SWP 63/91 "AFTER SALES SUPPORT STRATEGY: A RESEARCH AGENDA"

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ABSTRACT

This paper describes the development of a model presented at the 1990 OMA conference which characterises alternative structures for delivering After Sales Support. The model has been tested with a range of companies and has been found to describe the alternatives under consideration

The paper indicates where work has been carried out to strengthen the model. This is in two areas. We have identified the factors which influence the volume of service activity (Service Intensity) for the organisation, and we also indicate where the results of a recent survey support our conclusions thus far.

We conclude by presenting an agenda of research issues which are currently under investigation.

INTRODUCTION

After sales customer support has become a strategic issue for many manufacturing companies and those service companies whose business is concerned with servicing products and supporting customers in the use of products and systems. Many of the best performers in this area such as some of the computer companies, lift manufacturers, and earthmoving equipment manufacturers have had to radically change the way in which they deliver their customer support and service in order to maintain a consistent competitive advantage over the main competitors in their sectors.

We are aware of many companies across a wide range of products from capital goods to consumer products who are in the process of evaluating their current operations to take account of the changing competitive and business environment. A recent survey we have carried out (Clark 1990) showed that 58% of companies responding had a formal statement of service strategy and 75% had changed or reviewed their strategy in the previous 12 months.

Reasons for the change would seem to lie with industry pressure between competitors changing product capabilities, changing emphasis between customer service and support and rising customer expectation along with economic changes like the establishment of the European Community in 1992.

AFTER SALES SUPPORT SYSTEM MATRIX

In previous papers (Armistead and Clark 1990, 1991) we suggested and developed a model for evaluating the most suitable service delivery structure for an after sales customer service and support operations. This consisted of a matrix with axes of the "Level of in-house control required over the service and support activities" and "Volume".

The survey of UK After Sales Service Operations (Clark 1990) lends support to the basic model by characterising the two extremes for In-House Control and Volume:

1. High "In-House Control" and Low Volume

* Service is carried out by either the manufacturer's own staff (SAS/Regulars) or customers' staff trained by the manufacturer (Territorials).

* The cost of service is relatively high, the quality of staff employed being correspondingly higher than those required for volume products.

* Dimensions of time are emphasised in the service offering, First time fix and rapid response being critical in this area.

* "Added value" services such as customer training, education and consultancy are commonly offered.

* When service is actively marketed, an image of "professional competence" is favoured.

2. Low "In-House Control" and High Volume

Companies in this "lower right" area of the matrix tend to be national or multinational organisations with the requirement to maintain a presence close to customers and/or tend to be in the situation where the product fails rarely in its economic lifetime and if it should, the inconvenience to customer is relatively small.

* There was evidence of a shift towards third party service providers, (Mercenaries), with the emphasis placed on supporting dealers rather than end consumers.

* Distribution networks are highly developed.

* High volume, low price products are designed for replacement rather than repair. Where service is still economic, products are designed to simplify and speed up the service task.

* Service in the form of "customer care" is seen as a differentiator, the emphasis being on the process rather than the content of service.

* Because the total organisation involved in the delivery of service to the end customer is likely to be larger and more complex, more effort is taken in developing clear statements of strategy to attempt to better coordinate and control service quality.

While we have been satisfied with the application of the model to a range of differing service businesses we have found it necessary to review one of the major components.

However we now feel that we need to characterise the volume dimension rather more precisely. Rather than relating it to product volume we have found it more appropriate to think in terms of service intensity defined as Number of Separate Service or Support Demand Incidents/Unit of Time for all customers and all products. This may be typically expressed by companies as the number of service or support calls/unit time for each product group.

SERVICE INTENSITY

We feel that service intensity is a better measure because it relates more exactly to load for a service and support operation and being more precise on the factors which determine service intensity. We can make some general statements as follows:

* Service intensity would be expected to increase with the variety of products and the their total volume in the field.

* Service intensity is influenced for many service providers by the extent to which planned maintenance can prevent failures of operation which increase service intensity.

* Service intensity for a particular product should decrease as the product design evolves over time. This is especially the case for consumer goods and the low value end of capital goods

We can also identify other factors which influence the service intensity referred to as Service Intensity Drivers. These include:

Product

* Reliability
* Newness of product in the market
* Initial price vs lifetime cost
* Cost/call
* Maintainability vs service

Customer Involvement

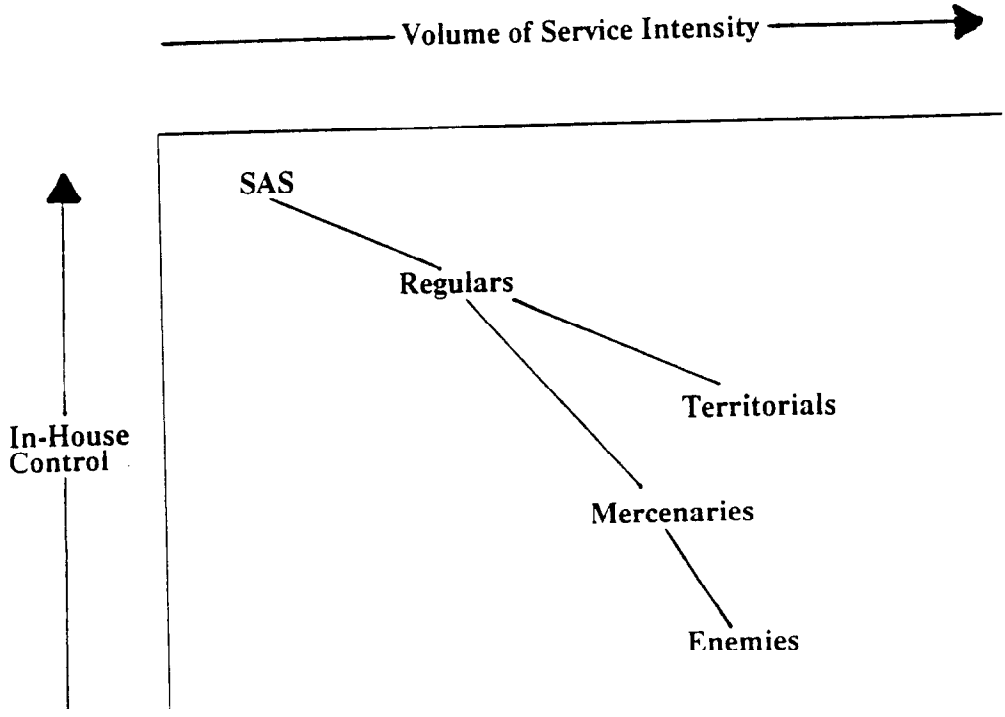
* Need for initial training
* Need for re-training as users come and go
* Commitment on the part of customers to doing what is required of them, giving information, carrying out tasks.

Service and Support Providers

* Competence to perform the full range of tasks without calling for un-planned assistance.
* Commitment to first time fix; may be influenced by reward systems.
* Commitment to ownership of problems

Back Room Capability to Achieve First Time Fix

* Information Systems
* Availability of technical advice.
* Spares.



SUMMARY OF AFTER SALES SUPPORT MATRIX

The model is portrayed in Figure 1. We believe that there are five main points lying on a diagonal between LOW SERVICE INTENSITY and HIGH NEED FOR IN-HOUSE CONTROL and HIGH SERVICE INTENSITY and LOW NEED FOR IN-HOUSE CONTROL which have different types of service organisation and delivery of the after sales support. We give the service delivery structures terms taken from military analogies, namely, the *SAS, the regular troops, territorials, mercenaries,* and *enemies*. These have the following characteristics:

The *SAS* are characterised by specialist service engineers who are highly trained to be able to solve unexpected problems and to give a wide coverage. They are expensive to train and are likely to be a limited resource.

The *Regular Troops* are the well trained and equipped engineers able to carry out routine activities of repair and maintenance, and who are also used to being on parade before customers. They are again an expensive resource if only through their greater numbers.

The *Territorials* are the end user engineers who have been trained by the original equipment suppliers to carry out repair and maintenance activities. They may act alone or in partnership with regular troops and occasionally the SAS. They are a cheaper resource for the manufacturing company than the first two units.

The *Mercenaries* are the agents and dealers who may have learned their skills by being in one of the other units or have given some training. Their capabilities may be less well known but they present a reduced direct cost to the original company

The *Enemies* are third party operators who may have once been allies and received some training on products but who now compete for business. DIY by end users may be seen in the same category. Some benefit may result from *enemies* through the purchase of spares.

The result of moving down the diagonal should be to reduce the in-house cost of the operation to the original product manufacturer and therefore should be the direction of movement as the volume increases so long as the critical success factors for the after sales support package and the nature of the task are compatible with the position on the matrix diagonal. The movement down the diagonal often is forced by the growth in volume and geographical coverage

USE OF THE MODEL

We have found the model to be of particular use in identifying the present position of the organisation, the proportion of its capability in each of the five positions and then examining the demands of change to understand the implications for service structure.

Computer companies have recognised the necessity of changing their service structure in line with the shift from relatively few large Mainframe installations to many PC applications, coupled with an increase in product reliability. This has resulted in two major changes, from SAS style to Mercenary(Dealer) organisations, and from service to support emphasis. The model allows companies to discuss likely changes and to make provision for them.

In considering service provision, the organisation must be analysed at the highest or network level. Here it may be seen that the issue of geographical coverage may lead to differences of approach being adopted in different areas. This issue and others are identified as areas for further research and are discussed in the sections that follow.

GLOBAL NETWORK DIMENSIONS

An example will help to illustrate the point. A company may wish to retain in house control of service and therefore the majority of customers will be supported by a SAS/Regular structure. However, this may not

Issues to be investigated include:

* How to deal with low service intensity in one area which is expected to remain fairly constant.

* How to handle to expansion into new areas with expectation of growth.

* Competence required to manage a global network.

Research Agenda:

The model has been tested in a range of situations and has been found to be sound, particularly when identifying directions of change. We are now embarking on a programme of research, building on previous surveys, aiming to test the model more rigourously. Areas of investigation include:

* Characterisation of Service Intensity measurement for different sectors. This recognises that the drivers for increasing service intensity change with product and market.

* Characterisation of In-House Control across different sectors.

* How do people move over time against the two axes of the model?

* How can we balance service intensity and capability?

* What do/should companies be tracking over time to indicate the need for change?

* How can companies identify the pressures for change and plan for change.

* Network growth and how to decide on the appropriate structure.

* Network restructuring. how has the change been managed?

* Capability at each node in the network to perform key tasks.

* Cost trade-offs for structuring the service support network.

CONCLUSION

The After Sales Support Matrix has proved useful in dealing with a range of specific service and support situations. We are now seeking to discover if it can form the basis of a mechanism to describe appropriate structures to deliver cost effective service. This paper has described the evolution of the basic model and listed research issues.

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