Customer Service Programme-Europe (CSP-E)

Future Service Market Requirements

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FUTURE SERVICE MARKET REQUIREMENTS

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ABSTRACT

This report examines vendor attitudes in respect of changing market directions. It also analyses user needs and describes some of the tactical responses of vendors to new opportunities in the market.

This report contains 51 pages, including 9 exhibits.

FUTURE SERVICE MARKET REQUIREMENTS

CONTENTS

EXHIBITS

I INTRODUCTION

A. OBJECTIVES

- The potential erosion of hardware maintenance revenues is one of the most significant challenges facing customer service management.

- In response to that challenge management must consider carefully users' likely future service market requirements within the context of a consideration of new approaches to the customer service business.

- This report is one of three related and complementary reports that address this issue.

- This report, Future Service Market Requirements, examines vendor attitudes in respect of changing market directions, an assessment of user needs, and the tactical responses of vendors to these new opportunities.

- The two other related and complementary reports are:

  - Strategic Market Directions in Customer Service studies the market forces which are creating a changing market environment for customer services, describes a model scenario of revenue growth development, and describes strategic level options for customer services management.

- The Role of the Engineer Outside of Maintenance analyses the changing role of the customer engineer as user needs and market forces change, the views of customer service management, and the new demands on customer services personnel.

B. METHODOLOGY

- This report, produced as part of INPUT's 1986 Customer Services Programme in Europe, is based upon INPUT's continuing research studies.

- During 1986 this research activity has included over 800 user interviews conducted by telephone and over 60 vendor interviews performed throughout the year with leading hardware manufacturers and third-party maintenance organisations.

- For this particular series of reports over 20 vendor interviews were specifically conducted to elicit comments on a variety of topics related to the issue of new services trends in response to the threat to hardware maintenance revenue.

- INPUT would like to express its thanks to all those companies and individuals who participated in the research undertaken for this report.

- Enquiries and comments regarding this report and any related topics of interest are welcomed by INPUT.

C. REPORT STRUCTURE

- The remaining chapters of this report are organised as follows:

  - Chapter II is an executive overview providing a summary of the contents of the entire report.

  - Chapter III describes the vendor's view of those factors considered to be having the most impact on the service organisation.

  - Chapter IV analyses the results of user research into requirements for additional services.

  - Chapter V examines vendors' tactical responses to the development of new service approaches; for example, in software support and consulting.

  - Chapter VI describes some further tactical responses to increasing market penetration, including extended warranty.

II EXECUTIVE OVERVIEW

- This Executive Overview is designed in a presentation format in order to:
  - Help the busy reader quickly review key research findings.
  - Provide a ready-to-go executive presentation, complete with a script, to facilitate group communication.
- The key points of the entire report are summarised in Exhibits II-1 through II-5. On the left-hand page facing each exhibit is a script explaining its contents.

A. CHANGING REQUIREMENTS FOR CUSTOMER SERVICE

- A number of factors are having a strong influence over the development of the customer services industry.

- Foremost of these, in the opinion of vendors, is the impact of new technology. Such developments as increasing reliability, component swapping methods, and remote diagnostics are leading to increased customer resistance to maintenance charges.

- At the same time the increasing use of high technology systems in critical systems, e.g., for banks, still creates demand for high levels of customer service.

- Customer services organisations are under pressure to maintain increases in revenues through the development of new types of services in related or adjacent areas.

- Increasing competitiveness in the market from third-party maintenance organisations, and potentially from value-added resellers as increasing volumes of equipment are channelled through these outlets, are placing considerable strains on services management.

CHANGING REQUIREMENTS FOR CUSTOMER SERVICE

- Influencing Factors
  - Technology
  - Revenue
  - Market Forces

B. INHIBITING FACTORS

- Vendor services management are acutely aware of the need to develop the efficiency of their operations, and they are therefore conscious of a number of factors that are inhibiting their progress.

- Vendors see long-term contracts as one major problem in this respect, but should be aware of the stabilising revenue contribution of such business.

- Lack of understanding of customer services issues by general management was also considered an inhibiting factor to development.

- The failure on the part of customer service personnel to keep pace with changes in the environment that demand the acquisition of new skills and the adoption of new methods also presents a management challenge.

- Legislative restrictions and trade union practices are an important consideration in this area.

- Vendors also see user resistance to changes in the way that maintenance and other services are provided as a problem.

INHIBITING FACTORS

- Long Term Contracts
- Senior Management
- Internal Attitudes
- User Resistance to Change

C. USER REQUIREMENTS

- INPUT's user survey indicates that by far the most pressing requirement at sites is for additional hardware-related services over and above those provided by current maintenance agreements.

- The most frequently mentioned services in this category are:

  - General consultancy on hardware-related topics.

  - Advice and assistance on equipment movement and installation.

  - Operations assistance, particularly training.

- The second most important user requirement was for the customer service engineer to be more involved in the software support activity.

- The only other really significant requirement to emerge from the user research was a need for the customer engineer to strengthen the vendor/user interface. Creating an improved flow of information between the user and supplier was reported as an important need.

- Interestingly, a minority of users (about 11%) stated specifically that they wanted the service engineer to concentrate solely on his basic responsibilities and not to be diverted into other activities for which he is not qualified.

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USER REQUIREMENTS

- Additional Hardware Services
- Software Support
- Vendor/User Interface

D. SERVICE DEVELOPMENT

- Faced with uncertainties about the growth of hardware maintenance revenues most vendors have embarked upon some element of new service development within their existing base.

- Primarily, these types of services can be categorised as:

  - The maintenance of other vendor's equipment.

  - The provision of other computer services.

  - The sales function.

- The most obvious target for additional maintenance revenues is to develop single-source service for existing clients where other manufacturer's equipment is installed. This could lead to the development of more aggressive third-party maintenance marketing.

- Other computer services represent an opportunity which would include software support, applications systems development, consultancy, and installation planning.

- In the light of user needs and available skill levels in the customer service workforce, vendors need to tread carefully in the development of such services.

- Finally, the sales function, which again needs to be treated with caution, can represent another revenue development opportunity. Vendors must consider carefully the conflicts that can arise when individuals bear split responsibilities of this kind.

SERVICE DEVELOPMENT

- Maintaining Other Vendor's Equipment
- Computer Services
  - Software Support
  - Application Systems Development
  - Consulting
  - Planning
- The Sales Function

E. MARKET PENETRATION

- Vendors seeking to maximise their customer services revenues must consider any tactics that can effectively increase the existing revenue stream.

- Some possible approaches are:

  - Ensuring continued viability of older installed equipment.

  - Increasing prices wherever possible.

- Another approach is embodied in the concept of extended warranty.

- This involves the bundling of maintenance revenue into the sales price. Whilst this can have marketing price implications, it is a method offering considerable potential for the generation of service revenues that might otherwise be difficult to generate.

MARKET PENETRATION

- Maximise User Base Revenues
- Extended Warranty

III CHANGING REQUIREMENTS FOR SERVICE OPERATIONS

- This chapter describes INPUT's research into the vendor's views, firstly those factors considered to have the most impact on their service organisation, and secondly those factors considered to inhibit the efficient operation of their customer service organisation.

A. FACTORS INFLUENCING CUSTOMER SERVICE

- Vendors were requested to list those factors which they considered were having the strongest influence on their customer service organisation.
- The following issues featured most prominently in order:
  - New technology.
  - Awareness of revenue possibilities.
  - Market forces.
  - Customer awareness.
  - The user.

1. TECHNOLOGY

- The impact of new technology was cited as the most important influencing factor. Respondents mentioned the need to keep pace with hardware developments both within their own company and amongst competitors (especially where third-party maintenance was a factor).

- The continuing drive towards increased reliability was specifically referred to by several vendors in this context. The key issue was increased customer resistance to paying the 10-12% maintenance cost to purchase price ratio that is currently the norm. Increasingly, a large section of the market believes that this level of 'insurance premium' is unjustifiable.

- New technological development is changing the nature of the products. Computer products have become cheaper, smaller, inherently more reliable, and increasingly installed in a distributed fashion throughout organisations.

- On the one hand this technological development has led to such developments as fault diagnostic facilities which allow component swapping by relatively unskilled personnel and remote diagnostic techniques; these factors add up to an expectation of lower 'premiums' for maintenance or alternative 'risk management' practices.

- On the other hand the wider range of applications being run on computer systems and their more widespread use throughout an organisation's activities imply an increased reliance upon their correct functioning.

- No longer is the computer an object solely locked away in a central facility, sited in a carefully controlled environment. Computers are now widespread throughout offices, factories, and retail premises.

- Consequently, equipment failures can be seen to stop or interrupt the business in a very real and immediate sense that is not only highly visible but costs money.

- All of these factors imply a greater need for customer engineering services. In practice there would seem to be a polarisation between critical and non-critical applications as far as customer service business is concerned.

- Where the application is seen to be critical to the organisation then 'insurance premiums' paid to avoid such risks can be fully justified.

- INPUT research has long suggested that many customers are in fact prepared to pay more for support services which genuinely offer value for money. One respondent summarised this situation by commenting:

  - 'The secret of revenue generation in the future will be getting as much money as possible out of those prepared to pay'.

- However, in non-critical applications, most vendors are meeting user resistance to maintenance costs. The users are accepting some level of risk or taking other avoiding action such as:

  - Buying hardware resilience within their installations.

  - Undertaking their own 'first aid' or primary diagnostic services.

  - Taking advantage of 'carry in', swap, and repair facilities.

2. REVENUE OPPORTUNITIES

- A recurrent theme that emerged from INPUT's vendor analysis was the increasing emphasis being placed on customer services as a generator of revenues and more particularly as an area for the development of new revenue opportunities.

- In recent years, the awareness of the importance of customer services as a revenue generator and wide acceptance of the goal of total customer service have widened the view of general management to new possibilities for additional services.

- The importance of developing new revenue streams is underlined by the vendor who reckoned that for every $1 million of product value sold five years ago to produce $100,000 of maintenance revenue per annum, $3 million has to be sold today to achieve the same yield.

- This is clearly influencing the scope of customer services management in terms of its revenue goals and the nature of its support organisation.

- The practical steps being taken by vendors to develop new sources of revenue are discussed in Chapter V.

3. MARKET FORCES

- In the past, customer services management have not had to consider the impact of competitive activity in their prime area of business. However, this situation has changed largely as a result of the emergence of 'third-party maintenance' and the widening distribution channels for computer equipment.

- As yet, third-party maintenance does not represent too significant a proportion of the total maintenance market in Europe.

- INPUT estimates that in 1985 third-party maintenance accounted for under 4% of total maintenance revenues in Europe and expects it to account for less than 10% by 1991.

- Widespread interest in offering TPM services to meet the needs of large customers with wide ranges of terminals and communications equipment must clearly be an important influence on shaping vendors' service operations.

- It is expected that large installations will become increasingly aware of the potential economies that are possible from TPM suppliers, either as a single-source contract from one of their current suppliers or from an independent organisation.

- A further threat comes from the increasing proportion of products that are sold through dealers and distributors.

- The distribution channels for computer equipment have become more complex and more prevalent as a direct response to the opposing needs of increased volume and the meeting of more specialised customer needs.

- These third-party organisations, dealers, distributors, value-added resellers, etc., can be expected to view maintenance revenues as a valid element or extension of their business.

- They may consider this as an important support to their overall profitability and at the very least as a bonding of vendor/user relations. This will be particularly important where geographic considerations are paramount.

- Companies like DEC, who have historically developed strong third-party sales channels have suffered most from competitive pressure.

- Organisations that are now intent upon dramatically increasing their proportion of sales achieved through third parties must carefully evaluate the impact this will have on their maintenance revenue.

- At present the reaction of most vendors is that not one of these competitive pressures has reached significant proportions.

- Shared maintenance by customers and remote services are still the exception.

- Many peripherals and terminal devices still have a relatively high mechanical content which customers recognise as prone to faults.

- None of these issues is easy to quantify, but there are identifiable trends that are putting maintenance revenue at risk.

- Competition for maintenance revenues will inevitably cause some downward pressures and a redistribution of market shares.

- The marked development of press advertising to promote the value of maintenance services suggests that vendors are genuinely concerned about these issues.

4. USER AWARENESS

- It is interesting to note that of all the influencing factors mentioned by vendors, those of 'customer awareness' and 'the user' were mentioned least frequently.

- However, there is evidence that, increasingly, customer services management are placing more and more emphasis on awareness of customer needs as an important factor in the formulation of their service operations.

- This is in effect the classic development from product/service orientation to marketing orientation. Management recognises that the customer is the source of service revenue, and as one vendor expresses it to its service personnel, 'the customer pays your wages'.

- The idea of customer care, the need to place increasing emphasis on customer satisfaction, the notion that perhaps the user needs other services to augment the basic hardware maintenance service, have all led vendors to place increasing importance on what the customer wants.

- INPUT questioned 11 respondents about the methods they used, if any, to monitor customer opinion about the level of service they received.

- Of these 11, 5 have instigated a monthly survey of selected users with the aim of tracing any noticeable improvements in user perceived service levels. All five claimed to monitor the accumulated data closely in order to spot any potential problems.

- The remaining six vendors, in the group questioned on this issue, stated that they used some form of progress report in order to ensure that customer satisfaction levels remained high.

- One vendor used the survey approach to inform users about their engineering training programmes. This involved communicating information to the users about the training courses, what they consisted of, and, consequently, services that the user could expect to receive. This seemed to result in increased motivation for the user to participate in the feedback process.

- Two vendors used questionnaires sent out quarterly to discover whether response and repair times were satisfactory and whether the user was in general terms happy with the engineer allocated to him.

- All these monitoring systems were used to a greater or lesser extent to plot the level of user satisfaction. The intention was largely to become alerted to problems and to respond to them quickly within the customer service organisation.

- Only in one case did the scope of the survey seem to go beyond this level and to question users about other needs and wants over and above basic service satisfaction levels.

- Thus, despite the apparent emphasis on user needs, few vendors saw the demand by users for new services as an important influencing factor.

- INPUT would conclude from this that customer services management is finding the transition from a product/service led environment to a marketing driven one a difficult adaptation.

- Customer services managers must place much greater emphasis on user needs and not simply pay lip service to marketing thinking.

B. FACTORS INHIBITING CUSTOMER SERVICE DEVELOPMENT

- When vendors were requested to state those factors which they considered were holding back or inhibiting the efficient operation of their customer service organisation, the following list resulted:

  - The need to maintain long-term contracts.
  - Senior management.
  - Internal attitudes.
  - User resistance to change.
  - Legislation.
  - Trade Union Practices.

- The most frequently mentioned factor, the need to maintain long-term contracts, was a reference to the maintenance of older technology and the consequent retarding effect this had on the efficient development of the customer services organisation. Vendors referred particularly to the high incidence of these contracts with local authorities, government, and education establishments.

- This does, however, represent something of a paradox from a commercial standpoint since long-term contracts represent relatively assured revenue and older equipment in general contributes significantly to overall revenues. One vendor even commented that as much as 50% of total hardware maintenance revenue was derived from obsolescent equipment.

- However, vendors viewed the maintenance of obsolete equipment as an important inhibitor to the efficiency of their operation. Reasons for this were:

  - Labour intensiveness.

  - High level of spare parts inventory.

- Interestingly, another frequently mentioned problem was that of senior (vendor) management's ignorance of customer services issues, particularly at the local level. The view was expressed that a lack of understanding by senior general management can frequently hinder the ability of customer service to meet what they consider to be important local needs.

- Not surprisingly, this factor was clearly most critical when the company was a foreign owned subsidiary and where international considerations outweighed local ones.

- Vendors should take particular note of this point. Services are, in general, delivered locally and must therefore pay particular cognizance of local conditions. Service managers intent on increasing their service coverage, as described elsewhere in this report, must therefore pay more not less attention to local needs.

- Another inhibiting factor mentioned by several respondents was the general attitude within the company of both customer service managers and engineers.

- These comments broadly related to what were described as old fashioned, out-moded attitudes, and ways of behaviour. In particular, comments were made concerning:

  - Engineers unable to work beyond hardware maintenance.

  - Engineers unwilling to learn new skills (particularly customer relation skills).

  - Lack of communication between:

    . Middle and senior management.

    . Middle management and employees.

  - Failure to adequately embrace new concepts in:

    . Technology.

    . Personnel management.

- Other factors mentioned as inhibitors were:

  - User resistance to change.

  - Legislative restrictions (particularly concerning labour relations).

  - Trade union practices.

IV USER REQUIREMENTS FOR ADDITIONAL SERVICES

- As part of INPUT's annual user survey, respondents were asked to comment on their perceived need for additional services that they felt could be provided by their service engineer.

- INPUT analysed 120 responses to this question and the distribution of responses is shown in Exhibit IV-1.

A. ADDITIONAL HARDWARE SERVICES

- It is interesting to note that by far the largest category (44% of those questioned) cited the need for additional hardware-related services.

- The implication of this is that despite much controversy over what 'new' revenue generating roles can be created for the service engineer, an opportunity does exist to extend services related to hardware support.

- An obvious counter argument to this is that there will tend to be services that the customer is reluctant to pay for, and that therefore they have been ignored in order to improve the overall efficiency of the service engineer.

- INPUT suggests that given the high incidence of requirements for additional hardware services, this area should be carefully evaluated by service management.

EXHIBIT IV-1

USER REQUIREMENTS FOR ADDITIONAL SERVICES

SERVICE CATEGORY	NUMBER OF RESPONSES	PERCENT
Additional Hardware Related Services	53	44%
Software Support	30	25%
Strengthen Vendor/User Interface	16	13%
None-Engineer to Concentrate on Basic Services	13	11%
Other	8	7%
Total	120	100%

- This area of opportunity for the extension of customer services does after all represent that to which the skills profile of the engineer is most suited.

- Exhibit IV-2 gives some examples of user comments on the need for additional types of hardware-related services.

- The services most frequently mentioned by respondents were:

  - General consultancy on hardware.

  - Advice and assistance on equipment movement and installations.

  - Operations assistance, particularly training.

- Some items mentioned under general consultancy services were planning, advice on back-up facilities, hardware analysis, and reconfiguration.

- A number of users also drew attention to the need to keep up-to-date on hardware changes and sought additional support from the service engineer in this area.

- Other areas mentioned by respondents included:

  - Preventive maintenance.

  - Cleaning services.

  - Site supervision.

  - Minor customisation.

  - Wiring and cabling.

EXHIBIT IV-2

ADDITIONAL HARDWARE-RELATED SERVICES USER COMMENTS

- ' The engineer could give support in re-tuning the system and also advice on the layout of equipment.'
- ' The engineer could give better advice on how to use new and existing types of computers.'
- ' We would appreciate more consultation and training from the field service engineers.'
- ' The engineers could give advice on the availability and use of new equipment.'
- ' We would like more support in operating the system.'
- ' He (the engineer) could assist us with equipment moves and installation.'
- ' Providing performance monitoring and capacity planning services.'

B. SOFTWARE SUPPORT

- The second most requested area for additional customer services was that of software support (see Exhibit IV-1). One-quarter of all respondents stated their perceived need to see the customer engineer more involved in the software support activity.

- Exhibit IV-3 gives examples of some of the comments made by users on this topic.

C. USER/VENDOR INTERFACE

- A significant minority (13%) drew attention to the general area of the user/vendor interface.

- User comments in this area focused on the problems of poor communciations between the supplier and the end user, and expressed a view that more could be done by the engineer to overcome this.

- Some typical user comments were:

  - 'We would like the engineer to be our day-to-day contact with the supplier'.

  - 'He could aid communication and cooperation between the hardware manufacturer and the user'.

  - 'The engineer could provide a channel for information and mediation between the producer and the user'.

  - 'We would like more information from the engineer'.

EXHIBIT IV-3

SOFTWARE SUPPORT - USER COMMENTS

- ' The engineer could be providing operational software support.'
- ' We would like them to provide a software engineering capability - for example installing the operating system.'
- ' It would be helpful if the engineer had received much more training on operational software.'
- ' The engineer should be able to deal with software problems as well.'
- ' We need more software assistance from the engineer.'
- ' We would like to see a more competent person that can deal with both hardware and software problems.'
- ' We could have greater configuration flexibility with the system if the engineer had more knowledge of the software systems.'

D. OTHER REQUIREMENTS

- Another significant minority, 11% (see Exhibit IV-1) felt that the customer service engineer should concentrate solely on his prime task of hardware maintenance.

- Their comments made it clear that they would not welcome the extension of the role into other adjacent or related areas.

- For example, user comments included:

  - 'The engineer should keep solely to solving maintenance problems'.

  - 'We feel that the engineer should concentrate on equipment repair and not be salesmen'.

  - 'Engineers are not qualified to perform any other additional services'.

- Other comments about additional services included a requirement for single site maintenance coverage for additional equipment or services and the engineer to provide training.

- Only one user volunteered the suggestion that the customer services engineer should be involved in sales activity. This was not surprising in view of the response given to the specific question put on this subject, as analysed in Section E below.

E. SALES ACTIVITY

- In a separate but related question, users were asked whether they felt that the customer engineer should be responsible for any of the following items:

  - The sale of computer supplies.

  - The sale of equipment such as systems, terminals, and office systems.

- In each case the user was asked to rate the desirability of the customer services engineer having a sales responsibility, on a scale of 1 being totally against the idea, to 10 being very much in favour. The results are analysed in Exhibit IV-4.

- This analysis shows a clear majority are very much against the idea of customer services representatives taking on sales responsibility.

- There is no significant variation between the different categories nor were there any significant differences between separate country markets.

- The conclusion must be drawn that the majority of users would like to see a clear distinction remain between the sales function and customer services support.

- Vendors who have embarked, or are planning to embark, on developments of this kind will need to tread warily in their customer base to avoid upsetting vendor/user relationships and mutual trust.

EXHIBIT IV-4

DESIRABILITY OF CUSTOMER SERVICE SALES ACTIVITY USER RATINGS

TYPE OF SALES ACTIVITY	USER RATING OF DESIRABILITY * (Number of Respondents)										SAMPLE SIZE
	1	2	3	4	5	6	7	8	9	10	
Computer Supplies	192	21	19	17	51	18	23	29	7	24	401
Systems	192	23	20	18	45	25	33	22	3	20	401
Terminals	190	25	16	15	49	27	64	30	9	19	444
Office Systems	198	27	21	18	42	20	32	26	5	17	406

* Rating: 1 = Totally against the idea, 10 = Very much in favour

V SERVICE DEVELOPMENT APPROACHES

- Faced with the uncertainties of the market for hardware maintenance services over the next few years, most equipment vendors have embarked upon a course which in some degree embodies new service development.

- The preceding chapters have discussed vendor and user views with regard to these changing market conditions. This chapter describes the diversification approaches that were discussed with vendor management.

A. OPTIONS AND RISKS

- The development approaches discussed in this chapter can be conveniently classified under three broad headings:

  - The maintenance of other vendors' equipment (TPM).

  - The provision of other computer services such as:

    . Software support.

    . Applications systems development.

    . Consultancy.

    . Installation planning and implementation.

- The sale of other products through a single sales and marketing structure.

- Further tactical approaches to increasing hardware maintenance revenues are discussed in Chapter VI.

- One overall factor that vendors should be aware of is that of double counting of potential revenues when contemplating moving into new areas.

- For example, gaining revenue from new software support services or from consultancy may well be potentially reducing the expectation of those revenues for some other division of the company.

- Similarly, it must be recognised that single-source or TPM contracts are moving maintenance revenues from one vendor to another and not increasing the overall market.

- Another important risk consideration for vendors is the marketing costs associated with the development of new types of service revenue. These marketing costs could represent anything up to 100% of the first year's revenue for these services.

- The degree of autonomy from the core business of the company, that is necessitated by a wider ranging service organisation, can also raise certain risks. In all three of the basic tactical diversification approaches quoted above, there is the risk of conflict with the primary sales function of the equipment vendor.

- Personnel skills and the potential of cross-training maintenance engineers for other roles is also an important consideration. This topic is addressed in a companion report to this study The Role of the Engineer Outside of Maintenance.

- IBM, for example, resolutely avoids offering to maintain any other vendors' equipment because in doing so they would lend to it the excellence and credibility of IBM's name and thereby enhance its competitive image.

- The reverse would apply where a product of insufficient quality could damage the image and reputation of its maintainer.

- In many cases the unrestrained provision of maintenance service to other vendors' equipment could represent levels of threat to the product marketing strategy.

- The provision of other customer service, particularly consulting, may also be incompatible with the primary product sales objectives.

- If a consultant is required to give unbiased, qualified advice to his client on a network installation, for example, how can this be reconciled with the parent company's vested interest in the sales of particular equipment or standards?

- The sale of products or other services through an independently constituted sales force may inevitably produce friction with other company sales personnel or within the distribution network of agents and distributors created by the main product sales organisation.

- Whichever form diversification is to take, it must be considered as a move towards some level of autonomy on the part of the customer service organisation.

- Hardware maintenance on its own, although managed as a separate profit centre has not traditionally been a truly separate business since it lacked its own independent sales and marketing capability.

B. HARDWARE MAINTENANCE DEVELOPMENT

- Hardware maintenance diversification has been studied by INPUT in other reports, particularly the 1986 study Third-Party Maintenance in Europe, 1985-1991.

- The evolution of hardware manufacturers' maintenance approaches has been identified as:

  - The stage at which the vendor gives total support to existing clients by providing single-source maintenance for all installed equipment on the site irrespective of the source.

  - The stage at which the vendor sets up a maintenance division as a separate profit centre to compete openly for single source, mixed installation, maintenance contracts.

- Vendors must recognise that in the second stage described above the independent maintenance division will demand a level of autonomy which may be incompatible with overall corporate objectives.

- If such levels of independence are acceptable, then certain vendors with a tradition of widely distributed product selling--Olivetti, NCR, and Burroughs, for example--could succeed dramatically in this TPM market.

- There seems to be no reason why such vendors should necessarily restrict their diversification to other computer systems and peripherals.

- As so many office products and factory centre products are now microprocessor and electronically oriented, there could be opportunities to generate economies of scale, both at field level and in management systems, by spreading further across product ranges.

- A particularly relevant area could be network and communications equipment.

C. OTHER COMPUTER SERVICES

1. SOFTWARE SUPPORT

- Software support is seen by many respondents as the most natural and potentially most rewarding area for development.

- In the area of utility or operating system software, it is quite natural that some level of combination of maintenance activity be considered.

- It is difficult to see how any dramatic increase in total revenue will be generated, as license and maintenance fees for such software have been charged by systems vendors for many years on an unbundled basis.

- At the applications software level the situation is more complex. Few systems vendors have been particularly successful in developing and marketing applications software in the face of stiff competition from the independent software services sector.

- There is a real relationship between the value of maintenance contracts and the application to which the equipment being maintained is being put.

- Evidently in an EPOS or CIM environment the availability of the system and its component parts becomes highly critical with the potential for disruption of customer flow or the stoppage of a manufacturing process.

- Some companies interviewed were considering applications-oriented pricing of maintenance contracts, at least they felt their negotiators would have to be

more knowledgeable about application demands in order to assess the response requirements and potential contract value.

- INPUT concludes that, apart from this need to relate to the customer's application in order to provide a better overall service, there is limited potential for deriving additional revenue from support of applications software.

2. PROFESSIONAL SERVICES

- Provision of programming services is another area where vendors face significant and well established competition.

- For many years system vendors have looked towards the computer services market with some envy, particularly in the provision of professional services and software products.

- Attempts to diversify into this sector are not new, but on the whole success has been limited to date.

- Whether the amalgamation of engineering- and software-oriented services within one functional structure will add any particular impetus is very doubtful.

- Consulting services and installation planning and management services do offer logical, although limited, possibilities for additional revenue.

- As has been mentioned above, the degree of independence of the services entity will have some bearing on potential success.

- Clients on the whole seek independent advice on planning installations and selecting equipment.

- The extent to which system vendors can be seen to be valuable sources of consulting advice on such issues as equipment performance and network and installation planning is somewhat dubious.

- Opportunities do exist in the provision of specific installation services. Companies that have offered specialist design services and such services as cabling and wiring have experienced satisfactory demand.

- INPUT would express caution in evaluating the opportunities in this segment of diversification--the offer of extended customer services.

- INPUT does not believe that they offer the opportunity to develop truly new sources of corporate revenue of any scale.

D. PRODUCT SALES

- The last possible area for development is the entry into the sale of other products or consumables by the developing sales and marketing forces of customer services operations.

- Again, it has been the practice in the past to assign sales objectives to field engineers for consumables such as ribbons, paper, and other office supplies.

- It has not been successful in that it has diverted the engineer from the primary function of effecting repairs quickly and moving onto the next service call.

- The new breed of customer support person is, however, assumed to be less critically involved in the repair and maintenance process and more focused towards good customer relations.

- He or she is likely to be trained in interpersonal and selling-oriented skills and is therefore likely to be potentially more effective in a role as marketee for other related products.

- Given that any conflict can be reconciled with other company sales personnel and with agents or disributors, this force of customer services people could be a powerful tool in the company's objective to increase revenue yields from existing clients.

- The question remains as to what products or services they would sell and what would be their primary assignment.

- In the first place their function would be in support of existing company clients:

  - They could aid in the identification and selling of maintenance opportunities and aid management and specialist sales personnel in conducting negotiations.

  - They could ensure that customers were satisfied with the performance of the equipment installed and were getting the best out of it.

  - They could perform certain routine maintenance functions and implement swapping and exchange processes.

- In essence their call patterns would be dictated by routine customer visits and by the demand for simple exchange calls. They would be part of the resources available to respond to urgent unit or component replacement calls.

- Within these constraints they would be in a good position to liaise with customers and gain an intimate understanding of their needs and issues providing they were sufficiently well trained.

- One of the first product sales opportunities they could handle would be that of training services. Their understanding of the client environment could lead them to identifying training needs and opportunities.

- Other opportunities could exist for selling office environment products, such as desks, cabinets, etc. and general supplies such as tapes, disks, and paper.

- Given that a vendor is intent upon securing its maintenance revenue and developing it, such a force of sales-oriented customer service personnel would be invaluable.

- With increasing customer resistance to the payment of heavy maintenance charges for, at least seemingly, more impersonal and infrequent services, such visible contact and support would enhance the vendor's image considerably.

- Once in place they would offer opportunities for developing product-related revenue.

VI MARKET PENETRATION APPROACHES

A. INSTALLED BASE CONSIDERATIONS

- Maintenance revenues are fundamentally geared to the installed base of products. The most obvious way of increasing maintenance revenue is to increase the installed base value which is not always the same as increasing sales volumes. If new sales replace systems with higher maintenance yields it has the opposite effect.

- Companies are generally bent upon increasing sales volumes--that is where their primary return on investment and profit must come from. Increasingly, equipment vendors are adopting approaches such as:

  - Generating effective dealership and distribution networks.

  - Increasing the range of 'badge-engineered' products.

  - Offering more and more value for money with more totally cost-effective systems, including improved reliability.

- All these tactics have the potential effect of depressing maintenance revenues.

- The maintenance operation itself can contribute to increasing the effective installed base by:

  - Ensuring continued viability of the older installed equipment (which is possibly contrary to overall marketing strategy).

  - Seeking out servicing contracts with other equipment vendors which can only be achieved with careful coordination with overall marketing policy.

  - Seeking other installed equipment to maintain on a TPM basis (in single-source contracts for instance). Even this has to be carefully handled to avoid conflict with other account management strategies.

- In effect there is a limited impact possible through the efforts of the maintenance operations. The best that can be achieved is to minimise the negative impacts of other pressures and possibly increase the competitive share of the total available market.

- Where the maintenance operation can be potentially more effective is in increasing the yield of maintenance income from a given sales volume.

- The obvious first consideration is to increase maintenance pricing as a whole.

  - IBM states that their average yield over all products is rising from 10-12% but also admit that customer resistance is causing them to consider more flexibility in pricing where customer contributions are possible.

- Overall, it seems too difficult to envisage any radical increase in maintenance prices given increasing reliability, lower prices, and customer reaction.

B. EXTENDED WARRANTY

- This subject was identified by a number of respondents as one which merited serious consideration.

- The issue revolves around three main factors:

  - If there is serious competition for the maintenance of a given system product, would not the original vendor be more secure if he 'bundled' long-term maintenance of the product into its original sales price?

  - The corollary to this factor, if the maintenance premiums were bundled in for a period of up to three years, would the added sale price make the product less competitive?

  - If the product itself becomes inherently so reliable that failure rates and repair problems become virtually non-existent, is not extented warranty, as is the case in many other manufactured products, a positive sales benefit incurring negligible cost?

- It seems that, at the very least, extended warranty on certain lower priced products must be considered by vendors as a real option.

- At least one respondent stated that a product assembled from standard Japanese made components would now be 'guaranteable' for a period of three years.

- Other respondents, quoting the dramatic improvements in MTBF statistics, appeared to caution that maintenance fees were largely unjustifiable at current levels.

- It certainly seems that users are rapidly becoming sufficiently astute to realise that paying up to 15% of the initial purchase value annually for full maintenance is unwarranted in many cases.

- After three years the cost of a replacement product will be less than the saving over the years, and the advantage will more than outweigh the minor risk of a T&M call in the meantime.

- This pressure on selling maintenance contracts to reluctant clients for selected products, should make the alternative of securing two or five years, albeit reduced, maintenance fees up front in the sale price an attractive proposition.

- Evidently, a number of other issues have to be considered:

  - How far an additional 15-20% on the sale price is a significant competitive disadvantage.

  - The effect of such a bundling arrangement on dealer and distributor relations.

- It is in fact equally valid to question whether a three-year extended warranty, at no evident fee, would not be a positive sales advantage in a market where competitive edge is becoming so important.

- It is also important to ask whether some significant competitor might offer such warranties anyway, still maintaining their overall price competitiveness, and thereby steal an immediate market advantage.

- With Japanese manufacturing standards being what they are it seems more than likely that some suppliers will take such a step.

- Finally, the consideration that the cost of selling, reselling, and administering maintenance contracts for lower value products, if avoided, would offset the loss in overall income and the cost of ad hoc support.

- To sell maintenance contracts in a highly competitive environment can be very expensive, as has been the experience of computer service bureaux who have relied on continuing annual income from clients.

- The experience of computer bureaux has been that it can cost anything from 30-100% of the first year's income to sell to a new client, and thereafter 15-20% per annum to give continuing sales support.

- The most important consideration is whether extended warranty will secure customers which might otherwise not contract at all or contract to a hird party.

About INPUT

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