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**SWP 53/87 MANAGING THE AFTER SALES SERVICE
OPERATION: AN INITIAL SURVEY OF UK
MANUFACTURING INDUSTRY**

**GRAHAM CLARK
Cranfield School of Management
Cranfield University
Cranfield
Bedford MK43 0AL
United Kingdom**

Tel: +44 (0)234 751122

Fax: +44 (0)234 781806

1. INTRODUCTION

1.1 The Importance of the After Sales Service Function

Manufacturing organisations are waking up to the fact that customers do not buy just a piece of machinery or electronics, but a package of goods and product support services. For many companies these support services, such as spare parts supply and contract maintenance, may well be a significant proportion of the business and yet have not received the attention that their contribution warrants.

It is not unusual for product support to form between 20 and 50% of the business, whilst commanding less than 5% of the manpower resources. While there probably isn't an argument for allocation by turnover (and/or profit!), the relative lack of resources may well be the reason for loss in competitiveness.

As it is recognised that there are more ways to compete than by cost alone, more manufacturers are reviewing their service function. For some industries, as for example parts of the FMCG industry, products are now so similar in terms of design and cost, the range and quality of product support are the only means of differentiation.

Some firms now have highly effective service functions, others make promises which as yet they are not able to fulfil, whereas others have yet to wake up to the opportunity or the need.

1.2 Scope of the Survey

The intention of this survey was to "test the water" and get an overview of the issues facing firms in this area. There was no attempt made to investigate any particular sector of manufacturing but rather to discover broad principles by comparing differences and similarities between them.

A wide range of firms was visited, stretching from mass produced electronics to capital equipment. Although the products are very different it soon became clear that similar statements were being made by all.

It is likely that the sample was biased towards the more enlightened in this area as it is suspected that the less competent were not as willing to be interviewed.

The interviews were based on an questionnaire (see Appendix), though clearly not all questions are relevant to all situations.

The interviews were carried out with the person in the organisation responsible for service. This meant that in some cases information as to manufacturing and scheduling of spares requirement was not available. This lack of information was significant in itself and future research will examine the relationship between manufacturing and service functions in more detail.

2. THE PLACE OF AFTER SALES SERVICE IN THE FIRM

2.1 Product Support as a Competitive Weapon

Suppliers of capital goods such as machine tools have long needed to make a commitment to product support at very early stages of contract negotiation. The After Sales function in this case has become as much part of the structure as the Accounts department. If it runs smoothly, without too many customer complaints reaching the managing director, one suspects it can easily reach the point where no one is too bothered.

Firms such as these are missing a tremendous opportunity to sell themselves via their representatives in the shape of field service engineers or suppliers of spare parts, who have far more opportunities to make contact with their customers than those in the sales department. The situation may be worse, in that, if the quality of these day to day contacts is bad then irretrievable damage may be done to the image of the firm and prospects of repeat business diminished. The rule of one negative cancelling out ten positives applies here.

Perhaps it is not surprising that in general, it is the volume manufacturers who have recognised the potential of service as a positive selling point rather than something that must be offered as part of the contract. There is a difference between a car owner's handbook which only gives basic descriptions of each part compared with one which is laid out clearly from the driver's point of view conveying the impression that the manufacturer "cares" and has considered the needs of the motorist.

The firm needs to market what the customer wants, which in most cases is more than a piece of equipment.

When this understanding is reflected in a statement of intent to the market which is backed up by a clearly demonstrable ability to deliver service, product support can become a significant factor in winning and keeping customers.

2.2 Commitment to Product Support

The majority of firms that have recognised the importance of product support, also have clear "mission statements" written down and widely circulated throughout the organisation.

One electronics firm has the clear policy of "setting the standard for the industry". It is not surprising that 80% of this firm's order book consists of repeat business.

One of the problems in this area is controlling the quality of the service - customer contact when this is carried out by a network of independent dealers or agents. Vauxhall Motors are addressing this problem aggressively and their service policy is clearly transmitted to dealers, reinforced by incentives to participate in a highly effective training programme. The impact that this attention to service is having is perhaps reflected by the recent Rover advertising campaign based on carefree motoring.

This increased visibility of After Sales Service is also reflected in the appointment of Service Directors in some firms, recognising its importance, rather than being an offshoot of the Sales and Marketing organisation. One firm visited has recently formed a Business Development unit specifically for service.

Perhaps the most important ingredient of any policy statement is a recognition of the key elements of service for that particular firm. Those firms who have thought through the implications of service, also have concise statements as to what it means in objective terms, such as 95% stock availability or 24 hour response times. These key ingredients should be stated, measured and action taken to achieved them.

2.3 Linkages with other functions

The current range of books on management excellence¹ all stress the importance of building "customer consciousness" into the culture of the organisation. One method of doing this is to arrange for members of design or manufacturing departments to spend some time dealing with customers requests in the service department. Only one firm of those visited had adopted this practice and this had since been discontinued on the appointment of a new general manager.

Programmes such as those run by British Airways and Barclays Bank to increase awareness of customer needs throughout the organisation are worthy of some consideration.

It is important that service considerations are built into the product at the design stage. This has been recognised to some degree by all the companies visited, being carried out by service/design liaison committees meeting to decide the service philosophy for new products or in one instance by a service engineer resident in the design department.

Relationships with production departments are seen to be rather worse, there often being a confusion of priorities between satisfying the demand for components for new build as against supplying spares for field service. The lack of understanding of service needs shown by production personnel is often mirrored by a lack of knowledge of production systems demonstrated by Sales and Marketing managers.

Regular presentations by each function at Management meetings may have some value, but there can be no substitute for direct experience of customer contact.

3. OPERATIONS MANAGEMENT

3.1 Inventory Management

The proof of the pudding is in the eating. Most companies have definite targets for stock availability. It is common to have a policy of 95% stock availability. It is strange, therefore, to discover that many services departments have very little control over stock ordering. Many have little or no input into the process at all and in some cases no real knowledge as to how the system works.

One of the firms visited is currently implementing an MRP II system, and this firm, at least, has recognised the need to look at the business as a whole and to understand the result of each decision made. Clearly many firms are struggling to come to terms with the conflicting demands of stock availability and increasing stock turns.

An area which has plenty of scope for improvement is the control of stocks at dealerships. It almost certainly is not necessary to follow the example of one Japanese car manufacturer in insisting that each dealer carries at least one of every possible spare

part. However, mandatory stock levels of critical spares and recommended back up lists would achieve two results in improving customer service at the dealer as well as facilitating stock control.

3.2 Service Level Measurement

Whilst it is not possible to measure how a customer feels about the service he experiences, it is possible to develop a number of objective measures of performance which will indicate how good it is.

Again, there was a correlation between those companies who had clear statements of service policy and those who measured service levels.

The range of responses to questions on this subject was very wide. For example:-

- Stock availability for spares is held by Distribution department, and is not known by Spares Marketing. There is a Breakdown Spares unfilled order list which is circulated to service management.
- MTBF (Mean time between failure) and MTTR (Mean time to repair) by service engineer is available on a computer listing, monitored by the Service Director. Recommended spares lists are guaranteed ex stock. The reject rate from customers is less than 1%.
- 90 - 95% of spares are available for "Vehicle off Road" within 24 hours.
- There is no formal feedback, but customer complaints are few so we must be OK!

Most firms have procedures for dealing with breakdown situations. Response times here are vital for capital equipment when it is likely that one machine represents the customer's total capacity in a particular area.

In terms of competitive advantage it is likely that increasing pressure will be applied to the response time also. The photocopier market is a good example of this.

Two responses were significant:-

- The market response is 24 hours, we are looking to improve to 6 hours.
- Express Lifts aim to have an engineer en route to a breakdown within 2 hours.

3.3 Scheduling

Service systems must be flexible. To some extent it is possible to match load and capacity by scheduling installations and routine maintenance, but breakdowns cannot be scheduled! There is scope for better forecasting where MTBF statistics are maintained.

Most companies provide field service capacity by allocating a number of engineers to a region. This enables some degree of load smoothing as well as having the advantage that a range of expertise is available in a geographical area when it may not be possible for all engineers to be qualified for all products.

As reported in section 1.2, there is often a very weak link between production management and service management. There would appear to be major opportunities for improvement here, particularly using Planning Bills of Material in the Master Production Scheduling module of a MRP II approach.

3.4 Production Facilities

A range of options are available here:-

- Separate repair facilities for high cost equipment where replacement is not an economic option.
- Use common production facilities for components for original build and for spares. In this case clear priority rules must be developed to handle shortages.
- As products become obsolete, move spares production to different facilities. In one company there was a policy of subcontracting the production of the majority of such components.

In general, the principle of production focus applies here. The skills required for repair are often very different from the original product process. More importantly, time scales are much reduced, particularly in the breakdown situation and production control systems and worker attitudes may not be appropriate.

4. GENERAL ISSUES

4.1 Customer Relationships

All the firms visited felt that they were "close to customer". However, less than 50% actively seemed to be attempting to discover how the customer felt about them.

Only one firm has a regular customer questionnaire sent to a sample of those receiving service. This meets two objections in that this firm has to keep end users happy through independent dealerships. The questionnaire is used as a means of measuring the dealer's performance as well as testing customer's reactions to product and service. This company also uses a research agency to test customers responses to their competition.

It is disappointing that more firms do not take more positive steps to build a good customer relationship. Product user's groups are very rare outside of the computer industry. The reason for this lack is often given as time not being available, but this could be a "head in the sand" approach.

As Theodore Levitt² has said "the absence of complaints is not a good sign, no one can be that satisfied!" An early contact can go a long way to solving a minor problem before it becomes a major issue with the resultant loss of repeat business. Again, customers can be the source of ideas for product improvement and innovation. Manufacturing has a lot to learn from other industries in this area.

Vauxhall have a systems whereby garages return all parts replaced to a central facility. This ensures that service centres are not replacing parts for the sake of increasing business but, more importantly, is a source of information as to possible design

weaknesses. This is not widely known by their customers, but could act as an additional selling part if it were so.

4.2 Education and Training

All companies visited gave technical training to their service personnel. Very few give training in customer contact skills.

Vauxhall have organised a major training scheme for service receptionists at low cost to the dealership and with incentives and prizes for those taking part. Other companies train selected personnel spasmodically, without a clear strategy in this area.

The value of field service engineers as salesmen has been recognised by some firms, notably in the photocopier market. Training could have a good payback.

Education could take forms other than formal courses. The use of articles, customer service success stories and so on, in house magazines can have a marked effect. One company was considering launching a special service business broadsheet.

Some firms also train customers' own engineers, when the size or critical nature of their operation warrants it. This opportunity to build a strong relationship should not be ignored.

4.3 Technology

One of the problems with any service operation is ensuring the quality of each transaction is maintained. With people involved, this can be a hazardous business! The fluctuation in the service level can be reduced by use of machines rather than people. One of the areas of change in product service is the increasing use of microprocessors, particularly for diagnostics.

One of the nicest examples of this is that of Express Lifts. Their latest units call up the service engineer automatically on the event of breakdown, so that when the customer realises assistance is required, contact is made with the response that "help is on the way!"

Technology is also facing a change in service emphasis. With the drive towards integration, companies are now selling systems rather than discrete products. In many ways this is food for product service as it faces the move towards building an ongoing relationship.

The development of electronic interfaces all have a major input on communication. Some firms are installing terminals in major customers offices to facilitate ordering.

5. CONCLUSIONS

Manufacturing industry has a great deal still to learn about building a customer relationship which will be mutually beneficial.

At present, efficient after sales service can give real competitive advantage. It can only be a matter of time before it moves from being an order winning to order losing criterion.

Many firms are at the stage of developing policies. These must be underpinned by efficient operations to ensure the service is delivered.

Linkages with other business functions within the firm must be strengthened, and with manufacturing in particular.

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Section 1. Introduction

- Initial Survey
- Feedback
- Options

Section 2. General Policy

2.2 How important is A.S.S. - What % of total business?

2.3 Does the company operate a repair or replace policy? eg design for easy maintenance by replacing modules.

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- 2.4 Does the company see itself as "close to customer". How practically is this managed? (Questionnaires/Phone enquires)
- 2.5 Is After Sales Service used as a selling point? How is this transmitted to customer? Is a commitment given? Are you better or worse than your competitors?
- 2.6 What is your warranty period?
- 2.7 Have you identified the key elements of service? - do you have a policy to improve?
- 2.8 Do you have special relationships with key customers?
- 2.9 How much involvement do Manufacturing/Engineering have?

Section 3. Services Offered

- 3.1 Operating Advice - Manuals or Engineers? Is advice free?

3.2 Commissioning/Installation/Implementation?
- How managed? - Scheduling system? - Capacity?

3.3 Overhauls/servicing? - Scheduled or as required.

3.4 Augmentations/Extra - How charged to existing customers?

3.5 Customer involvement in service process - Overhaul packs, etc

3.6 Lease/Lend

3.7 Special response in breakdown/vehicle off road policy

3.8 Customer involvement in design process - user groups

4. Operations

4.1 Spares stocking policy - where held - how controlled (DRP/MRP) How
forecasted (esp for new product launch?)

4.2 Production facilities for spares/repairs - separate?

4.3 Scheduling System

- special priority for spares?
- ease of order intake/processing?
- information on customer order states?

4.4 Capacity of production facilities for spares?

4.5 Capacity of field service? - How measured?

4.6 Flexibility of order size?

Section 5. Measure of Performance

5.1 Target response times? What is % within target?

5.2 Service level targets? (ie % exstock/total demand)

5.3 Due Date performance?

5.4 Reject rate?

5.5 Level of warranty requirements?

5.6 Customer call rate? (How many unsolicited?)

5.7 How would you measure Quality of Service?

5.8 How do you compare with competition?

6. Section 6. Personnel/Organisational

6.1 Dealers or Direct contact?

6.2 If Dealers, how do you control their performance?

6.3 What training do you give

a) Technical b) Customer contact (selling/feedback)

6.4 Where is After Sales placed in organisation?

6.5 How much customer feedback is in company magazine, etc?