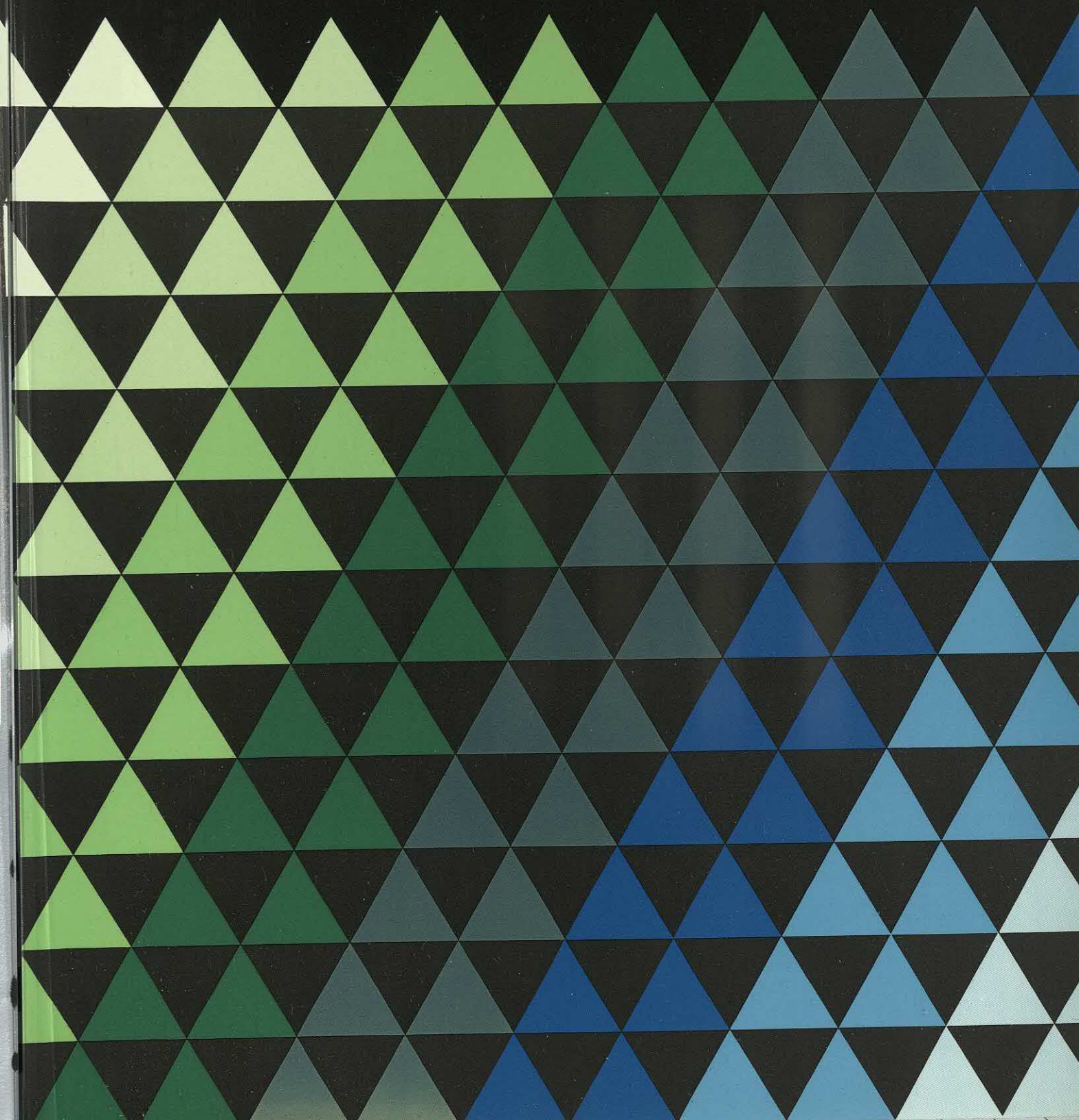
Marketing the Systems Department

BUTLER COX FOUNDATION

Research Report 66, October 1988



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Butler Cox & Partners Limited

LONDON
AMSTERDAM MUNICH NEW YORK PARIS

Published by Butler Cox & Partners Limited
Butler Cox House
12 Bloomsbury Square
London WC1A 2LL
England

Availability of reports

Members of the Butler Cox Foundation receive three copies of each report upon publication; additional copies and copies of earlier reports may be purchased by members from Butler Cox.

Photoset and printed in Great Britain by Flexiprint Ltd., Lancing, Sussex.

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Management Summary

A Management Summary of this report has been published separately and distributed to all Foundation members. Additional copies of the Management Summary are available from Butler Cox

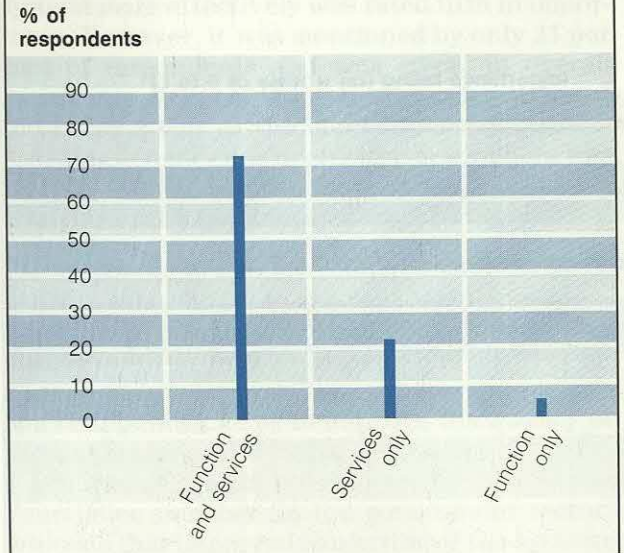
Chapter 1

The need to market the systems function

"It is quite impossible to be a good systems director. The skills required are too many and too varied. You have to be technically aware, good at handling and managing staff, sound on general management and financial control, excellent at personal relations — and finally good at sales and marketing. No one has all those attributes." These are the words of one of the systems directors who participated in this study. However true they may be, all Foundation members still strive to be good systems directors — or at least to be the best they possibly can be.

Marketing is just one of the skills mentioned by this systems director. But it is not the least important. In fact, among the members of the Butler Cox Foundation, the subject of this report evoked an almost uniform response. As Figure 1.1 shows, the majority (94 per cent) of those who responded to the questionnaire sent out at the beginning of the research believe that there is a need to market the systems department or its services. There is also general agreement about the difficulty of performing this task. Even so, we believe that most members do not fully appreciate the real need to market the systems function, nor have they fully recognised the problems that will have to be faced.

Figure 1.1 **Most Foundation members believe the main need is to market both the systems function and its services**



(Source: Survey of Foundation members)

Before exploring the need and problems in more detail, it is instructive to examine the responses from the small number of members who dissented from the majority view. One of them was Nederlandse Dagblad Unie (NDU) in the Netherlands. This company publishes the daily *Algemene Dagblad* and the leading quality evening newspaper in the country, the *NRC*. Mr Henk Ter Meer, NDU's systems director, told us that the role of the systems function in the company was as clearly defined as that of any other function (finance, for example) and that marketing effort simply represented an unnecessary and unjustified additional cost in providing the service — which in any case either sells itself on its merits or fails to do so. He also told us that there would be moral objections in NDU to marketing the systems function. He described such activities as "evil". "The need to market a service means that you are hiding a weakness." This attitude vividly illustrates that the systems department's perceptions of marketing usually reflect those of the parent organisation. Publishers of quality newspapers are probably more likely to believe that a good product sells itself; marketing is perceived as something that is required only for down-market goods and services.

Several other organisations also expressed the view that a properly managed systems function sells itself and requires no additional promotion. However, one of the companies that responded in this way was a British travel company in which the systems function has been, to our certain knowledge, marketed with the utmost skill and sophistication. It may well be that, just as money is not a problem for the rich, a conscious approach to marketing is not necessary for those who do it best.

THE PERCEIVED NEED

Our research set out to discover why so many Foundation members believe that there is a need to market the systems function and its services. The reasons given can be categorised as business reasons and reasons relating to the systems department itself.

BUSINESS REASONS

We asked the questionnaire respondents to identify the business reasons for marketing the systems function. The responses identified six main business reasons for marketing the services of the systems function. These are shown in Figure 1.2 together with their frequency of mention and importance rating. The most important reason, mentioned by 72 per cent of respondents and given an average rating of 1.7 (on a scale of 0 to 3), is to avoid missing opportunities for exploiting IT for commercial advantage. This indicates that there is a perceived need to educate the systems department's users (or, as we refer to them throughout this report, its customers) so they can recognise the opportunities for exploiting IT. To educate, it is first necessary to gain the attention of the intended learner. Marketing is seen as an effective way to gain the required attention.

Only slightly less important is the aim of developing better systems more quickly, which was also mentioned by 72 per cent of the respondents and was given an overall importance rating of 1.4. The marketing aim here is to help the systems department's customers to understand better the constraints and difficulties experienced by systems development staff. In turn, this leads to a better working relationship between the department and its customers. We fully endorse this aim; in fact it is probably more important than its rating suggests. This is certainly the conclusion drawn from research conducted by Butler Cox's Productivity Enhancement Programme (PEP), which now has a database containing details of several hundred development projects. It is possible to analyse this data to identify the factors that influence the productivity of the systems development process across a wide range of projects. The results are very dramatic. Whatever the significance of the internal, technical factors that influence productivity (team organisation, use of advanced system-building tools, and so forth), the dominant influences are those concerned with customers. If customers have a better understanding of what is involved in implementing a system, it is more likely that high quality systems will be delivered in realistic timescales. For example, customers are more likely to realise that trying to shorten the timescale of a project even by a marginal period can considerably increase the development cost. Getting the customer to understand such fundamental facts of life is a very worthwhile marketing objective indeed, not just for the systems department but also for the customer.

The third business reason given by Foundation members for marketing the systems function is

Figure 1.2 Business reasons for marketing the systems function

Foundation members believe that marketing the systems function will help the business to get more value out of IT.

Reasons	Frequency of mention (%)	Importance rating (on a scale of 0 to 3)
Avoid missed opportunities (increased awareness)	72	1.7
Better systems more quickly (better user understanding)	72	1.4
Avoid missed opportunities (more resources)	53	1.2
Better systems (enabling infrastructure)	62	1.1
Better future systems by controlling current systems better	21	0.4
Avoid dependence on external suppliers for IT	14	0.3
Other	10	0.2

(Source: Survey of Foundation members)

apparently more concerned with the self-interest of the systems department itself — namely the desire to ensure that the systems department has sufficient resources to follow up all of the opportunities for exploiting IT. Over half the respondents mentioned this as an important objective, which, if accepted, would lead to more power and resources for the systems department. Such an objective may be regarded purely as selfish. Nonetheless, it should not be dismissed as evidence of empire building by the systems department. If the most important marketing aim — creating greater awareness among the customers — is successfully achieved, nothing is more destructive than failing to meet the increased expectations through a lack of resources. The two aims thus go hand in hand.

The fourth business reason given for a marketing policy, which was mentioned by 62 per cent of the respondents, is to create better systems by encouraging the provision of the necessary infrastructure. Again, Foundation members rightly perceive that without the necessary investment in enabling facilities such as networks, databases, and data dictionaries the full benefits of IT developments may not be achieved.

Thus, the four most important business reasons for marketing the systems function and its services given by the respondents were increasing the awareness of the benefits of IT, delivering better systems in less time, increasing the systems department's resources in order to prevent opportunities being missed, and facilitating the investment in IT infrastructure. After these, there was a marked decline in the importance given to the reasons offered for consideration. Ensuring better systems in the future by controlling today's systems more effectively was rated fifth in importance. However, it was mentioned by only 21 per cent of respondents and was given an overall importance rating of 0.4 — less than a quarter of the rating given to the most important reason. Avoiding dependence upon outside suppliers was mentioned by only one in seven respondents and was given an importance rating of only 0.3.

The respondents also mentioned a wide range of benefits subordinate to the four main ones identified above. Several cited their belief that wider awareness of IT in the company had a direct influence upon profitability. Others stated that marketing could serve to improve the quality of systems planning and its linkage to business plans. There was a particularly telling comment from one Foundation member (in the government sector) who said that improved marketing of the systems service might encourage policy makers to take account of systems considerations earlier in the planning and implementation processes. Many Foundation members would agree with this sentiment. Other comments suggested that marketing could increase the realisation that the systems department can contribute to business success. One respondent said that marketing can help to make the customers more self-sufficient, and encourages them to acquire products they can use themselves. (This comment came from a computer supplier with an interest in expanding the market.) And, finally, some respondents said that marketing can help to attract more capable people to work in the systems department.

SYSTEMS DEPARTMENT'S REASONS

The responses given to the question about the business reasons for marketing the systems function and its services were remarkably consistent. Most respondents agreed on the most important reasons, and these were clearly separated from less important matters. However, this was not the case with the responses to the question about the systems department's own reasons for marketing its services (see Figure 1.3 overleaf). The most frequent reply to this question was mentioned by only 50 per cent of the respondents — less than the mentions given to the fourth-most important business reason. Moreover, no reason was given an importance rating of more than 1.1 (on a scale of 0 to 3).

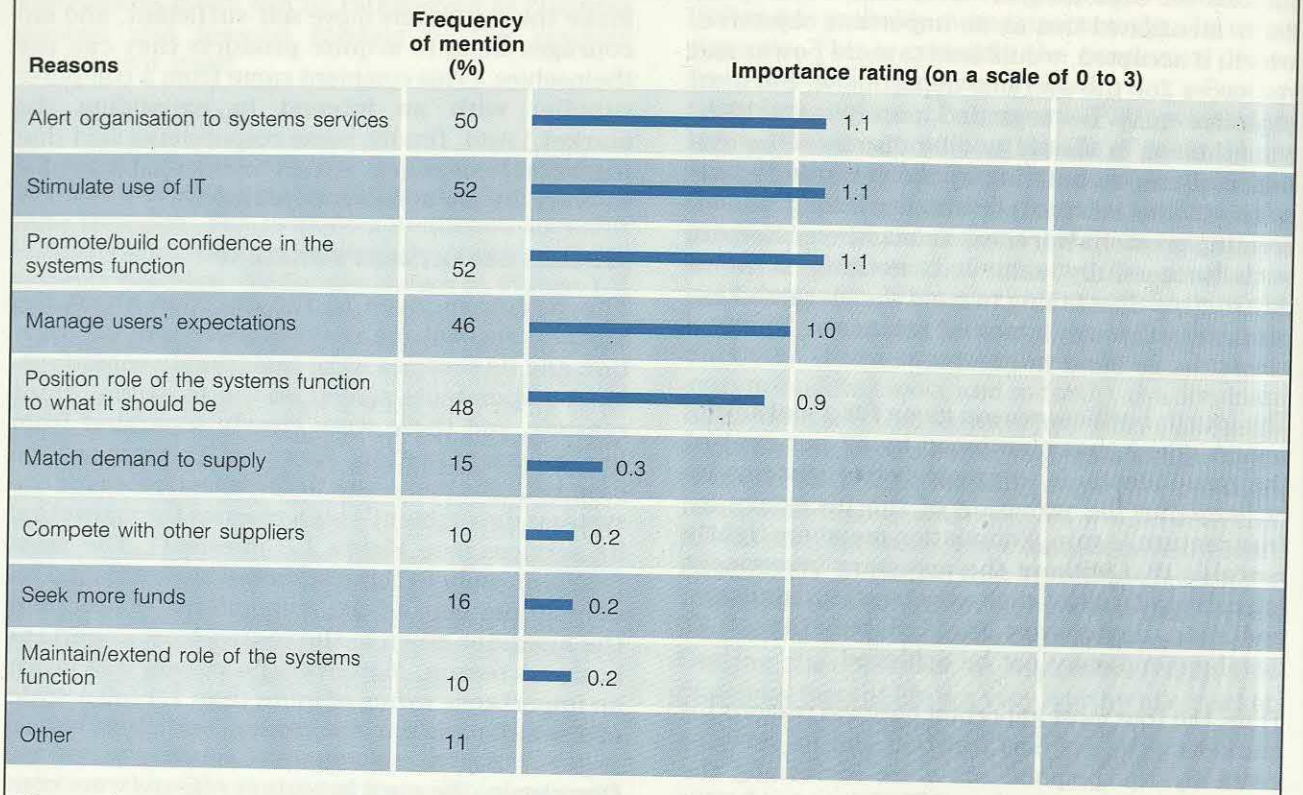
Once again, the most important reasons were concerned with what the systems department has to offer. Alerting the organisation to systems services, stimulating the use of technology, and promoting higher confidence in the systems department were the most frequently mentioned and were rated as the most important. These were followed closely by positioning the role of the systems function. Matching the demands for service to supply, competing with other suppliers, seeking increased investment, and expanding the role of the department were all perceived as subordinate reasons. It is difficult to dissent from these priorities. We believe, however, that two of the reasons are more important than most members believe they are. The aim of positioning the systems function was only the fifth in frequency of mention and importance. The aim of competing with other suppliers of systems services was rated even lower. We now consider the relevance of these two aims, which we believe may be greater than the responses suggest.

Positioning the systems function

The responses given to our survey mirror both the preoccupations of the current generation of systems directors and also the experiences of their own organisations. Most Foundation members believe that the systems function is becoming more significant to organisational performance —

Figure 1.3 Systems department's reasons for marketing itself

Foundation members market to promote rather than compete or expand.



(Source: Survey of Foundation members)

that it is now more closely related to those things an enterprise must do well if it is to survive and prosper, and less restricted to the field of administration and record keeping. Managers at every level of the organisation also recognise the increased importance of the systems function, although our findings in an earlier report (Report 58, *Senior Management IT Education*) show that such awareness is never uniform throughout the ranks. In short, the attempts made by systems professionals and the IT industry over the past 30 years have finally borne fruit — top management is listening and is at last aware that the systems director has a message of vital importance. There are, however, implications arising from this change in the importance of the systems function that not all systems directors fully appreciate, or necessarily agree with.

Some systems directors have indicated through their responses to our survey and in personal interviews a deep belief that the increased status of the systems function in the eyes of management in itself makes necessary a new marketing approach. They believe that the systems department must adopt a more creative role, must exercise leadership, must set the pace for development, and should not simply wait to be asked to meet needs defined by its customers. The terminology varies, but the message is the same. In the judgement of these members, the transition from the old-fashioned, inward-looking, technology-driven, systems department of the past to the confident, outward-looking, business-seeking department of the future is quite inexorable. They see it as a natural consequence of the maturing process of the computing and communications professions.

Other members are sceptical. They see the tides of fashion in management philosophy ebbing and flowing, sometimes favouring strong central control and sometimes local autonomy. They see different management philosophies prevalent in different companies. They believe there is no norm, only the ever-present need to position the systems department so that it matches the prevailing corporate culture, to swim with the stream not against it. On this issue, we believe the evidence justifies our taking a firm and unequivocal stand.

Our view is that the current interest in using marketing techniques to help position the systems function within the organisation is not a temporary phenomenon. It reflects a real change in

the expectations of most customers in most organisations. Shifting fashion will neither silence nor deflect these expectations in the near future.

During the research for this report we met several systems directors who had, in effect, used marketing techniques to position the systems function, although, interestingly, several of them had not recognised that this was what they were doing. One such organisation was BMW in Germany. BMW has all the usual components of a highly professional marketing activity, including customer research and analysis of car owners' needs. But it does not refer to this activity as 'marketing'. Just as NDU publishes an upmarket newspaper and regards with some distaste the efforts of inferior products to seize market share by false allure, so BMW's philosophy centres on the perceived quality of its motor cars. If the product is right, leave glamorous promises to those whose products need them. The same philosophy pervades BMW's systems department: get the service right and it sells itself.

But does this philosophy truly run counter to the marketing approach? In our view, getting the service right and ensuring that customers know that it is right are in themselves marketing actions of a very high order. Perhaps BMW and NDU are examples in action of Drucker's assertion (which is cited in Chapter 2) that ''marketing . . . is the whole business''.

Combating competitive threats

In an earlier Foundation Report (*Competitive-Edge Applications: Myths and Reality*) and in a very different context, we cited the work of Michael Porter. Our aim then was to help the systems department carry out the competitive analysis required to identify opportunities for competitive-edge systems. But the same analysis can be applied to the systems department itself to identify its own competitive threats.

Porter argues that any enterprise faces competitive challenges from more than just its traditional rivals. Although they are often referred to generally as 'the competition', traditional rivals form the first, but not the only, class of potential competitors. Porter suggests that the way to identify other sources of competition is to examine the added-value chain in the particular industry, the chain that stretches from the providers of raw materials to the consumers of finished goods. Porter argues that by identifying the points in the chain where value is added and by identifying the boundaries between the participants in the process, it is possible to identify four further classes of competitor. First, there are the organisation's suppliers, who are seeking to increase their share of the total available added-value at your expense, to charge higher prices, or to deliver less value. (In Porter's simplest analysis, a zero-sum game is assumed; what one participant gains, another must lose.) Computer suppliers, for example, sometimes adopt a 'bypass' strategy, where they create a direct link between themselves and the systems department's customers. This type of strategy was prevalent in the 1970s when minicomputer suppliers sold their products direct to user departments.

The second class of competitor is the organisation's customers, who are conversely seeking to reduce its added-value by paying less for more. In the case of the systems department, its customers may seek to forge links directly with computer suppliers, thereby bypassing the 'middleman' (the systems department). An example of this type of competition was found in the early 1980s when user departments acquired their own business microcomputers from distributors and retail outlets.

The third class is that of innovators, who are seeking to replace the organisation's traditional products with substitutes of their own. In the 1970s, for example, scientific-computing bureaux sold timesharing services, typically based on APL or modelling packages, direct to the systems department's customers.

The fourth and last — making five classes of competitor in all including traditional rivals — is the class of newcomers to the marketplace, companies that diversify into the organisation's line of business. An example of this type of competition for the systems department is provided by the third-party network operators that are now offering a wide range of value-added network services.

Porter's analysis is therefore relevant to the systems department in most organisations. In most cases, the systems department traditionally regarded itself as a monopoly supplier — not just the dominant supplier of systems and expertise, but the one and only supplier. Sometimes this status was even mandated by the organisation's policies. Often, such an arrangement led to bitter disputes over pricing and whether the systems department was providing value for money. (The subject of charging for systems services is dealt with in Chapters 3 and 5 and is covered in detail in the appendix.) Whilst the systems department acted as a monopoly supplier, the suppliers of computer products and services were forced into a compliant role, because the department was their one and only point of access to the prospective customer. During this stage of the systems department's evolution, the host organisation's management lacked the confidence to deal direct with

vendors and needed the protection provided by the systems department in case anything went wrong.

This situation led to the cosy market structure that was prevalent throughout the 1970s. Today, however, that structure has been shattered for ever. The systems director now faces many rivals — organisations that are seeking to enlarge at his or her expense their share of the total available added-value in the IT market. Some of these newly arrived competitors fit neatly into Porter's categories of threat; others less well. Quite alarmingly, one such development has actually created two new classes of competitive threat — from IT suppliers and from business managers.

The once compliant computer manufacturers now have their eyes on greater prizes. First they are eager to encourage the spread of so-called end-user computing, in order to enlarge their circle of potential customers and escape from 'border-post' checking by the systems department. "There are many influential people in a customer organisation," says an internal briefing document produced by one computer vendor for its sales staff, "other than the head of systems, whose attitude towards computer technology and [our company] can dramatically affect the sales opportunities for you."

Among the questions the sales staff are prompted to ask themselves are these:

- "Do they [the senior, non-IT managers] know how to identify applications that their business can exploit to bottom-line advantage?"
- "Do they find it hard to justify to themselves the current or planned spend on IT?"
- "Would they know what is the 'right' spend?"
- "Are they concerned that their increasing dependence on computing is a risk rather than a blessing?"
- "Do they know what it is reasonable to expect of a modern IT department?"
- "Do they view their achievements in terms of what their competitors are doing with computing and the possible business advantages and/or disadvantages?"
- "Would they know how to judge the competence of their computer department?"
- "Do they know how to judge if the structure and reporting level of their computer department are appropriate to the enterprise?"
- "Do they know how to judge if their mix of centralised and decentralised computing power serves the business in the best way possible today?"

"Senior managers," the briefing document continues, "often appear negative or even hostile to computing simply because no one has ever helped them set reasonable and considered expectations or given them yardsticks by which they can appraise their company's achievements. . . . In these circumstances both you and your prime contact, the head of IT, find it difficult to launch sales campaigns or drive through new initiatives."

The message from this briefing document is clear: the evolution of the IT industry has unleashed not one but two tigers — one the vendors with their low estimate of the status of the systems director and their burning desire to influence directly the wielders of corporate power; the other the very same managers to whom the vendors wish to address their claims. Both are keen to occupy parts of the systems director's territory. The vendors aim not just to impress senior managers but to show them how to fix the budget, how to identify applications, how to undertake competitive analysis in IT achievements, and finally (and most significantly) how to appraise the work of the systems department.

The range of products available to those who were formerly the customers of the monopolistic systems department is growing rapidly. Personal computers are just one element of this changing situation. Today, vendors are placing more sales emphasis on 'departmental systems', in the hope that at least some of these will bypass the systems function and be authorised directly by divisional managers. Computer companies like IBM, specialist facilities-management companies such as EDS, large systems houses, and even the consulting divisions of accounting firms are now offering to take over and run data centres and networks of any and every size. "Through facilities management," writes the Hoskyns Group (a major UK systems house), "we take full responsibility for the management of all or a major part of our customer's data processing or management services function — usually as a transfer of undertaking — employing the existing staff, buying or taking over the lease on the computers and running the whole installation on the customer's premises or ours."

Thus, Michael Porter's analysis is very accurate in respect of the computer department's suppliers and customers: both can now clearly be seen as competitive threats. Those seeking to provide a substitute for the services of the systems department include the traditional facilities-management suppliers in all their guises. The new entrants may be the formerly unthreatening audit firm, who (it

transpires) may well have facilities-management sales staff ready to step in as the senior audit partner discusses with the board the question of the computer department, its costs and achievements.

These comments are not intended to be an adverse criticism on the sales and marketing policies of such companies. Given the circumstances, they are the obvious tactics for vendors of IT services to pursue. They would be foolish not to do so. Rather, our comments are intended to highlight an obvious fact of life for the systems director. The greater prominence given to the systems function in recent years is a long overdue recognition of the importance of the function. It is to be welcomed, because it raises the level of discourse about systems within the enterprise, involves top management in decision making about systems policy, and creates greater opportunities for developments of fundamental importance. On the reverse side of the coin, there is greater risk. Because the systems director has greater influence, more people wish to usurp it. Because the prizes are greater, so are the penalties.

We issue this blunt warning to our members. Computer vendors, facilities-management companies, and other organisations are after your territory. If you try to maintain the inward-looking, technology-driven culture of the past, you will surely fail. If you ignore the competitive threats from your suppliers, from your customers, from innovators, from new entrants, and from substitute services, then you will also fail. If you decide to do battle with IBM and EDS and the other players in the facilities-management marketplace, fighting them inch by inch and trench by trench, then beware. Their resources are great. Is it not better to examine what they offer and see how it can be fitted into your strategy? Are there not battles they can fight on your behalf, rather than against you?

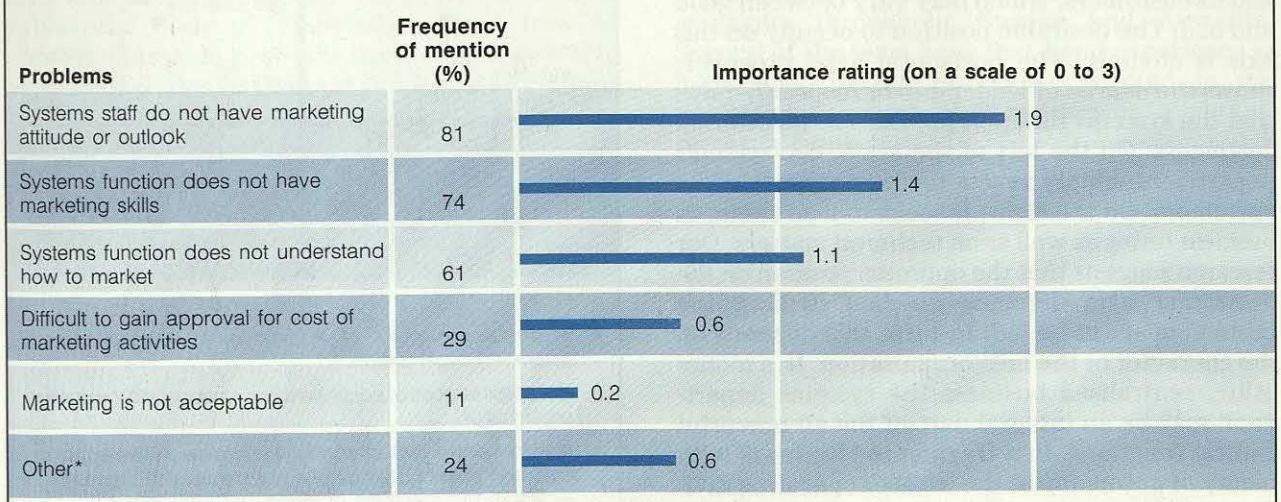
THE PERCEIVED PROBLEMS

Our survey results showed that most of the respondents believe there is a requirement to market the systems function and its services. We concur with this view, although, as we explained above, we believe there are even more pressing reasons for a marketing approach than those that are considered to be most important by systems directors.

Our survey also sought to identify the problems that systems departments will face as they try to adopt a more market-oriented approach to providing services within their own organisations. The responses showed that the lack of marketing orientation among staff in the systems department was perceived as being the most important problem, mentioned by over four-fifths of the respondents (see Figure 1.4). This is a very significant finding. Separate and distinct are the two related questions of skills and understanding among systems staff, both of which are rightly perceived as remediable if the basic attitude towards marketing is right. Only a minority of respondents considered that

Figure 1.4 The main problems faced in marketing the systems function

The main problem is perceived to be the nonmarketing attitude of systems staff.



*Other included 'no resources' and 'marketing is of low priority'

(Source: Survey of Foundation members)

the difficulties of securing agreement to spend money on marketing the systems function, or of making such marketing activities acceptable to the host organisation, were serious obstacles.

Figure 1.4 illustrates that, again, there was general agreement about the problems to be faced. But there was manifest disagreement at the more detailed level about what sort of marketing activities should be undertaken, and what the real aim of such actions should be.

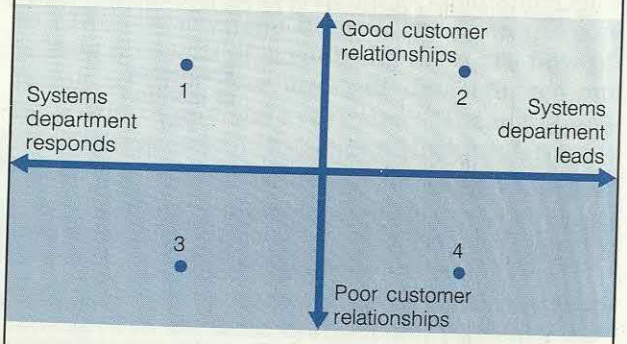
Our assessment of the research findings is that many of these disagreements arise from the lack of an agreed definition of marketing. We examined a total of 28 case histories during our research. In every case, the understanding of what marketing involved was subtly different — and invariably shaped by the experience of the respondent and (of supreme importance) the respondent's organisation. In organisations where relations between the systems department and its customers have been problematic, improved customer relations is seen as the key marketing objective. In cases where organisational problems have been experienced, structural reform is seen as the main aim. This reaction is both understandable and desirable, since it serves to focus attention where it matters. We provide our own definition of marketing in Chapter 2.

We said earlier that many systems directors believe that a main marketing aim is to position the systems function in a more favourable way. But how is the optimum position to be determined? The optimum positioning of the systems function within the host organisation depends upon its placement on the two axes shown in Figure 1.5. The vertical axis depicts the state of the working relationship between the department and its customers, which may vary between good and bad. The desirable position to occupy on this axis is obvious. The horizontal axis, however, shows the degree of leadership or responsiveness that the systems function provides to its internal customers. On the left of the scale, the systems department simply reacts to the demands of its customers. On the right, it seeks to lead them, in business terms as well as on technical matters. Our research suggests that the optimum position on the horizontal axis depends on how willing the customers are to be led. In turn, this depends on the character of the host organisation. In a monolithic, centralised business the systems department may be an integral part of the all-powerful central functions. In a fragmented business with plenty of autonomy at the level of operating divisions, leadership from the centre is counter to the corporate culture. Attempts to act in a dictatorial fashion in such organisations have accounted for the career of more than a few systems directors.

Our research has established one other fact of life about the two axes shown in Figure 1.5. Energy or momentum developed along one axis is not transferable to the other. If the basic positioning of the systems department on the horizontal axis is wrong, no amount of effort to improve customer relations will make it right; only structural reform will achieve that. And efforts to achieve structural reform do not necessarily translate into improved customer relations. The two variables are independent. Efforts to optimise them must be coordinated, but not confused. Napoleon categorised his generals as either being lazy or energetic, and stupid or intelligent. The greatest danger came from those who were both stupid and energetic. Nothing is sadder than the spectacle of a systems department striving to improve its relations with its customers when its basic positioning is wrong. It is still all too common for a passive systems department to continue to respond to the pressures of its customers like a leaf in a stream, when what is really required is firm leadership. It is less common today than a decade ago to find a systems department that seeks by overselling to impose doctrinaire theories on a resistant host organisation. But both still do occur; both are disastrous; both are curable. The formulation of the correct marketing policy is the way to avoid or escape from these contrasting dangers.

Figure 1.5 Positioning of the systems function within the host organisation

The optimum position of the systems function (the point of equilibrium) depends on its position on two axes — one represents the degree to which it responds to the business or leads it, and the other represents the state of its relationship with its customers.



1 Is a possible point of equilibrium in a decentralised, diversified organisation.

2 Is a possible point of equilibrium in a monopolistic, centralised organisation.

3 Is a dangerous lack of equilibrium in a diversified organisation, and possibly dangerous in a centralised organisation — leading to criticisms of inertia and introversion.

4 Is a dangerous lack of equilibrium in a centralised organisation, and possibly disastrous in a decentralised structure — leading to criticisms of arrogance and technical obsession.

PURPOSE OF THE REPORT

The responses to the questionnaire distributed at the beginning of the research showed clearly that Foundation members believe there is a growing requirement to market the systems function and its services. They also showed that there is general agreement about the problems that a market-oriented approach will bring, but less agreement about the detailed activities that have to be carried out. This confusion arises largely from the various interpretations given to the term 'marketing'.

The purpose of this report is therefore to help systems directors understand better what is involved in adopting a marketing approach, and to provide advice about planning and implementing a marketing policy for the systems function.

In Chapter 2 we first define what we mean by the term 'marketing', and then describe the basic concepts and principles defined by the marketing experts. The chapter also relates the definition, concepts, and principles to the work of the systems function.

Chapter 3 reports on the progress that Foundation members are making with adopting a marketing approach. Although most systems directors realise that marketing will be an important skill, few departments have progressed beyond the early stages of practising marketing. A few have made substantial progress, however, and their experiences are presented in some detail.

Chapters 4 and 5 show how a systems director can adopt a more systematic approach to marketing. As Chapter 4 explains, the problems for systems directors are not unique — there is now a substantial body of knowledge about how to market intangible products such as services. The report concludes in Chapter 5 with advice about how first to construct a marketing plan for the systems department and then to implement it.

An important element of the marketing mix is the pricing policy adopted. Many Foundation members asked us to investigate this subject in the context of providing systems services. Our findings are set out in the appendix at the end of the report.

BASIS FOR OUR CONCLUSIONS AND RECOMMENDATIONS

The research for this report was carried out in the first half of 1988. We have already mentioned the initial questionnaire sent to all Foundation members, to which 131 responses were received. We also conducted a programme of face-to-face and telephone interviews with user organisations, IT suppliers, and marketing experts. Our aim was to gather a wide spectrum of views, ranging from systems departments that consciously and actively market their services to those that claim that the whole concept of marketing is alien to their corporate culture. The supplier interviews sought the views both of major mainframe and mini-computer suppliers and of suppliers of personal computers. In addition, we reviewed published material, particularly that relating to the marketing of services and 'intangible' products. (Articles, papers, and books that may be of interest to Foundation members are listed in the bibliography.)

We also drew on experiences gained from Butler Cox's consultancy work, particularly in the areas of systems management and user needs surveys.

The report was written by David Butler, chairman of Butler Cox. Other members of the research team included Tony Brewer, director of the UK Foundation, Mary Cockcroft, a principal consultant with Butler Cox in London, Fred Heys, Butler Cox's research director, and the Foundation managers throughout Europe and Australia. Several of the team have first-hand experience as marketers, having previously worked in the marketing functions of IT vendors or in market-research firms.

Chapter 2

Significance of the marketing approach

Early in the research we realised that there is no clear understanding amongst systems directors about what is meant by marketing. In this chapter we first define marketing as we use the term in this report, and then set out the basic concepts and principles as described by the marketing experts. The chapter concludes by assessing the implications and significance of our definition and the concepts for the systems function.

DEFINITION OF MARKETING

Because the term 'marketing' means different things to different systems directors, we devoted time and effort to producing a definition of marketing, consulting both the published works of the accepted marketing experts and sometimes interviewing the experts themselves.

We encountered many definitions of marketing. Some of them seem to be biased more towards a social analysis. (For example, Philip Kotler in his book *Marketing Management* defines marketing as "a social process by which individuals and groups obtain what they need and want through creating and exchanging products and value with others ... ".) In our view, this definition is too broad to be useful; it applies just as well to the barter of goods among primitive tribes as to the work of the systems director. Other definitions are descriptive but not prescriptive — they tell you what you should do, but not how to do it. A typical definition of this type is that "Marketing is getting the right goods and services to the right people at the right place at the right time at the right price with the right communication and promotion". While such a definition has a healthy ring of practicality about it, it is short on methodology. How are these desirable goals to be achieved? We took the view that a useful definition of marketing for Foundation members needs to be fairly specific and oriented towards management tasks. It should imply not only what needs to be done, but where the focus of action should be.

Any definition, unless it is quite meaningless, runs the risk of being too narrow or too broad. If the definition of marketing is too narrow, implying some specific range of sales-related actions, it will miss the point. If it is too broad, it may be accepted by everyone but never usefully interpreted or applied. Our definition of marketing is as follows:

"Marketing is the deliberate management of the whole relationship between a supplier of goods and services and its customers."

We believe that our definition has one particularly useful attribute, namely its implications for staff and its relevance to the problem of attitude (which Foundation members rated as the most important). Our definition implies that marketing embraces all aspects of the supplier/customer relationship. From this, it follows inescapably that there is no one in the systems department — whether in operations, development, sales, or wherever — who does not share in the marketing role. Our research suggests that perceiving marketing as a responsibility shared by everyone in the systems department is both valid and useful. Indeed, such a perception helps to stimulate a full-scale review of attitudes and beliefs at every level in the systems function. The review will identify the attributes and skills lacking in most systems staff, but which are required before the systems department can truly adopt a marketing approach.

In order to discuss the attributes and skills required, we need, however, to go beyond our deliberately simple definition of marketing because to gain an understanding of the required skills is likely to be the first step towards acquiring them. Accordingly, we now provide a brief summary of the basic concepts of modern marketing. Later in the report (in Chapters 4 and 5), we relate the concepts to the tasks of the systems directors. Readers who are already conversant with marketing concepts and ideas may prefer to move straight to Chapter 3.

CONCEPTS OF THE MARKETING APPROACH

Peter Drucker, one of the most respected authors on management theory, maintains that marketing was invented in Japan around 1650, by the first member of the Mitsui family who settled in Tokyo and opened the world's first department store. Two

centuries later, Cyrus H McCormick of the International Harvester Company invented not only a mechanical harvester but many of the techniques of modern marketing, including market research and market analysis, the concept of market standing, pricing policies, the service salesman, after-sales service, and credit facilities. In the early 20th century, marketing began to be taught in universities, and marketing departments (initially called commercial research departments and regarded as mere adjuncts to the sales office) began to be established.

According to Drucker, marketing is so important that it either does not or should not exist as a separate function. "Marketing is so basic," he writes, "that it cannot be considered a separate function... It is the whole business, seen from the point of view of its final result, that is, from the customer's point of view."

Management textbooks present a fairly uniform analysis of the core marketing concepts. They describe marketing as a process that begins by focusing on customers' needs, wants, and demands, and then moves on to define the products that will satisfy the needs, and to determine how customers choose among the various competing products that could satisfy the needs. Marketing is also concerned with how the parties in a business transaction exchange goods and services and with the relationships between the parties. It is also concerned with the flow of information from and to customers. However, Philip Kotler and others emphasise that there is a common misunderstanding about the purpose of marketing. The task of the marketing manager is often seen as simply to concentrate on augmenting demand for the company's products.

DIFFERENT TYPES OF DEMAND

Nonetheless, an understanding of the likely demand for the organisation's products and services is an important element of the marketing approach. Kotler describes no fewer than eight broad classifications of market demand — negative demand, no demand, latent demand, falling demand, irregular demand, full demand, overfull demand, and unwholesome demand. Examples of the different types of demand are given in Figure 2.1. Systems directors may care to see which types correspond most closely to the demand for

Figure 2.1 Eight broad classifications of market demand

Type of demand	Characteristics	Examples	Marketing aim
Negative	Customers have an active dislike for the product and will pay a price to avoid it.	Dental treatment; gall-bladder operations.	To change consumers' perceptions about the product — for example to persuade them that dental treatment is better than having no teeth.
No demand	Customers are indifferent to or uninterested in the product.	New farming methods; foreign-language courses.	To link the product in some way to the customers' natural needs or interests — for better crops, for example.
Latent	Demand exists for products that are not available.	Safe cigarettes; fuel-efficient cars.	To measure the market and develop products that exploit the latent demand.
Falling	Declining demand for an existing product.	Ocean liners.	To analyse the reasons for the decline and to find either new targets or ways of adapting the product.
Irregular	Spasmodic demand, varying with time of day or season of the year.	Package holidays.	To smooth demand by creative pricing and communication policies.
Full	Production is running at maximum capacity and all goods are sold.	Basic food products.	To maintain the level of demand in the face of changing consumer preference, and to monitor customer satisfaction.
Overfull	More customers than can be handled.	Golden Gate Bridge in San Francisco.	To *demarket* by persuading a carefully calculated and controlled segment of customers to go away.
Unwholesome	Products attract organised efforts to discourage from buying them.	Cigarettes; alcohol; certain drugs.	To spread fear and revulsion; to increase prices and reduce availability.

(Source: P Kotler, *Marketing Management*)

the services they provide. It is interesting to speculate whether, in those organisations that told us that marketing the systems function was inappropriate, the demand for systems services is latent, full, negative — or even unwholesome. The type of demand not only determines the optimum positioning of the systems department (see Figure 1.5), it also determines the objectives of the marketing policy. This in turn determines which of the basic marketing approaches to follow.

Depending on the type of demand, the marketing policy may be concerned with stimulating, maintaining, or reducing the demand. An important factor in regulating demand, and therefore an important element of the marketing policy, is often the charging policy adopted for the goods and services. In Chapter 3, we describe the most commonly used charge-back mechanisms used by systems departments. The appendix contains detailed information about recharging in the context of providing in-house systems services.

DIFFERENT TYPES OF APPROACH

Traditionally, there were three types of marketing approach — the production approach, the product approach, and the selling approach. The production approach assumes that the most important buying criterion for consumers is the price of the product. This approach can be summarised by the phrase "pile it high and sell it cheap."

The product approach assumes that buyers are looking for quality, performance, and additional features not available with competitors' products, and that they will be prepared to pay more for a high-grade product with 'extras'.

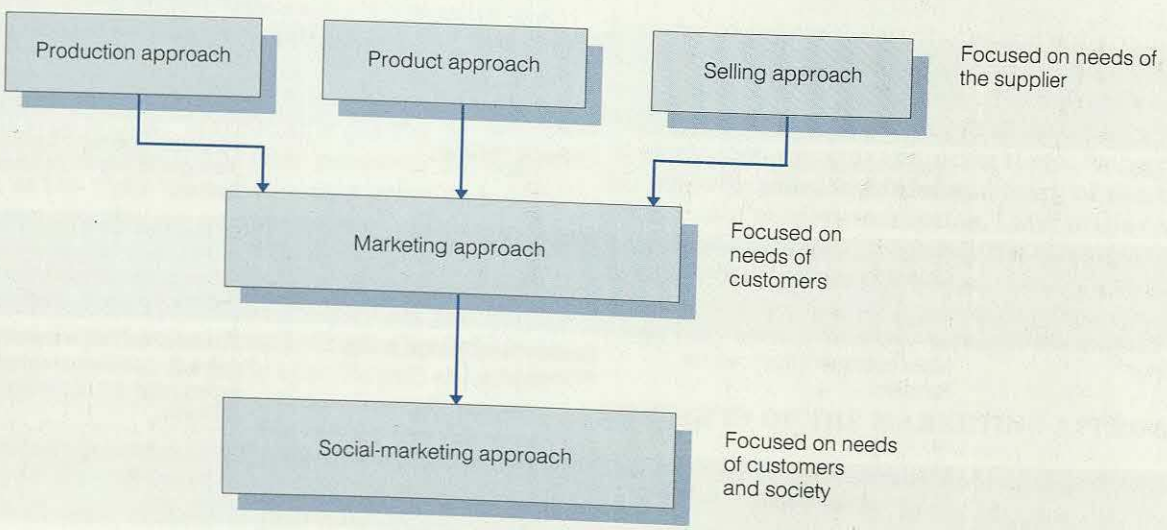
The selling approach stems from a belief that consumers, left to their own devices, will buy little or nothing of the company's output. They must be coerced into buying — if necessary in the face of fierce competition. This approach is adopted most widely in connection with 'unsought goods' like encyclopaedias and burial plots; but it is also used for sought goods such as motor cars.

These three traditional approaches are more concerned with selling activities than with the modern concept of marketing, and therefore have limited application in the context of an in-house systems function. However, they have led to the development of two further approaches — known as the marketing and the social-marketing approaches (see Figure 2.2). These two further approaches do have relevance for systems directors, and each is now described in some detail.

The marketing approach

According to Kotler, the marketing approach arose in the 1950s to challenge the three traditional approaches mentioned above. The marketing approach requires that the needs of groups of customers are analysed and understood and that the desired satisfactions (whether through products or services) are delivered more efficiently and effectively than by competitors. There are many famous sayings that illustrate the marketing approach. "Make what you can sell instead of trying to sell what you can make." "Love the customer, not the product." "To do all in our power to pack the customer's dollar full of value, quality, and satisfaction." Many Foundation members' companies are famous for their adherence to such policies.

Figure 2.2 Evolution of the marketing approach



Perhaps the best description of the marketing approach comes from Theodore Levitt, head of marketing at the Harvard Business School: "Selling focuses on the needs of the seller; marketing on the needs of the buyer. Selling is preoccupied with the seller's need to convert his product into cash; marketing with the idea of meeting the needs of the customer by means of the product and the whole cluster of things associated with creating, delivering and finally consuming it." (Since 1960, with the publication of his famous essay *Marketing Myopia*, Levitt has been widely acknowledged as the most prominent guru of the marketing world.)

In essence, therefore, the marketing approach is very simple. It amounts to a dedication to the cause of customer sovereignty. The customers (rather than the board of directors, or the marketing department, or the production or finance functions, or the government) determine what an organisation makes and sells. It is as simple, in fact, as many of the ideas that good systems directors already embrace — listening to their customers, producing the kind of systems they want rather than what the technical staff would like to produce, and so forth. But simple as the marketing approach is, the experts judge that very few organisations really understand and practise marketing. Most organisations believe that because they have a marketing department they are actually practising marketing. In reality, however, the attention remains focused on their own needs. More often than not, the customer is regarded as a necessary evil, an unwelcomed critic of what is on offer. Kotler's list of American companies that really understand and practise marketing includes just 11 names, only one of which (IBM) is in the IT industry.

Kotler has an excellent grasp of the difficulties involved in adopting the marketing approach. In fact, he identifies five stages (which are summarised in Figure 2.3) in the slow evolutionary process of learning what marketing is all about. To begin with, marketing is perceived as being to do with advertising, sales promotion, and publicity. The next stage is to regard marketing as being concerned with creating a cheerful and friendly atmosphere. The third stage is for the marketing effort to be focused on innovation. Next, the main aim of marketing is perceived as being to position the organisation, its products and services. The final stage of the evolution is to concentrate on analysing markets and planning and controlling the delivery of products to satisfy the needs of those markets.

Again, systems directors should be aware of where their departments are in terms of understanding and practising the marketing approach.

Even though most organisations do not fully understand the concepts of the marketing approach, marketing experts believe that this approach is gradually being superseded by a more all-embracing idea — the social-marketing approach.

Figure 2.3 Five stages in the evolution of understanding the marketing approach

Stage 1	Marketing is advertising, sales promotion, and publicity
Stage 2	Marketing is smiling and a friendly atmosphere
Stage 3	Marketing is innovation
Stage 4	Marketing is positioning
Stage 5	Marketing is analysis, planning, and control

(Source: P Kotler, *Marketing Management*)

The social-marketing approach

Understanding the customer's needs is never easy. But in an era of decaying inner cities, polluted lakes and rivers, coronary epidemics, ageing populations in the developed world, and starving children in the undeveloped world, when we see simultaneous famine and food mountains — not to mention AIDS — then a purely profit-motivated assessment of wants and needs may be inadequate, or even positively damaging. Kotler mentions as examples from the United States the promotion of unhealthy fast foods, uneconomic motor cars, ecologically unacceptable packaging, and detergents that pollute rivers. Thus, the marketing approach needs to be updated to take account of the wider social context. The wants and needs of the customers must be met "in ways that preserve or enhance the consumer's and society's well-being."

IMPLICATIONS FOR THE SYSTEMS FUNCTION

The first task is to determine the level of marketing sophistication to which the systems function should aspire. Is it enough to aim for Kotler's fourth approach? Or does the concept of social marketing have any relevance to the systems function?

There are some obvious social issues raised by the use of IT. The creation and destruction of jobs are examples. Does an employer have a duty to invest in high-technology production methods and displace a proportion of the workforce, if failure to do so endangers the company and hence the whole of the workforce? Such decisions have immense social impact, often exacerbated by regional factors. If we pass over them quickly in this report, it is not because we consider them unimportant but because the systems department is likely to have only a

minor voice in them. Investment and policy issues will be dominant factors in making such decisions.

Nevertheless, we believe that systems directors have a 'social marketing' responsibility towards their customers because systems today can make or break a company. When Gus van Nievelt of the American-based PIMS Program addressed Foundation members in 1984 he drew a remarkable conclusion from the research findings. Systems have a magnifying effect on the host organisation. Effective systems make good companies better, and bad companies worse. Put another way, information systems are strong medicine. The difference between the appropriate market positioning of a systems director and other suppliers of goods and services is therefore quite fundamental.

If your company is in the business of marketing unhealthy fast foods, you can always console yourself with the thought that there are millions of customers in the market. Perhaps most of them eat healthy food most of the time and indulge themselves once in a while. Even those who regularly consume your product can choose to diet and exercise, if they feel the need. The systems director has no such consolation, however. Nearly everything that he or she markets is consumed by just one customer. If the products cause the organisational equivalents of bad circulation, brain damage, or heart disease, there is no escape. Thus, systems directors must concern themselves not merely with the demand for systems products but also with their effects on the health of the host organisation. To that extent, the marketing horizon of the systems function should be social and ecological rather than purely economic.

With the exception of the above, the social-marketing approach as described by Kotler is therefore not applicable to the role of the systems department. The systems director should instead be aiming at a level of sophistication corresponding to Kotler's fourth concept — the marketing approach. This approach means that systems departments should adopt a mindset that causes them to: make what they can sell instead of trying to sell what they can make; love their customers, not the product; and do all in their power to pack their customers' dollars full of value, quality, and satisfaction. This is the situation that most systems directors aspire to, and that we believe this report will help them attain.

There is ample evidence to suggest that most systems departments are not inherently biased towards the marketing approach, as defined by Kotler and others. They tend to be preoccupied with the internal problems of the department, with problems of technology, and with their own standards of professional accomplishment. Although this may sound like a blanket condemnation of all systems staff, it is certainly not intended as such. There are exceptional departments and they are becoming more numerous. But any reader who doubts the validity of the generalisation that Kotler's concept of marketing is alien to most systems staff should study the second chapter of an earlier Foundation Report *Organising the Systems Department* (Report 52, published in July 1986). There is ample evidence in that report to show that most systems departments recognise their shortcomings in communicating with their customers on the customers' own terms, and evidence too of an alarming degree of complacency in the face of these failings.

The responses to the survey for this report also revealed that, while most systems departments lack the understanding and skills required for a true marketing approach, it is the lack of a basic sympathy with marketing goals that is the greatest obstacle. Systems staff do not naturally think in marketing terms and it is contrary to their fundamental inclinations to do so.

For this reason, systems departments tend to get stuck at the very first stage of Kotler's evolutionary learning process, perceiving marketing just in terms of better brochures, nice sales meetings, and colourful presentation slides. In many cases, they have not even advanced to the second stage of thinking that marketing is about smiling and creating a friendly atmosphere. In Foundation Report 52 the most frequently cited solution for the problem of poor communication between the systems departments and its customers was for the customers to learn more about computers. In effect, the message was "Let the customers change — we in systems will not." This approach is not just in conflict with the marketing approach, it is its direct antithesis.

Systems directors should also review just what it is the department is trying to market. The systems department's product on offer has also changed with time. In the old days, when the department was a monopolistic dispenser of wisdom and the one and only source of knowledge about the 'black art' of data processing, the product was technology itself. The demand for technology was (in Kotler's terms) either latent or negative. During this period, the marketing task was to convince sceptical managers that technology had some relevance to their business aims.

The battle to persuade the sceptics is now largely won. Few managers today remain totally indifferent to what information technology can do for them, so the marketing task is now different. The aim now is to define and position the role of the systems function, to make sure that the department's

customers are aware of the systems-building and systems-integration skills that are needed to realise the benefits of the technology. Once again, this battle has now largely been won. Most business managers now have a good understanding of the need for effective systems skills — good identification of opportunities, good project management, and good cost control.

However, it often appears to senior managers that these skills are more likely to be found in organisations other than their own — in computer vendors, in software houses, or among their commercial competitors. Consider again the message of the sales-briefing note issued by a computer vendor, which was mentioned in Chapter 1. "Senior managers often appear negative or even hostile to computing simply because no one has ever helped them set reasonable and considered expectations or given them yardsticks by which they can appraise their company's [IT] achievements ... In these circumstances, both you and your prime contact, the head of IT, find it difficult to launch sales campaigns or drive through new initiatives." The implication of this message is that it may profit the vendor to confirm top management's low estimate of skills in the systems department because it enhances the likelihood of the vendor's being selected as an alternative source of expertise.

The way forward is simple to state but is a massive task to undertake. It is to embed the marketing concept in a department whose every instinct seems to run counter to it. The challenge is to change the culture of the systems department so that it does not market the technology or systems skills in general. Instead, it needs to market the role of the department in harnessing the technology to business needs. To many systems directors the task may appear daunting, even impossible. Our reply is simple. Every computer manager, every analyst, and every programmer — whatever skills they may lack — has played a part in turning IT in the short space of 30 years from nothing into the world's most rapidly growing industry. Surely nothing is impossible for those who have participated in this great adventure. They just have to work out how to do it. We provide practical advice in Chapters 4 and 5. First, though, we need to identify the stages that systems functions have reached in marketing themselves and their services.

Chapter 3

Limited progress towards a marketing approach

The responses to our survey demonstrated that members of the Foundation regard the adoption of a marketing approach as a worthwhile aim, but found considerable difficulty in understanding exactly what was involved and what the implications of such an approach might be. A sound marketing policy was perceived as an indefinable future benefit — but a benefit of what and for whom is less than clear.

The mere extension of existing policies — simply doing more of what is done today — is unlikely to produce the desired result, since relatively few of our respondents regarded their present actions as worthy of the title 'marketing'. Furthermore, very few organisations had progressed to a level of activity that corresponded fully with the definition of marketing we gave in Chapter 2. Perversely enough too, some of the systems departments that came closest to our definition are the same ones that strenuously deny they are doing marketing at all.

How does it happen that the best marketing policies sometimes reside in departments that apparently do no marketing? Sometimes the answer lies in the personality and style of the systems director. Some people are born marketers, and practice their skills intuitively, just as some people are born project managers. They run their department as it seems obvious and sensible to run it — and are genuinely surprised to hear themselves described as 'marketing'. Without descending too far into conspiracy theory, it is also probably true that some systems directors are consciously marketing their function, but do not like to have the fact pointed out because their customers are not aware of being marketing targets. In systems as in other fields, the best marketing is quite invisible.

The organisations we selected for more detailed study are not a typical cross-section of the survey respondents. Because marketing in systems departments seems to be in its infancy, we have concentrated our attention on those cases that seemed to have some special interest or advantage, in the belief that all members will benefit. In this chapter we summarise the lessons of the experience we unearthed.

In summary, we found that the marketing activities of many systems departments are driven by the circumstances they find themselves in. The way in which the systems function markets itself has to take account of the host organisation's culture. Nevertheless, we did find encouraging signs that systems directors are increasingly recognising that they have to give priority to their customers' needs and are actively trying to do so. To date, though, most of the marketing activity is focused at the early stages of Kotler's evolutionary process. A few systems directors, however, have unwittingly reached the later stages and are, in effect, practising marketing as we defined it in the previous chapter. We expected to find that the best systems marketers would be found in those systems departments that had become independent, profit-seeking companies. Whilst there are some outstanding successes in this area, we are forced to conclude that commercial independence is not the best aim for many systems departments. Finally, we reviewed the ways in which recharging policies are being used as a marketing tool. Most systems departments have a lot to learn about the potential for using recharges as a means of influencing their customers.

DRIVEN BY CIRCUMSTANCE

We found that, in many cases, it is quite impossible to understand the marketing position of the systems department in relation to its customers without understanding the marketing position of the host organisation. The marketing philosophy of the parent organisation communicates itself, subtly but unmistakably, to the systems department. Marketing policies for systems services are adopted not as an independent, carefully worked-out initiative, but rather to reflect the culture of the host organisation. The marketing focus in many of the systems departments we studied is also determined by the past history of the department.

Sometimes, business pressures cause a crisis in the systems function. Sometimes, the systems department has not fully thought through its role and function. Sometimes the department understands

its role, but leaves the initiative in shaping that role to its customers.

A vivid example is provided by Thomson GP in France, the consumer-products division of the Thomson group. Following a major reorganisation of the company to reflect the management philosophy of decentralisation and devolved responsibility, the central systems function was left as an organisational anomaly. Prior to the reorganisation, the main systems development priorities were to seek out and magnify the similarities found in the different business units and to reduce, or even eliminate, aspects that were peculiar to a particular business. After the reorganisation, this whole approach was no longer relevant. The difficulty was resolved only when the director responsible for one of the two major lines of business in the restructured company was made responsible for the systems function as well. He recognised that if the systems function is to support the business units effectively then it has to be part of those businesses. As a result, the central systems function is soon to be disbanded and six new systems units will be established, each of which will be intimately involved in the businesses it will serve.

Another French company, Rhône-Poulenc, was facing similar difficulties, but has solved them in a different way. Rhône-Poulenc is a large international company that has changed greatly in the past few years. In particular, its traditional chemicals and textiles businesses have been transformed — in the case of textiles, largely abandoned. The management philosophy is to devolve as much responsibility as possible to the profit-centre level, but with overall central planning and control. Systems services are provided centrally, with the global systems function, which employs 1,300 staff, reporting to the Executive Committee.

The problem faced by Rhône-Poulenc was that the role of the systems function was not clearly defined and, as a consequence, the allocation of systems resources appeared to user departments to be determined by factors not relevant to their needs. This problem has been overcome by making the allocation of resources a joint systems and user responsibility. Rhône-Poulenc believes that doing this has removed the need for the systems function to carry out explicit marketing activities. The whole process is controlled by the Systems Policy Committee, which is chaired by the Executive Committee member responsible for the systems function. This means that senior management is now deeply involved in formulating systems policy — the Executive Committee now spends much more time on considering systems plans that it ever did before.

Other organisations are facing very different types of changing circumstances. For example, the systems department in SAS — the Scandinavian Airline System — realises that the market for its services is changing, and is having to adapt the way it conducts its business as a result. The remit of the department is to develop and support the use of systems throughout the organisation, whatever its needs. At present, almost 95 per cent of total systems expenditure within the airline goes through the hands of the systems department. However, as the operating divisions acquire their own systems expertise and invest in more PCs, the volume of business passing through the department by 1993 is expected to reduce to approximately 65 per cent of the total.

The task of the 15-strong marketing group in the systems department at SAS is to promote the products of the department in the new competitive environment. In the terms of Kotler's analysis, the department is managing a declining internal market, knowing that it is bound to account for a lower percentage of SAS's total systems expenditure. However, it believes that increased external business will more than compensate for the loss of in-house business.

On the other side of the world, the systems department in another airline (Qantas) is also facing a major change in the way it conducts its business. This time, the changed circumstances stem from a business decision by the airline's senior management to establish the systems department as a separate business — the main aim being to make the systems department more responsive to the needs of the airline. In addition, however, Qantas is likely to be in a better position to make a competitive response to the successful and profitable travel-booking systems that have been developed on the back of major US airline reservation systems. The plans to establish Qantek — Qantas Information Technology Limited — are described overleaf in more detail in Figure 3.1.

However, it is not just commercial organisations that have to change the basis on which systems services are provided. In the United Kingdom, local-government authorities are now required to put out a range of services to competitive tendering, which means that the internal systems department must demonstrate for every project that it is delivering value for money. If it does not, it will lose the business. The systems department at Surrey County Council, for example, will soon have to face this challenge, and realises that it will have to adopt the appropriate marketing approach to enable it to compete effectively.

Hitherto, local-authority systems departments have usually been regarded as highly centralised, somewhat bureaucratic, and very introspective.

Figure 3.1 Business decisions can change the way in which systems services are provided

QANTAS AIRWAYS

Qantas is Australia's national airline on international routes. It has sales revenue of A$3 billion ($2.4 billion) and employs 16,000 staff worldwide. Its budget for the centralised systems service is close to A$100 million ($80 million) and 450 staff work in the systems function. We interviewed Mr Ian Riddell and Mr Ian Brown, respectively the director of information systems and his strategies director.

In 1984, Qantas concluded that it was not using IT to the best advantage, and that the systems function could serve the management and the company's products better than it had. Since then, progress has been made in improving senior managers' understanding of the true potential of IT for the company. External consultants recommended that each of the major divisions — marketing, operations, and corporate/financial management — should establish its own information technology manager position to act as the catalyst for better exploitation of IT. But a much more radical change is now planned. At the instigation of the airline's senior management, a new subsidiary named Qantek — Qantas Information Technology Limited — has been established to meet all the airline's needs for IT.

New contractual arrangements will also be introduced, with internal customers paying the full economic price for systems services. The airline will also ensure that each division is fully accountable for its systems expenditure, to ensure that value for money is achieved. A new client-services division has been formed — marketing in everything but name. Qantek will break out of the old-style, passive, responsive mode and will actively sell the benefits of IT to the airline's divisions. The main task will be to manage the expectations of the Qantas management, who may have unrealistic short-term expectations from the new arrangements.

The client-services division will be a key factor in the success of Qantek. At first, fewer than 10 people will work in this unit, but they will be the trailblazers and door-openers for the rest of Qantek. Initially, Qantek will focus exclusively on the task of serving and satisfying its customers in Qantas. It will have an initial advantage in relation to competitive systems suppliers, because it will have first option on all development projects for the first two years. Given its knowledge of the business and control of the communications network, Qantek is confident that now, and in the future, it can respond to competitive threats and offer the best deal.

Qantek will continue to market software to other airlines. If Qantek eventually markets to other industries, it will be through a joint-venture company, Qadrant International, formed with the DMR Group of Canada.

The new business climate resulting from the need for competitive tendering means that they are having to change very quickly to a more commercial and outward-looking view of the world. Marketing is a key skill — perhaps the key skill — in making this transition successfully. The aims and plans of the systems department at Surrey County Council are reviewed in more detail in Figure 3.2.

Figure 3.2 Changing circumstances can force the systems department to adopt a marketing approach

SURREY COUNTY COUNCIL

Surrey County Council provides local government services to the attractive dormitory zones situated to the south west of London. The authority employs 20,000 people and has a revenue budget of £400 million ($680 million). The systems department employs 150 staff and has a budget of £5.5 million ($9.4 million).

Central government is encouraging a more competitive climate, in local government — indeed, a range of services now have to be put out to competitive tenders. Because of this new climate the systems department now has to demonstrate that it is delivering value for money in everything that it does. The department is concerned that it should respond effectively to the challenge, not just for selfish reasons, but because piecemeal subcontracting of systems could easily create chaos and could damage the authority's ability to manage its own affairs.

The marketing efforts made to date include the publication of newsletters, one concerned with major systems and one with PCs. A brochure advertising the facilities provided by the computer centre is also planned. Preparing for competition, the department now names an individual on each major project who will be responsible for communicating with the prospective customers. All systems staff are also being encouraged to take a higher profile with their customers. Like many local authorities, Surrey is also moving to a total charge-out policy. Expenditure levels will be agreed with the finance department, and the systems function will be run virtually as a zero-cost centre.

The overall aims are to make customers more widely aware of what IT can do for them, and in particular to present an attractive range of product options to the different customers. Some will need major new systems, others will want to be linked to the county network, others will just want PC support. Surveys of customer attitudes are also being undertaken.

The systems department's own competitive analysis shows that it has the advantages of knowing the organisation and its working methods, of price advantage in most instances, and of the existing infrastructure — especially the network. In the more commercial environment generated by competitive tendering, the department would like to achieve a balanced portfolio of internal and external work: indeed commercial prudence dictates that it should. But it is very realistic about the problems of marketing systems services to commercial concerns. It is more optimistic about selling capacity to other local authorities, which it feels well placed to undertake.

With these aims in mind, the systems department is soon to make use of a consultant whose task will be to identify ways of developing and extending the marketing policies of the department. One short-term problem that needs attention is the balancing of prices. At present the pricing policy is not sufficiently sophisticated and is regarded by some customers as unfair. All charge-back is based on standard costing in line with estimated expense, which is likely to remain the basis for the foreseeable future.

PUTTING THE CUSTOMER FIRST

The above examples show that some systems departments are being forced by circumstances to adopt a more market-oriented approach. Among the marketing gurus there is unanimity on one point; the hallmark of a marketing organisation is the value that it places on its customers. Such an organisation puts the values and needs of its customers above its own. Moreover, the experts agree that the least reliable guide to judging whether an organisation truly subscribes to this philosophy is the rhetoric of the organisation. Most businesses profess this virtue; hardly any practise it.

This is perhaps the hardest lesson of all for a systems department to learn. The technical origins

of the department mean that it all too easily lapses into a mood of confident indifference to the customers' needs. The underlying attitude is that customers know nothing of what systems are really about. Hence, the widely different views held by the department and its customers about the importance of systems priorities. We were therefore very encouraged to find that some of the organisations we studied were setting out on the long, hard road towards a genuine appreciation of customers' needs, and were making genuine attempts to put their customers first.

For example, in the Netherlands the systems department of Aegon, the country's second largest insurance company, has explicitly recognised the need to take account of its customers' needs and has taken steps to do this. Mr Nick Schriever, manager of Marketing Services and Accounts Management in the systems department, told us that the aim of the department is to have "happy users". (This corresponds with Kotler's stage 2 in the understanding of marketing.) Mr Schriever's group is, in effect, the marketing department for the systems department.

Interestingly, Aegon was driven to adopt a marketing approach by the complications of its own internal structure. The computer department has been organised for many years into two independent operating units, one concerned with development and one with operations. This structure created problems of liaison for the customers, since borderline problems arose. The response to this difficulty (reached in 1986) was to create a help desk, wherein lay the origins of the marketing group as a specific entity in Aegon.

The group is very small at present — only two full-time staff out of 350. Its tasks are to create a positive atmosphere about the work of the department — an exercise in "hearts and minds" — to find ways to improve the service of the department, to enhance communication with customers, and (most interesting and difficult) to regulate demand.

Another organisation that has been making a determined effort to understand the needs of its IT customers is the systems function in one of the largest UK government departments. For the past two years, the systems function within the department has been explicitly marketing its services. The marketing programme has involved the appointment of account managers and the publication of promotional literature, including a guide to systems services. Thus, a twin-track policy is being pursued, with strategic moves like the account-management initiative and tactical steps such as promotional literature.

Like many systems departments, the department's systems function recognised that there were shortcomings in the ways in which it communicated with IT customers. This was confirmed by an internal survey, which proposed the adoption of a consistent house style, a clear and systematic way of responding to customer inquiries, and better packaging of products and services emanating from the group — in short to make the relationship with the customers more professional. It took 18 months to agree the content of the resulting promotional literature, which illustrates a point found in other organisations. The preparation of promotional literature demands far more management time and attention than at first seems likely.

It is hoped that the promotional literature will help solve the most serious problem faced by the department's systems function — the lack of a clear-cut strategy for the use of IT (such as a commercial organisation might more easily evolve) and the difficulty of justifying projects in a climate where cost-reduction is the only certain route to success.

Other examples of systems departments taking active steps to improve communications with their customers were found in Beiersdorf AG and Schering AG in Germany. Beiersdorf is a consumer-products company with 16,000 employees and annual sales of DM 3 billion ($1.66 billion), of which nearly half is outside Germany. Its central systems budget totals DM 42 million ($23 million). The central systems department provides several training courses for its customers — including five on PC applications, an introduction to systems, and a top-management course on IT trends and opportunities. In addition, there are workshops introducing new personal-computing software. These workshops are open to all staff and also provide an opportunity for individuals to exchange information. The courses and workshops are of a high standard and have been well attended. The intention is to extend the PC-applications course by inviting customers who have successful implementations to describe their experience to the rest. The department recognises that the more freedom customers have to choose their own solutions, the more active the systems function must be in supporting and guiding them.

There has also been a recent change in the emphasis of the relationship between the department and its customers. In the past, the department was the main source of ideas, approaching the divisions to try to interest them in possible developments. Today, the customer divisions much more frequently take the initiative and present ideas to the systems function for evaluation and appraisal.

The systems function must therefore be more deeply involved in the policies of the business, because it has to regulate the responses to these initiatives.

Beiersdorf is clearly an example of the many systems departments in a transitional stage between the conventional, large-systems methods of the past and the more adventurous world where the customers do more for themselves and in more and more instances set their own development pace. Like other systems departments in a similar phase, Beiersdorf's will seek to manage the pace of change. It will not seek to impose on the customer more responsibility than the customer is equipped or organised to support. Its conviction that marketing will be an important area of activity from now on is an encouraging sign.

Schering, a pharmaceutical company employing some 24,000 staff worldwide, is at a similar stage of development. It is among those Foundation members that believe marketing is an essential activity for the systems function, but as yet has not embraced a proper marketing policy. The closest that the commercial computing unit in Schering comes to overt marketing action is through the activities of two support groups designed to work with and solve the problems of specific groups of customers. The first group supports current users of systems, and just responds to requests for help. The second group, the applications development group, has a wider remit. It is intended to act as the architect and unifier of group-wide systems. To this end, the unit conducts surveys of its customer base to try to identify future needs.

At present, there is no separate focus for marketing activities and hence no distinct budget. However, Schering believes that marketing will play an important role in the future of the systems department, although such actions receive a low priority now because of the pressure of the existing workload. Perhaps Schering will need to follow the path already taken by certain other companies interviewed for this report. It may take a particular problem, one large enough to attract the attention of top management, to force marketing issues to the top of the systems agenda.

PROGRESS IN PRACTISING THE MARKETING APPROACH

We mentioned earlier that Aegon has reached the second of the five stages in understanding and practising marketing (the 'happy users' stage). This was typical of many of the organisations we interviewed for this report. Moreover, many of them were unclear about how to progress beyond this stage. This is hardly surprising, given the intangible nature of systems services.

As Levitt explains, customers cannot touch, feel, or taste systems services before they decide to buy them. Success in marketing such products is known to be very dependent upon the style of the providing organisation. The way the systems department projects itself to its customers is therefore very important. Having effective sales literature and the right approach correspond to the two most elementary levels in the evolution of practising the marketing approach. Nevertheless, we must make the obvious point that if the systems department offers scruffy, ill-prepared documents and surly representatives, all of its more sophisticated marketing initiatives will be to no avail.

One area in which systems departments could make an immediate improvement is in the preparation and presentation of the documents describing their strategic plans. How often do such documents contain several hundred pages of totally unreadable detailed technical information concerned with software architectures and the like? Instead, they should be perceived as an opportunity to sell the department and its aims to the rest of the organisation. At least one Foundation member has grasped this nettle; the systems department's strategic plan is set out in a 20-page document — it even contains some cartoons.

Again, we were pleased to find that, among the organisations we interviewed, there were some excellent examples of promotional material. One of the best we saw was the newsletter produced by ICI Australia's information centre. One page from this newsletter is reproduced (by kind permission of ICI) as Figure 3.3. Another good example was the guidance booklet published by the Unilever Computing and Communications Group in London, a sample page of which is shown in Figure 3.4. The interesting point about these publications is that their effectiveness as marketing communications tools depends more on their content than on lavish presentation. Neither of these organisations had spent vast sums on printing. Indeed, there is evidence that over-elaborate presentation can cast the systems department in the role of spendthrift.

Other organisations use different methods for promoting the systems department and its services. In the United Kingdom, for example, the Yorkshire Water Authority has used a promotional video to inform the department's customers of the progress being made with the implementation of a major new project. The video is used both to inform a wide audience about the aims of the project and to train those who will operate the system.

Having seen the video, we can vouch for the fact that it is well made, convincing, and very

economical in its approach — excluding the cost of the staff involved, it cost just £17,000 to make. The main aim of the video was to ensure fast and trouble-free implementation of the project. A new video has now been produced, covering a wider range of the systems department's activities. Again, the aim is to secure better use of the department's services and increased benefits for the customers.

Interestingly, the systems department at Yorkshire Water does not regard itself as overtly marketing itself or its services. Yet, as in other cases, it is doing an effective marketing job. The experience of this public utility also illustrates another general point from our case histories — the value of choosing one extremely important project as the vehicle for changing the way the systems department communicates with its customers.

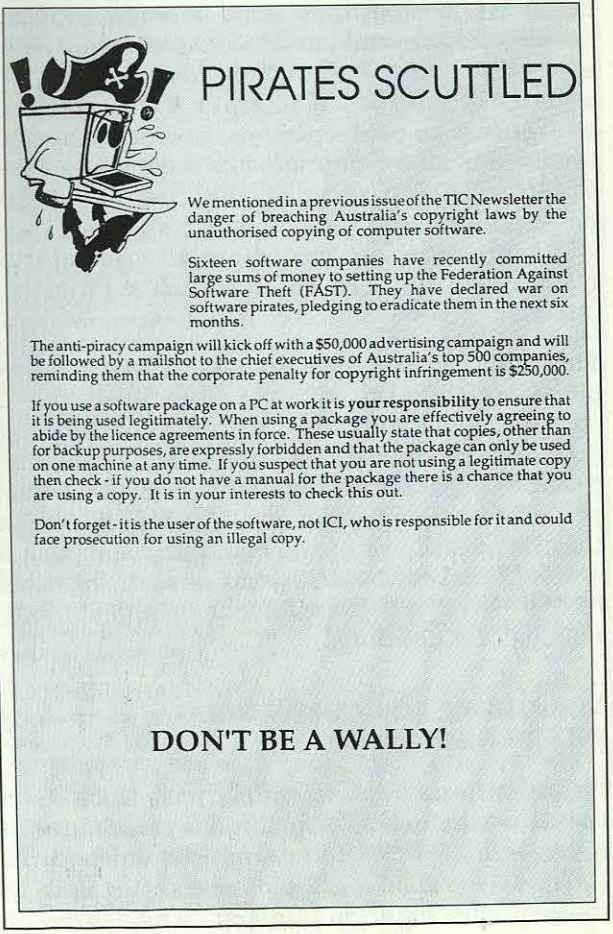
Another organisation that has chosen this approach is Group Spie-Batignolles, a major French general contractor and asset-management company specialising in electricity and nuclear energy, construction, engineering projects, pipelines, and estate management. In this case, the shop-window project is the wiring for the group's new headquarters building. This project is regarded as a powerful marketing tool, both internally and externally. Daily parties of visitors tour the facility and there is considerable press interest in the project. Brochures and video presentations are also used.

The systems department in Spie-Batignolles has also launched a videotex information service, which contains details about the department and its services.

THE MARKETING APPROACH IN ACTION

So far in this chapter we have emphasised that most of the systems departments we met with during the research were at an early stage in the evolution of understanding and practising marketing. A few, however, had progressed to the stage where they were, in effect, practising marketing as we defined it in the previous chapter. Two organisations particularly impressed us — BMW in Germany, whose experiences

Figure 3.3 Sample page from ICI Australia's information centre newsletter



PIRATES SCUTTLED

We mentioned in a previous issue of the TIC Newsletter the danger of breaching Australia's copyright laws by the unauthorised copying of computer software.

Sixteen software companies have recently committed large sums of money to setting up the Federation Against Software Theft (FAST). They have declared war on software pirates, pledging to eradicate them in the next six months.

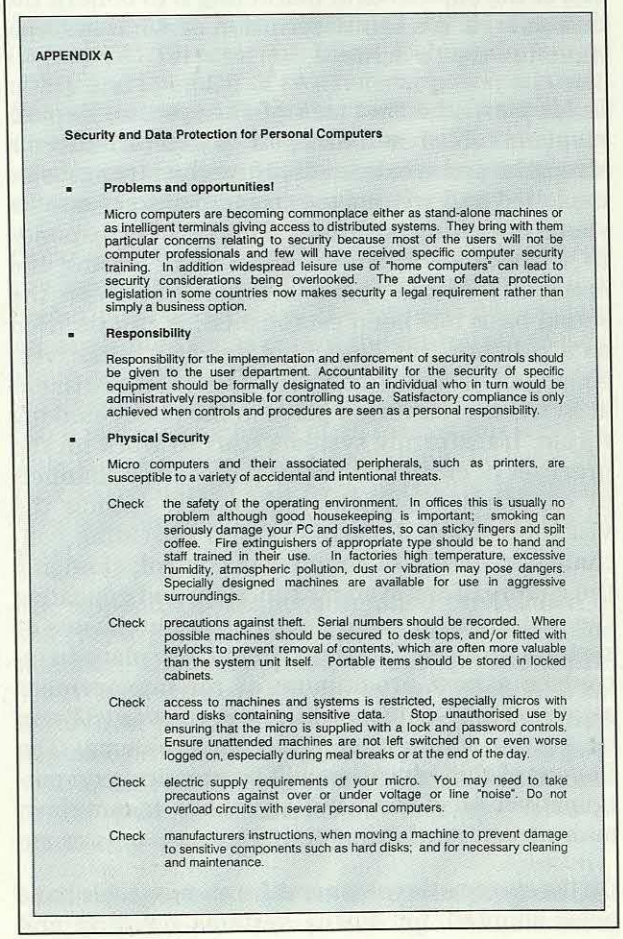
The anti-piracy campaign will kick off with a $50,000 advertising campaign and will be followed by a mailshot to the chief executives of Australia's top 500 companies, reminding them that the corporate penalty for copyright infringement is $250,000.

If you use a software package on a PC at work it is **your responsibility** to ensure that it is being used legitimately. When using a package you are effectively agreeing to abide by the licence agreements in force. These usually state that copies, other than for backup purposes, are expressly forbidden and that the package can only be used on one machine at any time. If you suspect that you are not using a legitimate copy then check - if you do not have a manual for the package there is a chance that you are using a copy. It is in your interests to check this out.

Don't forget - it is the user of the software, not ICI, who is responsible for it and could face prosecution for using an illegal copy.

DON'T BE A WALLY!

Figure 3.4 Sample page from Unilever's computer security guidelines



APPENDIX A

Security and Data Protection for Personal Computers

- **Problems and opportunities!**

  Micro computers are becoming commonplace either as stand-alone machines or as intelligent terminals giving access to distributed systems. They bring with them particular concerns relating to security because most of the users will not be computer professionals and few will have received specific computer security training. In addition widespread leisure use of "home computers" can lead to security considerations being overlooked. The advent of data protection legislation in some countries now makes security a legal requirement rather than simply a business option.

- **Responsibility**

  Responsibility for the implementation and enforcement of security controls should be given to the user department. Accountability for the security of specific equipment should be formally designated to an individual who in turn would be administratively responsible for controlling usage. Satisfactory compliance is only achieved when controls and procedures are seen as a personal responsibility.

- **Physical Security**

  Micro computers and their associated peripherals, such as printers, are susceptible to a variety of accidental and intentional threats.

  Check the safety of the operating environment. In offices this is usually no problem although good housekeeping is important; smoking can seriously damage your PC and diskettes, so can sticky fingers and spilt coffee. Fire extinguishers of appropriate type should be to hand and staff trained in their use. In factories high temperature, excessive humidity, atmospheric pollution, dust or vibration may pose dangers. Specially designed machines are available for use in aggressive surroundings.

  Check precautions against theft. Serial numbers should be recorded. Where possible machines should be secured to desk tops, and/or fitted with keylocks to prevent removal of contents, which are often more valuable than the system unit itself. Portable items should be stored in locked cabinets.

  Check access to machines and systems is restricted, especially micros with hard disks containing sensitive data. Stop unauthorised use by ensuring that the micro is supplied with a lock and password controls. Ensure unattended machines are not left switched on or even worse logged on, especially during meal breaks or at the end of the day.

  Check electric supply requirements of your micro. You may need to take precautions against over or under voltage or line "noise". Do not overload circuits with several personal computers.

  Check manufacturers instructions, when moving a machine to prevent damage to sensitive components such as hard disks; and for necessary cleaning and maintenance.

were mentioned earlier in Chapter 1, and ECGD, the UK government-owned export reinsurance business. Again, the interesting point about both of these organisations is that neither of them believes that it is explicitly marketing the systems department and its services. The ECGD case is described in some detail below because it is one of the best examples we found of the marketing approach in action in a systems department.

ECGD (originally an abbreviation for Export Credits Guarantee Department) covers exporters against the risk of nonpayment. Its systems department employs 170 staff, or 10 per cent of the total headcount. Its annual budget is currently £7 million in revenue, and is growing quickly. The demand for computing facilities is growing at around 100 per cent per annum. Terminal penetration is one per three employees, moving rapidly towards one in two. Thus the systems department is operating in a growth market. We interviewed ECGD's Director of Information and Risk Management, Mr Geoff Codd.

Mr Codd expressed an initial qualm about the whole concept of 'marketing' internal systems services. He sees himself as a member of the organisation, working with his colleagues towards agreed aims. Nevertheless, he would accept that since one of the objectives of marketing is to benefit the customer, it is a fair description of what systems directors try to achieve.

In his view, the first task of the systems department involves self-analysis to determine its strengths and weaknesses. How can strengths be exploited and weaknesses remedied to create "a sound operating position". This task corresponds to what other members called "increasing the credibility of the systems function". Once the sound basis has been established, it can be used as a platform for launching specific initiatives. Among those launched by the systems department at ECGD are: earning a place in the policy-making forum; transferring systems staff to work on the premises of customers; setting up better channels of communication with customers; raising the visibility of the department and providing continuous evidence of sound cost control; changing the culture of the systems function; and educating the customers to make them better purchasers of systems services. The department also plans to introduce a new programme of top-management awareness, to demonstrate how relevant IT can be to the solution of strategic problems. The flavour of this education will be practical and participative. All of these initiatives are, in our view, mainstream marketing activities.

On the systems development front, new tools have been adopted for faster systems building and better control. The results of better project management are very visible to the customers. Direct evidence is therefore shown that the systems function is a careful custodian of the customers' resources. A deliberate search has also been carried out for applications that were relatively simple to implement but had a major impact on the business. One example is a system known as CLASS, which helps insurance staff to respond much more promptly to inquiries from customers. Systems staff are also being trained by external experts in 'customer care'. Staff education and training within the systems department are generally being treated as very important matters.

Systems staff are also encouraged to participate in public-relations activities, such as magazine articles and public talks. But the tone is always carefully controlled. The message is not "look how clever we are," but "look what we have helped our customers to achieve." Interestingly, the publication of the house magazine by the systems department has been discontinued. Though worthwhile in itself, it did not rank as a top-priority task. It may be reintroduced when the higher-priority actions are further ahead.

The systems function in ECGD is, in the words of Mr Codd, " an enlightened monopoly"; it is not in direct competition with outside suppliers because it has earned itself a unique stature in the eyes of its customers. Outside firms are thus just a source of skills and manpower if they are needed. There is no confrontation. Mr Codd is directly involved in all consideration of the use of outside expertise. Comparison of the cost of internal development with outside bids is routine. There is no pressure on customers to use internal resources if they can get better value for money outside.

The ECGD case illustrates how traditional problems between the systems department and its customers can be tackled with a combination of practical actions and sound strategic thought. This is marketing at its most effective, because it is not perceived as marketing at all. It also illustrates that successful use of the marketing approach is not confined to those systems departments that have evolved to become fully independent profit-seeking organisations.

THE QUEST FOR COMMERCIAL INDEPENDENCE

As any systems department becomes more effective at marketing, so its ambitions can change. If it can sell its wares to internal customers, if its staff have as good a grasp on marketing skills as those of most external suppliers, why not test its

skill in the open market? As we have seen, Qantas's new subsidiary will attempt just that. Is the transition to commercial independence the end of the natural evolutionary path for most, or all, ambitious systems departments? In our view the answer is 'no'.

We believe that commercial independence will be the right course of action for only a small number of systems departments. One organisation that has successfully made the transition is ISTEL in the United Kingdom (see the case history set out in Figure 3.5). ISTEL began life as the in-house systems department of the British Leyland (now Rover) car group, but is now a fully independent systems company competing in the marketplace. Close study of the ISTEL case reveals just how exceptional are the circumstances that led to its success.

Many more departments have attempted to follow the same route, but have met with highly questionable success. Unilever explained to us why it launched not just one, but two, independent companies (one a computer service company and one a consulting firm) — only to find that changing requirements led to different solutions. We recommend that any systems director thinking about launching his or her department as a separate commercial concern should think very carefully about the risks. Success in this field is exceptional.

Figure 3.5 Commercial independence can be successful

ISTEL

ISTEL was originally the computer department of the British Leyland motor car group, now the Rover Group. In 1980, ISTEL became a separate company and in 1987 was privatised through a management and staff buy-out. In the view of Mr John Leighfield (Chairman and Chief Executive), the company has traversed the whole spectrum of marketing responsiveness, from its days in the 1970s as an internal and somewhat introspective systems department to its present state — where it survives only by marketing its services.

In the early days of its existence as a separate company, ISTEL made virtually no explicit marketing effort. There was a common belief that systems analysts do their own selling . . . it's part of the job. All systems analysts were regarded as salesmen. Over the past decade, marketing in ISTEL has evolved into something both explicit and pervasive. The main vehicle of this change has been the systems-planning process. The first systems-planning role was created in 1972 in the old British Leyland organisation. In the mid-1970s, systems planning became more effective, and by the late '70s those working in systems planning involved themselves more and more deeply in the problems and aspirations of the senior user management. By the 1980s, systems planning was getting involved in such activities as motor-industry studies carried out by university departments, as well as competitive and collaborative studies. Thus, the systems planners came to understand the factors that dominate the lives of their customers.

Mr Leighfield summarised his own view of the systems department's marketing role, taken to a further degree in a standalone company: "Define the needs of each group of customers or potential customers, then match and deliver products and services against those needs."

The main lesson of the ISTEL case is that cultural change and organisational development must precede marketing initiatives. In the wrong context, conventional marketing activities may actually do damage.

RECHARGING AS A MARKETING TOOL

Surprisingly few of the systems directors we met had recognised that the recharging policy for systems services could be used as a marketing tool. As we show in the appendix, the recharging policy can be used to influence the way that the systems department's customers perceive systems and the department.

The most enlightened view about recharging was expressed by ECGD (whose experiences were described earlier in this chapter). Mr Codd, the systems director at ECGD, told us that in the autumn of 1988 a new schedule of charges will be introduced, to replace the somewhat ad hoc recharging arrangements of the past. He believes that the recharging mechanism should be used to increase the department's customers' awareness of the true cost and value of the services they buy.

A similar view was expressed by M François Lagae, DP Director of Ebes, Belgium's largest utility and operator of two nuclear power stations. He told us that a charge-back scheme for systems services is soon to be introduced. The aim is to encourage higher quality by demonstrating to customers that they get what they pay for.

Other organisations recharge at cost, aiming to run the systems function as a zero-cost operation. Sometimes, the costs of the systems department are accounted for as part of the central overheads. Some organisations (NDU, for example, whose experience was described in Chapter 1 on page 1) often make no recharge at all for systems services. This is not necessarily a bad thing, because the lack of recharges can be a perfectly legitimate means of promoting the use of IT for the corporate good.

The appendix contains a detailed breakdown of the recharging methods used by the Foundation members that responded to our questionnaire. There is no absolute answer to the question: what is the best recharging method? As the appendix explains, it depends on the style of the organisation, the relationship of the systems department to its parent organisation, and the present marketing aims of the department.

In this chapter we have reviewed the progress that Foundation members are making with practising

the marketing approach. With a few noticeable exceptions, most systems departments have not yet progressed beyond the early stages of understanding marketing. We turn now to describe how a better approach to marketing the systems function can be achieved.

Chapter 4

A better approach to marketing systems services

In Chapter 1 of this report, we explained why the systems department needs to market its services. We also asked how a systems director could find the point of equilibrium between irresponsible overselling of the systems function and passive subservience to short-term pressures. In Chapter 2, we described the significance of the marketing approach — whether the product on offer is a professional service or a hamburger. We relied heavily on the work of marketing experts such as Kotler for the definition of marketing used in that chapter. In Chapter 3, we compared the marketing approach as defined by marketing experts with what is happening in systems departments today, using the case histories of several Foundation members. We described the ad hoc policies being followed by many organisations — reactions to major organisational changes or business pressures combined with more conventional promotional techniques.

In this chapter and the next, we explain how a systems director may adopt a more systematic approach to marketing. How may the concepts of the marketing approach be applied to the provision of systems services within the host organisation? Are there any similarities with other products and services from which the systems director can learn valuable lessons? How should he or she plan the systems department's marketing campaign and implement it?

Because the systems department provides a service rather than a product, it poses some special problems for the marketer. But many other commercial and public bodies also deliver services. The problems of marketing services are well known, as are the approaches to solving them. They have acquired their own literature. The book, *Practice development for professional firms*, by Aubrey Wilson, a leading British industrial market researcher and speaker at the International Foundation Conference in 1988, is a good example. In this chapter, we outline these marketing problems and the approaches needed to solving them when marketing systems services.

PROBLEMS IN THE MARKETING OF SERVICES

Computer services belong to a category known to marketers as 'intangibles' — a term used to differentiate services from goods that are handed over to the customer and forgotten. In fact, highly intangible products like computer systems pose special problems in both the areas that concern marketers — getting customers and keeping them.

There are two major problems in getting customers for a service. First, a service cannot normally be seen or tested in advance. Customers are gained on the basis of the promised benefits that the service will deliver. Second, many services, such as the provision of information systems, depend heavily on the people who provide them. The impression made by the people selling and delivering the service is often more important in a prospective customer's decision-making process than a description of the service to be provided.

People are also an important factor in keeping the customers of a service once they have been gained. Because of the large people element in both producing and delivering a service, it is much harder to maintain a consistently high quality than in, say, an industrial-manufacturing process. Services also have another marketing disadvantage — they are generally not appreciated when they work. They are only noticed when they do not operate properly.

SERVICES ARE INTANGIBLE

Intangible products like travel, insurance, education, health care, and computer systems can hardly ever be properly tried or sampled in advance. Sometimes, 'surrogates' (others who have tried the product or expert analysts) can provide secondhand experience about using the service. But their taste and opinion may not coincide exactly with that of the prospective purchaser. However, even with very tangible products, customers (according to marketing experts) notoriously overestimate both the value of pre-purchase testing and the extent to which it is possible. They pretend, for example, that test-driving

a motor car for 15 minutes is a reliable guide to what owning it for five years will be like, and regard the test drive as a vital preliminary to a purchasing decision. Theodore Levitt has pointed out that such testing can convey only a superficial knowledge of the product's features and is a poor guide as to whether the tangible product will deliver the intangible benefits expected by the purchaser. Levitt uses the example of a frozen-food product to illustrate how suppliers try to make consumers feel confident about products that cannot be pretested. You eat the product at someone else's house and it is delicious. You try it at home and it is horrible, because you do not have the special skill or equipment needed to prepare it properly. So the intangible that frozen-food suppliers deliver with their product is ease of preparation and reliability of results.

In marketing terms, there is an intangible element to even the most concrete products. Motor cars offer the intangible benefits of reliability, glamour, sportiness, or whatever. These are as much part of what the customer buys as the wheels and the engine. And the suppliers of cosmetics suggest that the use of their products offers a level of glamour that may wildly exceed what can actually be delivered. Promises like these — which are not meant to be literally believable — are termed 'metaphoric promises'. So the first lesson we learn in comparing hamburgers with computer services is that they may have more in common than we initially suppose. Nevertheless, there are important differences. It is, for instance, easier to try a new brand of consumer goods, dislike it, and avoid it in future than it is to try out a new computer system.

SERVICES ARE PEOPLE-DEPENDENT

In Chapter 1 we reported that attitudes and marketing skills were prime requisites for improving the systems department's performance. This finding accords with the experience of the marketing experts. Many services, in particular professional services — whether computer systems or dentistry, are heavily dependent on people for their provision and delivery. There are important implications for both gaining customers and keeping them.

In attempting to sell a service to a new customer, the most tangible feature of the service is the people who sell and provide it. The customer is seeking reassurance about the quality and delivery of the service. Hence, the people involved in providing the service should inspire confidence. How they behave, present themselves, and dress play a very important role in the process of gaining new customers.

Levitt stresses the important part that people play in this process. Even with a tangible product, particularly a high-investment product, the customer is asked to buy the product itself, its intangibles, and the person or team offering it for sale. In the case of intangible services, the role of the people involved in presenting the product is even more crucial. They may represent a substantial part of what the customer is asked to buy.

Once the customer is induced to buy, how can he or she be encouraged to remain faithful? In this respect, intangibles present more difficulties than tangibles. Because of their dependence on people, there is more room for discretion, error, whim, or delay. "Once a customer for an intangible product is sold," says Levitt, "the customer can easily be unsold as a consequence of the underfulfillment of his expectations." The delivery of a tangible product can more easily be systematised and controlled. Moreover, it is easier to gain repeat business. Levitt actually chooses the example of computer software to illustrate the generic problems associated with intangibles. Whereas a tangible product is usually designed and manufactured by separate groups of people, with both processes subject to detailed supervision and control, the processes of designing and building software are inextricably linked and are usually carried out by the same team. All intangibles share this common feature, that their design and production processes are often carried out by the same person or people.

The delivery processes for tangibles and intangibles are also different. Delivery is, in the case of intangibles, indistinguishable from the product itself. Consider a feasibility study for a possible new system. However carefully the project is conducted, if the conclusions are ineptly presented the study will be viewed as badly manufactured. As Professor J M Rathwell of Cornell University puts it, "goods are produced, services are performed."

In a motor car factory, quality control is built into the production process. If, Levitt surmises, a yellow door is hung on a red car, it is at least likely that someone will notice and ask why. But service providers — whether they be surgeons, merchant bankers, or systems analysts — can get it wrong all on their own. No one may be on hand to spot the mistake until the patient dies, the loan is made to an insolvent banana republic — or the system fails to meet the main customer requirement.

SERVICES ARE NOT APPRECIATED

The other distinctive feature of intangibles is that they are never appreciated when they work. Motor cars, washing machines, and the like are

given an encouraging pat when they work well. Intangibles are taken for granted — they are noticed only when they fail. Punctual trains or aircraft are rarely a subject for comment. Late ones always are. Similarly, no one gives a thought to the payroll system until their pay cheque fails to arrive. The most important thing to know about intangibles, says Levitt, is that "customers usually don't know what they're getting until they don't get it." And the feeling that a customer is missing what he or she should be getting is most easily aroused by a competitor. People develop great loyalty to the material objects they buy. But they are always ready to listen to criticism of the office cleaners, the bank — or the systems department.

LESSONS FOR THE MARKETING OF SYSTEMS SERVICES

We demonstrated above that service suppliers face special marketing problems resulting from the intangibility of their products, their heavy dependence on people, and the lack of automatic appreciation for good-quality services. The problems, and their solutions, are summarised in Figure 4.1. In relating the solutions to the provision of systems services, which are some of the most intangible products of all, systems directors need to ask themselves the following four questions:

1. What are the 'metaphoric promises' we make to our customers when they buy our products? (If we were selling washing machines or motor cars, we would know the answer to that question.) What expectations do we arouse? Are they in any way related to what we can deliver? How can we make our services more tangible?
2. How do we communicate the intangible elements of what we offer — what messages do we deliver deliberately or inadvertently? What do our customers learn about us from the way we look, behave, and talk? What signals are we transmitting to them about the kind of organisation we are? Do we manage our staff in such a way as to make them sensitive to these questions? Or do we just hire the best people we can find and leave the rest to chance?
3. How can we make the quality of our services less vulnerable to the discretion or errors of the people performing them? Is it possible to rethink the way we do our work? Can we industrialise the way in which any of our intangibles are delivered?
4. How can we 'manage the evidence'? In other words, how can we remind our customers of what we do well for them before a problem arises and they open the dialogue on a critical note? How can we communicate with our customers so that our successes are noted as well as our failures? What tangible evidence can we offer them that our promises are being kept?

MAKE SERVICES MORE TANGIBLE

We have already seen that even tangible products need to be linked with intangible benefits before they can be sold. The motor car represents status, comfort, or power; and the washing machine represents care and attention to the needs of the family. But, conversely, the marketing experts argue that intangible products must also be linked to some form of tangible evidence. If the customer buys a promise, it is comforting to receive some solid evidence that the promise has been met. In an article in *Business* in 1980, Professor Leonard

Figure 4.1 Problems in the marketing of services

Marketing aim	Service feature	Potential problem	Possible solutions
Gaining customers	Intangibility	Customer cannot see or pretest the product	Use tangibles to support marketing — a high-quality proposal document, for example.
	People-dependent	Staff undermine confidence in the service and its providers	Promote marketing attitude. Train staff in personal and presentation skills.
Keeping customers	People-dependent	Quality of service is poor and inconsistent	Industrialise the provision of service. Use quality assurance and control. Train staff.
	Good service taken for granted	Only poor service and failures are noticed and remembered	Remind customers regularly of good service. For example, use service-level agreements for regular reviews of performance.

Berry from the University of Virginia calls this "managing the evidence". When hotels wrap their drinking glasses in plastic film or put sanitised paper bands across the toilet seat, they are offering silent evidence that the room has been specially cleaned and prepared. The evidence, however artificial, is important. Simply being told the same thing would have little impact. The intangible has been tangibilised. The promise is converted into a credible expectation.

How do marketers encourage potential customers to take that first leap in the dark — to purchase an untried product? Packaging is the most common tool. Products will be encased in transparent glass or cellophane; what you see is what you get. Tinned goods bear labels showing happy and healthy consumers. Some suppliers of domestic insulation, says Levitt, now send their sales staff to visit prospects with portable PCs. They key in the exact measurements of the house, the size and placement of windows and doors, and data about mean seasonal temperatures and wind conditions taken from local reports. The impression of throughness and dependability given by this procedure is apparently a solid marketing advantage in persuading customers to buy a product that cannot be tested in advance. The basic idea is to convey a promise — buy this product and you will not regret the purchase. "Even tangible, testable, feelable, smellable products," according to Levitt, "are, before they're bought, largely just promises."

Hardly any consumers actually believe these promises. Cosmetic suppliers try to give the impression that buying a certain perfume will turn any woman into an irresistible beauty. Few women actually believe this promise, but they buy the product anyway. The promise is a metaphor. It is not literally true, but it enshrines the values the supplier is dedicated to fulfil. This process is known to marketers as 'tangibilisation' of the intangible benefits of the product. The promises made for the product may be wildly exaggerated. That is irrelevant. They are just substitutes for the tangibility and experience that cannot be offered in advance of using the product. The way company employees are encouraged to dress, the kind of offices and factories they work in, the way companies choose to depict themselves in sales literature — they are all part of the promise made to the prospective or actual customer.

For the systems department, one of the tangible pieces of evidence that can be used to support the promise is the feasibility study report or systems proposal. A high-quality document, or presentation supported by well-thought-through slides, suggests that the ensuing development and implementation will also be well done. Shoddy proposals or visual aids give entirely the wrong impression to the customer.

INVOLVE ALL SYSTEMS STAFF IN MARKETING

A commercial service organisation, out to gain new customers, can deploy its best staff to impress prospects during its marketing and selling activities. This is necessary because, often, the potential customer will not have had any previous contact with the service provider. For a systems director, the situation is usually quite different, however. The potential customers are already likely to have had some experience, even if only at secondhand, of the systems department. There is little to be gained by the department's putting forward its star performer to make a proposal for a new service or system if the ground has already been shot from under his or her feet by less worthy colleagues in prior work with the prospective customer. As our survey showed, systems directors are all too aware of the nonmarketing attitude displayed by many of their staff. Yet the nature of systems work means that the majority of staff cannot be kept safely locked away from any contact with the customers. Even the hostile attitude of back-room technicians is likely to percolate through to the customers if the front-line systems staff do not manage their communications with the user community appropriately.

Once the need to market the systems function has been accepted, then all systems staff, not just a few designated marketers or salesmen, must treat the user as a customer. This means that the department has to stop treating as a nuisance those customers who will not 'buy' what, to the systems analyst, is eminently sensible, or who are apparently intent on diverting systems staff from working on the systems that they (the systems staff) believe are really interesting and important.

Even suppliers of tangible products like IT equipment recognise the damage that may be done by their nonsales staff. After-sales service engineers are trained not to belittle their products when on maintenance visits, and the telephone operators are trained to be helpful to callers.

The systems director, however, has a more difficult problem in training staff than the equipment vendor. He or she cannot limit the number of people who may have to talk to the customers. Nearly all systems staff may, and should, have contact with the department's customers. And the remainder must be made aware of the need to support the frontline systems troops, not hinder them.

INDUSTRIALISE THE SERVICE PROCESS

How can service organisations reduce the likelihood of their products being perceived as being of poor or inconsistent quality? How can

they come to use their collective skills to improve the quality of their services, when all that they do is so individualistic? Part of the answer proposed by Levitt and other marketing experts is technological. Levitt calls this process the "industrialisation of service". He means that specialist parts of the service process can be separated, and a new division of labour created. Insurance and banking are purely service industries. But they increasingly separate their activities into retail and corporate, domestic and foreign, registration, underwriting, actuarial, and policy issuing — and use technology to coordinate the whole range of activities. Thus the component parts of a total service are 'manufactured' in conditions of close quality control and assembled into the intangible product just as a motor car is assembled.

The obvious parallel in the systems department is the increasing use of structured methods, advanced system-building tools, and quality-control and assurance procedures. The rationale for their introduction is not normally related to marketing, but it should be. A better new system, delivered more quickly, is likely to lead to more demand for new systems in the future. As Tom Peters and Robert Waterman demonstrate very clearly in their book *In Search of Excellence*, there is much in common between a top management drive for quality and a belief that 'the customer is king'.

It is outside the scope of this report, and perhaps unnecessary, to explain how the systems development service may be industrialised. (Several other Foundation Reports describe the techniques and methods involved.) But there are aspects of other services offered by the systems department that have a direct impact on user relations and that may be industralised with benefit — establishing appropriate routines and standard procedures for dealing with enquiries at a help desk, for example. This can greatly reduce the probability of the level of service depending on who happens to pick up the telephone.

REMIND CUSTOMERS OF THE BENEFITS

Service suppliers need to do more than suppliers of tangible goods to cement the relationships with their customers — and to remind them constantly of the value of what they are receiving. Good communication is the key to doing this. Levitt cites the example of a computer service bureau that had installed expensive new equipment with the sole aim of keeping its customers' costs in line with current levels, while expanding the range of possible facilities. The bureau discovered that none of its customers knew about this investment, which had been made on their behalf, and a crash campaign was organised so that account managers could inform their customers about the new facilities.

An example of effective communications with customers is provided by an energy-management company that sends out a regular 'yellow page' bulletin to all its clients, advising them on ways to minimise wastage and detect inefficiency. The cost of this additional service is small. But its value in reminding customers of just what the service organisation delivers can be considerable. Again, the production and delivery of this type of tangible reminder of the service organisation may be capable of systematisation as part of the 'industrialisation' process.

One way that the systems department can remind customers of the service they are receiving is to institute service-level agreements. There should then be regular reviews to compare actual performance against that promised in the agreement.

Figure 4.2 Regular communication with customers can help to remind them of the services they receive

BELGISCHE BOERENBOND (THE FARMERS' UNION) OF BELGIUM

Federated structures often generate hybrid systems departments, which are neither wholly independent, profit-seeking entities nor internal, dedicated facilities. The computing facilities of the Belgische Boerenbond are a good example of this type of organisation. The four partners (a commercial bank, an insurance company, a farmers' cooperative, and a social fund administration that serves to distribute the Belgian government's agricultural grants) jointly own and operate the Computer and Management Services (CEM) facility. CEM is one of the largest, and generally regarded as one of the best-managed, computer installations in the country. It is a service bureau only. Systems development resources are located in the operating companies.

Although CEM does not engage in outside trade, since its mission is to serve its owners, in most other respects it acts just like an independent service company. The core of its commercial relations with its four customers is the Customer Service Agreement, or service contract. This is a bilateral agreement specifying volumes of transactions, response times, results achieved, and error rates — but, crucially, not the price to be paid for the service. Once every two weeks, detailed progress meetings take place with each customer to monitor achievements against the levels agreed.

CEM, like most of the organisations that responded to our survey for this report, regards the development of marketing skills and attitudes as its main priority. Its most pressing need is to educate senior management, increase awareness of the potential of systems, and change attitudes towards computing. The Customer Service Agreement is a very effective tool for forcing problems into the open. Not surprisingly, the problem of charges is always prominent; the contents of the service contract guarantees that price will be the main unresolved issue. The regular progress meetings also act as a reminder of the services provided where there are no problems.

Thus, the contractual arrangements between CEM and its customers are used to highlight and resolve problems — and to sustain in working order a relationship that is neither wholly commercial nor simply internal.

Do not wait for the users to complain of bad performance. One organisation that has successfully used this technique is Belgische Boerenbond (The Farmers' Union) of Belgium. The case history describing this organisation's experience is set out in Figure 4.2 on page 29. (Foundation Report 65 explains in more detail how service-level agreements can be used in the context of network management, although the principles described can be applied in other areas as well.)

Most systems directors will recognise the marketing problems cited by Kotler, Levitt, and the other expert marketers. They seem to be quite symptomatic of the difficulty of marketing intangibles. They seem also to be common features in the work of a systems director. The theory and the practical evidence confirm each other. And in an era when the computer suppliers, the facilities-management companies, and the customers themselves pose a competitive threat to the role of the systems department, the problems need to be taken seriously. In the next chapter we describe how these specific problems may be solved in a systematic way.

Chapter 5

Planning and implementing a marketing approach

Most systems directors would like to adopt a more systematic marketing approach. They also indicated in response to our survey that they believe marketing will be more important in the future. The question is how to create and implement such a policy? In this chapter we outline the steps we believe to be necessary.

The steps are based on good professional marketing practice, on the lessons learned from the case histories in the research for this report, and on our own consultancy experience in this area. Nonetheless, our research and experience suggest that there are very few (if any) organisations that have implemented such a comprehensive approach as the one we recommend. To that extent, what we recommend is unproven. However, we believe it is better for systems directors to avoid learning how to market by trial and error, to avoid reinventing techniques from scratch, and to avoid evolving slowly through the five stages of evolution described on page 13. Instead, they should be able to move more quickly by using methods and techniques already proven in other areas of business.

We divide our description of the steps needed into two parts:

- How to construct the marketing plan for the systems department.
- How to implement the plan.

The former is concerned with helping systems directors to solve one of their main problems in this area — that of a lack of understanding of marketing and how to apply it within the systems function. The latter explains how the other two main problems can be overcome — the lack of skills and, even more importantly, the lack of a marketing attitude among systems staff.

MARKET PLANNING

Besides the concepts described in Chapter 2 and the solutions to the specific problems of marketing services described in Chapter 4, our systematic approach to marketing the systems function also draws on the planning methods commonly used by marketers. There are four steps, shown in Figure 5.1 overleaf, in developing the plan:

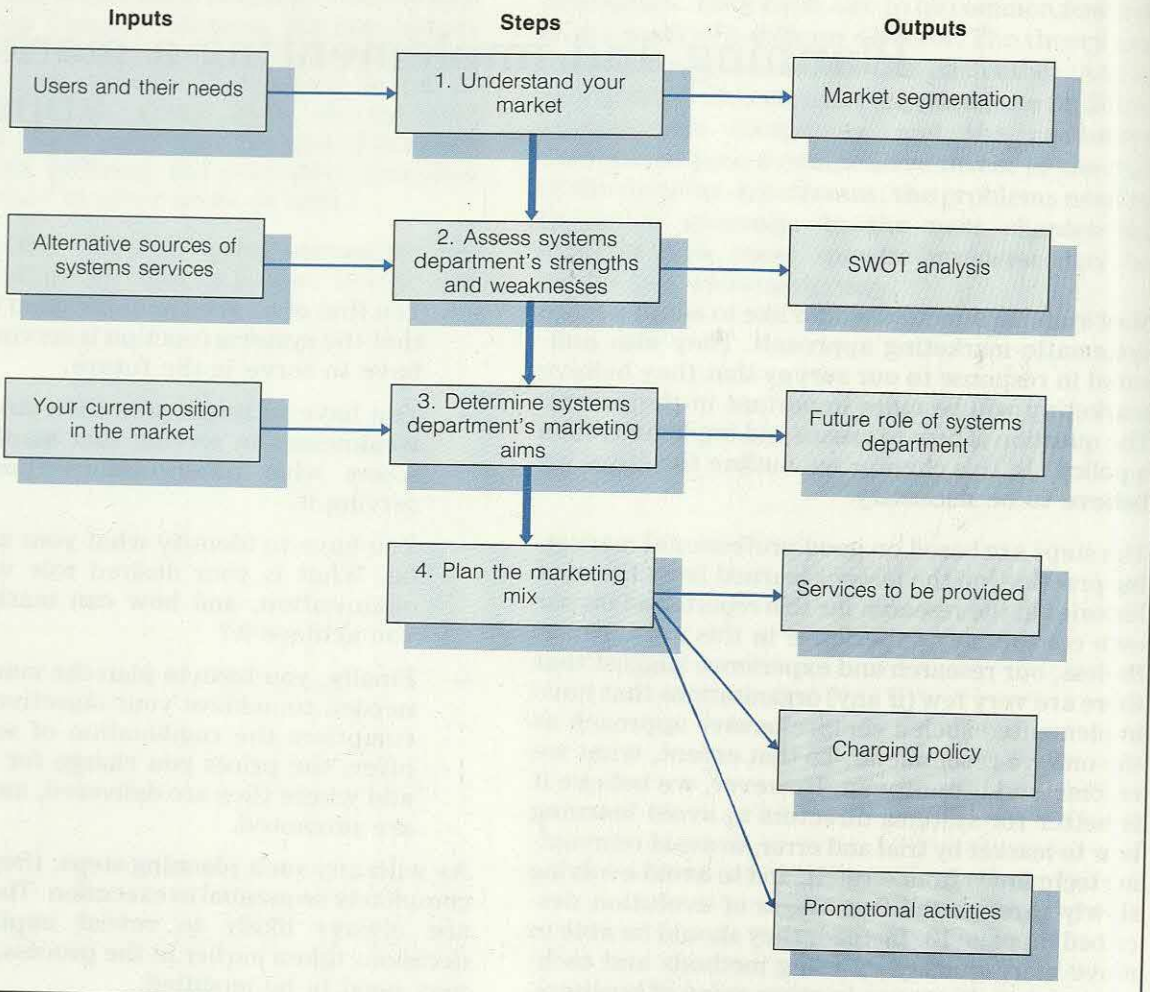
- You first of all need to understand the market that the systems function is serving, and will have to serve in the future.
- You have to assess your own strengths and weaknesses in serving that market, and to assess what other options there are for serving it.
- You have to identify what your aims should be. What is your desired role within your organisation, and how can marketing help you achieve it?
- Finally, you have to plan the marketing mix needed to achieve your objectives. The mix comprises the combination of services you offer, the prices you charge for them, how and where they are delivered, and how they are promoted.

As with any such planning steps, they are never completely sequential in execution. The later steps are always likely to reveal implications of decisions taken earlier in the process, and which may need to be modified.

STEP 1: UNDERSTAND THE SYSTEMS DEPARTMENT'S MARKET

The starting point in market planning is to gain an understanding of the marketplace in which the systems department operates. Figure 5.2 on page 33 contains a checklist of the basic questions to be answered if that understanding is to be gained. One of the most important aspects of the questions is that they are focused on the customers' needs that the systems department does and could satisfy, rather than on just the services provided. Without this focus, the systems department may too be caught out by the 'marketing myopia' that Levitt described in his paper. (The classic example is the ocean liner companies' failure to recognise that their customers' real need was for transportation between North America and Europe — not for an ocean voyage.) Systems directors have already seen at first hand how some of their customers' computing needs may be satisfied by newer technology at the expense of old — PCs replacing mainframes to process financial planning applications, for example.

Figure 5.1 The main steps in market planning



Understanding the market also means recognising that there is probably not just one group of customers to be served by the systems department. Even within the same organisation, there will be users with different needs — ranging from technical experts (for example in engineering) who might well understand their own computing needs, and the means of fulfilling them, better than anyone in the systems department, to business managers who may not even perceive that their needs could have a computing solution. Clearly, the services to be offered by the systems department to two such disparate groups of users should be very different. Thus, there are at least two segments in the systems department's marketplace.

In addition to the systems department's customers, the systems director should also consider the department's own staff when carrying out market planning. They also need to be made aware of the high-quality services for which their own function is responsible, and of the notable successes — major systems delivered on time, and so on. Such awareness raises the self-esteem and confidence of systems staff. And it may have an even more tangible benefit — the ability to recruit better staff because of the good reputation of the systems function.

How can the systems director gain an understanding of his or her marketplace? Currently, he or she tends to rely on the normal systems-planning and day-to-day procedures to determine customer requirements and future systems needs. These procedures are an essential part of the market-planning process. They correspond with a salesman asking customers what they want and with the ad hoc gathering of market knowledge in a commercial business. But there is usually much more to find out about the attitudes, needs, and motivations of the prospective customers than the systems department currently knows. Indeed it is easy for a department to be lured into a kind of protective isolation, insulating itself from outside pressures and criticisms.

Butler Cox is often involved in consultancy assignments to try to help bridge this knowledge

Figure 5.2 Checklist of questions to be answered about the systems department's market

Who are the customers?
What are their systems needs
Do these needs differ for different groups of customers? (Systems users, top management, technical specialists, . . .)
How are these needs currently satisfied? — Which do the systems department satisfy? — Which needs are met from other sources? (IT vendors, from within the user areas, . . .) — Are there any needs not currently being met?
How are these needs likely to develop in the future? — What type of demand is there? (Falling, irregular, full, . . .) — How should they develop?
What criteria do the users apply in choosing where to fulfil their needs? (Cost, quality, timeliness, . . .)

gap. Quite simple survey techniques are available to help with such projects. The results they generate are often stunning, opening the eyes of systems staff to things that were going on around them — but which they had not appreciated or had chosen to ignore. It is not difficult to draw up a list of application areas and services offered by the systems function, and to ask both systems staff and the users to fill in a simple questionnaire, rating each area by the importance they attach to it and then by the quality and availability of the application or service.

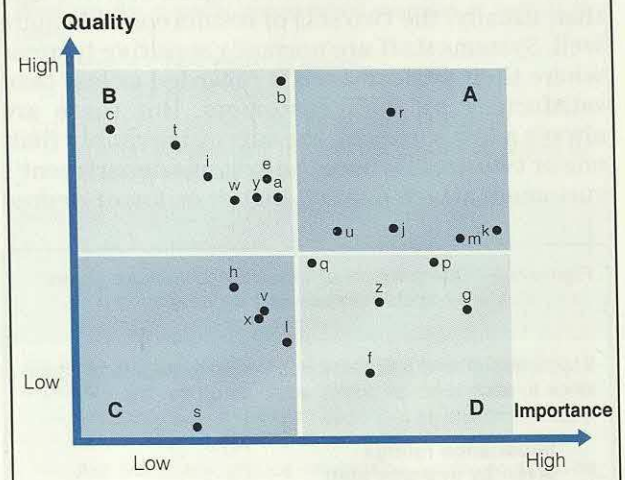
When the results are plotted on a scatter diagram such as that shown in Figure 5.3, the results fall into four quadrants, representing the typical spread of data collected from the systems department's customers.

The first quadrant (A) contains those services that are considered very important but are also perceived to be very high in terms of quality and availability. These are the systems department's triumphs. It is *prima facie* evidence of excellent resource allocation if the services the customers think are important are being well delivered.

Another quadrant (C) will contain the services regarded as poor or hard to obtain but that are not considered to be very important. These are another success story, since neglecting what is unimportant is another sign of good resource allocation.

The third quadrant (B) on the scatter diagram will contain services that have a low importance rating but high performance. These are a sign of wasted resources, since excellent performance is concentrated on areas that are unimportant to the customers. Such a result is usually a clear signal to start moving resources out of that area — or to

Figure 5.3 User ratings for importance and quality of application and service areas



Application and service areas:
- a Access to computer reference databases
- b National electronic messaging and document transmission
- c International electronic messaging and document transmission
- d Statistical analyses and graphical display
- f Compound document production on word processors
- g Data interchange between computers, instruments, and word processors
- h Computer database and application development
- i Advanced software and hardware for complex applications
- j Commercially available applicable computer software
- k Rapid report and documentation production
- l Provision of management information
- m Records and documentation administration
- o Convenient access to a computer
- p Training in using the computer-based tools
- q Consultancy and advice on using computers
- r Access to a word processor
- s Word processing with graphic capabilities
- t Computer-based statistical analysis packages
- u Provision of computer equipment and software packages
- v Development of bespoke computer packages
- w Service support of instruments with computer content
- x Advice on applying computer technology
- y Acquisition of specialised external services
- z Provision of documentation and manuals for computer facilities

find out why the customers regard it as unimportant if the opposite is really the truth.

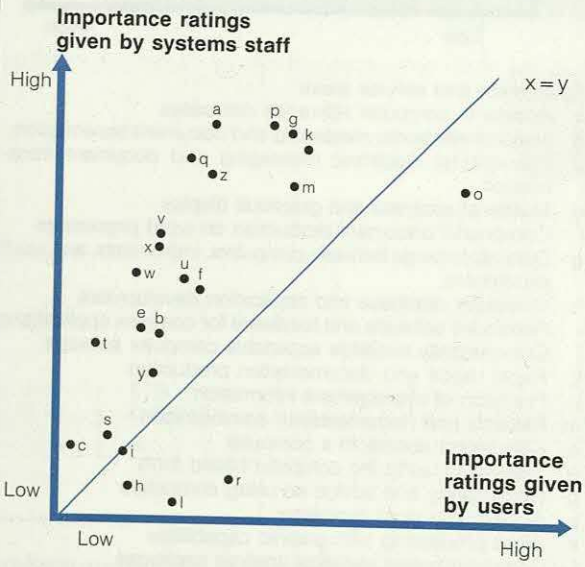
The final quadrant (D) shows the most interesting results of all, the services with a high importance rating and low performance. These are the areas where the systems function is most at risk. The customers regard them as important but the delivery is poor. In the consultancy projects of this type that Butler Cox has conducted, we have found that one or two such areas account for a very high proportion of dissatisfaction among the systems department's customers. Once those areas are dealt with, much of the problem disappears.

So much for the analysis of the customers' views. The next task is to compare the results with those

from the senior systems staff, who will independently have filled in the same forms. A typical plot for the importance ratings given by users and by systems staff is shown in Figure 5.4. We find that, usually, the two sets of results coincide quite well. Systems staff are normally sensitive to areas where their performance is regarded as less than satisfactory by their customers. But there are always a few surprises; the survey inevitably finds one or two areas where the systems department's customers attach a much higher or lower degree of importance than the systems staff do, or where customer reaction to the level of service and availability comes as a surprise. The most useful part of the exercise is when people start discussing what they really mean by saying that word processing with graphics is a key area, or why they believe that performance in EDI is poor. Now the systems department and their customers are on a joint quest for improvement, a quest that rarely fails to produce useful results.

Figure 5.4 Comparison of importance ratings given by systems staff and by users

If systems staff and users attached the same degree of importance to each area, all points would lie on the line x = y.



Application and service areas:

- a Access to computer reference databases
- b National electronic messaging and document transmission
- c International electronic messaging and document transmission
- d Statistical analyses and graphical display
- f Compound document production on word processors
- g Data interchange between computers, instruments, and word processors
- h Computer database and application development
- i Advanced software and hardware for complex applications
- j Commercially available applicable computer software
- k Rapid report and documentation production
- l Provision of management information
- m Records and documentation administration
- o Convenient access to a computer
- p Training in using the computer-based tools
- q Consultancy and advice on using computers
- r Access to a word processor
- s Word processing with graphic capabilities
- t Computer-based statistical analysis packages
- u Provision of computer equipment and software packages
- v Development of bespoke computer packages
- w Service support of instruments with computer content
- x Advice on applying computer technology
- y Acquisition of specialised external services
- z Provision of documentation and manuals for computer facilities

Such survey techniques correspond to market research in the business world. Some critics of the techniques argue that they are not measuring anything real, just what people think. The answer is that what customers think is in itself a reality, and one that must be dealt with. The idea that the systems staff know what is good and bad, without reference to the ignorant customers, is a prime example of the anti-marketing mindset that needs to be uprooted. The survey will give an accurate picture at a given moment of the attitudes and beliefs of the systems managers and their customers. Marketing is about changing attitudes and beliefs. If the survey technique is simple and efficient, it can be applied again later to see whether opinions have shifted — whether the remedial action is working.

Several of the organisations we interviewed in the research for this report have conducted surveys of user needs and attitudes. One such organisation is the Ministry of Welfare, Health and Culture in the Netherlands. A case history of this organisation's experience with such a survey is described in Figure 5.5.

The result of this first step in market planning will be a statement of who the main groups of customers are and what their main systems needs are, both now and in the future. By 'systems needs', we mean such things as the provision of computing and communications systems, the provision and operation of computing and communications facilities, the provision of advice in choosing and acquiring systems, and so on.

Each need may be met in several ways — by buying-in packages or developing systems in-house; by using PCs or accessing programs and data on an in-house mainframe or external bureau; by using external consultants; relying on advice from the systems department; by reading technical journals and Foundation Reports; and by attending conferences. As we have already mentioned, the systems director needs to be alert to new ways of meeting the same basic needs. It is not sufficient to think only in terms of the services provided. Thinking in terms of needs to be satisfied rather than products or services to be sold is an essential element of the marketing approach.

Once the underlying needs have been identified, then systems directors can turn to look at how those

Figure 5.5 A case history of experience with a survey of user attitudes and needs

MINISTRY OF WELFARE, HEALTH AND CULTURE IN THE NETHERLANDS

We interviewed the head of the systems function, Mr Frits Hoorweg. His department was created in 1983 as a result of a merger of older ministerial departments. The period from 1983 to 1987 was largely devoted to a quest for increased efficiency in the data centre inherited from the old régime and to the development of systems required for the new department.

In 1987, a survey of customer attitudes and needs was carried out by a firm of external consultants because relations between the systems function and its customers were in need of improvement. The study produced two main recommendations. The first was to redefine the role of the systems function in terms of stimulating demand for new systems, taking on an internal consultancy role, setting overall standards and guidelines, and encouraging a more participative atmosphere — in short, to adopt a marketing approach. The second recommendation was concerned with the internal organisation of the systems function; apart from the establishment of an information centre with five staff, this recommendation was not implemented.

The mission statement of the ministry's systems department encourages it to act as far as possible like an independent service company, to help and encourage but to leave responsibility firmly with the customer. In Mr Hoorweg's view, the key tasks performed by the service are its advisory work, its setting and policing of standards for the use of hardware, software, and application packages, and only then its work as a systems-building and operating unit. There is little formal marketing skill within the department and no explicit recognition of marketing as a separate task.

Mr Hoorweg believes that progress has been achieved. Recognition of the importance of the systems function is more widespread. The major difficulty is to obtain and secure the necessary level of staff, because public-service salaries and career structures are not as flexible as they might be.

The department is, in summary, moving from being the doers to being the facilitators. The staff view their task as helping others to achieve the results the new department was created to attain. They recognise the difficulties of this transition but believe they are advancing as quickly as possible.

needs are being met — in terms of the products or services, and of the various suppliers involved.

STEP 2: ASSESS THE SYSTEMS DEPARTMENT'S STRENGTHS AND WEAKNESSES

The second step in market planning is to assess how well the systems department is positioned to serve its market, compared with others who could also meet those needs. In marketing jargon, the focus of this step is referred to as a 'SWOT' analysis — strengths, weaknesses, opportunities, and threats.

There are two main aims of this analysis. The first is to determine which parts of the market the department is most naturally suited to serve by nature of its current capabilities, and to find opportunities that exist to exploit the department's strengths. The second aim is to identify in which

Figure 5.6 Checklist of questions to be answered in a SWOT analysis

What are the systems department's strengths in serving its users?
- What is it best suited to doing?
- What are its key assets?
- What do customers see as its main strengths?
- How do the strengths relate to the customers' criteria for selecting systems services?

What are the systems department's weaknesses?
- What is it least suited to doing?
- What do customers believe it to be least good at?
- Again, how do the weaknesses relate to the customers' criteria for selecting services?

Are there any opportunities that the systems department could exploit?
- Are there any unfulfilled needs that its customers have, or will have in the future?
- Are there any groups of systems users, or would-be systems users, whose needs are currently not being satisfied, or are only partially satisfied?
- Are there any systems needs currently being met badly by suppliers other than the systems department?
- Are there any new needs likely to arise?

Are there any threats to the services currently provided by the systems department?
- Who else is serving the market and how do their stengths and weaknesses compare with the systems department's?
- Are there any other suppliers (internal or external) that may want to sell their services to the systems department's customers?
- Are any of the needs being met by services from the systems department but which could be satisfied by alternative new services?

areas of operation the department needs to improve its performance and overcome its weaknesses. The purpose is to be in a position to counter any threats from other units, internal or external to the organisation, that may otherwise take over parts of the systems department's role — or indeed, all of it. Figure 5.6 contains a checklist of questions to be answered in undertaking the SWOT analysis.

The SWOT analysis must also take account of the competition faced by the systems department. Four questions need to be answered:

- What is the competition, existing and potential?
- Are the main competitive threats from internal sources (such as end-user computing) or from external sources (facilities-management companies, for example)?
- Is it possible to identify the main competitors?
- If so, what are their respective strengths and weaknesses?

Identifying the competition should not be regarded as preparation for all-out war. Some potential competitors can actually be used to help advance the objectives of the systems department. It is much better to fit competitors in as part of a considered strategy than to fight every battle, including those likely to be lost, to the bitter end.

One of the hardest parts of the SWOT analysis for many systems departments is to identify their own unique selling points (USPs). What is it that the department does better than anyone else? What advantage is it that competitors would find most difficult to match?

When we asked systems departments to identify their own USPs during our research, most of them mentioned knowledge of their customers and how they are accustomed to work, as well as familiarity with the business. Knowing the customers and commanding their respect or confidence are obviously important qualifications for gaining any work that is on offer. But might external sources of competition find a way to match that advantage — or even steal it, by recruiting a few key individuals away from the systems department? More tangible USPs may also exist, such as access to a closed network (see the case history of Surrey County Council, which was described in Figure 3.2) or possession of a software tool. Defining the real USPs may be a challenging and time-consuming process — strong disagreements about this point can easily arise between members of the SWOT team. It is not unusual for the SWOT analysis to be repeated as part of an annual plan. Several repetitions may be needed before the USPs are properly understood.

When a view has been taken about the USPs of the department, it will be much easier to determine which services the internal department is most (and least) qualified to deliver. If the USPs of the department lie in the field of applications development and systems integration, then perhaps the task of managing data centres could, after all, be better undertaken by others. The real point is that customers have more regard for a first-class systems developer than they have for a third-rate data-centre manager. If the USP lies in the former area, why spoil the impression by a poor performance in other areas?

Better understanding of the strengths and weaknesses of the systems department may also lead to new opportunities. If it is really true that the department understands the essential business of its customers better than anyone else, what opportunities does that knowledge create? Does such knowledge create any weaknesses, such as a limited view of the world outside? If so, how can the former be exploited and the latter remedied? What additional opportunities do these strengths create for the customer?

During the course of a SWOT analysis, it is more or less certain that misunderstandings will be discovered. The customers' perceptions of the department's strengths and weaknesses will be found to be incomplete, mistaken, or totally missing. These findings should act as a spur to better communication between the department and its customers.

Readers of this report may care to examine again the experiences of ECGD, which were set out on pages 22 and 23; a SWOT analysis led in this case to a greatly improved understanding of the systems department's role and capabilities.

STEP 3: DETERMINE THE SYSTEMS DEPARTMENT'S MARKETING AIMS

Given an understanding of the marketplace it is serving, its strengths and weaknesses, and the role for which it is accordingly qualified, the systems department is now much better placed to answer a truly fundamental question. What should be its market position vis-à-vis the host organisation? Should it be in a leadership role? Or should it simply respond to the demands made upon it? In Chapter 1 (on page 8) we described the positioning of a systems department in terms of two axes: the vertical axis describing its relationship with its customers (good or bad relations), and the horizontal axis describing whether it leads or follows its customers. This point in the market-planning process is where the systems director chooses the appropriate point on the horizontal axis to seek equilibrium. It may be the first time that this equilibrium has been sought on the basis of solid evidence, as opposed to the tides of fashion and opinion.

The analysis also leads to a much clearer perception of the services to be provided, and of which customers are targeted for each service. Market segmentation will be needed. No service will be marketed in exactly the same way to every customer, and probably no two customers will choose exactly the same mix of products.

For many systems directors, this market segmentation/product definition is a difficult stage in the market-planning process. Our survey document listed a very wide variety of different services the systems department could offer. But it proved to be inadequate to cover all the services our respondents are concerned with. Most systems departments probably still have too wide a view of their range of services rather than too narrow, and are probably too reluctant to give up anything they have traditionally provided. It runs against the grain for a systems director to look at his or

her portfolio and make a conscious decision to abandon a service that has, perhaps, been a key element in the department's past success. But it may be necessary to do just this. If the systems director thinks for a moment of the department as a business within a business, employing perhaps a few dozen or a few hundred, or, at most, a few thousand staff, then it is often absurd to suppose that it can supply all the services needed by all its customers all the time. There is no implied failure in recognising that this is the case, as the SAS case history on page 17 so clearly demonstrates. Indeed, a lack of focus and market specialisation is itself what often condemns companies to mediocrity and insignificance.

Thus, to achieve a new perception of the role of the systems department requires not only hard work and careful analysis, but also a measure of imagination and flair and a willingness to abandon cherished practices that have, in reality, outlived their usefulness.

Many of the case histories mentioned in this report reveal that new marketing policies were put in place in response to some crisis — a sudden and serious loss of confidence in the systems function, or a project that went badly off the rails. But why wait for a crisis? Why not gather the senior managers of the systems function together (having learned as much as possible about the market, the customers, and the competitors) and rethink the role of the department from scratch? The rules for such a session should be that nothing is sacred. However long or well a given task has been performed, the burden of proof lies with those who say it should be retained as part of the systems department's portfolio. Perhaps someone will even ask the unthinkable question: should there be a systems department at all? And if so, why?

Once the appropriate role for the systems department has been identified, it is possible to determine the actions that are needed to reach it. The specific actions will be chosen to form the nucleus of the marketing policy. It should by now be clear that the marketing aims of any team of people working together can vary according to time and circumstances. In the case of the systems department, if its basic positioning is untenable, then effort spent improving relations with the customers is wasted or even counter-productive. Unfortunately, it is much easier to produce a new brochure or mount a sales seminar, for example, than to establish a true leadership role for the systems department (should that be needed) or to encourage and equip the customers to take more initiatives (if that is what is required). But in the end, the real needs of the business must be recognised. Our evidence suggests that, if the will to change is genuine, the new role and the steps needed to move towards it are actually fairly obvious. The hard task is to achieve the degree of open-mindedness required in the first place.

From our examination of the experiences of systems departments, we have detected a pattern in the marketing aims and the actions needed. The systems departments that appear to have the best marketing approaches in place always seem to be following a simultaneous top-down and bottom-up approach. They are seeking to involve top management in setting goals and priorities for the systems function. They describe the process as "gaining credibility" or "building confidence". But at the same time they are using training courses, seminars, newsletters, and the like to press home at many different levels the message about the changing role of the systems function.

Another common thread that runs through the cases is the value of action. It is one thing to adopt new aims, new mission statements, or new protestations of intent. All of this is very worthy, but it is all so much abstraction until it begins to change the way the systems department does its work. The strategy of a systems department is made not by the words the systems director speaks to his direct reports, but by the way project leaders and analysts actually behave and deal with customers. Some of the most important results have been achieved by systems directors who realised this fact of life and chose projects as the vehicle for their change of mission.

It is possible to detect another pattern in the case histories. Systems departments appear to evolve from one stage to another. As they change, the kind of marketing aim they set themselves also changes. There seem to be four stages in this evolutionary process, set out in Figure 5.7 overleaf with the corresponding marketing aim. The figure also shows that the marketing tools used will change as the systems department traverses the stages of development.

In marketing terms, the promises made to the customer at each stage of this evolution are different. So are the deliverables for which these promises are metaphors, the intangibles of the service offering. When the service is delivered, it will (like all intangibles) be subject to the delays, errors, and mishaps that afflict all service offerings. At each stage in the process the ways of 'tangibilising' and 'industrialising' the process will be different. Some of the organisations studied for this report are now beginning to use videotex to promote the services provided by the systems department — an excellent example of tangibilising a service. At each stage, the task of 'managing the evidence' is different. The emphasis

Figure 5.7 Evolutionary stages in the marketing of the systems function

Stage	Characteristics	Marketing aim	Marketing tool
1. Reactive applications developer	A corporate service, developing and running applications for users. No right to propose.	Earn the right to propose.	Promote image as a systems developer and reliable operator. Introduce simple recharging mechanism.
2. Proactive developer	The same task, but now with some influence over the choice of applications. But still at the operational level.	Aspire to strategic applications.	Analyse market for high-profile and strategic applications. Promote general capability of the systems department.
3. Infrastructure manager	Initiative for applications has migrated to the customer. The systems department runs the infrastructure that makes it all possible.	Enhance the value of the infrastructure.	Promote value of the 'unseen service', the delivery mechanism. Analyse prospects for external links to customers or to suppliers. As IT becomes more 'strategic', take the chance to make recharging simpler. Escape from debates about petty cash.
4. Technology leader	The systems function becomes the advocate of change through technology.	Win commercial credibility.	Make the systems function a natural ally of top management. Maintain credibility by operating a high-quality service.

on business training for systems staff evident in some of the case histories is a good example of this change. At a certain point, the systems director must convince the organisation that his or her team is not just technically skilled, but is knowledgeable about where value comes from — about "what the customer means by good". And, finally, the evidence that constantly reminds the otherwise forgetful recipient of the value of the service provided must also change.

The end product of this planning process should be a set of specific objectives that the marketing policy will deliver. In Ebes (which was mentioned in Chapter 3 in connection with charge-back schemes) these objectives were to change the expectations of the customers and to reposition the systems department. Ebes used organisational change, the transfer of responsibilities to line managers, and the creation of new jobs within the systems function as the specific steps towards these aims.

STEP 4: PLAN THE MARKETING MIX

The planning process now turns to how the defined aims are to be met. Many elements of the marketing mix will have been considered, and some adopted. How are they to be put together into a coherent mix? There are four main questions to be answered:

- What services should be offered, and to which groups of customers?
- What pricing policies should be adopted?
- What means of delivery should be used?
- How should the services be promoted, so that the potential customers are fully aware of the benefits on offer?

Pricing is a sensitive and tricky area. Far too many customers in the past have bought services — or at least believe they have bought them — without being fully aware of the true price. Many systems departments focus their attention almost exclusively on the cost of providing a given service. While costs are important, they have little impact on the customer's appreciation of the service. To arrive at the most appropriate price, it is essential to understand the value the customer attributes to the service — which may bear little relation to the cost of its provision.

Promotion is also important and (despite the misgivings of some systems directors) is a legitimate activity. If the aim of promotion is to deceive the customers into over-valuing the service provided, then it is likely to be both unacceptable and self-defeating. In the past, overselling the value of systems services has reduced the credibility of many systems departments. But if the systems director genuinely believes that systems can help to improve the performance of the business (and if not, what is he or she doing in the job anyway), then it is a profound disservice to the organisation to leave his or her colleagues in ignorance of how this can be done.

Even though the four questions listed above need to be answered in the sequence shown, there will inevitably be some overlap between them. When a definitive answer to one question is reached, it may be necessary to go back and reconsider an earlier assumption. But the basic sequence should be preserved. It is very tempting to start at the wrong end of the process — to design the sales literature first and work out the market profile later. It is a great mistake to do so because systems staff will become wedded to a particular promotional approach, and will be reluctant to abandon it even if it fails to match the service and the customers.

Which services to which customers?

To understand which services are appropriate to which groups of customers, marketers employ a technique known as market segmentation. The idea is to find a way of classifying customers and potential customers that reflects their basic needs, rather than matches their past habits of purchasing, which may be shaped by the range of products available to them at some past time.

Computer suppliers have come to understand this distinction very well; their customers do not really buy computers at all, but solutions to problems. Nowadays, therefore, their marketing is mostly designed not to impress the customer with technological excellence but to stress how they can "work with you" to solve problems. The test of a valid market segmentation is that it survives transitory change. Computer suppliers like to feel that even if a competitor produces a machine that is three times faster than theirs, their customers will remain faithful. They will value the problem-solving capability of their old vendor, not the technology of the new.

Systems departments are, of course, marketing their own problem-solving capability. But they will not segment their market in quite the same way as a hardware vendor. Guidelines for segmenting the department's customers may include the following:

- To what extent is the customer's application problem intelligible to systems staff? If the customers are operating in a mainstream part of the business (finance, sales, and so on) then the systems department can probably offer a problem-solving partnership. If they are operating in a very specialised technical area, it will probably be better to offer tools only.
- What form is the solution likely to take? If it is part of the company's core systems, then the department will wish to design, build, and maintain it — or perhaps adapt a package. If it is an isolated desktop application for a group of individuals, the department may prefer to offer help while they develop it themselves.
- Are some customers more capable of developing their own solutions than others?

The decisions taken in the segmentation process should be in line with those taken earlier in the market-planning process. Above all, the planning team should resist the temptation to fill in every box on the segmentation sheet with a tick. The case histories in this report show that it is increasingly difficult for a systems department to meet every need of all its customers. It is not an admission of defeat to recognise this fact of life. Too wide a portfolio of services and too thin a level of service to too many customers — these are the main pitfalls to avoid. It is better to have a few happy customers than many unhappy customers.

Pricing

One of the most important questions a marketing organisation must answer is what pricing policy to adopt. It is all too easy to adopt a pricing policy in a hurry, perhaps based solely on internal cost grounds, and to find that one is imprisoned by it.

The systems department is unlike most other marketing operations in that it also has to decide whether to charge for its services at all, although some 72 per cent of the respondents to our survey indicated that they do charge for at least some of the services they provide (see the appendix for the details). Our respondents cited three main reasons for charging. First, they believe it encourages cost-awareness and accountability within the systems department. Second, it also encourages the customers to consider their needs more carefully and creates a market for scarce systems resources. Third, it forces project managers to remain competitive and reassures top management that money is being wisely spent. Not all members assent to the logic of these arguments, however. B&Q, the largest do-it-yourself retailer in the United Kingdom, told us that it avoided recharging for systems services simply to maintain central control of resources. And one of the companies visited during the Butler Cox Foundation Study Tour of 1988 had actually abandoned charge-out, which it believed encouraged bureaucracy. We also found many examples where the recharging policy had caused problems. Innovation may be stifled, relations with customers undermined, and there is a danger that resources are allocated merely to those who can afford them rather than to those who need them. In other words, recharges can actually hinder the strategic development of systems.

How then should a systems director select an appropriate pricing policy? First he or she must recognise that systems services are *not* unique.

Many other products and services are created by one part of a large organisation and 'sold' to another, via the mechanism of transfer pricing. Management can never hope, in a complex organisation, to fix every price for every transfer of value. But it can — and must — establish the rules by which such prices are fixed.

Studies of the transfer-pricing mechanism have shown that the most appropriate policy depends on the culture of the organisation. (The appendix contains more details about the principles of transfer pricing.) Given the culture, what questions need to be answered before a price strategy can be determined? We identified five questions:

- How sensitive to cost can or should the price mechanism be? Much of the cost of a computer system is fixed. Thus, within the limits of its capacity, a networked system will generate only slight cost increases as traffic grows. But the day comes when that capacity is exhausted and a step function in cost occurs. In this situation, fine tuning the recharge mechanism is probably a waste of time. More effort should go into taking a medium-term view of total costs (through capacity planning) and managing the customers' expectations in that framework.
- How important is total cost to individual customers? Most customers will find that systems costs represent a tiny proportion of their total expenditure, but they may represent a disproportionate number of the disputes about recharges. Many of them may be candidates for not being recharged because the recharge policy is unlikely to affect the way they use the services. But a handful of customers with big administrative systems will find their systems costs of significance. For this group, the recharge policy can have a big impact on their usage of systems, and careful thought needs to be given to the aims of the policy.
- Do the customers understand where development cost is incurred? Most do not. Their expectations will be unrealistic. They need to be educated and informed.
- Who carries the risk? All recharge schemes are based on guesswork. The customers can cancel projects without penalty. Suppliers can change their prices. Where does the risk lie? If it lies with the systems department, top management should be aware of it.
- How mature is the charge-out system? There is some evidence (see the appendix for details) that when a charge-out system becomes mature, it positively helps the customers control their systems resources. The message is clear: even if the charge-out policy fails to work at first, it may be worth persevering with it.

These questions are also reflected in the guidelines for choosing a charge-out policy given in Figure 5.8.

Distribution

In Chapter 4, we emphasised that, in the case of services, there is little distinction between the actual service and its means of delivery; in a very real sense, the service is its own delivery mechanism. Thus, the means of delivering (or distributing) systems services is important to the systems department. Yet there is least freedom to adapt the approach in this area. Even so, there are some choices that can be made, including:

- The creation of new roles such as business analysts and account managers.
- The transfer of certain tasks to the customers themselves.
- The establishment of more direct ways to help the customers, such as help desks or information centres.
- The transfer of systems staff to customer premises — perhaps to customer payrolls.
- A new approach to the training of staff in the systems function, with more emphasis on business skills and less on technical. Since a massive cultural change will also be required, training programmes with the aim of team-building will be valuable.
- New methods of communicating with the customers, through people (typically account managers) and through publications.

Figure 5.8 Guidelines for choosing a charge-out policy

The system must be cost-effective, not burdensome.
Customers must be involved in the process of fixing prices and levels of service, not presented with a *fait accompli*.
Recharges should aim to recover full costs over the medium term; in the short term it may be expedient to allow the systems department to make a small profit or loss, or to account for some costs as a corporate overhead.
Operation charges should be related to volume of usage and level of service, otherwise they will seem arbitrary. They must be based on deliverable output, not on internal consumption. Otherwise it will seem that inefficiency is being rewarded.
Development costs should be allocated in line with risks. Customers cannot expect fixed prices when projects are still in the investigation phases.
If the system of recharge is to reflect the maturity of the customer, there may be more than one system. The most mature customers will demand more flexibility and more information — in a word, more control.

In several of the case histories, the systems director signalled a change of marketing approach by decentralising the delivery of some services. Sometimes, locating project staff on the customer's premises is the most important step. The extent to which services are packaged is also a matter of choice. Should the systems department buy and distribute PCs to its customers? Such a service will be seen differently by different customers — and not only in relation to the discount secured. Some will regard it as a useful adjunct to the systems service; others as an interference. The choices made should reflect the marketing aims already established.

Promotion

Promotion is the last area to tackle in the marketing plan — not the first. Promotional activities are not quite as simple as they sometimes seem. In an earlier Foundation Report, Number 58 — *Senior Management IT Education* — we pointed out how easy it is to fall into the error of supposing that any education is better than none. Badly judged educational activities can easily do damage. And the same is true of ill-conceived promotion.

The first question to ask is whether the promotion of the department or a particular service is aimed at improving relations with the customers (the vertical axis in Figure 1.5 on page 8) or at positioning the department differently (the horizontal axis)? This question is important because the two kinds of activity may be quite different in nature. If the aim is to reposition the department, the evidence suggests that actions speak louder than words. The projects that are undertaken, the way they are handled, the organisation of customer involvement, the way top management's concerns are handled — all these things are effective ways of demonstrating a change of role. Just announcing such a change is usually not worthwhile. In this case the 'evidence' that must be managed is practical.

Conferences, brochures, and newsletters are best used to improve relations with the customers, once the solid base of achievement has been established. They serve, in other words, to remind the otherwise forgetful customer of the value of the service. In the case of the Yorkshire Water Authority, mentioned earlier in Chapter 3, a video film was used to cement relations. But it was the success of the project itself that made the film effective.

IMPLEMENTATION OF THE MARKETING PLAN

The two major obstacles to the implementation of a marketing plan have been mentioned earlier. The less important is the need for systems staff to learn marketing skills. The more important is to change the basic attitudes of many systems staff, away from their traditional anti-marketing bias. Nobody doubts the difficulty of this task in many organisations. But the evidence of the case histories suggests that progress can be made, given a clear lead from the systems director. In some of the cases, in fact, we detected a suppressed yearning among systems staff for better working relations with their customers, and a willingness to believe that better marketing might be the way to achieve it. The best way to signal the change of approach to systems staff is the same as signalling it to the department's customers — by working differently. Projects speak louder than newsletters. If the market planning is done carefully, there may be obvious opportunities to apply the new approach and (the evidence suggests) a chance to achieve startling results in contrast to the 'bad old ways'.

ACQUIRING MARKETING SKILLS

We hope that reading this report will encourage many systems staff to set about acquiring marketing skills. If nothing else, the report demonstrates that marketing will be a key skill — perhaps the key skill — of the systems directors of tomorrow. Earlier, we described the way marketing ideas have developed in recent years, with particular emphasis on how intangible services are marketed. But we recognise that the subject is vast and complex, and do not regard this report as anything but the first step on a long journey.

There is clearly much more to learn about this subject than can be contained in a single report, and much more about marketing in the context of the specific organisation than is likely to be contained in any publication. Nearly all our respondents said that neither the systems director nor his immediate staff had any direct experience of, or qualifications in, marketing. This is not entirely surprising, since the need to create a marketing policy has been perceived only in recent years. So one step in the learning process is to find out more about marketing itself. There are some good books and essays on the subject, including those by the main authors we have quoted (Kotler and Levitt). Most countries have a national marketing institute or association, many of which run courses on marketing subjects. As far as we know, there are few if any courses directly concerned with marketing the systems function. Perhaps there is an unfilled need here that a computer supplier could meet.

More important still, marketing people are usually very keen to talk about what they do. We have encountered some organisations where, for example, brand managers and systems staff have quickly built a very fruitful working relationship. It is a

sensible step to build bridges between the marketing department and the systems function, if they do not already exist. Joint seminars and exchanges of information could prove extremely useful.

Nearly all our members confirmed that they lack important marketing skills. Project management and account management were the most widely quoted examples. Our case histories suggest that business training is a most important element in training people to fill such jobs. One or two of the organisations studied received valuable assistance from their own personnel department in finding and developing such skills. Others may not have thought of asking for such help. A more imaginative recruitment policy may also play a part in gaining the required skills. The evidence from the case histories suggests that the best people for account-management jobs do not always come from a systems background.

CHANGING BASIC ATTITUDES

The hallmark of a marketing organisation is the sovereignty it accords to the interests of its customers, which is never obscured or diminished by internal needs. If our cases illustrate one point overwhelmingly, it is that such a cultural revolution is achieved not by exhortation but by example. The first requirement is that the upper echelons of the systems department, led by its director, should practise what they preach. Over a wide range of activities — budgeting, planning, recruitment, promotion, training, and so on — the dominant aim must be the same; the inculcation of the marketing message with its elevation of the customers' needs to the level of an overriding principle. Without this example, the troops will never follow.

The means to achieve this change in basic attitude are not novel or surprising. They are the same means that companies have used for the past 50 years or more to engender a spirit of 'mission' among their employees — a strong sense of collective style (reflected in publications and other promotional material), a relentless quest for improvement, and a truly participative and open-minded process of staff consultation. Some organisations (particularly in the United States and Japan) carry this kind of regimentation to what outsiders regard as absurd lengths, with uniforms and company songs. Whilst we do not advocate these extremes, most systems departments can go a long way in the direction of unification before they run the risk of becoming pallid stereotypes.

GETTING FEEDBACK

One of our questionnaire respondents coined an interesting phrase. He wanted his staff to understand "what the customer thinks is good". Once the implementation of the marketing plan begins, it is important to measure its success. If survey techniques have been used to gain a better understanding of the market, they may need to be re-used. The volume, nature, and significance of customer reactions (good and bad) must be constantly re-assessed. Some of the assumptions on which the plans are based will change with time, as systems and their users mature, and as staff capabilities develop. It is probably best to make the review of the marketing plan part and parcel of the normal business-planning cycle, carried out at the same time as the year's work is scheduled and the budget is approved. The messages coming from the customers will be much easier to interpret against the background of known marketing aims and clearly articulated plans.

REPORT CONCLUSION

In this report we have demonstrated that marketing is increasingly important to systems directors and their staff, and is almost universally recognised as such. Many of the tasks that have been regarded as crucial in the past, such as account management and systems staff training, cannot really be tackled effectively in isolation. They need to be part of a wider policy, based upon an understanding of the needs of the customers and of the possible roles the systems department could occupy. They need, in other words, to be part of a marketing policy.

It must be emphasised that if the systems department fails to adopt a marketing role, or attempts to do so in a clumsy and indecisive manner, it will lose status and credibility. But more importantly, the host organisation the department is intended to support will be disadvantaged, perhaps seriously. We fully endorse the view of those Foundation members that believe a lack a marketing policy will mean their customers will fail to exploit the full benefits of information technology.

We have examined and reported on the experience of a wide range of systems departments in different industries. We have also described the main lines of current thinking on marketing issues, drawing upon authorities such as Philip Kotler and Theodore Levitt. From these two elements we have devised the framework within which a marketing plan for the systems department can be constructed. Systems directors should consider this framework (in detail we hope) and use it as a basis for their own planning.

The right marketing policy will help the systems department to find the right balance between

leadership and response. It will also help to establish the right relationship with the customers, thereby ensuring that the department's point of equilibrium on the axes shown in Figure 1.5 on page 8 is improved. The cost of devising and implementing a marketing policy will probably be very considerable, not necessarily in money terms but in effort and thought. Nevertheless, we believe it to be a worthwhile investment. It is probably the most worthwhile change many systems departments can make in their direction and working methods.

Appendix

Recharging systems services

The analysis of the responses to our scope questionnaire showed that the majority of Foundation members are already charging their users for systems services. Figure A.1 shows that 12 per cent of the members responding to the survey treat their systems development department as a profit centre, and that about a further 60 per cent recharge their users both for operational and for development services. Around 35 per cent of respondents still treat systems costs as central overheads, but several of the members we interviewed indicated that they intended to introduce recharges in the near future.

It appears therefore that most Foundation members believe it is normal and sensible to recharge for systems services. Many reasons are given in support of this, but they can be summarised under three headings:

Figure A.1 Most Foundation members recharge systems services

Charging basis	Systems development	Systems operation	Telecoms	Consultancy
Profit centre	12	12	11	10
Internal recharges				
Actual costs	43	48	34	35
Past costs	—	2	2	—
Budgeted costs	13	9	14	8
Other	3	2	6	2
Total	59	61	56	45
Overhead	35	34	37	50
Other	1	2	2	2

Notes:

The percentages add up to more than 100 because several respondents said they operated as a profit centre but also provided information about their internal recharges.

About 5 per cent of organisations have different charge-out schemes for different situations in all of the four areas above (for example, charge out at actual or budget costs with other work as an overhead).

Consultancy is the exception — it is more often treated as an overhead. Otherwise there is a consistent pattern for the other areas.

- It is good accounting practice to link all overhead costs with the products and services that they support. Recharging allows such a link and it also forces the systems department to account for the costs of its services.
- Recharging promotes the cost-effective use of systems resources by making users accountable for their use of systems services. As a result, users become more involved in the management of their applications; they can be encouraged, or even discouraged, from using particular services; frivolous or unjustified applications will be avoided; and scarce systems resources are more likely to be allocated to the best-justified uses.
- Recharging promotes the cost-effective management of systems resources by focusing attention on the costs of systems services. It forces systems managers to minimise the cost of the services in order to remain competitive, and it helps to balance supply with demand. It also enables top management to balance the expenditure on systems with other forms of expenditure.

We found that some members regard recharging as their principal marketing technique and they attribute their success in improving the management of systems to the recharging policy being used. However, we also found a few organisations that had decided not to use recharging or had abandoned it. For example, B&Q, the largest do-it-yourself retailer in the United Kingdom, had chosen not to recharge for systems services because it believed that doing so would have detracted from the central control of a rapidly expanding service. And Arco, the California-based oil company visited on the 1988 Foundation Study Tour, had abandoned recharging as part of a general company move away from a bureaucratic management style towards a more cost-effective style.

We also heard of many complaints about the recharging policy having a bad effect on the relationship between the systems department and its customers. Common criticisms were that the recharging method used may not be cost-effective, may inhibit innovation, may lead customers to feel

resentful about their recharges, and, at worst, may even lead to wrong decisions being made.

Overall, we concluded that recharging is not necessarily the natural and sensible thing to do. Systems directors must therefore understand when its use is appropriate, what recharging techniques to use, and how to introduce them.

BASIC PRINCIPLES

One of the objectives of marketing is to communicate the value of goods or services to the customers who use them. This principle applies very obviously to luxury goods, like champagne, designer luggage, and perfume, which are premium-priced to reinforce their high-value image. It also applies to the supply of commodity goods like basic foods and building materials, which have little price differentiation. Such goods need to be promoted on the basis of their value for money in order to appear competitive. Interestingly, politicians who believe in the 'market economy' also consider that many services, like health care, welfare benefits, and art galleries, should be paid for by their consumers. They maintain that charging encourages the public to appreciate the value of these services.

Recharging systems services, instead of providing them free, helps to communicate their value to the systems department's customers. It encourages the customers to think about the services, to become involved in their management, and not to take them for granted.

Recharging can also be used as a means of controlling the use of scarce and expensive resources. By allowing customers to consume whatever they are prepared to pay for, recharging encourages them to exercise self-control in selecting the services they require, and in what quantities. However, such a 'free market' approach represents one end of a spectrum of resource-control techniques. Direct control by top management represents the other end of the spectrum. As an organisation becomes bigger and more complex, direct management control becomes more difficult to exercise, so mature organisations have to find the appropriate mix of direct control and self control. The best way of doing this is to recognise that direct control should be used for setting and reinforcing policies, and recharging should be used to allow a degree of autonomy and self control.

Recharging is a special case of transfer pricing — the prices charged when one part of an organisation sells a product to another part. An understanding of the principles of internal trading and transfer pricing may therefore be helpful in understanding the basic principle of recharging.

According to an article by Robert Eccles in the November 1983 edition of the Harvard Business Review, organisations with a family of many operating units may be classified in four categories — collective, cooperative, competitive, and collaborative — according to the level of interdependence between the units and the degree of market diversity among the units (see Figure A.2).

Collective organisations have low interdependence between the family members and also low diversity in the market. They are typical of groups of similar businesses trading independently, such as franchise operations and retail chains. They have a flat organisation structure, and a minimal corporate strategy that is developed top-down. Because the units are similar to each other, there is little internal trading and so transfer prices are not normally required. Corporate-wide systems services are provided if they are justified by economies of scale, and there is generally no recharge.

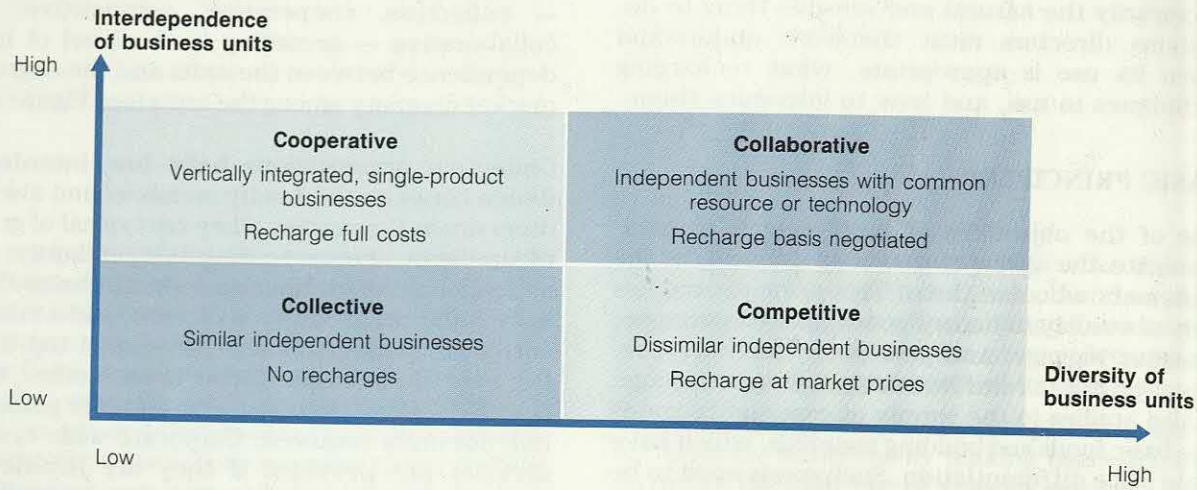
Cooperative organisations have high interdependence between the family members but low diversity in the market. They are typical of single-product, vertically integrated organisations with business units that cooperate to maximise corporate performance. Examples include oil, gas, and telecommunications utilities, and car manufacturers. They have a functional organisation structure, and the corporate strategy is developed top-down. Internal trading is mandated by company policy, with transfer prices that represent the full cost of the goods or services being traded. The use of corporate systems services is compulsory, with recharges typically based on recovery of the full cost of the services provided.

Competitive organisations have low interdependence between family members and high diversity in the market. They are typical of conglomerates with many independent business units, such as the Hanson Group, Bond Corporation, and BP. They have a multidivisional structure, and corporate strategy is developed bottom-up. Internal trading is permitted if it is in the interests of the businesses concerned, and transfer prices are based on market prices. Systems services are provided internally, but in competition with external suppliers, with recharges that are based on competitive market prices. This implies that the systems department operates as a profit centre like all the other business units.

Collaborative organisations have high interdependence between family members and high diversity in the market. They are typical of synergistic business groups that share a common resource or technology, such as Pilkington (the

Figure A.2 Corporate styles

Different recharging policies are needed for different corporate styles.



(Source: Robert G Eccles, Harvard Business Review, November-December 1983)

UK glass manufacturer) and Philips. They often have a matrix structure, and corporate strategy is developed iteratively, with top-down guidelines followed by review of bottom-up bids. Internal trading is encouraged, but is not mandated, and transfer prices are determined by mutual negotiation. Similarly, the use of in-house systems services is encouraged but is not compulsory, with recharges being determined by agreement. The collaborative style is the hardest to maintain. In theory, it should combine the benefits of both the cooperative and the competitive styles. In practice, it tends either to degenerate to a cooperative style or to evolve to a competitive style.

It is clear from Eccles's analysis that the extent of internal trading, and the basis for transfer pricing, should be determined by the organisation's business strategy, structure, and management procedures. The provision of in-house systems services, and the recharging policy, should be determined in the same way.

CHARACTERISTICS OF RECHARGING SYSTEMS

In determining the recharging policy for systems services, it is necessary to take account of several factors. The costs of providing the service may be very sensitive to certain levels of transactions, which means that it may prove difficult to arrive at a recharging formula that can be understood easily by the customers yet also reflects the true cost of providing the service. It is also necessary to consider the effect that recharges for operational services will have on the behaviour of customers. And recharges for development projects will have to be handled in a different way from those for operational services. The risks involved in providing systems services, particularly resulting from the unpredictable nature of the demand for services, also have to be reflected in the recharging policy. Finally, the policy should also take account of the customers' maturity in using systems services.

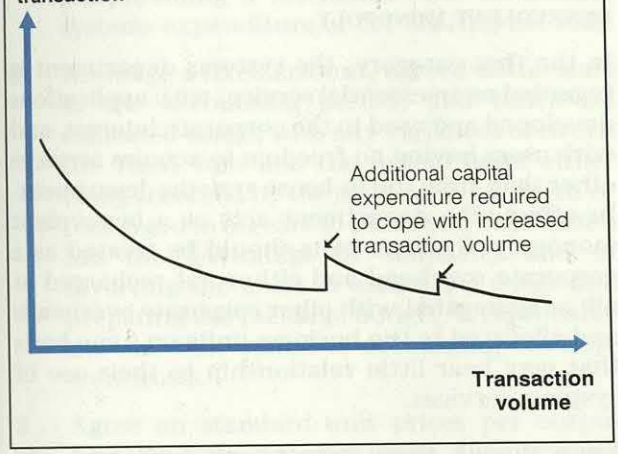
COST SENSITIVITY

Because information systems tend to have high fixed and low variable costs (especially in the case of software, communications networks, and shared data), major increases or decreases in demand may only create marginal changes in the total costs. Indeed, this high degree of volume flexibility is one of the great attractions of computer-based systems. Thus, fine tuning the recharging system is generally pointless because even major changes in user behaviour may have little impact on the total cost in the short term.

However, in the longer term when the available capacity if fully utilised, a minor increase in demand may trigger a major increase in the fixed costs and will cause a correspondingly large increase in the cost per transaction processed (see Figure A.3). This implies that there are considerable pitfalls in charging a fixed rate per transaction (which is the easiest for customers to understand). At low transaction volumes, the charge per transaction is likely to be lower than the cost per transaction. Also, once the transaction volume exceeds the level where more

Figure A.3 Relationship between transaction costs and volumes is not linear

Transaction costs are made up of a share of fixed costs and a small variable cost depending on the transaction volume. Once the volume reaches a certain level, additional capacity has to be acquired, which increases the fixed costs to be shared by each transaction cost.



capacity is required, the fixed charge is again likely to be out of line with the total cost per transaction.

Thus, one of the problems in designing recharging systems is to achieve a balance between the short-term and long-term cost changes that will occur as the demand for systems services increases.

OPERATIONAL COSTS

Total systems costs for large organisations typically fall in the range 0.5 to 5 per cent of sales revenue. Thus, on average, recharges for operational computer services will represent only a small proportion of a customer's total costs. However, some departments, generally those with a heavy administrative load, may be substantial users of systems services, and their recharges will represent a significant proportion of their total costs. The managers of these departments may regard systems as a necessary evil, and may resent the recharges since they have so little power to affect them. As a consequence, they will do everything possible to reduce their recharges, particularly if they are more aware of the costs than of the corresponding benefits. In these cases, the impact of the recharges on the systems department's customers will be negative. By contrast, other departments in the same organisation will have relatively small recharges. Because the recharges are a relatively small proportion of their total costs they will have very little impact on the customers' behaviour.

DEVELOPMENT PROJECTS

Systems development projects in even medium-sized organisations may require the investment of many millions of dollars. Justifying this investment, deciding whether to account for it as revenue or capital expenditure, and finding a suitable means of recharging the cost to the sponsors and eventual users, are all complex and poorly understood activities. (We intend to consider this topic in more detail in a future Foundation Report on Software Strategy.)

RISK MANAGEMENT

The demand for systems services is often very unpredictable. It may increase, or even disappear, without warning. Suppliers' product lines and prices also change frequently. So a further aspect of recharging policy is deciding who carries the risk associated with uncertain supply and demand. Recharges ought to reflect the high risk, and there will inevitably be a variance between the standard costs used for planning and budgeting purposes and the actual costs at the end of the accounting period.

SYSTEMS MATURITY

According to Richard Nolan (see Communications of the ACM, March 1977), users with a more mature chargeout system have more effective control over systems resources. He proposed four criteria for judging the maturity of recharging systems:

- Understandability — users can relate the reason for, and the size of, their recharges to their business activities.
- Controllability — users can control the supply of the services for which they are recharged.
- Accountability — users are held accountable by their managers for controlling their systems recharges.
- Coincidence of cost and benefit — the user who enjoys the benefit also pays the bill.

CRITERIA FOR A RECHARGING SYSTEM

In our view, a recharging system should satisfy the following six criteria in order to meet the marketing requirements of the systems department and the ease-of-use requirements of the user departments:

1. The system itself must be cost-effective, in that its benefits should outweigh the administrative cost of running it.
2. Users should have control over the services that they use, they should be involved in justifying expenditure and in developing recharge

budgets, they should understand the recharges, and they should be accountable for controlling their recharges. (This implies that they must have the authority to control their consumption of the services.)

3 Recharges should be designed to recover the full costs of all systems services over the medium term. This implies that senior management must determine the policies for authorising and accounting for capital expenditure. It also implies that, in the short term, the systems department must be allowed to make a small profit or loss. In appropriate circumstances, a small proportion of the total cost may not be covered by user recharges, but can be treated as a corporate overhead. This could apply, for example, to systems research and development expenditure. But even in this case, there is a customer (usually the board) who should authorise the expenditure.

4 Recharges for operational services should be proportional to usage, should reflect the service levels agreed with the users and the risks associated with fluctuating demand, should be based on measures of output that the users can recognise, rather than on computing resources used (for example, on dollars per transaction rather than on charges for processing power and storage used), and should reflect economic reality, in the sense that the interests of the systems department, the department's customers, and the host organisation should coincide.

5 Recharges for development services should relate the costs with the risks. In the early stages, while the application specification is still variable, the recharge should be variable, based on time and materials used, with customers and developers sharing the risk. In the later stages, when the specification should be fixed, the recharge should also be fixed. This requires the customer to agree on the specification once and for all, and the developer to carry the risk of the development project.

6 The recharge system should be sufficiently flexible to accommodate the needs of users at different levels of maturity. So, for example, a user with little experience of managing applications should be recharged on a simple but fair basis, whereas a more experienced user (and the organisation) could benefit from a more complicated recharging formula.

SUGGESTED RECHARGING METHODS

The earlier discussion about transfer prices indicated that the recharging policy should be determined by the organisation's business strategy and structure, with recharges being carefully balanced against direct management controls. Thus, our suggestions for an appropriate recharging method fall into three categories according to the relationship of the systems department with the rest of the organisation. We describe the three categories as a benevolent monopoly, a preferred supplier, and a competing supplier.

BENEVOLENT MONOPOLY

In the first category, the systems department is regarded as an essential service, with applications developed and used in the corporate interest, and with users having no freedom to acquire services other than from the in-house systems department. In effect, the department acts as a benevolent monopoly. Systems costs should be treated as a corporate overhead and either not recharged at all, or aggregated with other corporate overheads and allocated to the business units on some basis that may bear little relationship to their use of systems services.

Even though there may be no recharges, we believe that systems costs should be measured and monitored, partly to ensure that they are under proper control and competitive with the outside world, and partly to provide essential information for justifying systems investments and for systems planning. It is also important to carry out post-implementation audits of development projects, and periodic operational audits, to ensure that actual costs are in line with those upon which plans were based and decisions made.

We believe that little is lost and much is gained by not recharging. However, in the absence of direct recharges, some other marketing means must be found to communicate to users the value of the systems services they receive.

PREFERRED SUPPLIER

In the second category, the systems department is treated as the preferred supplier, but with users having the freedom to acquire services externally under exceptional circumstances. Recharging should be used in this type of organisation, the objective being to provide users with a measure of value and competitiveness, and to recover the systems department's costs in the medium term. Senior management must support the internal department by making it clear to the business units that it really is the preferred supplier, and that exceptions will be made only under very special circumstances. Senior management must also put pressure on the systems department to ensure that it is not exploiting its privileged position, and that its costs and service levels are at least as good as they need to be.

There are three main recharging formulas that can be used in this type of organisation:

1 Recharge actual development and operational costs in arrears. This option has the advantage that it meets the cost-recovery criterion, it is simple and cost-effective, and it avoids any problems with variances. However, it does not satisfy the requirements mentioned above for providing a mechanism for controlling systems expenditure or for sharing the risk.

2 Recharge a fixed amount, agreed at the start of the accounting period, and based on estimated usage, with any variances between the fixed sum and the actual costs either being absorbed by the systems department or recharged in arrears to the users. This option has the advantage of simplicity and of involving the users in estimating usage and preparing the recharge budget. It is probably the one best suited to recharging development costs.

3 Agree on standard unit prices per output item, for defined service levels. The recharges are then based on the standard unit prices multiplied by the transaction volumes. The unit costs should reflect the risks associated with providing the services, and users should have control over transaction volumes. This option comes closest to satisfying all the criteria mentioned earlier and is probably the best one for recharging operational costs.

However, a recharging scheme based on these principles does not guarantee that the total costs will be recovered. Discrepancies may be caused by the cost of new equipment being higher than anticipated, by low levels of productivity in the systems department, or by the transaction volumes being substantially different from the volumes required for the average price to be relevant. Wherever possible, additional costs not recovered by the scheme should be allocated to the managers responsible for the variances. If a particular customer requires special resources that cannot be shared with others then there should be a long-term contract with that customer for the provision and payment of those resources.

COMPETING SUPPLIER

In the third category, the systems department is in competition with external suppliers, and its customers are free to acquire their services from any source. This situation would apply where operating companies or business units compete with each other in the market. For such organisations, the systems department should be free to adopt market prices and operate as a profit centre. It may feel that it does not need to compete on price, since it should possess other advantages that outside competitors cannot match, such as permanence, stability, and special knowledge of the customers' requirements. It can set its prices to achieve a variety of objectives, such as to gain business at the expense of competitive suppliers, to build up a new market either internally or externally, to obtain business from a new customer, to control demand or risk, or to exploit customers' priorities. Provided that the value of the service to the customer is greater than its price, and the price is greater than the cost, then the department is in business.

IMPLEMENTING A RECHARGING SYSTEM

We mentioned earlier that recharging systems can cause a variety of problems. The key to successfully implementing a recharging system is to proceed slowly and carefully, monitoring the success of the system and modifying it where necessary to improve its effectiveness. Special attention should be paid to the following three areas:

— Match the company culture carefully, not only when determining the recharging policy but also in planning its implementation. Plan the implementation as carefully as for any other application.

— Use professional accounting support to determine recharging tariffs and standard costs. There is little to be gained by using amateur accountants who will most likely have to 'reinvent' standard accounting practices.

— Design the recharge reporting procedures as carefully as the recharging algorithms. Ensure that the information that users receive is as clear and as useful as possible.

RECOMMENDED APPROACH

To summarise the guidance set out above, our recommended approach to recharges is as follows.

1 Ensure that the business objectives for the systems department are clear and that the department's marketing objectives are aligned with these business objectives. Decide what marketing techniques should be used and, in particular, whether recharges would serve a useful purpose and would reinforce, rather than undermine, the marketing objectives.

2 Review the provision of systems services from the customers' point of view. Are they required to accept these services in the

corporate interest, with the systems department acting as a benevolent monopoly? Or are they required to use systems services to improve their performance and encouraged to acquire these from the internal preferred supplier? Or are they free to manage their business activities in their own way, and able to acquire systems services competitively from the internal or external suppliers if they wish to? These three options determine the scope for recharging and the most appropriate method — costing without actual recharges, recharging at cost, or recharging at market prices.

3 Review the systems-management maturity of the customers' departments. Select an appropriate recharging formula. Set clear management-control policies to balance the recharging method. These should cover such aspects as financial objectives for recharges, treatment of variances, audit of recharge levels, freedom for users to acquire services externally, purchase controls, and accountability.

4 Design the implementation approach.

Bibliography

Bartels, R. *The history of marketing thought.* 2nd edition. Colombus, Ohio: Publishing Horizons, 1976.

Berry, L L. Service marketing is different. *Business,* May-June 1980, p.24.

Drucker, P F. *Management: tasks, practices, responsibilities.* London: Harper-Row, 1974.

Eccles, R G. Control with fairness in transfer pricing. *Harvard Business Review,* no.6, November-December 1983, p.149-161.

Feldman, L P. Societal adaptation: a new challenge for marketing. *Journal of Marketing,* July 1971, p.54-60.

Kotler, P. *Marketing management: analysis, planning, implementation and control.* 6th edition. London: Prentice-Hall, 1988.

Levitt, T. The industrialisation of service. *Harvard Business Review,* September-October 1976.

Levitt, T. Marketing myopia. *Harvard Business Review,* July-August 1960, p.45-56.

Levitt, T. Marketing success through differentiation — of anything. *Harvard Business Review,* January-February 1980, p.83-91.

Levitt, T. Production-line approach to service. *Harvard Business Review,* September-October 1972.

Rathwell, J M. *Marketing in the service sector.* Cambridge, Massachusetts: Winthrop Publishers, 1974.

van Nievelt, G. Management productivity and information technology, in *Butler Cox Foundation fourteenth management conference held in The Hague, 13-15 May 1984.* London: Butler Cox, 1984. p.1-15.

Wilson, A. *Practice development for professional firms.* Maidenhead: McGraw-Hill, 1984.

BUTLER COX FOUNDATION

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Butler Cox is an independent management consultancy and research organisation, specialising in the application of information technology within commerce, government, and industry. The company offers a wide range of services both to suppliers and users of this technology. The Butler Cox Foundation is a service operated by Butler Cox on behalf of subscribing members.

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The Butler Cox Foundation sets out to study on behalf of subscribing members the opportunities and possible threats arising from developments in the field of information systems.

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