes you think the supplier made.

Has not the supplier lost a customer through his own neglect? He has failed to keep a shipment promise; failed to notify the customer of the delay; shown no concern for the interests of his customer. Maybe he should begin to realise two facts. Firstly, the problems of distance increase customers' anxieties and decrease their ability to find out what is happening. No supplier should therefore take shelter behind his export customers' inability to pester him with phone calls, or bang on his office desk. Indeed, his concern to gain the confidence of foreign customers should be intense.

Secondly, such concern can be expressed by the provision of many forms of simple services which make life easier for distant customers. Such services are profit earners, because they create a competitive advantage over more lax rivals, and thus enhance the value of the physical core.

The brand name

Few manufacturers can mount the huge publicity campaigns necessary to ingrain brand names and build favourable associations round them. Nevertheless you can gain profit from branding. After all, if a user is impressed by a product and wants to make a further purchase, it will be easier for him to do so if he can ask for it by a simple name, and it is then less likely that he can be persuaded to buy an alternative.

In other words, if a repeat selling product is good enough to speak for itself, its sales can be enhanced by helping users to distinguish it from competing goods. Even by merely adding a label you can therefore sometimes add value to your product in the eyes of users.

The product and its manufacturer's images

Image creation campaigns aimed directly at the ultimate user are costly, particularly in the case of consumer goods. At *trade level*, however, some useful and inexpensive steps can be taken. For example:

- Take care to deal only through sales agents, or importer/wholesalers of high reputation. Respect for them tends to brush off onto the goods which they offer and the firms which they represent.
- Give them the best possible service to ensure that they sell your goods with enthusiasm.
- Supply helpful, well-written sales literature. Sometimes the cost can be shared with your foreign associates.

By now it is clear that effective exporting requires careful forethought and preparation. The rest of this book outlines aids to decision taking and action as regards a firm's product range.

Where are we now? Let's stop to draw breath. Otherwise you may not fully absorb these important basic ideas. So why not reread the preceding pages, and then answer this quiz?

- 1 Could a product modification also be called a new product type? If not, why not? (See page 6 for the answers.)
- 2 Jot down the three components of a product which are the most important to small manufacturers. (See page 6 for the answer.)
- 3 What are the two main types of product pack? (See page 8 for the answer.)
- 4 Name four functions of a sales pack. (See page 8 for the answer.)
- 5 Name six types of service which can be offered to an export customer. (See page 8/9 for the answer.)

How did you get on? Well, I am sure. But be patient with yourself, and carefully revise any subject which is not yet at your fingertips.

2.2 The product life cycle

This term can be deceptive. Seen for the first time the somewhat imposing words can create the impression that they are a name for a law of product management as reliable as the law of gravity. Do not be deceived! The product life cycle is best regarded as no more than a useful aid to planning. It is based on the idea that products, like human beings, are mortal and pass through clearly distinguishable stages of life. Before thinking about this assumption, recall two points.

- 'Products' are not the same as product types. Table salt is a product type and may live on forever. But Ajmal's Salt packed in a metal container would be a 'product'.
- Products do not consist solely of physical cores. Ajmal's present product would therefore be considered dead whether it were replaced by a spice-tinged mixture, or retained its former taste, but was offered in a plastic rather than a metal container which preserved and dispensed its contents more effectively.

It can be seen from Figure 1 that a life cycle has five stages, which can be identified by comparing current with past sales and profitability figures. Clearly, however, all products do not have either similar lengths of life, or remain at a particular stage for similar periods.

A dress designed in the latest fashion, for instance, may well be out-dated and dead within two years. Its introduction may occupy only two months and the subsequent sharp rise in sales volume may continue for no longer than a few weeks. In contrast a new model of agricultural tractor might linger for 18 months in the introduction stage but enjoy a profitable life cycle of a further 10 years.

Here is brief description of each stage:

- 1 Introduction.** The product enters the market and sales grow slowly while buyers become aware of it and decide whether it is worth buying. If few are attracted by it, the product is usually withdrawn, and thus meets with an early death.
- 2 Growth.** The product is becoming increasingly accepted, and the rate of market penetration is rising sharply. It begins to contribute profits to the firm, and near the end of the stage profit per unit sale may well have reached its peak.
- 3 Maturity.** Sales growth declines, and near the end of the stage it is becoming more difficult and costly to maintain sales volume.
- 4 Stagnation.** Sales begin to decline, while selling costs continue to rise.
- 5 Decline.** Demand and profits are sinking to an unacceptable level.

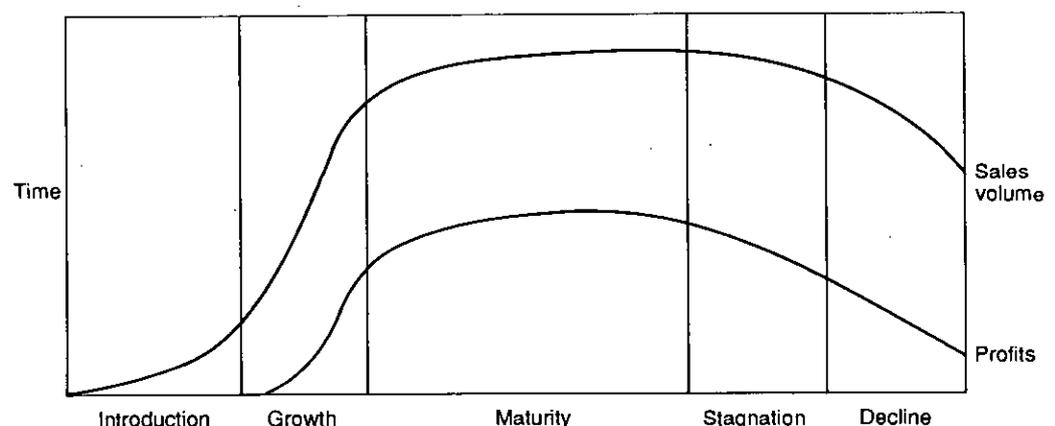


Figure 1 A product life cycle

There are four possible ways of treating a product clearly in decline:

- Drop it at once. Before reaching such a decision, however, its probable effect on customers should be taken into account. Because it is no longer attractive for you, it does not follow that all key customers will uncomplainingly accept its withdrawal. If it is sold directly to industrial users, some may have developed a manufacturing process which depends on its availability. If it is sold through wholesalers, several may still regard it as a valuable part of their range. Loss of goodwill might therefore be more damaging than continuing to offer the product, by giving customers long enough notice of its impending discontinuation to enable them to adjust to its disappearance.
- Reduce the variety in which the product is offered in those sizes, colours, weights and so forth which sell most readily. It might thus be extended on a lower but profitable volume.
- Revitalise the product. When a brand or product name remains esteemed by users, it may be wise to introduce an improved version under the same name. Sales may then quickly recover.
- Run out the product by keeping it on the market, even though sales are falling, while minimising the selling and promotion costs. Careful management may then make it possible to engineer a temporary revival of profitability, and to synchronise the fall in demand of the present product with the sales growth of its replacement. Such a tactic is only appropriate when manufacturing costs do not rise sharply as volume decreases.

Using the product life cycle

To use the product life cycle, take the following steps. First examine records of marketing expenditures, sales costs, and sales volumes of past products to determine historic trends in their life cycles. Next, arrange to keep records of existing and future products in such a way that they can be easily analysed. Then regularly monitor the progress both of your own products, and as far as possible, those of your competitors, by comparing present with past movements in volume and profitability.

Do not rely, however, solely on figures. History does not always repeat itself. Watch your markets to find any unusual factors which might significantly change the normal trends of your products' lives. Competitors might start a price war, or double the weight of their advertising. Alternatively an economic slump may be about to set in.

Is it worth adopting such procedures? Since the life cycles of similar forms of product tend to follow the same pattern, life cycle analysis can prove a useful management tool, as the following illustrations show.

- By knowing the normal length of the introduction period for your products, you are able to receive a warning, when a new product fails to enter the growth stage soon after the end of the period, that it should either be withdrawn or an immediate examination made of the effectiveness of current sales effort.
- If the normal profitable length of the life cycle is known, you can initiate the development of its replacement in good time.
- If a product has lived through most of the usual length of the growth stage, then sales forecasts should not be made on the assumption that the recent sharp rise in sales volume will continue.

In a nutshell, life cycle analysis helps to identify the losers and winners in a range; control new product development; improve sales forecasting; show where effort should be directed; and generally improve the effectiveness of product management. It must be emphasised, however, that the value of this management tool depends heavily on the care and insight with which it is used.

Does awareness of life cycles bring only broad management benefits? Or has it direct applications to export product development?

Even when the first foreign markets are being selected, it can provide guidelines as to the level of additional product development essential to success abroad. Products tend to have shorter lives in industrialised countries than they enjoy in other parts of the world. Equally their life expectancy varies from country to country. At present, for example, research suggests that consumer durables - furnishings, furniture, household appliances among them - become outdated much more quickly in the U.S.A. than in Britain. Entry of markets in industrialised countries is therefore likely to bring about the need for a brisker rate of development; and wise selection of particular markets may well partly depend on the pace of development which you feel you can sustain.

Your choice of markets can also be influenced by awareness that demand in some countries tends to lag behind that in neighbouring markets.

Thus at a time when earlier generations of desk calculators and domestic computers were in decline in Britain, their popularity was climbing to its peak in Spain. In turn, life cycles in Britain are much shorter than those in Pakistan. In consequence it is sometimes possible to enter a mix of markets which offer the prospect of extending the global lives of products and reducing export market pressures on development activity.

After sufficient time has passed to allow you to keep and establish life cycle records for your foreign market several benefits will follow:

- The best sequence of launch dates for new products across national markets can be more accurately assessed.
- Warnings of product failure in particular national markets can be more easily detected.
- Predictions of global sales volumes and the resulting profits can be more accurately made.
- Sales and marketing effort can be more accurately forecast, and diverted from country to country.
- A worldwide view of possible returns on investment in a new product idea can be more confidently taken.

Since of necessity most firms are in much less frequent contact through their own staff with markets abroad than those at home, good record keeping and analysis can be even more important to export managers than their counterparts in the home department. Life cycle analysis is therefore a worthwhile aid both to the general management of products and their prior development.

'Hallo, Grandad. Nice to see you.'

'Wish I could say the same. This firm has gone to pot since I was the boss. Everyone wastes time playing with bits of paper. You're the worst of all.'

'But Grandad, I'm just doing some work on the product life cycles of our export range.'

'The only cycle you need is a motor cycle to go out and see customers on - instead of pretending to think.'

'A motor cycle wouldn't help. All my customers are overseas. If I used it, I'd be drowned. My thinking saves the firm money.'

'Don't believe it. Tell me how.'

'Well, for example, by understanding their position in their life cycles. I was able to cut six designs out of our export range before they became loss makers.'

'Tell me more.'

'I'll just take this phone call. Sorry, Grandad. There is an export customer waiting to see me. I must leave you.'

'But surely saving money is more important than seeing a customer. You.....'

Imagine Grandad used to run your own firm, and make some notes below on how to convince him that use of the product life cycle can make an exporter's marketing effort more efficient. Assume the product range is the same as your firm's present range.

Then check through the book to see whether your argument could be improved. Do not hurry. Plan to spend up to an hour on this exercise.

2.3 International product strategy

There are three broad strategies by which products can be marketed.

Product differentiation entails selling exactly the same product in every national market. By coincidence the product may meet each market's needs. If it does not then management may have to accept one of two possible penalties for minimising product development costs. Either they must risk large sums on advertising and promotion to convert the market to the product, or they must accept very low sales volumes.

Market segmentation involves the following processes:

- First the target market is researched to find the differences in preference and usage between buyers at home and those in the target market.
- Next the research findings are analysed to find the difference in detailed preferences between the various segments of the total market.
- One or more segments are then chosen for attention.
- The product is especially designed or adapted to meet the exact needs of the selected segments.
- The procedure is repeated for every target market.

Clearly this strategy is the opposite of product differentiation, since it relies on fitting the product to the market. Its aim is to achieve attractive sales volumes, while avoiding heavy introductory publicity costs. Possible penalties may be high product development costs, and the manufacturing expenditures incurred by short production runs. In some industries, however, such costs may be negligible. Weavers of cotton sheeting, for example, may need to do no more than vary cloth widths and the fineness of yarns from market to market. No design effort would be necessary; no extra down time would be required in the factory; and inventory costs would probably not rise.

A **midway strategy** may sometimes be the most favourable, as in this example:

- It is decided to introduce mangoes to a market where this fruit has scarcely been heard of. It is impossible to modify the fruit itself. Instead it is decided to wrap each fruit mango in a tissue with printed instructions for use and storage, in order to ensure that hesitant shoppers will not be put off by their ignorance of the product.

The addition of wrappers constitutes a product modification, and to that extent a market segmentation strategy is being followed.

To educate consumers about the virtues of the mango and encourage them to try it, an introductory publicity campaign is planned. **The purpose of the publicity is in key with the product differentiation strategy.**

A compromise between market segmentation and product differentiation can, however, only be dignified by the term *midway strategy* if its details are planned before market entry. Merely to resolve to do a bit of advertising, to make one or two minor alterations to the product is to rely on luck rather than on judgement. The development of a midway strategy involves:

- Conducting market research into local conditions.
- Deciding on the forms which the strategy might feasibly take in such conditions.
- Estimating the probable costs of each alternative.
- Discarding alternatives which would be too costly.
- Selecting from the remainder that which offers the best combination of volume and profit.

In other words, strategies depend on pre-planning and are not haphazard reactions to events. You can, however, benefit from such strategies and need not expend enormous amounts in order to do so. You need to be systematic and plan your activities carefully in advance.

2.4 Copying existing products

Why bother to develop new products? Why not avoid the expense involved by copying goods already selling well in target markets? Certainly such an approach sometimes succeeds, but it is essential to be clear about the dangers and difficulties involved.

Foremost among the dangers are the following:

- Managers and workers in industrialised countries sometimes see their futures threatened by cheap imports from countries where labour costs are low. Since both are usually well organised, they can put strong political pressure on their government to exclude or limit imports which threaten their livelihoods. Their case is strongest when sales are lost to mere copyists whose price competition is locally regarded as unfair.
- When a national economy contracts, pressure to protect local industries increases.
- Copying inevitably leads to entering a market in the later stages of the original's life cycle, when competition is fiercest, and opportunities for profit restricted by a relatively short life expectancy.
- Costly infringements of copyrights or patents may occur.

Most of the difficulties stem from the misconception that copying automatically saves money. While the costs of market entry may well be reduced, finding suitable originals and creating replicas can be as expensive as developing new products.

Market research costs, for example, are not necessarily reduced by copying. It is, after all, essential to maintain a flow of ideas on possible originals to imitate. It is therefore necessary to:

- Monitor the trade press of target markets in order to keep in touch with trends and innovations.
- Maintain close contact with agents and customers to obtain suggestions and samples.
- Research markets prior to entry.

These activities may well be no less costly than research to find and test original ideas.

At a technical level also there is much to be done such as:

- Analysing the original to discover the exact details of raw materials and components from which they have been made. Often this task is lengthy, and is sometimes beyond the scope of firm personnel.
- Determining whether it can be made in the plant from the same materials, and calculating the cost of manufacture.
- Modifying machinery and teaching operators new skills.
- Finding whether more convenient substitute materials conform to the legal requirements of the target market.
- Testing whether their performance equals that of those from which the original was made.

Consider the following case study.

'Made from Modelle'

Supreme Cotton Spinners had learned from their agent that Modelle was capturing a big share of the market for hand knitting yarn in the U.S.A. Normally such yarns are made on worsted spinning machinery, and Supreme's interest was roused by the fact that Modelle was known to be spun on the cotton system.

By copying Modelle they might therefore be able to break into an additional section of the market. But what exactly was Modelle? Sample yarns were obtained through their agent, and sent to a textile laboratory. A big bill and a short report came back to say that Modelle yarns contained 20% cotton and 80% Skilan, a new Japanese man-made fibre.

Routine enquiries showed that Skilan could be imported at an attractive price and a modest rate of duty. It therefore seemed worthwhile to order a trial ball of Skilan so that spinning trials could be carried out. No sooner had the sample been paid for than someone noticed an article on Modelle in a trade magazine where it was made plain that the yarn was protected from copyists by patents and other legal devices almost throughout the world. More money wasted.

1 How could Supreme have avoided making their costly misjudgement of Modelle's potential usefulness?

2 If there had been no legal barriers to copying Modelle, what further steps should Supreme have taken before deciding to market their own version of this yarn?

In consequence, while a policy of copying can be successful, it seldom enables corners to be cut or striking savings to be made in product development costs. Certainly it is not a golden key to success abroad. It is best to regard it as a possible first step in an increasingly profitable sequence. First gain an understanding of a new market by offering copies. Next offer modified products which would command better prices. Then exploit experience by creating original goods.

3 *Organising for product development*

Now an essential background of facts and ideas has been sketched, it is time to turn to practical matters. A decision to enter export markets is a resolve to sail in uncharted waters. You will, for example, have no business associates, like the traders with whom you deal at home, to tell you what to make. You must therefore be prepared to rethink the firm's approach to product development and take into account that:

- In future the firm will be operating in more than one market.
- If you are to operate in many of the heavily industrialised countries, a swifter flow of innovations will be necessary than that which satisfies the home trade.

In consequence, you must be prepared to accept some unfamiliar marketing ideas and install new practices.

In this situation a level head is essential to avoid the twin risks of doing too little, or too much. On the one hand development activity must not be neglected, otherwise the firm may have no future. On the other hand it must not be allowed to become an end in itself, otherwise badly needed resources may be drained away from operational departments.

To find the best course for your own firm, you must approach the problem methodically, taking into account two interlinked sets of objectives: policy objectives and operational objectives.

Policy objectives

From industry to industry and firm to firm such objectives are widely varied. Among the most common, however, are the following:

- To diversify the firm's interests by marketing products outside the scope of its present business. **To meet this objective a vigorous new product development programme, possibly executed by especially employed staff, would be essential.**
- To dominate competitors by trying always to be first in the field with a new product improvement or product type. **A high level of development activity is necessary.**
- To allow competitors to pioneer markets and to follow them in with better, or cheaper, versions. **This aim does not necessarily require a lower level of activity than the previous objective. It does, however, demand a quite different form of development work.**
- To maintain or enhance an image for high quality, or low prices, or high concern for users' safety, and so forth. **Again, this aim affects not the intensity of development work but the details of design.**
- To expand the business by seeking export markets for the existing range. **In this case product development may well be limited to adapting products designed for the home market.**
- To consolidate the present position by limiting product development to the modification of existing ranges. **A low level of activity will usually suffice.**

Operational objectives

Operational objectives are at a more detailed level than policy objectives and provide guidelines for planning and controlling product development. They can also be drawn up to guide specific development projects. Broadly there are three types:

1 *Marketing-oriented objectives.* Examples:

To replace a failed product.
To extend a product range.
To enter a new business.

2 *Production-based objectives.* Examples:

To improve productivity by developing products which can be assembled more quickly.
To utilise waste material as raw materials for new products.
To guard against anticipated failure of a supply source by enabling existing products to be made from new components or raw materials.

3 *Quantitative objectives.* Examples:

To develop and commercialise 10 new products each year to keep pace with competition.
To develop and commercialise 10 new carpet designs and a new range of drugs.

The importance of establishing these types of objectives is easy to recognise. They help to identify the number and type of development staff you may require; the amount of working space and equipment which must be provided; and the size of initial outlays and subsequent budgets which will result.

Beyond this the objectives will help to shape the work of those members of your firm who have responsibility for generating product ideas. The nature and extent of this task depends on the existing arrangements to deal with home market requirements. If these are formal and effective, there may be little extra that needs to be done to organise for future development. For the next section, however, I have made the assumption that a situation exists in which no formal working arrangements have as yet been devised.

4 New product ideas

4.1 Encouraging and examining new product ideas

As will be seen later, the generation of ideas for new products is not immensely difficult. But it can be hard to create an organisation which systematically encourages and pursues them. Though small firms, untroubled by organisational rigidities and inter-departmental conflict, are less hampered in this respect than commercial giants, much can be learned from the ways in which larger firms have tried to deal with the problem of creating and fostering new ideas. The more instructive approaches have been the following:

Marketing Manager. This one-man structure assigns the generation of new ideas to an operational manager. Its shortcoming is that a line manager is likely to be too absorbed in day-to-day management of present ranges to give enough thought to the future.

New Products Manager. Though this is also a one-man structure, it recognises the advantages of removing new product ideas from day-to-day business pressures. Often, however, the manager will be directed to concentrate on specific products for specific markets. In consequence, he may be blinded to the potential of ideas outside the scope of his immediate interests.

Moreover, it has often been found difficult to give this type of executive adequate authority, or top level support, with the result that he becomes a mere adviser without power to take decisions.

New Products Department. To overcome these difficulties, firms have turned increasingly to the establishment of a department headed by an executive of substantial authority, and with access to top management. Typically such departments' responsibilities include:

- Generating and screening new product ideas.
- Developing new product specifications.
- Recommending new development programmes.
- Co-ordinating product and market testing before commercialisation.
- Directing inter-departmental effort throughout exploration, design, development and commercialisation.

The advantages of this structure are easy to recognise. However, it requires a large investment, the return for which is hard to assess. Furthermore, it can also be argued that the department's detachment from the rest of the firm would lead to unawareness of the realities of the firm's current situation. It also assumes, of course, a firm large enough to find it worthwhile to set up such a department.

The Venture Approach has been adapted by firms both large and small to avoid these problems. It is particularly attractive to small firms since it entails little expense.

The Venture Approach uses a group drawn from various departments and assigned responsibilities which might be limited to generating ideas, or could extend to bringing an export department into operation. To ensure continuity of effort there is at least one permanent team member, while the remainder are co-opted whenever their expertise could be helpful. To prevent time wasting in mere debate at the expense of taking too few decisions, it is wise to limit membership to no more than six. In addition the team should not be composed solely of directors, since it would then become a mere extension of the boardroom. Instead, there should be a carefully balanced mix of interests drawn from all personnel of the necessary competence.

Such a team might, for example, consist of:

Cost accountant (permanent)
Works manager
Designer (permanent)
Marketer
Market researcher

or in smaller firms the team membership would include those people who take on these responsibilities as part of their job.

In firms of modest size the team should be allocated tasks similar to those of a New Product Development Department. Equally it should be given the same scope. It must be able to examine and develop any idea which does not involve expenditures beyond pre-defined limits. Other forms of restriction are likely to stilt the efforts of this key creative group.

If its work is to become of maximum value, records must be kept. Technologies and competitive situations change. An advance in technology may make a previously unrealistic idea entirely feasible. Or an increase in resources may cause a suggestion, once discarded, seem worth exploring. Why search for a new idea, when a good one is already on file? Good records allow ideas to be preserved and revived.

Assigning responsibilities. While a venture team can play a vital role in new product development, it does not undertake the entire task. Four elements in the firm will be more or less continuously involved:

- Owner or top manager
- Venture approach
- Market researcher
- Designer.

Though marketing and production departments will be frequently consulted it is assumed that their contributions to planning will be made through their representatives on the venture approach.

Without the owner's or top manager's close attention to organisational details, responsibilities will not interlock and departmental conflicts may arise. What must be done? The nature of the task is more easily understood when it is divided into three historic stages.

1 The pre-operational stage covers the period between the decision to export and the actual development of products for foreign markets. In that period the activities are likely to be as follows:

The owner or top manager:

- Promotes firm-wide interest in the export plans.
- Establishes product development objectives.
- Establishes a venture team.
- Personally encourages a flow of developmental ideas.
- Appoints a market research officer.
- Briefs the research officer, and indicates and facilitates the type of internal research to be conducted as an aid to product development.
- Plans the reorganisation of design and development facilities in conjunction with the relevant executives.
- Explains the function of the development team to his colleagues
- Establishes lines of communication between himself, the venture approach, the market researcher and the designer.

Venture approach:

- Identifies permanent members and agrees their duties.
- Establishes its policy towards co-opting additional members.
- Decides on ways of encouraging and processing ideas from inspirational sources.
- Plans and prepares its screening methods.
- Establishes working arrangements for evaluating research information.
- Explains its plans to all relevant executives, and seeks their co-operation in providing specifically listed types of information promptly and routinely.

Market researcher:

- Calculates the cost of necessary research.
- Consults with the owner or top manager to establish budgets.
- Plans and arranges the execution of the research.
- Ensures that the flow of information from internal sources will be adequate.
- Consults with all concerned to establish the form in which research reports can be most usefully presented.

Designer:

- Advises the owner or top manager on the forms of additional development work, which should be conducted inside the firm.
- Advises how other work can be done by outside agencies.
- Consults with the owner or top manager to establish a suitable additional budget.
- Briefs the firm's managers concerned with product development.
- Arranges for additional apparatus and general supplies to be ordered.
- Arranges search for additional staff if any are necessary.
- Arranges for existing staff to be further trained, or familiarised with the needs of foreign markets.
- Assimilates and distributes all information which will help to gear up the firm to perform the new functions.

During this stage, as well as making his own direct contribution, the owner or top manager must ensure that the other three key elements are working at their own tasks with speed and purpose. He must therefore expect to devote much of his time to the supervision of this essential preparation.

2 The early period of operation. Weaknesses in operating methods must be detected, and the planning processes moulded into an orderly and efficient routine. Management must therefore monitor the working arrangements with care, and adjust them whenever necessary.

The owner or top manager:

- Carefully monitors all new product development activities.
- Re-examines and adjusts budgets.
- Approves or rejects proposals by the venture team to accept new ideas as suitable candidates for development, or to permit an existing product development programme to proceed from one stage to the next.
- Approves or rejects draft operational, or impact objectives (see later).
- Approves or rejects budgets for each new stage of the development of each individual project (see later).
- Approves or rejects draft product intentions (see later).
- Approves or rejects plans for product launches.
- Initiates or approves major changes to the organisation of product development activity.

Venture approach

- Maintains the interest of all the firm's staff in export activity and encourages the flow of product development ideas.
- Screens new product development ideas.
- Submits proposals to the owner or top manager for the development of new ideas.
- Submits proposals to the owner or top manager for development to move from one stage to the next.
- Initiates the generation of new ideas from analytical sources, and organises the work necessary to do this.
- Analyses research data and suggests actions which should result from them.
- Organises the flow of development work, and identifies priorities.
- Contributes to any briefings required.

Market researcher:

- Continues to conduct and organise research.
- Monitors the usage of the information which he supplies, and suggests how it might be used more effectively.
- Submits new budget proposals as required.

Designer:

- Provides bulletins on work in progress to colleagues concerned with product development in other parts of the firm.
- Conducts design projects.
- Suggests improvements in design details which become apparent as designing proceeds.
- Submits budget proposals as required.

As the operation gains momentum unforeseen frictions may arise. One member of staff might, for example, resent the amount of time one of his subordinates was being required to spend on work connected with new product development to the detriment of his other responsibilities. Equally the works manager might balk at the intrusions into his daily routine of the meetings and work made necessary by the venture approach.

The owner or top manager may be able to overcome such difficulties by stressing the importance of the new tasks. If, however, it is clear that essential work patterns are being disrupted in the new situation, he must consider the reallocation of work loads, or the employment of additional staff. Whatever happens total efficiency must not be allowed to decline, but at the same time development effort must not slacken at its outset.

A further aspect of staff relationships which should be carefully watched is the level of collaboration between those involved in design and those concerned with the purely commercial aspects. Some strains between them may well have become regarded as an inevitable part of the firm's life. Now, however, it is especially important that rapport between them should be carefully fostered to ensure that exporting's growing pains do not become unbearable.

3 The operation in maturity. When experience has been gained, a thorough review of working practices should be conducted and appropriate adjustments put into effect. Once the necessary measures have been taken, management should be able to withdraw from close supervision and confine itself to routine involvement.

Routines, however, must never become rituals. You should therefore plan to probe the effectiveness of the product development organisation once every two years or so to prevent complacency setting in, and the organisation getting out of step with the changing needs of the firm.

What does it all add up to?

Do not be misled by the long lists of activities. While they are essential to a full description of the working arrangements, they do not represent 'big company thinking'. It is important to re-emphasise that the venture approach is being used successfully by a variety of small firms.

It is very likely that the lengthy, detailed 'blueprint' is more fearsome than the actual task of creating, or operating the organisation. You can begin to convince yourself of this probability, if you are willing to do a little thinking.

Why not decide who should be asked to join a venture team, if one were to be formed within your firm? Then assume you are the top manager and work out:

- 1 The steps you would take to monitor product development activities.

- 2 The routines which should be established to ensure that the activities are dovetailed effectively.

- 3 The amount of time which it would be essential for you to give to development supervision, and the steps which must be taken to find that time.

Try to treat this exercise as if it were reality. The more seriously you take it, the more rewarding you will find it.

4.2 Sources of new product ideas

Do not make the mistake that managers of small firms often make. Finding product ideas does not need a big organisation. Many small firms have prospered through their talent for innovation. The keys to their success have usually been:

- The enthusiasm of management to discover ideas.
- Its energy in spreading its enthusiasm throughout the firm.
- Recognition of the value of readily available information.
- Perceptive analysis of the information.

There are several simple sources of product ideas which all firms should seek to tap.

The firm's market research activities

No firm with serious ambitions to develop export business can afford to be without a research function. The ideal action is to appoint a full-time researcher. But even if the resources of the firm are too slender, reallocation of duties may well make it possible to set up research as a part-time but nevertheless continuously performed activity.

At the outset the researcher's contribution to the development of product ideas may consist mainly of monitoring and rechanneling data about customers' complaints and opinions, competitors' activities and market trends. As time passes, however, he will become the man with the widest knowledge of the firm's markets. At that stage he will be in an excellent position to:

- Identify market gaps which could be exploited by a new product.
- Show where demand heavily exceeds supply of a product type within the firm's scope to make, but so far neglected by it.
- Pin-point how competitors could be outstripped by a product improvement.

He should then be encouraged to put forward product ideas as a normal part of his work.

In-company suggestion schemes

Shop floor workers are sometimes in a good position to notice ways to modify existing products to improve their performance, or reduce their manufacturing costs.

To discourage frivolous, or ill thought-out suggestions, it is wise to require that all suggestions are made on an easily obtainable standard form which asks for detailed information.

To encourage thoughtful proposals a worthwhile reward should be offered for those which are adopted or at least tried out. Moreover, a courteous and informative explanation for the rejection of his suggestion should be given to its originator to prevent disheartenment.

The venture approach

An organisation which reviews the ideas of others, and has access to a wide array of information, has scope to generate ideas on its own account by knitting together items of data which in isolation have little value. For example, a customer complaint plus a technical break-through might add up to a new product idea.

The firm's salesforce

Salesmen are the members of the firm in closest contact with customers. Through them the firm can keep up to date with buyers' unsatisfied needs and with complaints about their own and their competitors' goods.

In foreign markets local agents are often the sole means of viewing their markets through customers' eyes. Both salesmen and agents should therefore be required to report opinions, complaints and suggestions as a matter of routine. To ensure that such data are easy to analyse, standard report forms should be provided whenever possible.

Customers

There is, however, no need to wait for customers to offer information. It is not necessarily costly to go out and seek it. When you, or one of your colleagues visit foreign markets, for example, you can organise group discussions on an existing product range, or ask individual customers to help you to complete a short questionnaire. By this means, for instance, the Kimberley-Clark organisation received the suggestion that paper handkerchiefs were too small. As a result it introduced 'man-size' Kleenex and stole a march on its competitors.

Less formal and even cheaper research can, as has been mentioned, be based on customer complaints. To convert them into suggestions for product modification it is sound practice to:

- Monitor and record complaints.
- Reply to the customer, asking where necessary for further details and encouraging

suggestions for remedy.

- Ensure that all complaints, especially those which recur, are known to the venture team.

Competition

No firm can risk the outdateding of its products by competitors' innovations. In consequence, continuous observation is essential. In addition, small firms relying on big competitors to carry out expensive development work should watch the trade and scientific press for early warnings of new product launches, so that they can make preparations to investigate, and possibly simulate the product.

Scientific, educational and research institutions and government departments.

An exporter should be on the look-out for ideas exploitable as a spin off from science and new technology not directly related to his own business. As examples, research in plastic chemistry underlay the revolution in packaging materials, and the U.S. space programme stimulated a new generation of wrist watches.

An outstanding example of the exploitation of an apparently unrelated technical development occurred in Pakistan, when manufacturers of tennis racquets improved the frame and handle by replacing wood with carbon fibre. In another developing country, Fiji, a builder of fishing boats was the first in the world to recognise the importance of glass fibre as a material for their hulls.

Such possibilities of innovation are especially important to exporters to the industrialised countries where attractive new products are readily welcomed and sold. While they have no immediate effects on a firm's current trading pattern, you must be aware of longer-term possibilities in order to make well-informed decisions on capital expenditure.

It can be seen that you should not attempt false economies by heavily restricting the acquisition of product development data. Instead you should take a fairly liberal attitude, and accept that gathering useful information inevitably entails the collection of much which will be found worthless. Preferably you should appoint a well-trained market researcher capable of quickly identifying promising sources, and of astutely using those selected. Certainly you cannot use words alone to encourage research. Now and again you must put your money where your mouth is!

Conceptual techniques

There are several techniques for cultivating the germs of ideas into full-blown product concepts. The following can be used by firms of any size, although sometimes only in simplified form.

Attribute listing involves listing the attributes of a product, and then envisaging modifications of each one in the hope of improving it. If, for example, the purpose is to develop 'a better screwdriver', but none of its features have been defined, then list the attributes which accurately describe the existing tool, such as:

- Round steel shank
- Wooden handles riveted to shank
- Wedge-shaped end for inserting slot in screw
- Manual operation
- Torque provided by twisting action.

Then imagine the changes in each attribute which might improve customer satisfaction such as:

- The round shank should be changed to a six-sided shank so that a wrench could be applied to increase the torque.

- A plastic handle should replace the wooden handle, to reduce breakage and danger from electric shock.
- The steel shank should be removable and replaceable, to allow use with many types of screwhead.
- Electric should replace manual power.
- Torque should be obtained by pushing.

In this way a list of alternatives can be made, and afterwards examined to determine the feasibility of manufacture and probable reception by customers. This method has been successfully used by a wide variety of manufacturers, such as makers of spectacle frames, furniture, scissors, agricultural tractors and tents.

Morphological analysis is a more methodical approach than attribute listing. It singles out the most important aspects of a problem, and then examines all the relationships between them.

An illustration of its use may be helpful. Suppose a firm is seeking a new product idea based on repackaging. The three key aspects of the pack might be identified as shape, size and raw materials. If there are believed to be

- six possible shapes
- four possible sizes
- five possible types of raw material,

then there are $6 \times 4 \times 5$ possible variations.

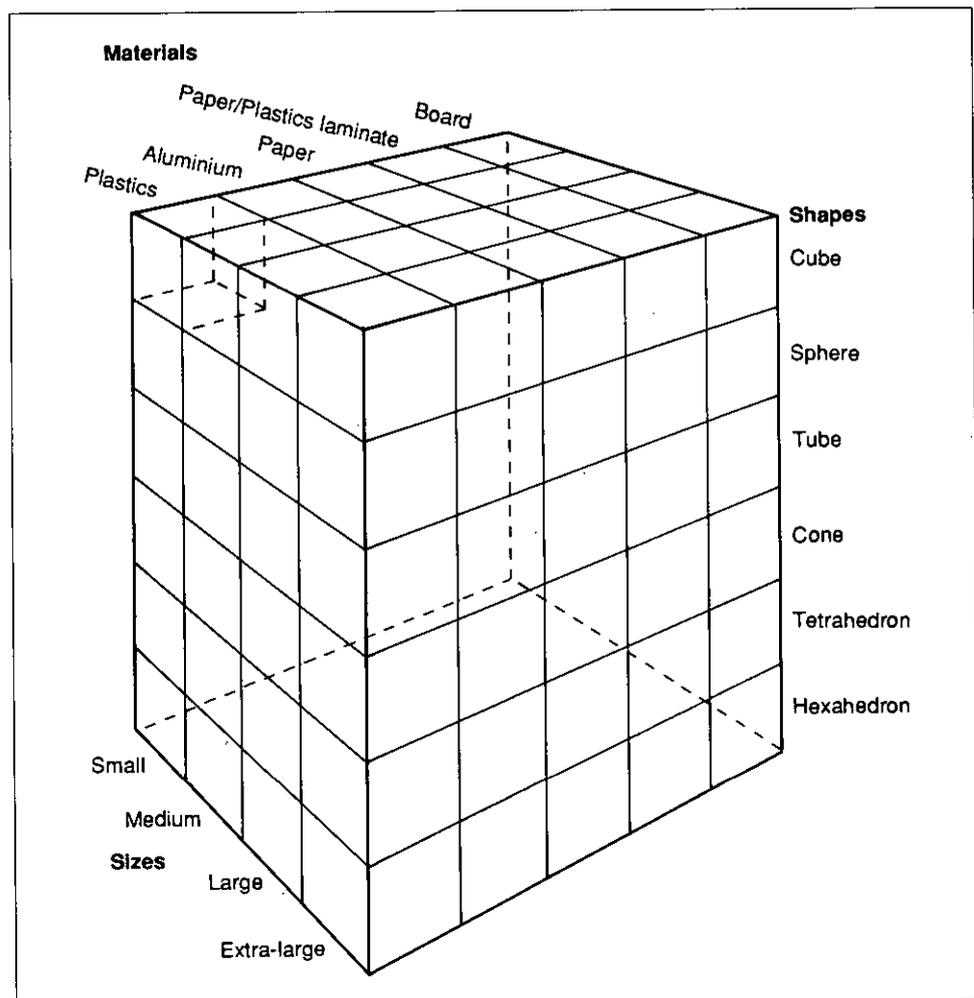


Figure 2 Morphological analysis cube. The cell outlined within the upper left corner represents a small, cube-shaped, plastic pack.

Each variation is described and noted thus:

- Idea 1, small cube-shaped plastic
- Idea 2, small-medium, cube-shaped plastic pack
- Idea 3, large-medium, cube-shaped, plastic pack..... and so on.

Though many alternatives may well prove useless, many others may prove worth exploring. Indeed the most important feature of the method is that it generates a great number of ideas.

While it is not necessary to limit the number of dimensions to three, small firms without access to specialised computer programmes find it more effective to use a multi-stage procedure, when it is necessary to deal with many dimensions.

If, for example, it were essential to deal with background and print colours, as well as shape, size and raw material, the number of possible variations would be too bemusing to consider in a single exercise. Instead having already selected, say, two types of pack, and also decided that five background colours and three print colours might be suitable, the developers set about the second stage of their task.

They now have 2 x 5 x 3 variants to consider by the same procedure as in the first stage.

Though morphological analysis can be exhausting, it is also exhaustive and ensures that choices are made from a wide array of possibilities, the most favourable of which might not otherwise have been noticed. Do not be frightened by this technique. Though it has been used by commercial giants like Pratt & Whitney to improve jet engines, little firms making bottles, leather cases and ceramic tiles have also profited from applying it.

Brainstorming is a group activity which tries to stimulate creativity. The technique is to assemble a set of people with varied interests, and give them a problem to solve. The sessions should last about an hour, and experience suggests that the best time is in the morning.

Normally these general rules apply.

- 1 The group must suspend judgement until the end of the session.
- 2 'Free-wheeling' should be encouraged. The wilder the idea the better. It is possible to modify and polish ideas afterwards.
- 3 Quantity is wanted. The greater the number of suggestions, the higher the probability of good ideas being found among them.
- 4 Group members should be encouraged to combine to improve an idea which catches their imagination.
- 5 Completely absurd ideas should not be laughed out of existence. Sometimes they stimulate fruitful thought.
- 6 All ideas should be recorded for future reference.
- 7 The atmosphere and the surroundings should be informal.
- 8 It is preferable that the person steering the discussion is not a top ranking executive. Juniors may tend to tighten up, or adopt unhelpful poses in such circumstances.

Many managers shun brainstorming because it is a hit or miss technique, which relies on inspiration rather than analysis. But there are no right or wrong ways of finding ideas, and the usefulness of all techniques varies from firm to firm. While some managers have obtained poor results from brainstorming, others believe it is the most likely way of discovering an original idea. Probably, therefore, it is sensible to experiment with this approach.

4.3 Screening new product ideas

The first stage of product development is the abundant generation of product ideas. The next is screening - systematically exploring each idea.

During screening, developers must beware of two types of error. A DROP error occurs when a good idea is dismissed through lack of vision. For example, in 1962 a little known British pop group approached the Decca recording company for a contract. Their approach was rejected, and the Beatles, after selling their talents to a smaller company, became over the next 10 years the biggest money-makers in the history of popular music.

If a firm makes many DROP errors its standards of screening are clearly too conservative. A GO error occurs when a screening process lets a poor idea through to the design stage.

All product failures cannot, however, be attributed to bad screening. As will be seen later, many subsequent factors can cause failure in the market of what was essentially a good idea.

There are two broad approaches to screening: subjective evaluation, and objective assessment against predetermined criteria. While it must be admitted that some firms have done very well on the basis of their manager's 'hunches', i.e. subjective screening, the latter method lends itself better to good marketing practice. Moreover, by standardising the variables against which evaluation takes place, developers can compare the attractiveness of several ideas with precision.

The objective screening procedure should be carried out in two stages:

- Relating the product idea to the firm's objectives, financial resources and capabilities.
- Relating it to the firm's competitive strengths.

Stage 1 Objectives and resources

At this stage the screening personnel need to answer the following questions as accurately as possible.

1 Is the new idea compatible with the objectives of the firm in terms of:

- profitability, and return on investment
- volume and stability of sales
- sales growth
- maintenance of the firm's image
- effect on the 'present product range'?

2 How good is the match between the idea and:

- the financial resources available for commercialisation
- the technical and professional resources available for commercialisation?

These questions can be presented in tabular form and linked to a five-point scale (see Matrix 1 on the next page).

The resulting matrix offers a neat, methodical way of reviewing the merits and weaknesses of proposals. Though the review stems from intuitive estimates, disciplined analysis of ideas at an early stage avoids careless commitment of resources. It is also of psychological value in that it helps to convince a disappointed originator that his idea has been considered in a fair and businesslike manner, and not discarded for personal or political reasons.

Matrix 1

How compatible is the new idea with the firm's objectives in terms of:	<i>Very good</i>	<i>Good</i>	<i>Fair</i>	<i>Poor</i>	<i>Very poor</i>
Profitability, return on investment?	✓				
Stability of sales returns?	✓				
Acceptable sales growth and product life span?		✓			
Maintenance of the firm's image?	✓				
Its effect upon the existing product range?	✓				
How good is the match between the idea and:					
Available financial resources for commercialisation?				✓	
Necessary technical, professional resources for commercialisation?			✓		

Ideas with poor overall ratings should be dropped at once. Those with one or two poor ratings should later be reconsidered to find whether a remedy can be found. Only candidates with strong ratings in all categories should be accepted as worthy of further screening.

Suppose, for example, a situation represented by Matrix 1 were to arise. It can be clearly seen that the idea would be attractive if it did not contain financial and personnel shortcomings. The next step would be to investigate the nature of these weaknesses to discover whether they might be overcome. Can the necessary capital equipment be acquired? Could it be used to produce the existing range more efficiently, and thus reduce total manufacturing costs? What would the effect then be on the overall return on investment factor? Further, could the technical and professional resources be improved by training, or locally available education courses?

This second review helps to decrease the possibility of making a DROP error.

A venture team is conducting a first screening of a batch of product ideas.

'Now we come to an idea posted into the factory's suggestion box,' said the cost accountant, who was acting as chairman. 'Personally I like it, because the cost of turning it into a finished product would be low, and our designer tells me that all necessary design work could be carried out within the firm.'

The designer nodded agreement. 'This idea should be rated very good in terms of a match with financial resources and technical and professional resources. But there is also an unsatisfactory side. We are trying to modernise our range and this idea is a step backwards rather than a step forwards.'

'The designer is absolutely right,' said the marketer, 'and for that reason the other ratings must be unimpressive, because the product could soon become outdated, and therefore produce a poor return on investment, and instability of sales returns.'

In the end the first assessment form read as below, and the idea was discarded.

How compatible is the new idea with the firm's objectives in terms of:	<i>Very good</i>	<i>Good</i>	<i>Fair</i>	<i>Poor</i>	<i>Very poor</i>
Profitability, return on investment?					
Stability of sales returns?			✓		
Acceptable sales growth and product life span?			✓		
Maintenance of firm's image?				✓	
Its effect upon the existing product range?			✓		
How good is the match between the idea and:					
Available financial resources for commercialisation?	✓				
Necessary technical, professional resources for commercialisation?	✓				

1 Do you think there was a possibility of a DROP error? If so, how could it have been avoided?

2 Have products been developed in your own firm largely because they were cheap to commercialise? Have they then failed? For what reasons?

Stage 2 Competitive strong points

At this stage the idea is measured in terms of its potential to take good advantage of the firm's strong points. Normally a simple quantitative technique is used. Before the method can be introduced, however, the firm must assess its competitive strengths and weaknesses. This review should be conducted annually, and also whenever an event occurs - such as the opening of a new plant - which is likely to have a critical influence on competitiveness. It takes the form of weighing the *relative importance* of the factors which have exerted a major influence on the firm's success in meeting competition.

In Matrix 2, two non-functional factors - Firm's image, and Location and Facilities - are included together with six functional spheres.

Matrix 2

<i>Spheres of performance</i>	<i>Possible weights</i>
Firm's image	20
Marketing	20
Research and development	20
Personnel	15
Finance	10
Production	5
Location and facilities	5
Purchasing and supply	5
	100

There is, however, no hard and fast rule about the number and types of factors which should be considered. It is for you as a manager to decide the features of the operation which significantly influenced the firm's competitive performance. Weights should be allocated after consultation with colleagues concerned with the venture approach.

Once the factors themselves have been identified they are assigned weightings, which reflect their relative importance for performance in comparison with competitors. In scanning the illustration it is important therefore to recognise that, for example:

- The reason for the modest weighting for Finance is not that the firm is short of money. But since it has major competitors with comparable financial strength, its own sound financial position gives the firm no competitive advantage.
- In the same way it does not follow from the high rating for Marketing that the firm employs a brilliant team of marketers. It merely reflects management's belief that the effectiveness of its marketing methods is well above the industry's average.
- Equally, the low rating given to Location and Facilities does not automatically imply that the plant is run down and inaccessible. Possibly instead, its equipment is less modern than that of its competitors, or more remote from supply sources.

Weak about strengths?

Assessing the strengths of its firm is not always a management strong point. Yet it is certainly an essential practice - not merely to enable numbers to be written on a table, but to help you to determine how resources should be concentrated and which forms of organisational change are the most urgent.

Some sensible guidelines for the task are as follows:

- Strengths should be measured by comparison of the firm's own resources and skills with those of competitors. It would be stupid for a General to say, 'We must win, because our army is bigger than ever before' when the advancing army is four times the size and has better artillery and 10 times the number of tanks. Self-deception tends to fade in the light of honest comparisons!
- Honesty and frankness must start with the top manager. He must make the final decision on strengths and weaknesses.
- To get reliable perspectives he would be wise to try to canvas the opinions of outsiders.
- As a final step he should consult his own senior staff.

-
- Let's be honest. The comparative performance ratings which result may well not be exactly accurate, but they will at least be the expression of thoughtful and earnestly sought and discussed opinions. Consider the following snippets from a conversation.

Accountant: 'But I don't think it is fair that we should be given a rating of only 10. My department is always bang up to date with invoicing and collecting overdue payments, and we always take maximum discounts from our suppliers. More than that, we have a very good arrangement with the banks, and never have any difficulty in negotiating loans on the best possible terms when they are needed.'

'I know that, Ajmal, and I always think of you as very efficient. Do not think of the rating as an insult to your professionalism. It merely shows that most of our chief competitors *also* have efficient accounts departments.'

'Yes, but.....'

The production department gets a poor rating for reasons which you yourself have explained. I accept that our plant is out of date and should be replaced. I accept that our location makes it hard to ensure the timely arrival of supplies. In turn I would ask you to accept that many of our competitors have much newer machinery and better situated factories. As you know already the rating of 5 does not measure your own efficiency, but the effectiveness of our production arrangements in comparison with those of our competitors. I have had some independent research carried out, and it bears out completely what you told me. So don't be.....'

Clearly, tact and firmness are necessary to conduct the exercise. Why not get a broad idea of what it entails by designing an imaginary exercise for your own firm? In doing so:

- Select the spheres of performance carefully.
- Think from where you could obtain outside opinion on parts of your and other firms (press cuttings, visiting salesmen, market researchers, etc.).
- Establish ratings as accurately as possible.
- Decide which executives might protest at the ratings for their departments, and how you would explain to them your views.

The review of the firm's strengths relative to those of competitors' conducted to complete the first stage of product screening is also applicable to the next stage. This stage is carried out in two steps.

- 1 Relating the product idea to each sphere of performance.
- 2 Evaluating the idea in terms of the degree to which it enables the firm to exploit its competitive strong points.

The first step is to assess how well the idea is suited to each sphere of performance as we carried out in Matrix 1, and to assign numerical values to the judgements on a form like that shown in Matrix 3. There a product has been highly rated for its compatibility with marketing - perhaps because it could be sold to existing outlets, by the present salesforce, with the aid of currently standard marketing techniques. In contrast, the rating for compatibility with plant and facilities is low - possibly because new machinery would be required. The conversation above shows that these processes can sometimes be longwinded; but they can also be fun and are not formidable. Do not be put off because they are unfamiliar.

Matrix 3

Sphere of performance	A	B					C
	Weights	Compatibility Values					Rating A x B
		Very good	Good	Fair	Poor	Very poor	
		10	8	6	4	2	
Firm's image	20			✓			120
Marketing	20	✓					200
Research and development	20		✓				160
Personnel	15			✓			90
Finance	10	✓					100
Production	5		✓				40
Location and facilities	5				✓		20
Purchasing and supply	5	✓					50
							Rating 780
Rating scale: 0-400, poor; 410-750, fair; 760-1000, good: proceed to design stage							

The second step involves multiplying the relative weights of the spheres of performance (column A) by their compatibility values, in order to arrive at the ratings in column C. Next, the ratings are added together, and compared with a pre-set scale to measure whether the idea is a worthwhile candidate for the design stage. Thus in the illustration, since the idea has been rated 780, or 20 above the required minimum, it can be considered as suitable for conversion into a design.

It can now be seen that this method of screening serves two purposes. At stage 1 it enforces a disciplined estimation of the desirability of adopting the idea. At stage 2 it examines ideas which have withstood the first scrutiny, in a more competition-conscious manner, out of recognition that a good return on investment is most easily obtainable from a product which exploits its manufacturer's competitive strengths.

The second stage can, however, only be carried out effectively with the co-operation of all relevant specialists. If, for example, the marketing manager, or the works manager, were not normally members of the Venture Approach, they should be co-opted. The function of the rest of the team should then be to ensure through questioning, that the values assigned by specialists were not the result of prejudice, mechanical reaction, or self-serving whims, but of careful firm-centered thought.

Estimating the return

As a development project progresses, it becomes increasingly important to assess the probable return on investment. To do so two factors must be taken into account.

- The direct return.
- Additional benefits offering an indirect return.

A good way to approach the problem is shown in the example which follows:

Suppose a choice must be made between two promising product ideas. The probable return on investment in their development and commercialisation has already been calculated. The comparison between them is as follows:

<i>Product</i>	<i>Costs of development and of commercialisation during first three years of life (Rs)</i>	<i>Profit during first three years of life (Rs)</i>	<i>Return on investment</i>
A	10,000	100,000	x 10
B	15,000	90,000	x 6

Note: The three-year period of the forecast is arbitrary, and can be varied in length according to the type of product.

In simple money terms, A is more attractive than B since it offers a far better return. It can, however, be misleading to rely on such a simple comparison. Perhaps, for example, B has an advantage over A in that its manufacture would entail the acquisition of new production skills. To cope with this complication, a value must be assigned to the anticipated indirect return. In this case the result might be:

<i>Product</i>	<i>Costs (Rs)</i>	<i>Direct return (Rs)</i>	<i>Indirect return (Rs)</i>	<i>Total return (Rs)</i>	<i>Return on investment</i>
A	10,000	100,000	Nil	100,000	x 10
B	15,000	90,000	90,000	180,000	x 12

Provided that management believes that the new skill would beneficially broaden manufacturing scope, B now seems a more attractive proposition than A.

Without doubt this method is far from perfect. Particularly in the early stages of product development, data, on which estimates are based, are usually incomplete and unreliable. It does, however, have these advantages over a non-numerate approach.

- It prevents executives from discussing issues in vague terms. To say, for example, 'This product should achieve satisfactory sales' is to blur an opinion, so that if it proves unfounded, it can be explained away by cavilling over the interpretation of 'satisfactory'.
- This is a clear-cut commitment justifiable only by its fulfilment.
- Stark figures are therefore in some sense a threat which enforces a disciplined and conscientious approach to forecasting. In turn, better product development decisions are likely to be made.

Are you among the number scared of numbers?

There is nothing to be ashamed of in admitting it. But it would be a poor manager who did not realise that some of his key staff might also be worried at the thought of using a numerate technique.

It would help to soothe their fears, if you explained beforehand that they were not required to use integral calculus, but only to substitute figures for words.

It would also help you and them a great deal if you held trial runs and discussed and settled any difficulties some days before the first genuine screening was held.

Most of the expenses of bringing a product idea to the market are incurred at the development and commercialisation stages. To ensure that only the most promising ideas qualify for the next stage, it is therefore of great importance to ensure that:

- DROP errors are eliminated.
- Money is spent only on developing and commercialising ideas in keeping with the firm's objectives and resources.
- Decisions are taken by thoughtful and rational processes.

The processes advocated here help greatly to achieve these aims. Time and trouble taken at this stage will prevent both loss of profit opportunities and profitless later investment in development and commercialisation.

5 Using market research

A decision to begin to export, or merely to enter a new export market, is very often tantamount to a decision to modify existing products. All exploratory research should therefore set out to define with great care whether or how present products should be adapted to meet local needs. The book in this series on marketing research by Tamer Cavusgil provides much fuller detail on these issues. But knowledge of market research is essential for product developers too.

In consequence, market research is an essential investment, and some forms of research are costly. Fortunately, however, it is possible to find at low cost that a market is a hopeless, or very unattractive prospect.

Keep in mind, however, that all market research should be conducted to find how money can be well spent; and that all the subjects of research mentioned below relate either to finding suitable markets for a product or the costs of introducing that product to a market.

5.1 Desk research

This is normally undertaken as a first step to discover whether a market seems promising enough to justify the expense of field work. It makes use of documentary information, and at the bottom line is second-hand research. For this reason it is sometimes called secondary research.

The data necessary to identify whether entry to a new market is practicable as far as the details of the product are concerned can be grouped under the following headings.

Health regulations are gradually becoming stricter throughout the world. Mainly they are introduced to prevent the transference of disease from one country to another; or to prevent the inclusion of poisonous substances in goods. Agricultural products are those most widely affected by such regulations, which usually require the seller to obtain an official clearance certificate giving a shipment a clean bill of health.

Less widely known are laws forbidding the import of goods containing particular chemical compounds. They are of special importance in the case of consumer goods, with which the user might come in oral contact. Finland, for example, imposes strict regulations on the chemical content of colours used in the decoration of pottery. Several countries have legislated to protect children against the use of toxic materials for toys.

If products run foul of such legislation, then the researcher should try to determine whether it is feasible to overcome the difficulty by inexpensive product modifications.

Safety regulations are sometimes difficult to separate from health regulations and should be treated in the same way. Among the most common types are those relating to:

- *Electricity.* The wiring, installation and assembly of electrical goods, such as toys, light bulbs, lighting fittings, household appliances and industrial machinery are all subjects of legislation in the industrialised world.
- *Flammability,* especially of clothing and furnishing fabrics.
- *Poisons.* Besides danger warnings, specific types of containers and stoppers are usually required.
- *Children's goods.* All factors likely to expose a child to danger such as raw materials and bad assembly may be banned by law.

After the regulations are known decide immediately whether they would permit the product to enter the target market, either in its present form, or with feasible modifications. If not, stop research at once.

Tariff structures can sometimes make it impossible, or very unattractive, to enter a target market. The situation is particularly adverse when:

- To protect its own industry a country erects a tariff wall. In other words, it is impossible for imported goods to be price competitive.
- It charges different rates of duty according to the goods' country of origin. Unless your own country is one favoured with low rate of duty, then it may be impossible to trade.

In some cases, however, it may be found impossible to avoid a high rate of duty. The tariff may, for example, vary with the type of raw materials used. Cloth containing a high proportion of synthetic fibre could be dutiable at a higher rate than similar fabrics made from a low proportion. In this case a simple product modification may facilitate entry.

Abandon research if tariffs debar entry or demand heavy price sacrifices.

Quota restrictions limiting the annual volume of imports are sometimes in operation. They should be discovered and assessed to find how they affect the attractiveness of a target market.

Be careful! If a small percentage of a large market is available to exporters from Pakistan, it may be more than enough to make your own prospects good.

Trading practices. Some quality standards are enforced by public pressure, or trade custom, rather than by the law. For example, in some countries where there is no legislation concerning the fastness to light and washing of textile dyestuffs, there are widely accepted trade standards, and many large retailers and wholesalers send samples to a testing house to check their acceptability.

To the exporter the effect of such practices is much the same as that of legislation. To the researcher, however, they are more difficult to discover through desk research, and may well only be uncovered by research in the field.

Transportation costs and the types of protective packaging which could be used should be researched. Without knowledge of these facts it is impossible to assess whether a competitive price can be pitched.

5.2 Field research

If desk research suggests that a market merits more detailed appraisal, then further research must be conducted in the market itself. Some of the techniques are too complex for anyone but a specialist to apply, and in consequence are costly to commission.

As a first step, therefore, the firm's market researcher should identify the purposes of the field research operation and propose how it should be conducted with effectiveness, but with the maximum economy. With management approval of his proposal, he may well then travel abroad to conduct part of the work, and possibly commission specialised researchers to carry out the remainder. Some limited field research can be carried out by the senior manager or his colleagues by planning such activities during trips abroad which have been planned primarily for other reasons.

The aim here, however, is *not* to discuss the wide array of available research techniques, but merely to outline the *factors which may need investigation*.

Proposition analysis

Proposition analysis is appropriate, if money is available, before a new product idea moves to the design stage. Its object is to discover the value to potential users of design details. From the findings designers should be able to learn:

- Whether their own pre-appraisal has overlooked an important feature.
- Whether a feature presumed to be of importance is in reality of little interest.
- Which characteristics are the most important.
- Whether alternatives must be built into a permanent feature. For example, can the product be offered in only one size, or alternatively, must it be available in several.

In other words, *the research should enable one to see the product through users' eyes rather than the manufacturer's or distributor's eyes*. For instance, failure to carry out proposition analysis once caused a small commercial vehicle manufacturer to waste a lot of money.

He intended to break into the French market for tractors to pull freight containers, and decided to redesign the engine of his standard tractor so that it would perform better than any other on the fast French trunk roads.

No sales were made.

French haulage firms were interested in the engine, but their refusal to buy stemmed from the fact that there was no bed in the cab for the spare driver to sleep in. 'Our drivers would refuse to drive your tractors' was the universal comment.

Market preferences.

When the research problem is not connected with new product design, but consists of discovering how an existing product should be modified to meet the needs of buyers in a foreign market, field research can begin by investigating user preferences. Manufacturers overlook preferences at their peril, and it can be dangerous to make what seem to be obvious assumptions.

No manufacturer needs to take into account all the subjective preferences listed below, but every manufacturer must consider at least one.

Colour, design and style. For consumer goods variations in colour preferences from market to market, and from segment to segment within a market, can almost be taken for granted. Moreover, feelings about colours, designs and styles for clothes and furnishings can change from year to year.

Taste preferences also vary greatly from market to market. Such qualities as levels of seasoning and sweetness differences in national taste are the rule rather than the exception. In Germany, for example, most people like more bitter chocolate than is acceptable in Britain, while Spaniards tend to like sweeter wines than the French prefer.

Size, weight, volume. Across the world there are obvious variations in people's physical characteristics which affect the sizes of their clothes. Some are less obvious. Spain and France, for example, are side by side. But the French tend to have bigger feet than the Spaniards, and in consequence shoe ranges for the two countries must be differently assorted.

Ergonomic adjustments to industrial goods are also needed for similar reasons. Height, reach, finger span are all important to the operations of machines, and national physical characteristics should therefore be taken into account in designing controls. Simpler tools are also affected. Consider spades. A spade handle suitable for a country populated by tall people might well reach to the chests of people elsewhere.

Weight and volume preferences are much affected by average family sizes and shopping habits. Large families clearly need bigger quantities than small, but even where average family sizes are comparable, as, for instance, in Britain and the U.S.A., different sized packs of convenience goods may be needed. British shoppers go shopping more frequently than their American counterparts, and therefore buy in smaller quantities.

Systems of weights and measures also vary and can cause goods to be bought in different quantities and dimensions from place to place.

Materials from which a product should be made are subject not only to legal requirements, but also to local preferences. In some European countries, for instance, many men demand pure cotton shirts, while in others synthetic/cotton blends and 100% synthetic shirtings are preferred.

Performance. Variations in demand for such product characteristics as reliability, ease of maintenance, warmth, coolness and water repellence are also often significant. They stem from a complex of causes like price limitations, the way the product is used, social values and the local climate.

This long list of possibilities can make the scope of any one project seem more formidable on paper than it would be found to be in practice. Carpet buyers, for example, are unlikely to have physical taste preferences and no one worries about ergonomics when they shop for soap. Only the factors likely to influence the sales of the product or idea under review need be researched, and they may be few in number. In some cases all the necessary work can be combined with Proposition Analysis.

But work will not end there. So far only research centred on the physical core has been discussed. The pack itself is also important however, and here possible sales pack features will be reviewed. (I have already talked about the protective pack earlier, see page 8.)

The sales pack.

All the following facts must be known:

- Whether the use of particular raw materials is debarred by the local climate, regulations or user preferences.
- Which colours are likely to attract shoppers' attention, and which among them will create favourable associations between pack and physical core.
- How much information on product usage can profitably be presented either on the pack's surface or a leaflet stuffed inside?
- What is the required shelf life? How does this affect the cost of printing or materials?
- Do distributors prefer particular shapes to improve stackability and display values?
- Is there any particular shape which would create a favourable image for the product among consumers?
- Should the pack be wholly or partly transparent so that its contents can be seen?
- What are the official requirements on statement of content?

Until you know these details, you cannot know what pack will best sell your product, or how to brief a designer.

Servicing requirements. Over and above receiving thoughtful treatment importer/wholesalers may expect to receive financial services beyond those normally

given at home. The most usual forms are longer credit terms, special discounts, and the provision of stocks on consignment. Since such requirements affect potential profitability, they also influence the attractiveness of a target market, and must therefore be known by an exporter before trading commences.

If sales agents are to be used, normal rates of commission should be uncovered, and also such standard local practices as charging back the cost of telephone calls and telegrams to principals. Without such data, selling costs cannot be properly assessed.

Research will end here unless a very big sales and advertising campaign is to be mounted. However, it is worth being aware of the last parts of this section since one day you may well be involved in such activities.

Brand names and symbols.

When a new product is to be introduced into an already thriving foreign market, it may well be decided to exploit goodwill by launching under an existing name. If, however, a new name is required, the task of finding several candidates from which to make a final choice should be approached in much the same way as the search for new product ideas. Some firms have found that brainstorming is especially valuable, even though participants do not know the language of the target market.

The next stage is to ask linguists and copywriters to consider the implications of each of the possible choices in terms of:

- Their meanings and associations in the target market.
- How easily they can be read.
- How easily they can be pronounced.
- How well they might be remembered.

Two or three promising alternatives should then emerge, and be checked with a legal expert in the target market to find whether the words could be registered as trade names.

Next registerable names should be consumer tested. Since the purpose of the name is to add to the product's competitive advantages, if none of the names attracts consumers, none must be used, and the process must be repeated.

5.3 Monitoring the product launch

Unfortunately, however carefully products are developed, they are not always successful. Once they are launched, their progress in the market should be carefully monitored to give management an early warning of possible failure. It can then be decided with a minimum of costly delay whether remedial marketing action should be taken, or whether the product should be withdrawn.

How can the warning signals be seen? Astute use of life cycle analysis is helpful, but supporting evidence is usually inexpensive and fairly simple to obtain provided that the effort is pre-organised. Steps which could be taken are:

- Sales agents, who in any case should be required to write routine reports, can be asked to supply detailed comments on the new product's reception. Buyers do not necessarily show interest by placing immediate orders, and news of favourable intentions sometimes counterbalances the impression given by an empty order book. But news from agents must be interpreted in the light of knowledge of their personalities. Some like to keep their principals happy by painting rosy pictures.
- Company representatives visiting the market can be asked to perform a similar function. They too, however, are salesmen and may from habit or a wish to please take an over-optimistic view.

-
- Monitor the local trade press.
 - If one is available, subscribe to a market report service.
 - If the launch is critical to the firm's future, send the market researcher, who should be professionally accustomed to forming detached opinions to conduct a careful survey.

Even the expense of a special trip would be justifiable if it prevented good money being thrown after bad.

Time to pause and think. Maybe you are thinking that the research process advocated is a waste of time, effort and money? If so, ask yourself this question. Is your reaction based on the way you can do business in your home market, purely because of your long experience of working it? If that is so, perhaps you are following the wrong line of thought. To return to the right track, your reaction should stem from your own lack of knowledge of markets abroad.

You can prove this to yourself. Choose any industrial country, and then answer these questions.

- 1 Does this country place a high tariff on my company's products?
- 2 Could I create better sales prospects if I used different raw materials?
- 3 Could I offer my products at an attractive price in this market?

If you cannot answer these questions accurately, you are dangerously short of information on the trading conditions in this market, and can perhaps begin to see the usefulness of overseas market research.

But must it be so elaborate? No, it need not, although unfortunately answers can often be less simple than the question asked. Take, for example, the question 'Can my product enter this market in its present form?' To find the answer it may be necessary to research Health and Safety regulations, Tariff, Quota Restrictions and Local Trading Practices.

Just think about this in your own case for a moment. Reread the text where necessary and list the subjects of research you would need to carry out in order to answer these questions.

- 1 What facts must I find to be able to determine the export prices of my products?
- 2 What must I know in order to be able to judge whether a pack would be right for a particular market?
- 3 What should I find out about shopping habits in the target market?

If you wish to go further with market research you should consult the appropriate book in this series, S. Tamer Cavusgil, *Export Marketing Research: Organisation, Conduct and Analysis*.

6 *Designing the product*

Why go the expense of using trained designers? Why not instead ask one of the factory staff to knock together something suitable; or get your brother, who is a keen amateur artist, to draw something up?

There are two reasons. Good design has always been good business; and historic records suggest that leading manufacturers have usually been keenly design-conscious. In modern times there is a surplus of many products in industrialised countries. In consequence purchasers can be choosy, and are forcing manufacturers to turn to good design as a powerful competitive weapon. To profit from such export markets it is therefore wise to enlist the support of professional industrial designers.

What is good design? One industrial designer puts it this way: 'Good design is finding the right problem and solving it in the best possible way. I was once asked to redesign a door handle which the manufacturer thought was selling too slowly because of its unattractive shape. The real reason, however, was that it was too long; the raw material he was using was unnecessarily expensive. So I saved him money, as well as solving his problems. Good design is not merely making things look nice.

Although aesthetics play a part, good designers are not merely concerned with making products look pretty. Their job is to work within pre-established cost limits and the limitations of a factory's production processes, to enable their employers to make a competitive product for a target market, whether at home or abroad.

Misconceptions about design

'Good design is unimportant for industrial goods'. This view stems from two assumptions which - in industrialised markets at least - are out of date. One is that the comfort and convenience of the worker need not be considered. This is wrong. Managers have discovered that productivity increases when plant and equipment are safe and convenient to operate. The second is that appearance is unimportant. Against this is the hard fact that it is easier to sell machines that look modern. For proof spend time at an international trade fair. Invariably models which look ordinary, or clumsy, or old-fashioned will attract less attention than those styled to create the impression that they are ahead of their times. And getting attention and interest are the first steps towards making a sale.

'Consumer goods need to be carefully designed only when they are to be aimed at the top end of the market'. This view shows lack of insight into what is going on in the world. Particularly in affluent societies the rich are becoming less and less the arbiters of good taste; the tastes and needs of the less well off are becoming more similar to those of the rich, and more and more people are willing and able to pay to get exactly what they want.

In consequence it is becoming less possible to sell badly designed goods just because they are cheap, and conversely intelligent design can gain access to a wide market. Good design helps to:

- gain access to new markets
- get better prices
- gain competitive advantage.

6.1 Using designers

A common misconception is that a single designer can do all types of designing. To save money specialists in ceramic design have been asked to design a sales pack, or furniture designers to turn their hand to producing graphic work for exhibitions.

The truth is that the description 'designer' covers many specialisations. Few good graphic designers, for example, are competent to design three dimensional goods. Usually internal designers are coerced into doing jobs for which they are unfit in order to save money. But can money genuinely be saved by getting a job done badly at low cost? Normally the answer must be no: but equally it must be recognised that expenditures on design can be alarmingly high. Two general principles can thus be established:

- Designers should only be applied to work which they can do well.
- Few firms can afford to maintain a design staff which can do all the necessary work well.

In consequence, firms should always consider using outside design services rather than relying entirely on their own staff whenever non-routine design needs arise.

When planning to enter foreign markets you may face unexpected problems. For example, a textile designer may be an admirable creator of designs in his own national idiom but incapable of adjusting to foreign tastes. Marketing abroad may therefore entail some unenvisaged costs, unless the problems are foreseen; and possibly also, unless markets are selected to minimise extra design work. Here are some points which should be kept in mind:

- Unless the package is to be little more than a plain box, or wrapper, packs and accompanying literature should be created by designers in the target market itself. Their knowledge of local design preferences, ability to produce illustrations of people with easily recognisable local characteristics, and their command of the local language is invaluable. The important exception to the rule arises when emphasis on the nationality of the product forms part of the marketing strategy.
- The volume of extra work arising from entry into export markets may entail a major reorganisation. If development of physical cores has previously been left to outsiders, it may become more effective and more economical to appoint an 'internal' designer.
- If exporting is to involve the creation of products especially designed for foreign consumption, development may well be high in comparison with the expenditure entailed in keeping pace with the national market.

If the present designer is not a mere copyist, but genuinely creative, it may be possible to educate him to handle his new responsibilities. If you choose this option, however, you must expect to bear the costs of attendance at seminars and conferences; travel abroad to keep abreast of the latest technology and aesthetic trends; and subscriptions to suitable journals and information services.

Otherwise it may be necessary to seek the services of designers abroad. If styling is of prime importance, it may be essential to commission designers in each of the target markets to ensure that local tastes are well catered for. On the other hand, if functional characteristics predominate, one good industrial consultant may be adequate.

How can foreign designers be found? A good starting point is to approach the Pakistan Design Institute, or the Pakistan Industrial and Technical Advisory Centre (PITAC) which can lead you to a wide array of information on all facts relating to employing foreign industrial designers.

6.2 Planning a design project

To keep down costs and to get the design right first time a systematic design procedure should be established. Perhaps the most critical stages are the choice of designer and the preparation of the design brief. But before these points can be reached there is much to be done, as you can see from the diagram, though the task is often simpler when insiders are to create the design.

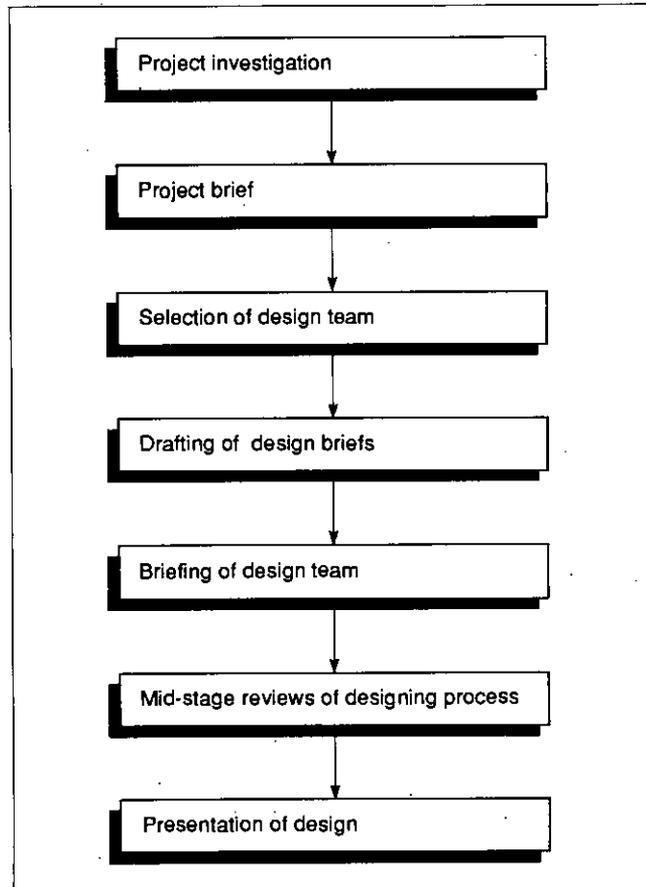


Figure 3

Project investigation. This should be conducted by the Venture Approach. The task involves setting the following information on paper, after consultation with the owner or top manager.

1 Company goals:

- Reason for undertaking the project.
- Achievements expected to result.
- Desirable and undesirable side effects.
- Criteria for judging the success of the project.

(These criteria must be stated at the outset. Yardsticks introduced later could serve to cover up failure.)

2 Market information will already have been outlined when the product idea was screened. Now the market features should be stated precisely and unambiguously under the following headings:

- Intended market.
- Intended product image.
- Features of present brand images for retention (where the firm is sizeable enough to be concerned with branding).
- Continuity from present products.
- Position in relation to present market leaders and other competition.
- Methods of sales promotion and distribution.

3 Product's manufacturing characteristics. A frequent objection made by production executives is that the facts which they are here required to commit to paper are already well known. They are, however, unlikely to be known to external designers, and internal designers need to be told in which factory, or on which assembly line the product would be made; and, if necessary, prevented from assuming that the product will be made in the most favourable circumstances which their firm can provide. The following facts should be made clear:

- Preferred and forbidden materials.
- Preferred and forbidden processes.
- Availability and skill of labour.
- Availability and limitations of machinery.
- Materials handling and distribution methods.
- Stock, or bought in parts to be incorporated.
- Regulations, or standards to be observed.
- Quality control standards.

4 Product administration. Both this section and the budget (see below) should be handled by the manager sitting as chairman of the venture approach. At this point the team may have to be enlarged beyond its normal size to include all executives responsible for making a contribution to the project. Management can thus emphasise the importance it attaches to the work. Clearly the size of the staffing required here has to be scaled to meet the size and scale of the operation. If yours is a very small company there may be only one or two of you involved. For very large companies there may be a dozen or more senior executives involved. In all cases, however, the basic arrangements are the same. The main administrative details to be discussed are:

- Responsibility for decision-taking at each stage.
- Responsibility for initiating action at each stage.
- Permitted delegation of responsibilities.
- Projected secrecy and restriction of information.
- Outside services.
- Controlling dates such as exhibitions and seasons.
- Deadlines for each stage of the project.

5 Budget showing:

- Total design costs.
 - Maximum cost of tooling for bulk production.
 - Permissible total works costs per item.
-

6.3 Project brief

The results of the project investigation are next organised into a brief for circulation to all those concerned with the project. It is the key working paper from which the design brief will be built up. As such, it provides a basis for analysis of the skills which should be possessed by the designer or design team, and for judging whether designing should take place outside the firm.

Selecting a design team

If outside work is to be commissioned a clear view must be formed on the types of skills and capabilities needed to carry out the work. Usually the main considerations will include:

- relevant experience
- technical knowledge
- personality
- abilities of support staff
- availability
- location
- speed of working.

The design brief is best written before designers have been selected in order to avoid delay, and to give as much time as possible to write a detailed and lengthy document in a thoughtful and unhurried way. In most cases its contents should be:

Title page showing:

- Name of the designer receiving the brief
- Short description of the subject covered
- List of sections in the brief
- Name and status of the executive issuing the brief
- List of those to whom the brief has been circulated.

Introduction. Summarised here are the reasons for issuing the brief, and the results expected from its fulfilment. Not only is this useful to the designer, but it serves as a reminder to all those responsible within the firm, that they should take note of the tasks and deadlines which affect them.

The design objective should be expressed in a simple concrete form such as:

- 'To revitalise the present model'
- 'To enter a new market segment'
- 'To enter a new export market'
- 'To achieve a competitive breakthrough'.

The organisation consists of an index of people to whom the designer may need to refer, together with a note of their responsibilities towards the project. There should be a clear indication of the person to whom the designer is directly responsible.

Facilities should be specified in detail, so that no one is in doubt about what is needed. They might, for example, include:

- The use of a workshop in which to construct prototypes.
- Access to the drawing office, and to whomever acts as the firm's draughtsman.
- Access to the firm's main suppliers to get up to date information on raw materials and finishes. The name of the person to contact here should be specified and checked out with the suppliers.

Past and present products. If the firm wishes to preserve a sense of continuity, much detail may be required. In any event it is normal to inform the designer of:

- Recent product history, together with an assessment of the favourable and unfavourable characteristics of recent products.
- The weak and strong points of the present range.
- Production costs of the present range.
- The prices to the end user of the main items in the present range.
- Main competitors' prices for similar products.
- If the firm advertises, the current weight and strategy.

The competition. The success of competitive products should be analysed in terms of their characteristics to show what you feel you can learn from your competitors.

Distribution and support activities. In this section the designer is told about intended channels of distribution and given details of the packaging and any forms of advertising which are likely to be used. Such data may well affect the nature of the design problem. For example:

- If sales to mail order houses are to form a significant part of the volume, the designer must give the product an appearance likely to convince catalogue managers that its reproduction on a coloured page will have a strong impact.
- If retailers strongly prefer particular shapes, sizes, or forms of sales pack, the designer may have to take into account their preferences.

Market research should take the form of a summary of the research findings to enable the designer to understand the importance of the main attributes of the product, and the main characteristics of potential users. Should the summary lead him to wish to read the full research findings, and talk to the market researcher and sales executives, access should be arranged.

Impact objective should be stated. Suppose a new toilet soap were wanted. Then the most important desired characteristic should be simply defined. For example:

- The soap should be priced lower than any other brand on the market.
- The lather should be creamier and more luxurious than that of competing brands.
- The fragrance and colour should make a strong appeal to women who admire daintiness and discreet femininity.

It is easy to see that each objective sets the developer a different problem and requires the use of different raw materials.

Product function. Much of the information in this section may seem too obvious to be worth including, but it is surprising how the omission of a small detail invites disaster. For example, a designer commissioned to create an electric heater once developed a model which it would have taken two strong men to move. He had worked in strict conformity with the brief, from which however had been omitted the essential detail 'portable with one hand'.

Product appearance. In this section the firm's wishes about the visual character of the design are stated. It might, for example, be important to preserve a 'family feeling' within the range which the product will join. Conversely, an appearance emphasising that a big technical advance has been achieved might be wanted.

The golden rule here is to avoid pre-designing the product. The brief's purpose is to describe what is wanted; it is for the designer to decide how the need is to be met.

Production methods, materials and cost. The designer must usually know the sum that can be spent on retooling and the maximum cost of raw materials per unit manufactured. Within these limits he should be left free to decide how the product should be made. Otherwise he is denied the opportunity to consider new materials and production methods which might enable savings to be made.

The **timetable** establishes firm deadlines for completion of each stage of the project.

Work required divides the task into realistic stages and describes exactly what is wanted from the design at each stage. Three stages are possible.

The first stretches from the start to the presentation of the designer's ideas. This section should tell him:

- Whether he should present a single design or several alternatives.
- Whether the company will wish to see sketches, or scale drawings, or even scale models.
- If models are required, whether they should be mock-ups, or working models.

The second is usually spent making adjustments agreed at the presentation. The designer needs to know whether he should make the adaptations on his own premises or will merely supervise work on the firm's site.

At the third the designer's task is virtually at an end. It may, however, be thought advisable to ensure that he is available to deal with problems occurring in trial production. In such cases the maximum number of days on which attendance can be demanded should be specified.

Though some firms make products which enable parts of the brief to be written in a sentence or two, compiling this document is usually a wearisome task, since it entails much thought and consultation. Sometimes you will find that questions are raised about whether it is really necessary. A good brief at this stage, however, makes the rest of the design task much more workable and enables everyone to know where they stand and what is required.

6.4 Design selection

The best time to accept or reject a design is at the earliest opportunity. To ensure that the designer's presentation serves this purpose the owner or top manager should take the following steps.

- A pre-presentation meeting of all those involved in the design appraisal should be held about two weeks in advance. It should then be made clear that the presentation is not a casual affair to which they must drag themselves at the expense of more important work, but an important occasion in the firm's life in which a critical design will be made. In consequence all should re-read the project brief with care and come prepared to play their part. Then an agenda should be drawn up to ensure that the presentation and appraisal are crisp and formal.

The beginning might read:

- 1 Introduction
- 2 View and discuss mock-ups
- 3 Examine blue-prints
- 4 Discuss raw materials, etc.

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- The agenda should be sent to the designer with a request that he should strictly conform to it.
 - The designer should be consulted about the facilities which he will need. Several tables and a surface on which to pin drawings might, for example, be needed. Poor surroundings can lead to bad decisions. There is nothing worse than a presentation held in an office with tea cups strewn over drawings laid out on a single desk.

Assuming that his brief has been well written, in theory all that needs to be decided at a presentation is whether the designer has fulfilled it. In practice the task may prove more complex, but much confusion can be avoided if the theory is kept in the forefront of the assessors' minds.

It is not their function to judge whether in finished form the design would sell well. That question should be answered on the basis of market research. They must merely reach one of the following conclusions:

- The design is acceptable and should be turned into a prototype, so that market research can be carried out.
- The design must be modified to make it acceptable.
- A decision cannot be reached without more information.
- The design is unacceptable.

To arrive at a conclusion they must examine:

- Whether the design can be made on the current production line, or on a modified or new line, at the costs indicated by the designer. If unfamiliar methods or machinery are required, a decision may have to be deferred, while the necessary data are assembled by an agreed deadline.
- Whether the raw materials, or components required are in ready supply at the prices quoted by the designer. Again in the absence of reliable evidence, it may be necessary to defer a decision.
- Whether the product will function in the specified manner.
- Whether the product's appearance conforms to the requirements of the brief.
- Whether there is any convincing evidence to suggest that the look of the product will make it unwelcome in the market.

To emphasise these decision criteria it might well be worthwhile setting them out on a piece of paper and giving them to each of your colleagues involved in the assessment of the design.

7 From design to market

Once a design has been approved, you should pause to think. So far the costs of the project have been small in comparison with those likely to be incurred during technical and commercial development. Before allowing technical development to commence, advantage should be taken of the chance given by the finalised design to cost the next stages with some precision. The main expenses to be taken into account are those for:

- Producing prototypes
- Researching market reaction to prototypes
- Retooling for trial and bulk production
- Pilot and bulk production runs
- Packaging design and purchase
- Launch publicity and sales effort
- Additional market research.

Moreover times change and with them markets. Between the time when the idea first aroused enthusiasm and the time of design approval the prospects for the product's success may have faded, or become brighter. The revenue forecast may then also require revision.

On the basis of the reworked cost and revenue estimates the firm must then reach one of these decisions:

- Abandon the project.
- Discontinue the project because adequate funds for further development cannot be provided; and fix a date for further review of the possibilities.
- Delay the project until market prospects become more favourable.
- Go ahead.

If you decide to go ahead, you must take two further steps: you must initiate the planning of production of prototypes and trial manufacturing runs, and you must also set in motion the process of commercialisation, as set out below.

7.1 Planning to manage the product

This can be a lengthy process and should be completed by the time the factory is ready to manufacture bulk quantities.

In the early stages your key task is to draft a *Product Intention*. This document is a simply written, concise policy statement which:

- Establishes a coherent policy.
- Creates circumstances in which management can confidently delegate decisions in furtherance of that policy.
- Ensures that all future development and marketing activity can be co-ordinated to achieve pre-defined and commonly-recognised aims.

It should be circulated to all concerned with the product's development, manufacture and commercialisation, together with an instruction that it must be regarded as establishing a permanent policy.

7.2 Writing a product intention

This important control document is normally the result of close collaboration between the product manager and his colleagues in production and marketing. It should state only essential and permanently relevant facts about the product, and should not be revised unless fundamental changes in the market, or in company policy, make it necessary. Its purpose is to:

- Guide the actions of all concerned with the product.
- Ensure continuity of activity, even though those responsible for it may change.

A branded toilet soap has been chosen as an illustration below, because it enables a wide variety of marketing factors to be taken into account. Circumstances, however, alter cases, and all products in all company situations do not require exactly the same treatment.

Product intention for *Smoothie* toilet soap marketed in Great Britain

1 Product description

Smoothie is an all-purpose toilet soap. It provides safe and thorough complexion care.

2 Physical attributes

- *Smoothie* is made from the best quality raw materials.
- Its appearance suggests purity.
- It contains a distinctive perfume with a feminine appeal.
- Its appearance and presentation should suggest a luxury product.

3 Consumer or user promise

Smoothie promises glamour through complexion care.

4 Desired product image

Women should see *Smoothie* as:

- Ideal for complexion and skin care because it is mild, pure and gentle.
- Glamorous and sophisticated.
- Up-to-date.
- Good value for money.
- The soap which exciting women use.

5 Role in the market

Smoothie should sell to the popular priced section of the market. Its profitability should be built on high volume rather than premium price.

6 User profile

Smoothie should aim at popularity with women under 40 in the lower-middle classes.

Comments on the illustration are as follows:

Product description summarises in one or two sentences the type of product concerned, and the purposes for which it has been developed.

Physical attributes is an extension of both the previous section and of the impact objective. It should be strictly limited to a summary of the main physical properties or characteristics. If appearance or presentation is important it should be mentioned. The order of significance of the features should be made clear, since it may well influence development or promotion policies.

Taken together the first two sections influence the selection of raw materials and components, surface design and general appearance, and packaging.

Consumer or user promise sums up what the manufacturer wishes the consumer or industrial user to believe the brand does for him, and may take the form of a selling proposition. Ideally the promise should be capable of definition in a single sentence. It should not include the 'reason why' because, unlike the promise itself, this may vary from time to time.

The promise influences package design, sales presentation and advertising strategy.

Desired product image. While the consumer or user promise deals with what the product does, in either real or psychological terms, this section summarises what the firm wishes him to feel about the product as a total concept. This may not only include the general mood or atmosphere surrounding the product itself, but also the type of person which the manufacturer would like the user to think uses the product. In other words, the users' ideal user. This section influences package design, sales presentation and advertising strategy.

Role in the market fixes the precise sector of the market for which the product is intended. The terms of the definition vary in accordance with the product and the structure of the market. They may relate to prices: high, low, medium, or above average, etc. It may be necessary to refer to product usage (for example, agricultural tractors, cleaning products), or advertising categories (for example, toilet soaps). Again high or low volume lines have different roles in the market. What must not be present under this heading is a general aspiration like 'this product's role is to be a market leader'.

User profile is an extension of the marketing objective expressed in the previous section, and should define the kind of users for whom the product is chiefly intended. The description can include socio-economic class, age group, usership patterns, psychological type, size and location of users' factories, or any other factor which will sharpen the definition.

The last two sections influence pricing, selection and distribution channels and outlets, selection of advertising media and content, nature of further product development, and marketing strategy.

7.3 Product intentions for markets abroad

Whenever a product is to enter a foreign market for the first time, it should be treated as a new product, even though the firm may have manufactured it for some time. As a general rule, therefore, every product launch should be preceded by a special Product Intention compiled especially for the new target market. The reasons are easy to see.

- The physical attributes may have to be changed in accordance with the local regulations or preferences.
- The target market segment may be made up of users of a different type from those at whom the product is aimed elsewhere.
- The product may stimulate different reactions from those it meets with elsewhere. At home, for example, its appearance and properties may be regarded as commonplace, whereas abroad they may be unusual, strange, or exciting. The consumer promise and desired brand image may therefore need adjustment to exploit such reactions.

8 Summary

Did you expect to find the material which you have read in this book? It started with a short presentation of essential marketing concepts and ideas about products and product development and adaptations and then went on to discuss:

- Organising for product development.
- Sources of product ideas.
- Screening ideas.
- Using market research.
- Designing the product.
- Putting the product on the market.

You will recognise now that all these subjects are important. But keep in mind, also, that they are doubly important because throughout the world a really good method of developing, or adapting, products, particularly for export markets, has only been agreed in detail quite recently.

By understanding and applying the methods recommended, you can therefore help your firm to gain a competitive advantage, not only over its rivals in Pakistan, but also over firms in other parts of the world, including many industrialised countries.

Good luck.

