The marketing of industrial services: a comparative study of prevailing marketing practices in the plant hire business in the united kingdom and Singapore

Yip, Yoon Jee

UNIVERSITY OF DURHAM

BUSINESS SCHOOL

THE MARKETING OF INDUSTRIAL SERVICES

A COMPARATIVE STUDY OF PREVAILING MARKETING PRACTICES IN THE PLANT HIRE BUSINESS IN THE UNITED KINGDOM AND SINGAPORE

YOON JEE YIP

Submitted according to the regulations
for the degree of M.A., 1990.

THE MARKETING OF INDUSTRIAL SERVICES

A COMPARATIVE STUDY OF PREVAILING MARKETING PRACTICES IN THE PLANT HIRE BUSINESS IN THE UNITED KINGDOM AND SINGAPORE

By

YOON JEE YIP

Submitted for the degree of M.A., 1990

ABSTRACT

Marketing has always been regarded as an important activity in business organisations, however, its practices vary among different types of industry. Specifically, the marketing of industrial services has received limited attention, and is a comparatively unexplored field of research.

This thesis analyses the extent to which the application of marketing techniques and practices are carried out in the plant hire industry in the United Kingdom and Singapore and their customers' perception of this approach. An attempt is also made to establish any significant differences in practices between the two countries. Accordingly, the study examines two major groups of factors. These are:

First, the use of marketing principles related to the marketing mix elements, i.e. product, price, promotion and place.

Second, customers' perception of this approach, as well as the decision making process as well as buying factors of customers.

A thorough examination of literature pertaining to these factors has also been carried out.

The empirical investigation was carried out in two stages: firstly, 1,000 plant hire companies and the same number of hirers in the UK were chosen as the samples for the study. Structured questionnaires were administered to them by post and responses of 183 and 144 respectively were achieved. The second stage was carried out in Singapore over a period of three months, during which time 30 plant hire companies were contacted by means of personal interviews, and 51 hirers by telephone, both with structured questionnaires.

Frequency and cross-tabulation methods were used to analyse the data collected, while presentation takes the form of tables. The findings of field research are conclusive, in spite of a number of limitations which were examined, together with proposals for further research. In general, it would appear that, apart from a few notable differences, the prevailing marketing practices within the industry in the two countries are very similar.

ACKNOWLEDGMENTS

In the course of preparing this study, I have received substantial help from others, to whom I extend my thanks.

My greatest debt of gratitude is owed to my supervisor, Doctor Edgar P. Hibbert, Reader in Marketing at Middlesex Polytechnic Business School. His constant encouragement, generosity with time, constructive comments and inspiring discussions have been of immeasurable value to me. In times of frustration, it was indeed his coaxing and stimulating help that enabled this study to be completed. To him goes more than I can ever acknowledge here.

I am also much indebted to Mr. Lester C. Massingham, Principal of MTMS Ltd., who gave me the initial stimulus for this study and offered all the sorts of help that made it possible.

My grateful thanks are due to both Mr. Alan J. Smith of the Construction Plant Hire Association in England and Mr. Alex Guan of Hertz Equipment Rental and Leasing in Singapore, who participated in this investigation. I acknowledge with gratitude their co-operation and assistance.

I would like to express my heartfelt gratitude to my sister, Yip Sou Mei, and brother-in-law, Ang Hock Eng, who have been taking care of my interests while I am away from home. Finally, to all my friends, especially Catherine Neary, Angela Garrett, Jane Lawrence and Chris Battye, who have made my stay in the United Kingdom enjoyable and contented.

Yoon J. Yip
London, February 1990

TO THE MEMORY OF MY LATE PARENT

CONTENTS

.... continued

CONTENTS (continued)

.... continued

CONTENTS (continued)

.... continued

CONTENTS (continued)

.... continued

.... continued

CONTENTS (continued)

LIST OF FIGURES

LIST OF TABLES

.... continued

LIST OF TABLES (continued)

.... continued

LIST OF TABLES (continued)

.... continued

LIST OF TABLES (continued)

CHAPTER ONE

GENERAL INTRODUCTION

THE PURPOSES AND IMPORTANCE OF THE STUDY

CHAPTER ONE

GENERAL INFORMATION

THE PURPOSES AND IMPORTANCE OF THE STUDY

1.1 INTRODUCTION

In 1965, Aubrey Wilson [1] commented:

> "Industrial marketing is so broad a subject, so vitally important for individual firms, for industries and for the economy, that it is truly remarkable why so few books specifically in this subject have appeared in the United Kingdom, or even in the United States".

Since then, other marketing academics such as Lawrence Fisher [2], W. S. Penn and Mark Mongel [3], George Risley [4], Robert Dodge [5], Raymond Corey [6], Ralph Jackson and Philip Cooper [7], Manoj Agarwal and Phillip Burger [8], and Peter Chisnall [9] have highlighted similar comment in their works. In fact, Peter Chisnall [9] has gone further, so as to stress that management literature has largely confined marketing theory and applications to products, the majority of which have been concerned with consumer markets.

According to Ralph Jackson and Cooper [7], although the differences in industrial buying and consumer buying are generally understood and accepted, the differences in the marketing approaches by the two types of firms do not seem to be as clearly understood. For instance, there are some basic differences in market segmentation. Webster [10] proposed that the more complex nature of industrial marketing calls for a different approach in market segmentation. Doyle and Saunders [11] suggest that although some of the approaches used in segmenting consumer markets are applicable to industrial markets, they require significant modification to be applied.

Despite the extensively highlighted issue of the lack of literature and its importance in this subject area, comparatively little attention has been given by research students to undertaking studies to examine the extent to which industrial marketing is practised and how it differs from consumer marketing.

Based upon the above facts, the present study aims to examine the marketing of industrial services in general and in the UK plant hire industry in particular, with a short chapter devoted to that of the Singapore plant hire industry and an attempt to make a comparative study between the two.

The choice of an industrial service rather than a product in my research study is because, in the perusal of both introductory managerial and industrial marketing texts, it found that industrial services have received very limited attention.

1.2 THE SIGNIFICANCE OF THE STUDY

The present study is considered important for the following reasons:

Firstly: The significance of this study stems from its concern for the lack of texts specifically on this subject raised by so many marketing academics as mentioned under the introduction section of this chapter. This study has been undertaken in the hope that it will make a contribution towards this subject area, specifically industrial service marketing.

Secondly: The increased importance of aspects of marketing business and industrial services. This study also stems from the significant advances that have been made in marketing business and industrial services in the 1980s. Such progress had not occurred previously because until the late 1970s, business/industrial services had only a limited need for aggressive marketing. But today, technological changes, competition, deregulation and broad economic changes are forcing service companies to emphasise marketing programs [12].

Thirdly: The present study, in addition to the body of literature which it reviews, provides useful information which can enable industrial marketers, and the plant hire companies in particular, to see certain areas for mutual co-operation and concern. The most important contribution that industrial marketers could make would be in determining and suggesting ways in which their organisations can benefit from examining the prevailing marketing practices within the industry and the views put across by its customers, i.e. plant hirers.

1.3 THE ORGANISATION OF THE STUDY

The study is organised in seven chapters, the first of which is the introduction. Because of the lack of texts in this subject area, the literature review will be revolved around the context of industrial and service marketing, to establish the nature of industrial service marketing.

Chapter two is essentially a review of the relevant literature in order to conceptualise industrial service marketing. This review begins with an examination of the perspectives of industrial service marketing with a discussion of the definitions of industrial marketing, what industrial service marketing is, its characteristics and classification. This will be followed by a review of the structure and scope of industrial markets, which examines the nature of industrial demand and industrial market segmentation. Finally, a review of the industrial buying and selling process, which examines the buying centre and the major influences on the industrial buyers, followed by a discussion on industrial promotion and selling.

Chapter three is an attempt to present an overview of the UK plant hire industry, to establish a foundation for understanding the field study findings in chapter five. The chapter begins with a discussion of the industry structure, followed by market size and trends, industry norm, and finally the future of the industry.

Chapter four discusses the design of the field study and is a bridge between the theoretical framework and the empirical findings. It presents the collection, analysis and interpretation of data followed by a description and evaluation of the methodology which is used in this study. It also presents an overview of the sampling frame and the development of the questionnaire.

Chapter five is devoted to presenting a discussion of the field study findings in the UK and a summary of the findings.

Chapter six is a subsidiary chapter devoted to presenting a discussion of the field study findings carried out in Singapore and an attempt to make a comparison with those findings in the UK.

Chapter seven presents the contributions of the study, discusses its limitations and, where possible, makes recommendations and suggestions for further research to be undertaken.

REFERENCES

1. Aubrey Wilson (ed.) The marketing of industrial products. Hutchinson & Co. Ltd., London, 1965, p.xvii.

2. Lawrence Fisher. Industrial marketing: an analytical approach to planning and execution. Business Books Ltd., London, 1969, p.xi.

3. W. S. Penn and Mark Mongel. "Industrial marketing myths". Industrial Marketing Management, Vol.7, 1978, pp.133-138.

4. George Risley. Modern industrial marketing. McGraw-Hill Book Company, New York, 1972, p.ix.

5. Robert Dodge. Industrial marketing. McGraw-Hill, New York, 1970, p.20.

6. Raymond Corey. Industrial marketing. Prentice-Hall Inc., New Jersey, 3rd edition, 1983, p.vii.

7. Ralph Jackson and Phillip Cooper. "Unique aspect of marketing industrial services". Industrial Marketing Management, 17, New York, 1988, pp.111-118.

8. Manoj Agarwal (ed.) Readings in industrial marketing. Prentice-Hall Inc., New Jersey, 1986, p.v.

9. Peter Chisnall. Strategic industrial marketing. Prentice-Hall International Ltd., UK, 1989, p.22.

10. Frederick Webster. Industrial marketing strategy. John Wiley & Son Inc., Canada, 2nd edition, 1984, p.vii.

11. Doyle and Saunders. "Market segmentation and positioning in specialised industrial market". Journal of Marketing, Spring 1985, pp.24-32.

12. Connie A. Cox. "Marketing business services". Business Marketing, New York, June 1985, pp.70-78.

CHAPTER TWO

CONCEPTUALISING INDUSTRIAL SERVICE MARKETING

CHAPTER TWO

CONCEPTUALISING INDUSTRIAL SERVICE MARKETING

2.1 INTRODUCTION

This chapter will review the relevant literature in order to conceptualise industrial service marketing. In the process, the following topics will be discussed:

- Industrial service marketing in perspective, which discusses the definitions of industrial marketing, what industrial service marketing is, its characteristics and classification.
- The structure and scope of industrial marketing, including the nature of industrial demand and industrial market segmentation.
- Finally, a review of the industrial buying and selling process which examines the buying centre and the major influences on the industrial buyers, followed by a discussion on industrial promotion and selling.

2.2 INDUSTRIAL SERVICE MARKETING IN PERSPECTIVE

Although the consumer marketing literature has acknowledged and delineated the differences between the marketing of goods and the marketing of services, the industrial marketing literature has not really done so as yet. There are a number of distinctions between consumer goods and services presented in the literature. The issue regarding the differences between industrial and consumer clients has also been addressed. However, when information is produced on issues raised about industrial marketing, it is generally done in the context of industrial goods.

The purpose of this section is to focus on industrial service marketing and propose a framework for understanding it, in the context of industrial and service marketing presented in the literature.

2.2.1 Industrial marketing definitions

It has been argued that the nature of marketing has necessitated a wide variety of interpretations and so encompassed many divergent viewpoints. The following statements may testify to this lack of agreement on the nature of marketing and stress that the answer to the question "What is marketing?" is very complicated and somewhat confusing.

> ".... It has been described by one person or another as a business activity, as a group of related business activities, as a trade phenomenon, as a frame of mind, as a co-ordinative integrative function in policy making, as a sense of business, as a structure of institutions, as a process of exchanging or transferring ownership of products, as a process of concentration, equalisation, dispersion, as the creation of time, place and procession utilities, as a process of demand and supply adjustment, and many other things" [1].

It is in this light that marketing academics tried to define not only marketing as a whole but also in its various forms such as industrial marketing, which is what this chapter will be investigating and discussing.

Aubrey Wilson [2] defined industrial marketing as:

> "All those activities concerned with purchases and sales of goods and services in industrial markets and between organisational buyers and sellers".

Similarly, George Risley [3] supports this view when he states that:

> "Industrial marketing is simply the performance of marketing tasks and the furnishing of the marketing perspective within the area of business and industry for business purposes".

Frederick Webster [4] goes further to stress that:

> "In a real sense, industrial marketing keeps the economy functioning by providing the products and

services required by factories, offices, government agencies, hospitals, universities, and other providers of goods and services".

Lawrence Fisher [5] argues that:

> "The key factor in the definition of industrial marketing is not the nature of the products concerned but the nature of the market into which they are sold".

An alternative, but analogous definition by Gisser [6] is of an industrial product as:

> "a material, item or service that is purchased in the course of fulfilling a business goal (usually making money) by the purchaser or his employer".

Against the emphasis on product in defining industrial marketing, Lawrence Fisher [5] argues that:

> "Many goods will be in demand by both consumer and industrial customers, e.g. paint, motor spirit and typewriters. The dividing line between marketing approaches to the two classes of customer is not sharp and precise: differences are often a matter of degree and ideas are adapted from one sector to the other".

Ronald McTavish and Angus Maitland [7] put forward their views that:

> "marketing is marketing"

and

> "that there may be a danger in over stressing the differences. A comprehensive view of the whole is probably the best basis for understanding particular specialisations".

The most acceptable definition by far belongs to Ames and Hlavacek [8], who defined industrial marketing thus:

> ".... marketing in the industrial world is a total business philosophy aimed at improving profit performance by identifying the needs of each key customer group and then designing and producing a product or service package that will enable the company to serve selected customer groups or segments more effectively than its competition".

2.2.2 What is industrial service marketing?

The classification of certain economic goods as 'services' and others as 'products' owes more to convention than to conception. The classification schemes which have been advanced to distinguish services from products rest all too often upon simplistic dichotomies into which our experience of the real world fits only with difficulty. Thus it is frequently said that in contra-distinction to 'products', services are intangible. But, from the customer's viewpoint, the precise benefits gained from owning a lawn mower may be as elusive as those which a life assurance policy confers. This issue of intangibility has clearly caused some confusion and argument among marketing academics (c.f. inter alia: Baker, 1981; Gronross, 1978; Lovelock, 1984; Middleton, 1983; Sasser et al, 1978; Stanton, 1975) [9].

This view is further supported by Ralph Jackson and Cooper [10] in their recent work. They argue that the identification of a "pure good" or a "pure service" has proved to be an arduous task. Just as economic theory teaches that pure competition and pure monopolies are likely not to exist, most would accept that a "pure good" and a "pure service" are not common. There are clearly difficulties in establishing what a pure good is and what, at the other end of the continuum, is a pure service. There are service-like aspects inherent in the sale of goods and there are goods often associated with service delivery.

The recent work of Gershung and Miles [11] has done much to clarify the confusion surrounding the term 'services'. According to them, the term can be used in four analytically distinct ways as in "service industries", "service products","service occupations" and "service functions".

Broadly speaking, three schools of thought may be identified in the literature. One school of thought argues that services marketing is a special case because the very nature of services means that most normal marketing practices are not directly applicable. At the AMA special conference on service marketing in 1981, this point of view was presented by Lovelock [12]:

> ".... I make no claim that the marketing of services is uniquely different from that of physical goods. If the two were uniquely different this would raise serious doubts as to the coherence of marketing as a functional area of management. My contention is simply that a different management approach is needed in services marketing .... It is my contention that marketing management tasks in the service sector can be differentiated from those in the manufacturing sector along two dimensions. The first relates to the generic difference between service products and physical good products. The second concerns the management environment or content within which marketing tasks must be planned and executed".

A second school of thought reflects the view that, apart from the few fundamental marketing principles, most of marketing is situation-specific and determined by the particular characteristics of an industry. Hence, only limited generalisation is possible, be it about the marketing of goods or the marketing of services.

The third shcool of thought apparent in the literature argues that services marketing is simply one application of basic marketing principles and not a distinctive issue. Enis and Roering [13] expressed this position at the AMA Special Conference in 1981:

> "Perhaps rather than attempting to formulate a unique services process, a more fruitful approach .... would be to build on the well-developed and accepted marketing tradition. Obviously, the ratio of tangible to intangible elements varies substantially but elements of each are present in all products. Consequently, one generalised strategy formulation process should suffice for all products .... services are obviously not goods. But neither goods nor services are marketed. What is marketed is a bundle of benefits, often including both tangible and intangible aspects".

Ralph Jackson and Cooper [10] further point out that industrial services marketing is made more complex because organisational buying behaviour involves a more intricate network of buying influences. Industrial service marketers must recall that the evaluation of quality may be very different for services than it is for goods [14]. The provision of tangible cues might assist in the production of a "quality" service. For instance, the fact that many industrial services are performed on the customer's premises means that part of the evaluation of quality is based on the customer contact personnel, i.e. how they look as well as how they perform.

Thus industrial service marketing in its simplest term is really the marketing of services to industrial and institutional customers. Very often, industrial service marketers are in the business of offering alternatives to these customers, as in the case of plant hire to plant acquisition. The intangible aspect of industrial services will vary depending on the type of services being provided.

2.2.3 The characteristics of industrial services

A review of the available literature indicates that many scholars have attempted to isolate differences which distinguish goods from services. The key characteristics which are repeatedly identified as unique to services are intangibility, inseparability, heterogeneity and perishability. Probably the single most important difference is the greater intangibility of services.

Intangibility

Services are essentially intangible. It is often not possible to taste, feel, see, hear or smell services before they are purchased. Opinions and attitudes may be sought beforehand, a repeat purchase may rely upon previous experience, the customer may be given something tangible to represent the service, but ultimately the purchase of a service is the purchase of something intangible. But this is not always the case, as Berry [15] pointed out that most

market offerings are a combination of tangible and intangible elements. It is whether the essence of what is being bought is tangible that determines its classification as a good or a service.

Rathmell [16] has attempted to resolve this tangible/intangible dilemma by claiming that:

"Goods are products. Services are performed".

By this argument, the plant hire operator's product is a multivariate output comprising both goods and services.

The refinement of this notion of intangibility has been supported by Wilson [17] and Bateson [18]. They suggested that the goods-services continuum can be represented as a tangible-intangible dominant continuum. The work of Shostack [19] illustrated the continuum idea, emphasising that most "products" are the combinations of elements or attributes which are linked. There are very few "pure" products and "pure" services.

Shostack further suggests that marketing "entities" are the combinations of discrete elements, tangible and intangible. Her molecular model provides a way of visualising and of managing a total market entity. It can show the elements making up a product, the interrelationships between them and the dominance of goods or services, tangibles and intangibles, in an offer.

Inseparability

Services often cannot be separated from the person of the seller. A corollary of this is that creating or performing the service may occur at the same time as full or partial consumption of it.

Inseparability, according to Francis Buttle [20], is the result of the simultaneous production and consumption of the service. However, the validity of this proposition depends upon how the terms 'production' and 'consumption' are defined. Supporting this view, Leonard L. Berry [15] proposed that simultaneous production

and consumption means that the service provider is often physically present when consumption takes place. What is important, he said, is to recognise the presence of the service provider and the importance of the 'how' of service distribution. Besides stressing the distribution of goods to the "right place" and at the "right time", with services it is often important to distribute them in the "right way" as well.

Heterogeneity

It is often difficult to achieve standardisation in the output of certain services. The standard of a service in terms of its conformity to what may be prescribed by the seller may depend on who provides the service or when it is provided. This poses particular problems of quality assurance, especially when there is a high level of employee/customer contact in the transaction.

Thomas [21] implicitly recognises this particular problem when he classifies services as people based or equipment based. One of the implications of his distinction is that the "outcomes" of people based service operations tend to be less standardised and uniform than the "outcomes" of equipment based.

But Levitt [22] presents a persuasive counter-argument. He claims that service products can be subject to the same technologies as manufactured goods. He dubs this the industrialisation of service.

Perishability

Services cannot be saved. More specifically, unused capacity is lost forever and cannot be reclaimed. This, according to Sasser [23], presents a special problem for the services marketer concerning a match between supply and demand. He further comments that marketers can respond to this challenge by manipulating demand to iron out seasonal irregularities or by making supply so flexible that peaks of demand can be profitably accommodated.

Jackson and Cooper [10] point out two additional characteristics which further dinstinguish industrial services. Specialisation: while there is a trend toward standardisation in all aspects of production, industrial services can best be characterised by their customisation to their customers' needs, especially considering production services, which are often specialised on a per job basis. Technology: industrial marketing is cursed/blessed with the technological nature that prevails.

2.2.4 Classifications of industrial services

The elusiveness of a widely accepted definition of service has not prevented the development of a variety of schemes which classify services. Many of the classification schemes used in services marketing are derived from those used in good marketing. Also, many services classification schemes are based on an assumption about what is or is not a service. Some believe that classifications are not very helpful, because they can misdirect marketing thinking and often perpetuate a product orientation [24]. Others believe that classification is helpful, for it acts as a first step towards obtaining an understanding of the ways in which markets operate [25].

In general, services can be classified in three common ways:

Seller related bases:

- nature of enterprise
- functions performed
- income source

Buyer related bases:

- market type
- way in which service is bought
- motives

Service related bases:

- service form
- human or machine based
- high or low contact

Adapted from Donald Cowell, 'The marketing of services', Heinemann, London, 1984, p.29.

Basically, industrial services fall into two major categories:

Production services

Services used in the production process and which, in effect, become part of the product. For example, in the production of many manufactured goods, outside firms are often hired to perform various tests on the manufactured equipment. These services are only performed in conjunction with production of the products and have nothing to do with the operation of the firm or maintenance of the facilities, aside from producing a specific product, i.e. these services represent a direct cost.

MRO services

Maintenance, repair and operating services. Most of the industrial services fall into this category, including plant hire.

2.3 THE STRUCTURE AND SCOPE OF INDUSTRIAL MARKETS

Any attempt at conceptualising industrial service marketing must, at some stage, involve a consideration of the nature of industrial demand and market segmentation, which this section is about to discuss.

2.3.1 The nature of industrial demand

The nature of the demand for industrial goods and services differs greatly from the demand for most consumer goods. Some generalisations may be made about all industrial products and services because of the similar nature of industrial demand. Industrial demand is (1) derived, (2) inelastic and (3) fluctuating.

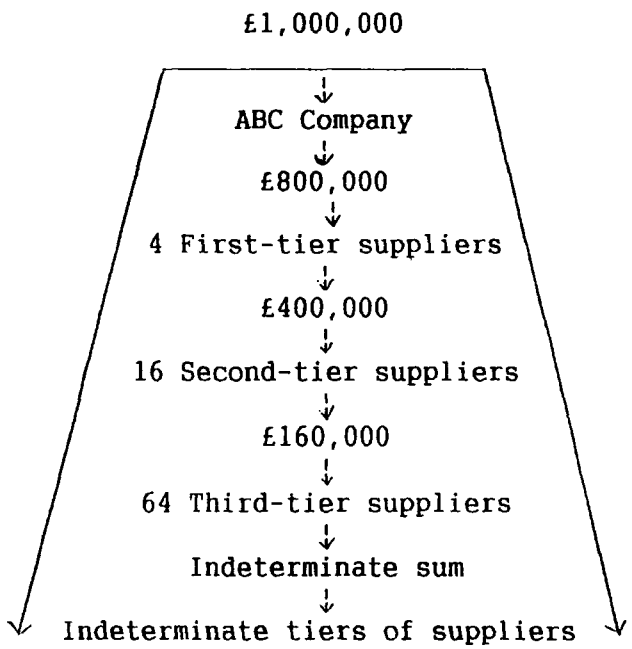
Derived demand

Derived demand is a significant factor in industrial marketing. This means that, for many industrial products or services, demand is directly dependent on the rate of usage which may be several stages from the initial buyer. The demand for capital goods, for

example, is largely dependent on the prospective demand for the goods which particular types of plant are capable of producing. Similarly, the levels of demand for the raw materials and components used in the manufacture of process plant will depend heavily on the rate of sales of that equipment. Derived demand is, therefore, widely applicable and plant hire operators need to understand the factors which influence consumption of their particular service.

The derived nature of demand has a multiplying effect on the volume of industrial trade. The following hypothetical example adapted from Robert Dodge's book [26] will help to illustrate this phenomenon. Suppose that Company ABC, a manufacturer of consumer products, has a yearly sales volume of £1 million. Since it is essentially an assembler, suppose its cost of material amounts to 80%, or £800,000. Further assume that the suppliers are arranged in three levels with each firm's purchases divided up among four vendors. Computation of the total volume of industrial trade arising from this given amount of consumer sales is shown in Figure 2.1.

Figure 2.1 Multiplier effect of industrial demand



Source: Robert H. Dodge, 'Industrial marketing', McGraw-Hill, New York, 1970, p.23.

The total volume of industrial trade, as indicated in Figure 2.1, is 36% greater than the consumer demand from which it is derived. A still greater increase would have been noted if the allotted capital and supply expenditures for the 85 firms had been included. It is also noticeable that the extent of the increase has a direct relationship to the number of supplier levels and the relative costs incurred by individual suppliers for materials and capital.

The effects of derived demand on their marketing efforts is important to industrial marketers and not just because of its potentially devastating effects. Derived demand presents certain opportunities. Thus, it is important that industrial marketers understand the uses to which their products or services are applied in various markets. As Hakansson and his co-researchers [27] have observed:

> "The firm has to be both an expert in its product or service as a component as well as the function of that component in the larger product".

Elasticity in demand

Industry demand is relatively inelastic because demand is not likely to change significantly in the short run. There are some good reasons for this inelasticity. First, industrial buyers are in a position to "pass along" price increases to their customers, and the second is the tendency for the price of any one product to be an almost insignificant part of the total cost of the final product [28]. Thirdly, because there is the difficulty of making any changes to the production facility or methods in the short run [29].

Elasticity of demand in industrial markets is not therefore as apparent as in consumer markets. In general, the freedom of individual suppliers to vary prices will be determined by their relationship with their customers, their degree of dependence upon them, the general level of competition, and the extent to which they can differentiate their product or service through 'added values'. Moreover, industrial buyers are generally experienced,

knowledgeable executives who are not easily persuaded to change well tried and tested suppliers. Non-price factors such as reliability of delivery, efficient after sales servicing, valuable technical advice, etc. will all be weighed in the balance when evaluating an offer.

Fluctuating demand

The demand for industrial goods and services tends to be more volatile than that for consumer goods and services. Actually, when compared to the demand for consumer goods, the demand for industrial goods is characterised by wide fluctuations in demands.

According to William Zikmund and Michael D'Amico [28], there are three logical reasons. Firstly, organisational purchases can usually be closely linked to the state of the economy. As the economy moves through its up and down cycle, demand for industrial products and services goes through the cycle as well. Secondly, many industrial purchasers have a tendency to 'stock up' on the products they buy, so that they do not need to make further purchases until their stock is somewhat depleted. Thirdly, many industrial products have long lives, as in the case of building and major equipment.

2.3.2 Industrial market segmentation

The complexity of industrial markets, products, services and usage systems make it critical for marketers to understand market structure and dynamics. Careful, astute market segmentation can save a marketing executive a great deal of time and money by helping to prevent false starts, inefficient marketing programmes and poor performance. However, industrial market segmentation clearly is not the complete answer to effective market performance, but it is a necessary, and often critical, component of theory and practice. It is a practical, useful tool for industrial marketing executives.

Hence, it was an alarming discovery when the Warwick study [30] pointed out:

> "47% of British and 40% of the US companies versus 13% of the Japanese, acknowledged that they were unclear about the main types of customers in the market and what their needs were".

But yet it has been widely acknowledged by marketers that the identification and then selection of market segments to focus upon is the most important decision facing the industrial firm. This strategic importance of industrial market segmentation is captured by Corey [31]:

> "All else follows: choice of market is a choice of the customer and of the competitive, technical, political and social environments in which one elects to compete. It is not an easily reversed decision; having made the choice, the company develops skill and resources around the markets it has elected to serve. It builds a set of relationships with customers that are at once a major source of strength and a major commitment. The commitment carries with it the responsibility to serve the customer well, to stay in the technical and product-development race, and to grow in pace with growing market demand.
>
> "Such choices are not made in a vacuum. They are influenced by the company's background, by its marketing, manufacturing and technical strengths, by the fabric of its relations with existing customers, the scientific community, and competitors, and by other considerations".

Segmentation variables are customer characteristics that relate to some important differences in customer response to marketing effort. An effective segmentation scheme will create segments that contain customers, within the segment, that are highly homogeneous. Equally important, the segments will be as distinctly different from one another as possible. There are many ways of segmenting industrial markets. Those variables applicable to the plant hire industry are discussed below, but this list should not be regarded as exhaustive.

Geographic segmentation is the simplest form of segmenting a market. When a market is segmented geographically, it can mean by region of a country, population density or climate. In the case of the plant hire industry, the UK can be segmented into regions and depots will be set up to meet the needs of hirers in these selected regions. Furthermore, the segmentation into regions can take into consideration population density variables. That is, by situating depots in high population density regions, such as a region with a high concentration of ship repair contractors or a major mining region.

Regional segmentation may be an advantage to smaller plant hire companies by concentrating on supplying their plant in a selected region of the country only, and thus be able to give prompt and individual service together with low transport costs and charges.

Industry segmentation is probably the commonest form of segmentation in industrial markets. In the plant hire industry, customers can be segmented according to industry such as construction, engineering, shipbuilding and repair, mining, public and local authority, and forestry.

Size of customer is another way in which plant hire operators can segment their market. This is especially suited to smaller operators with low plant inventories, to set out to deal with low volume customers whom the bigger operators ignore. On the other hand, this form of segmentation will allow the bigger operators to apply the Pareto law of 80/20 and thus better use of company resources.

Plant types may also be a basis for segmentation. In general, plant for hire is made up of self-operated plant and operator-driven plant. It is not unusual to find plant hire companies concentrating on either one type of plant. For companies that carry both types of plant in their inventories they may opt to segment their market on this basis, even though it may not be easy in practice. But if well carried out a well balanced inventory with a high level of utilisation can be achieved.

Purchasing criteria is one of the most important yet neglected bases for segmentation in the plant hire industry. Two highly ranked criteria by both plant hire companies and hirers within the industry are price and quality of service. The market can be segmented according to the price sensitivity of customers and/or the quality of service expected.

Finally, it is not unusual to find operators in the plant hire industry employing a combination of more than one variable to segment their market.

2.4 THE NATURE OF INDUSTRIAL BUYING AND SELLING

This section will briefly discuss industrial buying and promotion by examining the following topics:

- The buying centre/decision making unit (DMU)
- Major influences on industrial buying
- The rate of industrial advertising
- Sales promotion in industrial marketing
- Industrial personal selling.

2.4.1 The buying centre/decision making unit (DMU)

Industrial buying takes place in the context of a formal organisation influenced by budget, cost and profit considerations. Furthermore, organisational buying usually involves many people in the decision process with complex interactions among people, individual and organisational goals. This collection of people in the decision making process is called the 'decision making unit', introduced by scientific American journals in 1950. Webster and Wind [32] call the DMU of a buying organisation the "buying centre" and define it as:

> "All those individuals and groups who participate in the purchasing decision making process, who share some common goals and the risks arising from the decisions".

An alternative definition is proposed by Spekman and Stem [33], who define the buying centre as:

> **"An informal, cross-departmental decision unit in which the primary objective is the acquisition, impartation, and processing of relevant purchasing-related information".**

As the definition suggests, the membership in the buying centre and the size of the centre vary from organisation to organisation and from case to case. In smaller organisations, almost everyone may have some input into the buying process; in larger organisations, a more formal group may be identifiable. When thinking in terms of a buying centre, one must realise that the centre is not identified on any organisation chart. A committee seemingly created to decide on a purchase is likely to be but one part of the buying centre. Its other members have informal, but nonetheless important, roles to play in the matter. Indeed, as the concept itself implies, the membership of the buying centre may actually change as the decision making process progresses. As the purchasing task moves from step to step, individuals with certain areas of expertise are likely to lose their membership in the buying centre while others are added. It must be repeated that this membership is informal, so no announcements are likely to be made of who has been dropped and who has been added.

According to Webster and Wind [32], the buying centre includes all members of the organisation who play any of the five roles in the purchase decision process, as listed below.

- Users are the members of the organisation who will use the product or service. In many cases, the users initiate the buying proposal and help define the product specifications.
- Influencers are persons who affect the buying decision. They often help define specifications and also provide information for evaluating alternatives. Technical personnel are particularly important as influencers.
- Buyers are persons with formal authority for selecting the supplier and arranging the terms of purchase. Buyers may help shape product specifications, but they play their major

role in selecting vendors and negotiating. In more complex purchases, the buyers might include high level officials participating in the negotiations.

- Deciders are persons who have formal or informal power to select or approve the final suppliers. In routine buying, the buyers are often the deciders, or at least the approvers.
- Gatekeepers are persons who control the flow of information to others. For example, purchasing agents often have authority to prevent sales persons from seeing users or deciders. Other gatekeepers include technical personnel and even personal secretaries.

A multinational research study [34] published in 1985 focusing on the buying process, confirmed that managers do differentiate between the various stages of the buying process and responsibilities for these are assigned to different functional areas or departments within the company. Another important finding is that the industrial buying process is more concerned with what is purchased than with any national characteristics.

Thus, it can be confirmed that industrial purchasing is a complex operation, with the nature of products/services and the amount of expenditure largely controlling the levels of management involved.

2.4.2 The major influences on industrial buying

Organisation buying is a decision making process carried out by individuals in interaction with other people in the context of a formal organisation. The organisation, in turn, is influenced by a variety of forces in the environment. Thus, industrial buyers are subject to many influences when they make their buying decisions. Some marketers assume that the major influences are economic. They see the buyers as favouring the supplier who offers the minimum price or best product or most service. This view suggests that industrial marketers should concentrate on offering strong economic benefits to buyers. Other marketers see the buyers as responding to personal motives where they seek favours, or

attention, or risk reduction. This view suggests that industrial marketers should concentrate mostly on the human and social factors in the buying situation.

Kotler [29] points out that industrial buyers actually respond to both economic and personal factors. Where there is substantial similarity in supplier offers, industrial buyers have little basis for rational choice. Since they can meet organisational goals with any suppliers, buyers can bring in personal factors. On the other hand, where competing products differ substantially industrial buyers are most accountable for their choice and pay more attention to economic factors.

Webster and Wind [32] have identified four main groups of influences: individual, social, organisational and environmental. Within each class, there are two broad categories of variables: those directly related to the buying problem, called 'task' variables; and those that go beyond the buying problem, called 'non-task' variables. This classification of variables is summarised and illustrated in Table 2.1 (overleaf).

The authors further point out that it is seldom possible to identify a given set of variables as exclusively task and non-task; rather any given set of variables will have task and non-task dimensions, although one dimension may be predominant.

The following are descriptions of the four major groups of influence:

Environmental influences are subtle and pervasive as well as difficult to identify and to measure. They influence the buying process by providing information as well as constraints and opportunities. Environmental influences which are of vital importance to the plant hire industry are economic, technological and legal; other less important factors include physical (i.e. geographic, climatic or ecological), political and cultural.

Table 2.1 Classification and examples of variables influencing organisation buying decisions

	Task	Non-task
Individual	Desire to obtain lowest price, best plant and quality back-up service	Personal values and needs
Social	Meetings to set specifications and requirements	Informal off-the-job interactions
Organisational	Policy regarding preference for local supplier and/or make and brand of plant	Methods of personal evaluation
Environmental	Anticipated changes in prices or technology	Political climate in an election year

Adapted: Webster, F. E. and Wind, Y., 'A general model for understanding organisation buying behaviour', Journal of Marketing, Vol.36, No.2, 1973, pp.12-19.

Organisational influences cause individual decision makers to act differently than they would if they were functioning alone or in a different organisation. Organisational buying behaviour is motivated and directed by the organisation's goals and is constrained by its financial, technological and human resources.

Social influences. The framework for understanding the buying decision process must identify and relate three classes of variables involved in group functioning in the buying centre. First, the various roles in the buying centre must be identified. Second, the variables relating to interpersonal interactions between persons in the buying centre and between members of the buying centre and 'outsiders' such as vendor's salesmen must be identified. Third, the dimensions of the functioning of the group as a whole must be considered.

Influence of the individual. All organisational buying behaviour is individual behaviour. Only the individual as an individual or a member of a group can define and analyse buying situations, decide and act. In this behaviour, the individual is motivated by a complex combination of personal and organisational objectives contrained by policies and information filtered through the formal organisation, and influenced by other members of the buying centre.

It is important for marketers to understand how these influences affect industrial buying and develop strategies and tactics to deal with these powerful forces in order to achieve an edge over their competitors. In fact, it is true that more and more competitors today seek to be chosen on dimensions other than just price. But this trend, while it may be more prominent, is not something new; it is as old as trading. The traders of the past leaned heavily on personal relationships, human psychology and the art of persuasion, as well as on pricing, quality and convenience, to win the customer's preference.

2.4.3 The role of industrial advertising

The traditional definition of advertising describes it as communication by an identified sponsor through a paid impersonal medium. In layman's terms, advertising is the means by which we make known what we have to sell or what we want to buy.

While the role of advertising in industrial markets is less striking than it is in consumer markets, and advertising budgets are, on the whole, lower as a percentage of turnover, it is by no means unimportant. It is one link in the chain of effective marketing, and if the advertising link is weak, the total marketing effort will suffer. This is supported by Russell Abratt's [35] study of advertising objectives in 88 industrial companies, which concludes that advertising has a major role to play in the communication mix of industrial marketers. And that these marketers use advertising for a multitude of reasons, the most important being to establish awareness and to develop favourable attitudes, to create a preference and to increase sales.

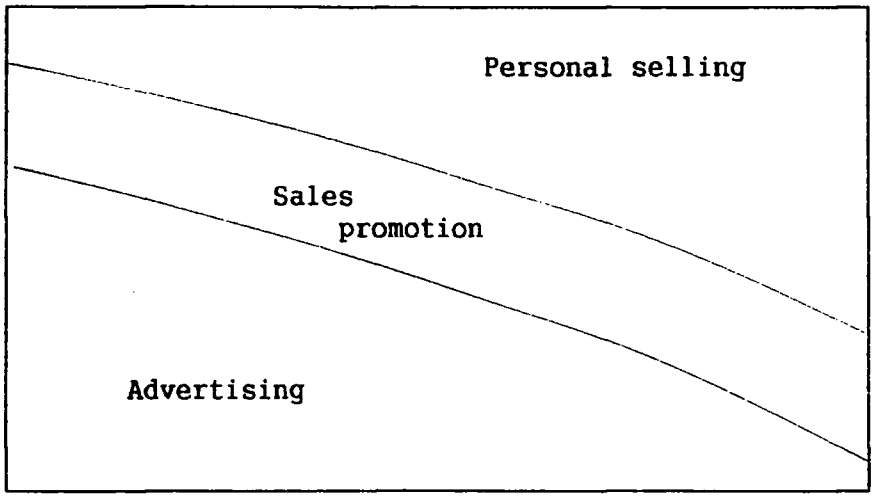
What is important, is to understand that industrial advertising roles differ from the roles played by advertising in the consumer market. Consumer advertising can often be used alone to bring a prospective customer all the way from awareness to the closing of the sale and even to keep that customer sold. In contrast, in most cases, industrial advertising will not achieve a similar effect. Product complexities and buyer expectations require personal contact, which alters the role of advertising in the industrial market. The following are some of the major roles played by advertising in the industrial market:

- To create a favourable climate for personal sales
- To stimulate derived demand
- To project a favourable corporate image
- To reach inaccessible buying influences, as often they are inaccessible to sales people; however, these people may read trade journals and business publications and thus might be reached by advertising
- To reach unknown buying influences, as there are times when sales people do not know all of their buying influences.

Understanding the contribution of industrial advertising to the total marketing effort also involves the recognition of what advertising cannot accomplish. Industrial advertising quite obviously has limitations and it should not be applied beyond those limitations. Advertising cannot substitute for an effective personal selling effort; it must supplement, support and complement that effort. Generally, advertising cannot create "conviction" and "purchase", as achieving these goals often requires demonstration, explanation and specific operational testing.

Thus, industrial advertising is far more effective in the earlier stages of the hierarchy of effects proposed by Lavidge and Steiner [36]. This is illustrated in Figure 2.2. It is hoped that increases in awareness and knowledge will help produce an increase in sales. Yet the fact is that advertising can do all that can be reasonably expected of it without sales necessarily ensuing.

Figure 2.2 The effect of industrial advertising on the hierarchy of effects



Source: Adapted from Philip Kotler, 'Marketing: analysis, planning and control', Prentice-Hall Inc., Englewood Cliffs, N.J., 6th edition, 1988, p.613.

2.4.4 Sales promotion in industrial marketing

The Institute of Sales Promotion definition reads:

> "Sales promotion is the function of marketing which seeks to achieve given objectives by the adding of extrinsic, tangible value to a product or service".

Unfortunately, this proposed definition is made in the context of consumer products and services (even though the Institute might not agree) and thus is biased towards consumer marketing and hence not applicable to industrial marketing.

Industrial sales promotion is a dynamic, expansive marketing tool and some of the best promotions put together by imaginative marketers are arrived at by breaking all existing conventions. This is best captured by Christian Peterson's [37] written comments, which state:

> "There is or should be an indefinite quality of sales promotion. Sales promotion is a doing, achieving, judging-by-results business, it doesn't necessarily need widespread and uniform understanding of its theoretical mechanics".

In many industrial firms, little difference is made between advertising and sales promotion. Often the two areas are handled as one, where there is a single budget and one manager is responsible for both areas. The most common sales promotion media uses in the industrial market are sales brochures, direct mail, exhibitions, public relations and give-aways.

But in industrial marketing much of what might be loosely termed sales promotion will be an inegral part of the business terms negotiated, which are:

- Price
- Currency of payment
- Time of payments, including credit facilities and long term finance
- Leasing arrangements
- Trade-in allowances
- Reciprocal buying or investment agreements.

On top of these, financial terms can be:

- The provision of training facilities for the user's staff or the supply of skilled operators by the seller
- Deals on associated spares, software or accessories
- Agreement to set up a subsidised pilot scheme before the sale proper is finalised
- Agreement on research and time and motion studies to monitor the equipment in action.

These are all matters for corporate negotiation, but this list should not be regarded as exhaustive. As mentioned earlier, the imaginative marketer will look out for other areas within the company resources and capability to achieve an edge over its competitors.

2.4.5 Industrial personal selling

The basic difference between industrial and consumer selling is that the industrial sale is always made on the basis of cold, hard facts, proved by test, research, experiment and experience, and never on the basis of mood or emotion. Another major difference is in the amount of time necessary to close an industrial sale as compared with the time required to sell the average consumer product/service. In industrial selling, a transaction may drag on for months, and in some cases even years.

A well known industrial sales consultant once commented on the vital importance of the industrial sales person, as follows:

> "In the industrial field, the sales person is quite important because he or she generally sells a technical product whether this be a computer, or a special type of paint, or a lubricating service, or office machinery or something which requires a personal explanation of its application to the particular prospect. Advertising can't achieve this. Advertising plays a part in industrial selling, but only on a marginal scale. The sales person is a crucial factor in the marketing of industrial products. The total sales volume, incidentally, of industrial sales persons is bigger than the total sales volume of consumer goods sales persons [38].

While personal selling is regarded as a vital input into industrial marketing, the ever increasing costs of maintaining a direct sales force demand that selling effectiveness should be ensured. Thus controlling the sales effort is necessary through budgetary procedure, realistic quotas, sales territory concepts, call reports and cost analysis. Perhaps greater attention should be given to identifying target markets and firms within these markets.

Professional selling skills should be developed in industrial sales forces. Elements of such skills include thorough knowledge of products/services and their applications in specific industries, the ability to diagnose customers' problems and to offer acceptable solutions in terms of the products/services being offered, sound grasp of the essential nature of customers' technologies and

business operations, perceptive and sensitive insights into human behaviour, and highly developed negotiating skills, including knowledge of the buying practices of specific companies.

For their part, companies should stimulate and direct their sales force through effective motivation. This will require management to have a sound understanding of needs gratification and motivation theories. This will call for devising an effective sales compensation plan, offering promotional prospects and providing training programmes, job satisfaction and participation in certain planning activities, such as the setting of sales quotas and territory planning.

REFERENCES

1. Marketing staff of the Ohio State University. "A statement of marketing philosophy". Journal of Marketing, Vol.29, January 1965, pp.43-44.

2. Aubrey Wilson (ed.) The marketing of industrial product. Hutchinson & Co. Ltd., London, 1965.

3. George Risley. Modern industrial marketing. McGraw-Hill, New York, 1972, pp.11-12.

4. Frederick Webster. Industrial marketing strategy. John Wiley & Son Inc., Canada, 2nd edition, 1984.

5. Lawrence Fisher. Industrial marketing: an analytical approach to planning and executive. Business Books Ltd., London, 2nd edition, 1976.

6. P. Gisser. Launching the new industrial project. American Management Association, 1972.

7. Ronald McTavish and Angus Maitland. Industrial marketing. Macmillan Press Ltd., London, 1980.

8. Ames, B. Charles and Hlavacek, Jame D. Managerial marketing for industrial firms. Random House Inc., New York, 1984.

9. Gordon Foxall (ed.) Marketing in the service industry. Frank Cass & Co. Ltd., Great Britain, 1985.

10. Ralph W. Jackson and Philip D. Cooper. "Unique aspects of marketing industrial services". Industrial Marketing Management, New York, 17, 1988, pp.111-118.

11. Gershung, J. I. and Miles, I. D. The new service economy. Frances Printer, 1983.

12. Lovelock, C. "Why marketing management needs to be different for services" in Marketing of Science. Donnelly and George (eds.), American Marketing Association, 1981, p.5.

13. Enis, B. M. and Roering, K. J. "Services marketing: different products, similar strategy" in Donnelly and George (eds.), op.cit., pp.1,3.

14. Parasurama, A., Zeithaml, Valerie A. and Berry, Leonard, L. "A conceptual model of service quality and its implications for future research". Journal of Marketing, 49, Fall 1985, pp.41-50.

15. Berry, Leonard L. "Services marketing is different". Business, May-June 1980, pp.24-29.

16. Rathmell, J. M. "What is meant by services". Journal of Marketing, Vol.30, No.4, October 1966, pp.32-36.

Rathmell, J. M. Marketing in the service sector. Winthrop Publisher Inc., 1974.

17. Wilson, A. The marketing of professional service. McGraw-Hill, 1972.

18. Bateson, J. "Do we need service marketing?" Marketing Consumer Services: New Insights. Report No.75-115, Marketing Science Institute, 1977.

19. Shostack, G. Lynn. "Breaking free from product marketing". Journal of Marketing, Vol.41, No.2, April 1977, pp.73-80.

20. Francis Buttle. "Unserviceable concepts in service marketing". The Quarterly Review of Marketing, Spring 1986, pp.8-13.

21. Thomas, Dan, R. E. "Strategy is different in service business". Harvard Business Review, July-August 1978, pp.158-165.

22. Levitt, Theodore. "The industrialisation service". Harvard Business Review, 54, September-October 1976, pp.63-74.

23. Sasser, W. Earl. "Match supply and demand in service industries". Harvard Business Review, November-December 1976, pp.133-140.

24. Huges, G. D. Marketing management: a planning approach. Addison-Wesley, Reading, Mass., 1978, p.410.

25. Hill, R. and Hillier, T. Organisational buying behaviour. Macmillan, London, 1977.

26. Robert H. Dodge. Industrial marketing. McGraw-Hill, New York, 1970.

27. Hakansson, Hakkan (ed.) International marketing and purchasing of industrial goods: an international approach. John Wiley & Son, Chichester, 1983.

28. William Zikmund and Michael D. Amico. Marketing. John Wiley & Sons, New York, 1984.

29. Philip Kotler. Principles of marketing. Prentice-Hall, Englewood Cliffs, 2nd edition, 1983, pp.165-188.

30. Peter Doyle, J. Saunders and L. Wright. "Segmentation and positioning are at the heart of modern marketing". Edited by Christopher Lorenz on the management page of "The Financial Times", UK, 16th July 1987.

31. Corey, R. E. "Key options in marketing selection and product planning". Harvard Business Review, Vol.53, September-October 1975, pp.117-128.

32. F. E. Webster and Y. Wind. Organisational buying behaviour. Prentice-Hall, Englewood Cliffs, New Jersey, 1972, pp.77-80.

33. R. E. Spekman and L. W. Stern. "Environmental uncertainty and buying group structure: an empirical investigation". Journal of Marketing, Spring 1979, p.56.

34. Banting, Peter M., Ford, David, Gross, Andrew C. and Holmes, George. "Generalisations from a cross-national study of the industrial buying process". International Marketing Review, Vol.2, No.4, Winter 1985.

35. Russell Abratt. "The advertising objectives of industrial marketers". International Journal of Advertising, Vol.6, 1987, pp.121-131.

36. Lavidge, J. R. and Steiner, G. A. "A model of predictive measurements of advertising effectiveness". Journal of Marketing, Vol.25, 1961, pp.59-62.

37. Christian Peterson. Sales promotion in action. Associated Business Press, London, 1979, pp.10,213-214.

38. David D. Seltz. Industrial selling: gateway to the million dollar sale. McGraw-Hill Company, New York, 1976, p.4.

39. Peter Chisnall. Strategic industrial marketing. Prentice-Hall International Ltd., UK, 1989.

40. Philip Kotler. Marketing management: analysis, planning, implementation and control. Prentice-Hall, Englewood Cliffs, New Jersey, 6th edition, 1988, p.613.

41. Michael D. Hutt and Thomas W. Speh. Industrial Marketing Management, The Dryden Press, New York, 1981.

42. Robert W. Haas. Industrial marketing management. Kent Publishing Company, USA, 2nd edition, 1982.

CHAPTER THREE

AN OVERVIEW OF THE UNITED KINGDOM PLANT HIRE INDUSTRY

CHAPTER THREE

AN OVERVIEW OF THE UNITED KINGDOM PLANT HIRE INDUSTRY

3.1 INTRODUCTION

This chapter will present an overview of the UK plant hire industry through the discussion of its structure, market size and trends, industry norm, and its future.

3.2 INDUSTRY STRUCTURE

Plant hiring is a time-related service providing a machine to carry out the client's instructions. The real foundations of modern plant hire were laid in the 1930s, mainly through contractors wishing to use their construction plant more intensively and avoid it just standing in their plant yards between their own jobs. Plant hire really 'took off' in the 1939-45 war years when it was vital to use the total national resources of construction plant as effectively and intensively as possible, with the government directing the movement of plant between plant hire firms, contractors and others to this end. In subsequent years, it has spread to many Commonwealth countries and to some extent, but on a lesser scale, into Europe.

Thus the plant hire industry grew up to support the construction industry, which is estimated to provide 80% of its annual turnover. Its clients include civil engineers, public authorities, construction contractors and sub-contractors and construction companies ranging from large public limited companies to small local firms and the self-employed. Some demand also comes from other industries such as quarries, mining, docks, harbour and river works, local authority maintenance operations, forestry and agriculture, ship repair and building, and occasionally the manufacturing industries, which together contribute the other 20% of the industry's turnover.

Plant offer for hire spans a very wide range of equipment, from tower cranes to tools. The plant hire outlets are broadly divided into those offering operator plant (i.e. hire includes the hire of a driver/operator) and those offering non-operator plant. Obviously, hire periods vary considerably; in some instances they may be for the duration of a major project; in others, simply for the few hours it might take to dig a swimming pool in the back garden.

The breakdown of plant hire business between operative and non-operative is difficult to ascertain. However, in a recent Keynote report on the plant hire industry, it was estimated that there were a total of 5,990 companies in the industry, of which 4,160 were operative and 1,830 non-operative, employing a total of 36,200 staff. BET and Hewden Stuart plc are by far the largest two groups of companies in the industry, having around 55 individual companies between them estimated to account for over 20% of the market.

Industry representation

The Construction Plant-Hire Association (CPA) was a founder member of the informal grouping of plant companies formed in the late 1970s. The association today is not a large bureaucracy. Under its director and secretary, there is a full-time staff of around 14 persons covering its main activity areas: economic, statistical, legal, employment, technical, safety, public relations, publications, and the finance and administrative skills necessary to do its work effectively.

CPA membership in recent years has been around 1,000-1,100 firms, including many of the largest plant hire companies. The association is concerned with many aspects of the industry and has done much to promote better involvement in training, health and safety requirements. It is also concenred with legislation involving the plant hire industry and produces statistics on the industry, hire rates, machine costs and many other services to its members, including a Year Book listing its members.

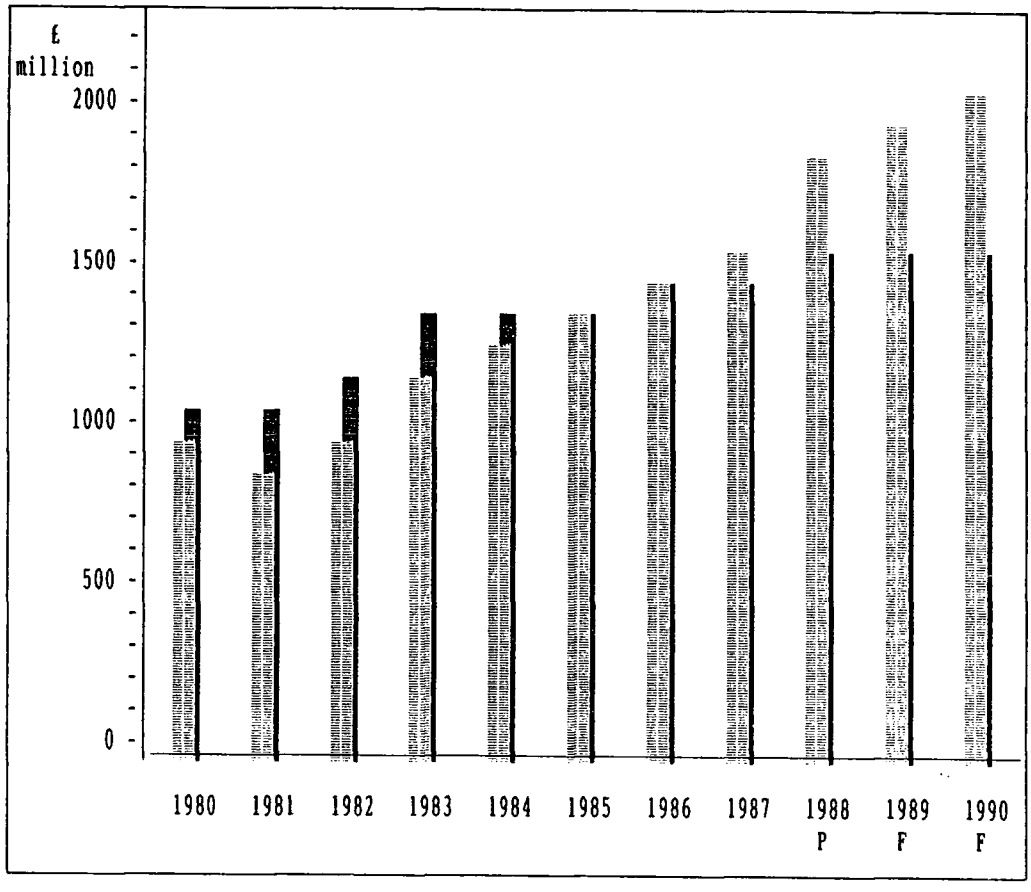
3.3 MARKET SIZE AND TRENDS

During the past few years, the British plant hire industry has made a healthy recovery. One event in 1984 may have precipitated the upward movement in the fortunes of the industry. The 1984 Budget introduced a progressive reduction in first year allowances, so that by the end of March 1986 the only tax allowances left were 25% writing down allowances on a reducing balance. This was to have a profound effect on the fortunes of the plant hire industry.

Figure 3.1 shows how plant hire output (in current money terms) was very low in 1981 but then recovered progressively during the rest of the decade. In constant money (or volume) terms, output has, perhaps surprisingly, shown a fairly steady increase over the years. Possibly this is evidence of the so-called counter-cyclical nature of the plant hire market.

The plant hire industry suffered a recession between 1973 and 1981, after which there has been growth each year at current money value. Between 1982 and 1988 total growth has been approximately 75.7% at current prices and approximately 38.3% at constant 1985 prices, as illustrated in Table 3.1. 1987 and 1988 have been excellent years for the industry. This improvement is due, to a large extent, to a recovery in the private sector of the construction industry. The weather is also an important but uncontrollable factor in construction activity. The mild winter of 1987-88 contributed substantially to the improvement in plant hire income.

Figure 3.1 UK plant hire output



Output in current money values

Output in constant money values (1985 = 100)

P = Provisional F = Forecast

Source: Alan Smith of CPA. "Fall and rise of the hire market". Plant Hire, Construction News Supplement, October 1989, p.4.

Table 3.1 Turnover and growth rate in plant hire 1980-1990
(£m at current and constant money: 1985 = 100)

	Year	Current money	Growth rate	Constant money	Growth rate
	1980	970	-	1,055	-
	1981	895	-7.7%	1,070	1.4%
	1982	960	7.2%	1,130	5.6%
	1983	1,090	13.5%	1,255	11.0%
	1984	1,150	5.5%	1,270	1.1%
	1985	1,265	10.0%	1,265	-0.3%
	1986	1,345	6.3%	1,345	6.3%
	1987	1,545	14.8%	1,455	8.1%
P	1988	1,830	18.4%	1,550	6.5%
F	1989	2,030	10.9%	1,560	0.9%
F	1990	2,130	4.9%	1,575	0.6%

P = Provisional F = Forecast

Source: Provided by Alan Smith, assistant director in charge of economics and statistics at CPA, during a personal interview

A notable trend in the industry is that its myriad of small companies is continuing to go through a process of rationalisation. The size differential between the few very large companies and small ones is probably widening. One of the most significant features of recent years has been the 'taking out' of the medium sized companies through takeovers. This polarisation has to a large degree been brought about by the mergers and acquisition policies of the leading companies. Another developing trend is the increased demand for smaller versions of plant due mainly to the construction growth being concentrated on small scale buildings and city developments.

3.4 INDUSTRY NORM

This section of the chapter will examine the norm in the plant hire industry so as to establish a foundation for the field study findings in chapter five.

Investment in new plant

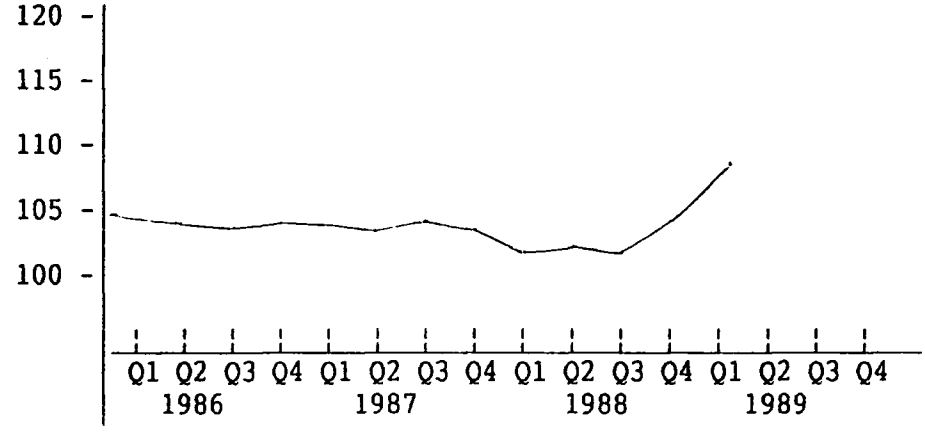
Survival in the plant hire industry depends upon a high level of investment in new plant, and plant hire companies account for about 25% of the construction equipment market. The industry can therefore exert a significant influence on the manufacturers. In the very specialised heavy lifting sectors at the top end of the crane market, most of the customers are plant hire companies and cranes are designed virtually to the demand of the plant hire companies. In 1988, unit sales of construction equipment reached 25,000, the highest this decade, and represent a 27% increase over the 1987 level. However, the trend has been towards smaller, less expensive equipment.

On the other hand, if the industry increases the supply of plant for hire faster than market volume expands, there is a danger of overcapacity. As with any other type of business, the success of the industry depends greatly on the balance between supply and demand. The problem of overcapacity in the plant hire industry is always devastating, when plant activity decreases, hire rates soon follow, which are often led by desperate attempts to achieve cash flow at any price in companies with large hire purchase or leasing commitments. Even if such companies disappear, their plant is usually recirculated, albeit at low prices. This type of scenario was experienced in the 1970s and early 1980s. It was exacerbated by purchasing grants and tax concessions. If serious overcapacity arises, there is no guarantee that the plant hire market will expand sufficiently in the long term to put surplus plant to work. Thus, prudent plant purchasing policies are generally practised within the industry.

The true cost of new plant has shown a downward trend over the past three years, from 1986 to October 1988. But according to the CPA Group Cost Indices (refer to the graph in Figure 3.2) which indicate the general movement in the cost to plant hire companies of owning, operating and replacing plant, there has been a substantial increase in average machine unit cost during the third quarter of 1988, which put up the cost to plus 6.6% and, in particular during the first

quarter of 1989, of plus 4.1%. This is clearly an indication of the acceleration of cost inflation due largely to increases in plant prices and interest rates.

Figure 3.2 General cost index - all groups (1985 = 100)



Source: CPA Machine Cost Studies, Issue No.33, May 1989, p.2.

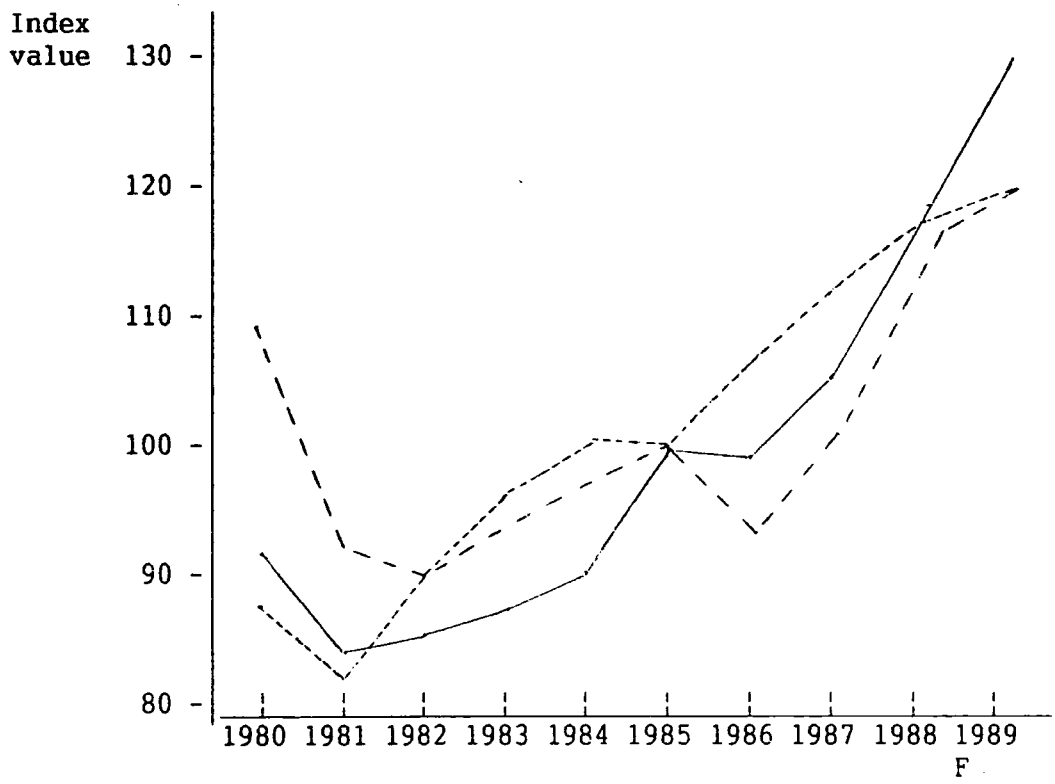
Hire rates and plant activity

The studies of hire rates will have to involve the examination of the level of plant activity, which have a major effect on the rates of plant hire; as when plant activity (or hours out on hire per machine) decreases, very often the plant hire company will attempt to achieve cash flow at any price, which will inevitably lead to cuts in hire rates.

Based on CPA activity and hire rate studies, plant activity was at its lowest in 1981 but then recovered progressively to a point in 1989 where it has probably peaked. The latest national average plant activity level recorded, in October 1989, was 80%; that is, four out of every five machines were out on hire, which is a remarkably high figure. Similarly, unit hire rates (that is, rate per hour on hire) responded fairly closely to the changes in demand demonstrated by the activity index. Even in constant money terms (that is, allowing for cost inflation) hire rates in 1989 were at

their highest during the 10 year period. This is clearly shown in the graph at Figure 3.3.

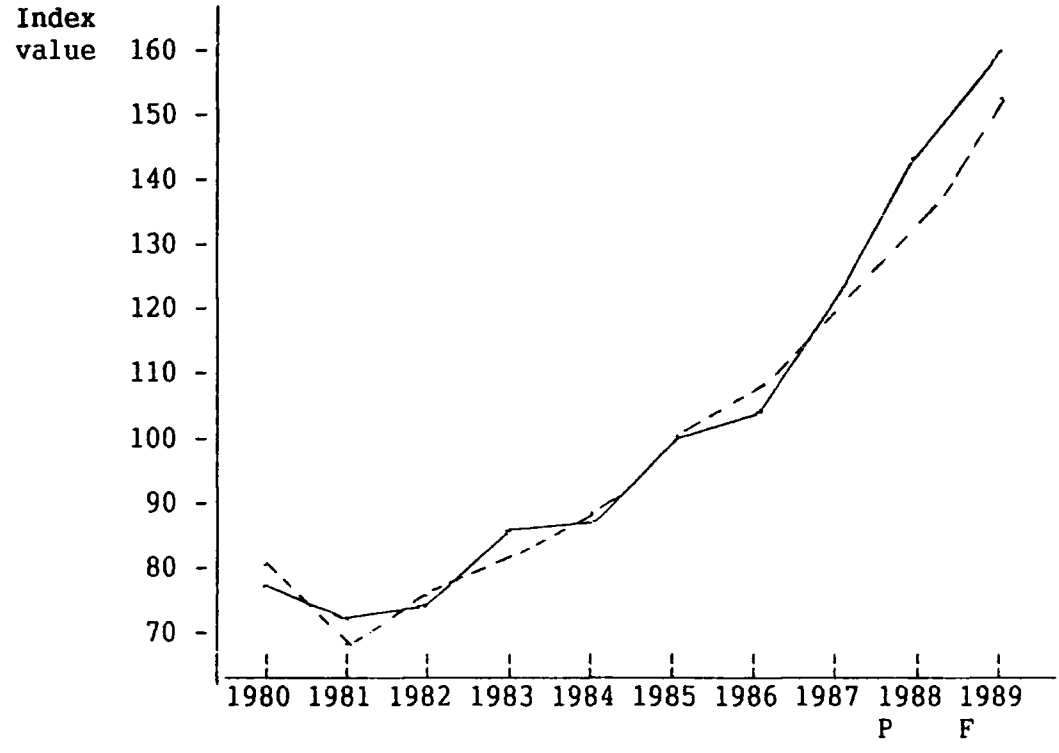
Figure 3.3 Unit hire rate and plant activity indices - 1985 = 100



-------- Plant activity index
_____ Hire rate index in current money values
- - - - Hire rate index in constant (1985) money values
F = Forecast

Source: Alan Smith of CPA. "Fall and rise of the hire market". Plant Hire, Construction News Supplement, October 1989, p.4.

Figure 3.4 Output and unit revenue indices
(both in current money values) 1985 = 100



Source: Alan Smith of CPA. "Fall and rise of the hire market". Plant Hire, Construction News Supplement, October 1989, p.4.

It is the combination of unit hire rates and activity levels that determines the income or revenue generated by each machine. In Figure 3.4 the unit revenue index shows clearly how income per machine has improved quite dramatically since 1981.

Re-hire

Re-hiring activity, where one plant hire company hires from another to re-hire to its customers, is by no means uncommon within the industry. The practice of re-hiring means that customers do not

have to be turned away if a requested item is not in stock, thus not allowing competitors to pick up the business.

Despite the inevitable fact that re-hire results in higher rates to the end-user, re-hire has flourished in the last few years, which has led to the birth of companies specialising in re-hire. These re-hire companies do not hire plant direct to the end-users and so offer no competition to the plant hire companies. The market leader in this sector is Getset Construction Equipment Ltd., which has a customer base of around 2,000, with a current turnover of about £15 million.

Advertising and promotion

The plant hire industry is not a heavy user of advertising. For the smaller plant hire company, advertising is limited to the local press and telephone directories, but the construction trade press is also used by middle sized and larger companies. Much business is obtained by direct approach to local contractors. Only the largest companies are able to take part in the various trade fairs for the construction plant industry; of these, the Haydock Plant Exhibition is popular with the crane hire and access hire sectors.

The main annual event for the plant hire industry is the Hirex Exhibition, organised by EMAP Maclaran Exhibitions. The larger companies sometimes organise their own open days for clients and press. Sponsorship has also been used by the industry; for example, RJB Plant Ltd. has sponsored the 1989 Formula Libre Championship at Lyddon International Motor Racing Circuit, and this motor race was renamed the 1989 RJB Formula Libre Championship.

3.5 THE FUTURE OF THE INDUSTRY

The plant hire industry is prone to periods of growth and recession as it follows the level of activity in construction, which in turn is related to a great extent to the health of the economy and to policies with respect to public spending. There is little doubt that plant hire has had an excellent run of prosperity in the last

few years, but this is not likely to continue in the long run. If interest rates continue at their current high level, they will sap not only the strength of the housing market but also that of private, commercial, and industrial developments. However, in the run up to the next General Election, experts have anticipated that there will be a softening of interest rates, which will obviously help private sector development, and an increasing emphasis on government expenditure on the infrastructure.

In the short run, with the advent of water privatisation, the much needed renewal of the water and sewerage system should be forthcoming. Furthermore, the Federation of Civil Engineers has shown the industry to be in a more optimistic frame of mind when in July its quarterly civil engineering workloads trends survey revealed that major civil engineering companies were distinctly more optimistic. So perhaps any deterioration in building activity will be, at least partially, compensated by an upsurge in civil engineering demand. Thus for 1990, the industry remains confident about its prospects. The major plant hire companies should continue to improve their profits through the combination of organic growth and vigorous acquisition policies.

While the plant hire industry has benefitted when construction companies were forced to cut back on plant investment, there appears to be little threat of a reversal of this trend now that the construction industry has come to realise that capital investment in plant is no longer an attractive proposition, and that use of plant hire results in more efficient plant utilisation.

Like most industries, the plant hire industry has begun to consider the opportunities that might be offered by the removal of trade barriers in the European Community and the possibility of competition from other EEC countries. Britain leads Europe in the use of hired plant and equipment. About two-thirds of UK plant in use today is hired compared to Holland's figure of about 35% and France's of about 25%. Thus, there are great opportunities for UK companies to export their know-how to Europe, providing they can adapt to each country's way of working and make the right contacts.

The opening of the Channel Tunnel will, in theory, allow direct hire in Europe from depots in South East England and, in fact, it has been suggested that companies with depots in Kent will be able to benefit considerably. Most interaction, however, will probably be via depots opened in other countries or by acquisition or creation of foreign plant hire subsidiaries or joint ventures with European companies.

REFERENCES

1. Keynote Report: an industry sector overview: plant hire. Keynote Publication, 6th edition, 1988.

2. Keynote Report: an industry sector overview: plant hire. Keynote Publication, 7th edition, 1989.

3. Business Ratio Report: an industry sector analysis: plant hire. ICC Group Publication, 17th edition, 1989.

4. "Plant hire equipment and services". Construction News Supplement, International Thomson Publishing Ltd., October 1989.

5. CPA Machine Cost Studies. CPA Industrial Studies Section, Issue No.33, May 1989.

6. CPA Yellow Book. Services for plant hirers. Construction Plant Hire Association.

7. Information provided by Alan Smith, Assistant Director in charge of economics and statistics at CPA, during a personal interview.

CHAPTER FOUR

RESEARCH DESIGN

CHAPTER FOUR

RESEARCH DESIGN

The aim of this chapter is to describe and explain the methods undertaken to collect the data for this study. Specifically this chapter aims at explaining the methodology conceived and the research setting rather than the analysis of the findings themselves, which is kept for the next two chapters.

Broadly, the design of our field study has passed through five successive, yet equally important, stages. These include:

- Statement of research sequence and objectives
- Parameters for the field research
- Frequency distributions - an overview
- The sampling frame
- Development of the questionnaire

In the following pages, the aspects pertaining to each of these stages, together with the methodological framework, will be discussed.

4.1 STATEMENT OF RESEARCH SEQUENCE AND OBJECTIVES

As a starting point, it may be useful to remind ourselves of the research sequence so far and the purpose of this study.

Briefly speaking, the main purpose of this study is to explore the relevance and contribution of marketing to the area of industrial services as practised in the plant hire industry. Specifically, the focus of this study will be on the UK plant hire industry, with a brief chapter on the industry in Singapore. To achieve this end, the thesis runs briefly, as follows:

Firstly: The review of literature is based upon an analysis of the nature of industrial marketing and its practices; the theme of broadening the concept of marketing to include the service sector

has been discussed extensively to establish the nature and scope of industrial service marketing. This course is taken rather than the reviewing of literature specifically on industrial service marketing because there are very few articles and studies that have appeared on this subject area and furthermore, among these few, most of them have appeared in a rather piecemeal fashion which renders them hardly usable as reference material.

However, an understanding of the nature of the environment, demand, segmentation, buying and selling of industrial marketing and how it differs from consumer marketing, coupled with an understanding of service marketing, will illustrate what industrial service marketing is all about.

Secondly: The plant hire industry, upon which this study focuses, is presented through the discussion of its structure, market size and trend, industry norm and its future to provide a foundation for understanding the field study findings to be presented in subsequent chapters. Plant hire, of course, is part of the industrial service sector which provides a service to industrial and institutional customers for business purposes.

Thirdly: The study proceeds to analyse the prevailing marketing practices within the UK plant hire industry and briefly that of Singapore. A comparative study between the two countries will be attempted to establish their differences, if any, and the underlying reasons for these differences. Industrial service marketing, as our review of the literature has outlined, is the marketing of a service in an industrial market, which makes its application more complex. It is our conclusion that in general, the marketing of an industrial service is no different from other forms of marketing except in its emphasis on the various marketing elements.

4.2 PARAMETERS FOR THE FIELD RESEARCH

The field research is undertaken with the following objectives in mind:

- To establish the differences in marketing practices amongst plant hire companies within the industry and between the two countries
- To establish the reasons for the above findings
- To examine the duality of perception between the industry's vision of marketing and customers' perception of this approach.

The conclusion of the field study findings will be examined and suggestions and recommendations will be presented to help achieve improved marketing practices in this industrial sector.

The definition of the population under study will be as follows:

Plant hire companies in the industry:
The study will only be concerned with plant hire companies in the commercial hire of plant to contractors and does not include the tool hiring shops, usually located on high streets to service DIY enthusiasts. The geographical coverage will include Scotland, Wales and England for the UK and nationwide for Singapore. Northern Ireland and the Channel Islands are excluded from the UK study because they are not covered by the free postal service provided by the Post Office Business Reply Service.

Customers in the industry:
As 80% of the plant hire industry's customers are made up of the construction sector, it is proposed that no attempt will be made to classify them by industry. However, this research will cover sectors such as public and local authorities, ship repair and building, agriculture and forestry, mining and quarrying, and some manufacturing. Geographic coverage wiil be similar to that of the plant hire companies under study for the same reasons mentioned above.

4.3 FREQUENCY DISTRIBUTIONS

When we deal with large sets of data, a good overall picture and all the information we need can often be conveyed by grouping the data

into a number of classes; this is called a frequency distribution. The construction of a frequency distribution consists essentially of three steps:

(1) Choosing the classes (intervals or categories);

(2) sorting or tallying the data into these classes; and

(3) counting the number of items in each class [1].

The second and third steps are purely mechanical, but the first - namely, that of choosing a suitable classification - will need examination and elaboration. For numerical distribution, as in this study, this consists of the determination of the number of classes and class limits.

It is important that a frequency distribution be made with a suitable number of classes. If too few classes are used, the original data will be so compressed that little information will be available. If too many classes are used, there will be too few items in the classes and the frequency polygon will be irregular in appearance [2]. There are several rules of thumb available for determining the proper number of classes. For example, a relationship has been suggested between the number of classes and the number of items to be classified when graphic presentation is desired [3]. It has also been suggested that the class interval should not exceed one-fourth of the estimated population standard deviation [4]. Finally, according to the Sturges rule, the approximate number of classes, K, is given by: $K = 1 + 3.3 \log N$, where 'n' is the number of observations and the logarithm is to the base 10. However, the number of classes is usually determined from problem to problem by a process of trial and error, i.e. by balancing information loss with irregularity of the frequency polygon until a pleasing compromise is reached in the eyes of the individual statistician or researcher.

There are several considerations to bear in mind when one is selecting the class limits [5].

- Have a representative mid-value. The mid-value of a class is used to represent all of the items in the class. Thus we must select the class limits so that the mid-values of the

classes will coincide, so far as possible, with the concentrations of items that may be present.

- Avoid open ended classes. An open ended class is one that includes all items smaller than a specified upper limit, or larger than some specified lower limit. However, there are times when open ended classes are almost unavoidable because without them, such a large number of classes would result that the frequency distribution would become unwieldy. Such a case might occur when there are some items with extremely large or extremely small values but when the majority of the other items are clustered in a relatively narrow range.
- Class intervals should usually be uniform. If not, the graphic presentation of the distribution might be misleading, because all class intervals are not the same. But, in some cases, unequal class intervals are unavoidable because the distribution is markedly asymmetrical, so it is best to report adjusted frequencies rather than frequencies. Adjusted frequencies are frequencies that have been adjusted for the class interval in which they lie. A standard interval is selected and all class intervals are expressed as multiples of this interval.

An instructive way of comparing class frequencies within a single distribution or between two or more distributions with a different number of total frequencies, is to transform the absolute frequencies into relative frequencies. These class frequencies expressed relative to the total frequency are called percentage frequencies. Percentage frequencies are arrived at by dividing the frequencies in each class by the total frequency of the distribution, and expressing the frequency in each class as a percentage of the total. On a percentage basis, comparison is made possible, even when there are two distributions with an appreciable difference in total frequency.

4.4 THE SAMPLING FRAME

The sampling frame used consists of two separate units. They are:

- Plant hire companies - those in the commercial hire of plant to contractors.
- Hirers (i.e. the company or person hiring the plant).

Each of these units is further divided into two sub-units - that for the UK and that for Singapore.

The UK plant hire company sample used is based on the 1,014 members of CPA, with the association's permission; while the hirer sample of 1,000 was provided by several plant hire companies, basing it on their listing of customers.

In Singapore, because of the small number of plant hire companies within the industry, the population totalling about 65 was included in the field study; while the hirer sample of about 120 was provided by courtesy of one particular company in the industry.

All names and addresses of companies or persons who have given assistance in structuring the sampling frame were noted. However, all information, whether about the list of customers or the organisation's managers interviewed, is confidential.

4.5 DEVELOPMENT OF THE QUESTIONNAIRE

This section is concerned with the questionnaires constructed for data collection and describe three aspects - sources of ideas, type of questions and type of scales.

Sources of ideas for questions were based upon a detailed search of the literature for significant ideas relevant to marketing in the plant hire industry from the theoretical part of this study, in addition to suggestions made by Alan Smith, assistant director of CPA, and Dr. H. P. Hibbert, my research supervisor, together with my past experience of working in the industry.

With respect to the type of questions, both open ended and closed or forced choice type were used in constructing this questionnaire. Each of these types of questions has its own merits and demerits. While the first are easy to ask and may generate more information through allowing free expression of ideas, they are difficult to answer and still more difficult to analyse. Forced choice types of questions need exploration before their construction, so as to take into account all possible answers. Without such exploration, they might be difficult to formulate. However, these questions are easy to answer and interpret, and encourage respondents by giving the impression of time saving [6].

The decision as to which question is best suited to which of the two types of questioning has been carefully discussed and tested through the anticipation of the number of different answers. The completed questionnaire was then further tested and debugged before it was administered to the selected samples.

Concerning the issue of scaling, the respondents were asked to rank certain criteria in order of importance; for example, from 1 to 10 if there are a total of 10 criteria listed, 1 being the most and 10 being the least important. Thus, this distinction of degree of importance becomes the feature of measurement by scales.

REFERENCES

1. Freund, E. John. Modern elementary statistics. Prentice-Hall Inc., Englewood Cliffs, New Jersey, 7th edition, 1988, p.17.

2. Croxton, E. Frederick, Cowden, J. Dudley and Bolch, W. Ben. Practical business statistics. Prentice-Hall Inc., Englewood Cliffs, New Jersey, 4th edition, 1969, p.13.

3. Truman L. Kelley. "The grouping of data for graphic portrayal" in Croxton, E. Frederick and others, 'Practical business statistics', op.cit., p.13.

4. Snedecor, W. George. Statistical methods. Collegiate Press, Ames, Iowa, 4th edition, 1946, p.170.

5. Croxton, E. Frederick and others. 'Practical business statistics', op.cit., pp.14-15.

6. Abdel Fattah M. El-Sherbeny. "Behavioural and organisational influence upon the adoption of industrial product innovation". PhD thesis, Department of Marketing, University of Strathclyde, Glasgow, 1978, p.322.

CHAPTER FIVE

ANALYSIS OF THE FIELD STUDY FINDINGS IN THE UNITED KINGDOM

CHAPTER FIVE

ANALYSIS OF THE FIELD STUDY FINDINGS IN THE UK

5.1 INTRODUCTION

This chapter will be concerned with the analysis of the data collected in the field study and will be presented in two sections. Firstly, we shall document the findings relating to the marketing practices within the plant hire industry and its customers' perception of this approach. Secondly, we shall be presenting findings concerning the buying factors and the decision making processes of their customers.

From the outset, it would appear to be expedient to discuss the implementation of the research design which was chosen for collecting data put forward in the previous chapter and in what form the field study findings will be presented in this chapter.

5.2 IMPLEMENTATION OF RESEARCH DESIGN

Both sets of developed questionnaire, tested and debugged, were administered to the two selected samples through the post, together with a covering letter and a freepost return envelope. A response rate of 18% was achieved from the plant hire companies' sample and 15% from that of hirers.

The rationale for choosing a postal survey as the primary method is its low cost and wide distribution. Furthermore, a longer respondent time was anticipated due to the style of questioning and the fact that consultation with colleagues or of records would be required to ensure the accuracy of answers.

In-depth interviews were carried out to probe further into any significant observations developed from the analysed field data. However, the constraints of both time and financial resources have

restricted these interviews to only 11 of the larger plant hire companies.

5.3 PRESENTATION OF FIELD STUDY FINDINGS

The presentation of analysed data, collected in the field study, will take the form of tables. A table is a systematic organisation of statistical data in columns and rows. Rows are horizontal arrangements, columns are vertical [1]. The purpose of a table is to simplify the presentation and to facilitate comparisons. In general, the simplification results from the clear-cut and systematic arrangement, which enables the reader to locate the desired information quickly. Comparison is facilitated by bringing related items of information close together.

5.4 THE SURVEY FINDINGS RELATING TO MARKETING POLICIES AND PRACTICES

In the following pages, an attempt will be made to assess marketing policies and practices of plant hire companies within the industry and their customers' perception of this approach.

Briefly, policy has been defined by Simon [2] as:

> "any general rule that has been laid down in an organisation to limit the discretion of subordinates".

In other words, a policy is a deferred decision that comes into effect when triggered by the occurrence of some specific situation [3] and so represents an organisation's standing answer to recurring problems [4].

Marketing practices will be examined with reference to McCarthy [5], Lipson and Darling [6], Shapiro [7] and Kotler [8], among others, on the four-way classification of the marketing mix; that is, 'the four Ps' - product, price, promotion and place.

5.4.1 Product policy

This sub-section examines some aspects of product policy in the plant hire industry. Specifically, the following aspects are examined:

- Classification of plant hire companies by plant type and range
- Preferences toward providing operatives with heavy plant as part of the product package
- Reasons for preference as to who is best to provide the operatives for hired heavy plant
- Policy in regard to plant acquisition and disposal.

Classification of plant hire companies by plant type and range

Table 5.1 Classification of plant hire companies by plant types

TYPES OF PLANT	NUMBER OF COMPANIES	PERCENTAGE
Non-operative	35	19.1
With operative	69	37.7
Combination of both	79	43.2
Total	183	100

From the outset, it will seem logical to classify the total respondents of 183 by some forms of variable in order to examine its significance and if there are any differences in its marketing practices. The classification of respondents by plant types as shown in Table 5.1 is by far the most suitable, although within the industry and its trade association, it has been acknowledged that the task is by no means easy and is rather difficult to ascertain.

The classification in Table 5.1 is based on the analysis of respondents' answers to questions three and four, where they were

asked about the types of plant within their hire fleet and their opinions on hirers providing personnel to operate the hired plant, respectively. The total respondents are classified into three categories, which are defined as follows:

- Non-operative plant hire companies are those that only deal with self-operated plant such as generators, welding sets, forklifts, mini-excavators, air compressors and other smaller plant
- With-operative plant hire companies are those that only deal with heavy plant hire, provided with an operator, such as crane, tractor, dozer and heavy capacity excavator
- Combination of both are those companies that deal with both ranges of plant.

In general, according to the above analysis, 79 of the respondents, which is equivalent to 43.2%, fall under category three (i.e. combination of both types of plant), which may just indicate that there is indeed a trend towards increased demand for smaller versions of plant, leading to traditional heavy plant hire companies expanding internally or through acquisition to include non-operative plant in their product range.

Preferences towards providing operative(s) with heavy plant as part of the product package

Respondents were asked to give their opinions as to who is best to provide the personnel to operate hired heavy plant. Should it be the plant hire company or the hirer, and why? As can be seen from Table 5.2, there is a cohesive preference as to who should provide the operatives to operate hired heavy plant; 62.8% of plant hire companies prefer to provide operatives to operate hired heavy plant, while 68.8% of the plant hirers prefer likewise.

Table 5.2 Preferences towards providing operative(s) with heavy plant as part of the product package

PREFERENCE	PLANT HIRE COMPANIES		PLANT HIRERS	
	F	%	F	%
Customer to provide their own operative	47	31.8	29	20.1
Hire company operative	93	62.8	99	68.8
No preference	8	5.4	16	11.1
Total	148	100	144	100

Note: Non-operative plant hire companies, which total 35, are excluded from the table.

Further analysis of information given by respondents to justify their preferences show that 32, which is equivalent to 34.4%, of the 93 plant hire companies who prefer to provide operatives with hired heavy plant, would consider hiring without operatives in the following circumstances:

- Satisfied that correct operation, service and maintenance procedures are followed
- Competent, well trained and certified operators are provided by hirers
- Any misuse of plant remains the responsibility of hirers
- If hirer is insured for damage to plant
- If hire rate provides sufficient compensation for the added risk
- If hire exceeding three months duration
- Only allow to very good customers who have a long standing relationship with the company
- Consider with older plant in the fleet.

Explanations for preferences as to who is best to provide the operatives for hired heavy plant

Both sets of respondents were asked to indicate the reasons for their preferences as to who is best to provide the operatives for hired heavy plant. The aim is to examine the motivation for their preferences and how they differ between the two sets of respondents (i.e. the plant hire companies and the plant hirers). The common reasons for their preferences are as follows:

Reasons for preferences towards plant hire company's operatives

Plant hire company

- Plant will be abused, resulting in extra maintenance
- Inexperienced operatives can cause mechanical damage, thus shortening the life span of the plant
- Charges for abuse/damage to plant by customer are difficult to recover, which will lead to lengthy legal dispute and therefore damage relationship and company's reputation
- High risk involving insurance, health and safety
- The loss of control and difficulty in checking actual hours worked on plant
- Due to the high capital investment involved, any damage to plant will result in major financial losses to both parties

Plant hirer

- Lack of continuity of work does not justify the maintenance of a pool of skilled operatives
- Suppliers' operatives are more reliable, competent and conversant with the plant and thus provide better service
- To avoid problems involving insurance, health and safety at work site
- To minimise liability and avoid legal dispute with suppliers

Reasons for preferences towards hirers' operatives

Plant hire company	Plant hirer
- Problems of maintaining a work force of operatives	- It is more reliable and cost effective to use own operatives
- It is more cost effective to hire without operative	- Allows greater control and ability to utilise hired plant to its full potential
- It is more profitable	
- It provides greater flexibility and thus the ability to cope with sudden changes in market demand	- Have pool of trained operatives capable of handling various types of plant
- Adapting to a coming trend of hiring without operatives within the industry	- Use of own operatives gives the company a wider choice of suppliers and thus more competitive rates
	- Own operatives are more familiar with site, job and employees; thus better harmony at work site

In general, the above analysis indicates that a majority of both sets of respondents' preferences are towards the plant hire company providing the operatives for hired heavy plant. However, the reasons for their preferences differ widely and a few are somewhat contradictory. The most likely explanation for such findings is differences in business practice.

Policy in regard to plant acquisition and disposal

With reference to policy related to the acquisition and disposal of plant, it appears that there is a wide variation in response to the question asked, ranging from well thought through policy to no definite policy to haphazard decision at the discretion of the chief executive.

In companies with a well thought out and followed through policy in plant acquisition, the following factors are taken into consideration:

- A certain percentage of the annual profit will be used to acquire new plant
- Types of plant to be acquired are based on an analysis of the previous 12 months' average demand by examining weekly utilisation sheets
- Taking into account market trends and future potential
- As far as possible to keep plant holding at a level to ensure 100% availability for hirers.

Other less systematic acquisition factors highlighted by respondents are:

- As required to replace ageing plant
- As and when there is a viable long term proposition
- Dictated by financial resources and cash flow
- Updating plant to keep maintenance costs to an acceptable level.

While the decision to dispose of certain plant is undertaken in the following circumstances:

- According to replacement policy laid down for various types of plant
- When maintenance cost equals depreciation cost
- When utilisation starts dropping below agreed level
- When plant reaches unserviceability
- When plant becomes unreliable
- Dictated by predetermined life span of plant
- Sell at any opportunity, upon profitable offer.

Plant can be disposed of by various means. Those constantly mentioned by respondents in the survey are as follows:

- Trade in as part exchange for new plant
- Direct sales to second hand dealers
- Turn into scrap metal
- Sales through advertising in trade and local press
- Sales through auction
- Export overseas
- Sales to hirers
- Sales by tender

- Dismantled to use as spares for newer plant
- Loss through plant theft.

It is however worthwhile mentioning that one great concern has been highlighted by several respondents; that is, the danger of flooding the market with unreliable second hand plant as a result of plant disposal activities by the industry. Thus, for the sake of a healthy future for the industry, prudent plant disposal policies should be practised.

5.4.2 Pricing policy

Briefly, pricing policy is concerned with price-related decisions designed to encourage the kind of product acceptance desired by the organisation's customers, and to meet its economic, social and environmental objectives.

In the following pages, an attempt will be made to examine some aspects related to pricing strategy in the plant hire industry. These aspects include:

- What is included (or not) in the hire rate charged.
- Pricing strategy practice within the industry
- Major criteria taken into consideration when quoting hire rate
- Terms of credit offered as compared to actual average debtors' settlement date.

What is included (or not) in the hire rate

In an attempt to establish what is included (or not) in the hire rate charged, the various forms of hire agreement used by the industry were examined and discussed in the personal interviews.

In general, the hire rate includes regular servicing and inspection as well as breakdown, repairs and adjustment caused by the development of either an inherent fault or fault not ascertainable by reasonable examination or fair wear and tear. However, very often it is the determination of these causes that leads to

disagreement between owners and hirers, and eventually legal dispute, which could cause financial losses to both parties. The hire rate does not include all unloading and loading of plant at site, cost of repairs as a result of hirer's negligence, misdirection or misuse of plant and insurance coverage against loss and damage.

The provision of operatives with hired plant, fuel, oil and grease are all charged at cost. Also worth noting is that a hire period usually commences from the time when plant leaves the owner's depot or place where last employed and continues until plant is received back at owner's named depot or equivalent.

Finally, it would be fair to comment that hire agreements used by the industry are biased towards the plant owners, which is somewhat contradictory to marketing orientation, which is a prerequisite in the application of the marketing concept. But, on the other hand, it has been argued that the agreement serves to protect the owner's interest with the objective of avoiding dispute between the two parties. Perhaps the industry should initiate a scheme whereby an agreement be drawn up, with the co-operation of representatives from both parties, to be used by the industry.

Pricing strategy practice within the industry

Based on the primary research carried out on the industry, it has been found that there are no set methods of pricing hire rates within the industry. In fact, no one single textbook method can be applied exclusively in pricing hire rates. Thus it seems more appropriate to ask respondents to indicate their pricing strategy rather than methods used.

As may be seen from Table 5.3, the pricing strategy of 'variable price structure' is the more commonly employed of the two by most companies which responded. This general finding means that the industry as a whole is basically marketing oriented, tailoring its pricing to suit individual hire contracts. This automatically leads

to the asking of the next question, which is: What are the major criteria taken into consideration when quoting hire rates?

Table 5.3 Pricing strategy practice within the industry

PRICING STRATEGY	NUMBER OF COMPANIES	PERCENTAGE
One standard price list	58	31.7
Variable price structure	124	67.8
No information	1	0.5
Total	183	100

Table 5.4 Major criteria taken into consideration in the order of importance when quoting hire rates

CRITERIA	ORDER OF IMPORTANCE							
	1	2	3	4	5	6	7	8
Length of hire	62	38	19	10	8	4	2	-
Service level requirements of customers	2	13	11	18	26	28	36	9
Conditions and environment where plant is to be used	12	14	22	30	19	20	19	7
Credit risk factors	37	25	25	12	17	12	9	6
Market demand at time of quotation	14	16	18	20	17	27	18	13
Plant availability at time of quotation	9	22	28	23	18	18	17	8
Size of order	7	15	16	27	27	24	24	3
Accessories requirement	-	-	4	3	11	10	18	97

Note: A total of 40 respondents omitted this question.
Thus N = 143.

Major criteria taken into consideration when quoting hire rates

In an attempt to establish the major criteria taken into consideration when quoting hire rates, the respondents were asked to indicate the major criteria which they used in determining the suitable hire rates. Eight major criteria were suggested by the questionnaire to the respondents, who were also requested to rank them in order of importance. The criteria used, and the responses received, are shown in Table 5.4.

As may be seen from Table 5.4, the criterion of 'length of hire' is ranked by 62 respondents, which is equivalent to 43.4% of the total respondents, as the most important criterion in determining the suitable hire rate. This general finding means that the longer the period of hire the chances are that the hire rate will be lower. It was also found that the criterion of 'credit risk factors' is ranked by 37 of the respondents out of the total of 143 (i.e. equivalent to 25.9%) as the most important, while the rankings of the other six criteria are quite evenly distributed along the scale of importance from one to eight. However, one noticeable response which deserves some attention is the fact that only two out of the 143 respondents rank the criterion of 'service level requirement of customers' as the most important. It is concluded that the most likely explanation for this finding is that the industry in general feels that meeting the service level requirement of customers is a major goal of plant hire companies rather than a criterion in quoting hire rates. More specifically, the inclusion of this criterion in the questionnaire was wrong. This failing only became apparent when analysis was undertaken.

Terms of credit offered as compared to actual average debtors' settlement dates

Credit is an important means of promoting sales. It would be in the interests of sellers to use credit as a part of their marketing mix. Credit policy is a marketing weapon and should be flexible. However, the objectives of credit management should be subordinate to those of marketing as a whole. Accordingly, respondents were

asked the terms of credit offered by them as compared to actual average debtors' settlement dates.

Table 5.5 Terms of credit offered as compared to actual average debtors' settlement dates

Number of days	Credit terms offered		Actual settlement date	
	Number of companies	%	Number of companies	%
<30	4	2.2	-	-
30	151	82.5	9	4.9
45	3	1.6	33	18.0
60	14	7.7	89	48.6
90	6	3.3	44	24.1
120	-	-	2	1.1
>120	-	-	2	1.1
No information	5	2.7	4	2.2
Total	183	100	183	100

As can be observed from Table 5.5, 82.5% of the respondents (151 out of 183) offer a 30 days' credit term to hirers, while 71.5% reported that actual average settlement dates by debtors are within 60 days. This finding indicates that the credit risk carried by the industry is lower than that of many other industries where debtors' settlement dates are expected to be much longer. It also means that perhaps the role of credit in pricing strategy can be further exploited to the industry's advantage.

5.4.3 Promotional strategy: personal selling

The purpose of this sub-section is to examine the marketing practices related to personal selling. To do so, an attempt will

be made to examine the personal selling strategy as a crucial element in the promotional mix within the industry, identifying the strength of sales forces employed by the respondents and how they are remunerated and deployed. Finally, we will outline the important attributes considered by the industry when recruiting sales people and how they are assessed in the context of their job by hirers.

Strength of the sales force

Respondents were asked to indicate the strength of their sales forces. As Table 5.6 illustrates, the large majority of the respondents have a sales force of up to five in strength. One noticeable observation which deserves attention and further observation is that 58 respondents reported that no sales people are employed by them. At this stage, the most likely explanation for this finding is that these respondents are either small or family businesses where the job of selling is undertaken by the proprietors themselves.

Table 5.6 Strength of sales force

Strength of sales force	Frequency	Percentage
None	58	31.7
1-5	96	52.5
6-10	7	3.8
11-15	1	0.5
16-20	2	1.1
20 and above	3	1.6
No information	16	8.8
Total	183	100

Sales force remuneration within the industry

The sales compensation plan is an essential part of the total programme for motivating sales personnel even though reviews of theories of motivation indicate that money has rather limited potential as a motivator. In this regard, respondents were asked to indicate the types of compensation plan used to remunerate their sales forces. Three major types of plan were suggested by the questionnaire to the respondents, who were also requested to specify all the appropriate types of plan.

As can be seen from Table 5.7, it would appear that the 'straight-salary' plan is the most popular form of sales force remuneration. This is probably due to the nature of the sales person's job; that is, giving technical and engineering advice to hirers.

Table 5.7 Sales force remuneration methods within the industry

METHODS OF REMUNERATION	F	%
Straight-salary plan	73	58.9
Straight-commission plan	2	1.6
Combination salary and commission plan	49	39.5
Total	124	100

Note: A total of 59 respondents omitted this question. Thus N = 124.

Deployment strategy for the sales force

As was pointed out in the theoretical section of this study, market segmentation is an important component of an efficient marketing programme. This concept can be further exploited by linking it with the deployment of the sales force to achieve effective control

of sales operations. Accordingly, respondents were requested to indicate their strategy for deploying the sales force.

From the table below, it can be seen that a majority of 41.1% of the respondents reported that their sales forces are deployed by geographical territories. Even though respondents were requested to specify any other deployment strategies practised, other than the three suggested in the questionnaire, none was suggested. The most likely explanations are that the suggested methods are best suited to the industry, or that there is a general lack of innovation within the industry.

Table 5.8 Deployment strategy for the sales forces

Employment strategy	By geographical territory		By market sector		By plant type	
	F	%	F	%	F	%
By geographical territory	44	41.1	5	4.7	7	6.6
By market sector	11	10.3			4	3.7
By plant type	9	8.4				
Decision undertaken by individual depot or regional office	27	25.2				

Note: A total of 76 respondents omitted this question.
N = 107.

Important attributes considered when recruiting sales people

Respondents were asked to give their opinions on the important attributes they look for when recruiting sales people. The eight most frequently mentioned attributes, in descending order, are presented in Table 5.9.

As can be seen from the table, product knowledge and knowledge of industry are the two most frequently mentioned, 46 and 45 respectively out of the total of 85 respondents. This finding indicates that in general the attributes looked for in a sales person within the plant hire industry are very similar to those that make a good salesman.

Table 5.9 Important attributes considered within the industry when recruiting sales people

ATTRIBUTES	F	%
Product knowledge	46	54.1
Knowledge of industry	45	52.9
Appearance	35	41.2
Personality	27	31.8
Selling experience	21	24.7
Honesty	21	24.7
Ability to communicate	16	18.8
Enthusiasm	14	16.5

Note: A total of 98 respondents omitted this question. Thus N = 85.

The assessment of sales people from the industry in the context of their jobs by hirers

Plant hirers were asked to express their opinion of sales people from the industry in the context of their jobs. As it is an open ended question numerous versions of the answer were given. In order to simplify analysis, all versions of answer were categorised into positive or negative as presented in Table 5.10.

Table 5.10 The assessment of sales people from the industry in the context of their jobs by customers

ASSESSMENT	F	%
Negative	46	52.3
Positive	42	47.7
Total	88	100

Note: A total of 56 respondents omitted this question. Thus N = 88.

As can be observed from the table, a staggering 52.3% of the respondents expressed negative opinions as compared to 47.7% positive. This finding indicates that either the training of sales people has been neglected or this form of personal contact is not appreciated by the hirers. In regard to the latter, perhaps less personal forms of communication should be examined and tested to establish their applicability to the industry. With reference to the findings in Table 5.6, perhaps this negative opinion of hirers towards sales people explained why 58 respondents employ no sales people at all (refer to page 74).

A noticeable comment cited by respondents is the lack of product knowledge of sales people, which plant hire companies have acknowledged as the most important attribute to consider when recruiting sales people (refer to Table 5.9). The possible explanation for such a contradiction is either that what is expressed by plant hire companies has not been followed through in practice or that there is a lack of product training for sales people.

5.4.4 Promotional strategy: advertising and sales promotion

This sub-section examines the other two elements of the promotional mix, namely advertising and sales promotion. Specifically, an attempt will be made to examine the following points:

- Advertising expenditure as a percentage of turnover
- Allocation of advertising budgets between 'above' and 'below-the-line' advertising
- Types of sales promotional methods employed within the industry.

Advertising expenditure as a percentage of turnover

One of the most difficult decisions in advertising is deciding how much to spend. Respondents, therefore, were requested to indicate their advertising expenditure as a percentage of turnover.

Table 5.11 Advertising expenditure as a percentage of turnover

% OF EXPENDITURE	F	%
Nil	13	8.3
Less than 1	52	33.4
1	31	19.9
1.5	8	5.1
2	15	9.6
Above 2	37	23.7
Total	156	100

Note: A total of 27 respondents omitted this question.
Thus N = 156.

As can be seen from Table 5.11, a majority of respondents spend 1% or less on advertising. This finding would indicate that the industry in general is not a heavy user of advertising. This finding became more comprehensible when advertising expenditure and annual turnovers of respondents, as presented in Table 5.12, were examined together.

Table 5.12 Classification of plant hire companies in terms of annual turnover

ANNUAL TURNOVER £ million	NON-OPERATIVE	WITH OPERATIVE	COMBINATION OF BOTH	TOTAL F
Less than 1	20	26	27	73
1-4.99	8	27	27	62
5-9.99	-	2	1	3
10-14.99	-	-	3	3
15-19.99	-	-	1	1
20-24.99	1	-	-	1
25-29.99	-	-	-	-
30-34.99	-	-	2	2
35-39.99	-	-	-	-
40-44.99	-	-	-	-
45-49.99	-	-	1	1
50 and above	-	1	1	2
No information	6	13	16	35
Total	35	69	79	183

F = Frequency

Allocation of advertising budget between 'above' and 'below-the-line' advertising

As a follow up to the last question, respondents were asked to indicate their allocation of advertising budgets between 'above' and 'below-the-line' advertising by percentage. Responses are reproduced in Table 5.13.

Table 5.13 Breakdown of advertising budget between 'above' and 'below-the-line' advertising (in percentage)

ABOVE/BELOW-THE-LINE	NUMBER OF COMPANIES	% OF TOTAL OF COMPANIES	CUMULATIVE PERCENTAGE
100/-	29	19.6	-
95/5	3	2.0	21.6
90/10	10	6.7	28.3
85/15	5	3.4	31.7
80/20	10	6.7	38.4
75/25	5	3.4	41.8
70/30	10	6.7	48.5
65/35	1	0.7	49.2
60/40	2	1.4	50.6
50/50	36	24.3	74.9
40/60	3	2.0	76.9
35/65	4	2.7	79.6
30/70	4	2.7	82.3
25/75	7	4.7	87
20/80	6	4.1	91.1
10/90	5	3.4	94.5
5/95	2	1.4	95.9
-/100	6	4.1	100
Total	148	100	

Note: A total of 35 respondents omitted this question. Thus N = 148.

As can be observed from the table, responses are rather erratic and thus no significant findings can be concluded. However, in general, there is a slight majority in preference towards allocating bigger budgets to 'above-the-line' advertising. But this can be accounted for by the higher costs involved in above-the-line advertising.

Types of sales promotional methods employed within the industry

The following is an attempt to examine the types of promotional methods which are used by the plant hire industry. Seven promotional methods were suggested by the questionnaire to the respondents, who were also requested to identify all alternatives which applied. Table 5.14 reviews these promotional methods and the answers received.

Table 5.14 Types of sales promotional methods employed within the industry

TYPES OF COMMUNICATION METHODS	F	%
Exhibition	33	22.7
Give-aways	44	30.3
Sales brochure	98	67.6
Publicity	109	75.1
Hidden discount	12	8.3
Direct mailing	66	45.5
Competition	28	19.3

Note: A total of 38 respondents omitted this question. Thus, calculation of percentage is based on N = 145 and not the total frequencies in the table.

As can be seen from the table, all promotional methods displayed in the table were used by the industry. However, the three which are most frequently used by the industry are publicity (75.1%), sales brochures (67.6%) and direct mailing (45.5%). With reference to the negative opinions expressed by hirers towards the sales people from the industry (refer to Table 5.10 on page 78), perhaps direct mailing as a form of communication should be examined more closely and exploited to the industry's advantage.

5.4.5 Distribution strategy

Distribution strategy comprises the tasks involved in planning, implementing and controlling the flows of the final products or services from points of origin to points of use to meet the needs of customers at a profit [9].

The main purpose of this sub-section is to examine those components of physical distribution which are important to the plant hire industry. In doing so, the following points will be discussed:

- Classification of respondents by number of depots
- Modes of transportation used within the industry
- Charging (or not) for transportation

- What is reliable and efficient customer service considered to be?

Classification of respondents by number of depots

Respondents were asked to indicate the number of depots within their operations. As can be seen from Table 5.15, 85.8% of the respondents have up to three depots in their operation. This finding makes further analysis to establish the relation, if any, of the number of depots to their prevailing marketing practices impossible.

Table 5.15 Classification of plant hire companies by number of depots within their operation

NUMBER OF DEPOTS	NUMBER OF COMPANIES	PERCENTAGE
1-3	157	85.8
4-6	7	3.8
7-9	6	3.3
10-12	4	2.2
13-15	-	-
16-18	1	0.5
19-21	-	-
22-24	-	-
25-27	-	-
28-30	1	0.5
Above 30	4	2.2
No information	3	1.7
Total	183	100

However, in the follow up personal interviews, a number of interviewees indicated that the strategic location of their depots is vital to the success of the business, and they are always situated in or near regions of high activity in order to provide efficient back-up service and delivery.

Modes of transportation used in the industry

Respondents were asked to identify the modes of transport used to transfer plant to and from hirers. It appears from Table 5.16 that the majority of respondents undertake the transportation of plant by means of their own transport or a combination of both own and outside transport contractors. This finding indicates that the industry is in favour of using its own transport as opposed to outside transport contractors.

Table 5.16 Modes of transportation used in the industry

MODE OF TRANSPORTATION	F	%
Own transport	62	33.9
Outside transport contractors	22	12.0
Combination of both	92	50.3
No information	7	3.8
Total	183	100

Table 5.17 A further breakdown of responses under the category of 'combination of both' in Table 5.16.

OWN TRANSPORT/ OUTSIDE TRANSPORT	NUMBER OF COMPANIES	% OF TOTAL OF COMPANIES	CUMULATIVE PERCENTAGE
95/5	21	22.8	-
90/10	18	19.6	42.4
85/15	4	4.3	46.7
80/20	10	10.9	57.6
75/25	6	6.5	64.1
70/30	5	5.4	69.5
65/35	1	1.1	70.6
60/40	2	2.2	72.8
50/50	12	13.0	85.8
40/60	1	1.1	86.9
35/65	3	3.3	90.2
30/70	3	3.3	93.5
25/75	4	4.3	97.8
10/90	1	1.1	98.9
5/95	1	1.1	100
Total	92	100	

In the follow up personal interviews, the major justifications for this preference were highlighted by interviewees as the ability to provide faster delivery and its cost effectiveness. This finding became more comprehensible when a further breakdown of responses under the category of 'combination of both' was carried out as presented in Table 5.17. As can be seen from the table, the use of own transport outweighs the use of outside transport contractors.

Charging (or not) for transportation of plant

In an attempt to establish whether a 'price' is being charged for the transportation of plant, respondents were asked the following question:

> "As a rule, are transportation of plant charges included in the hire rates?"
>
> YES [ ] NO [ ]

The question had a second part which read:

> "Please comment if any".

Table 5.18 Are transportation fees included in the hire rate?

	F	%
Included	21	11.5
Not included	161	88.0
No information	1	0.5
Total	183	100

It appears from Table 5.18 that the majority of plant hire companies do not include the charges for transportation of plant in the hire rate; that is, a transport fee is usually charged separately. Some of the most common comments reported in the second part of the question are that whether or not a transport fee is charged varies depending on the type of plant, and that when the

plant is committed to a longer term hire, usually three months or more, the transport fee will be absorbed by the hire company.

What is reliable and efficient customer service considered to be?

Briefly, the meaning of customer service varies from one company to another and often is viewed quite differently by vendors and their customers. Customer service may be defined in terms of a number of variables but in general, it involves both tangible, measurable elements and intangible, difficult to measure elements such as the attitude of a business towards the customer in the service it provides. In broad terms, customer service can be considered the measure of how well the physical distribution system is performing in creating time and place utilities for a product or service including post-sale support. There are a number of elements that are commonly associated with customer service, although the degree of importance attached to each of them will vary from company to company depending upon customer needs.

In the case of the plant hire industry, the elements of the utmost importance to customer service concern the delivery time, time required in response to breakdown or service, and the availability of plant and accessories requested. Accordingly, both plant hire companies and hirers were asked to indicate what they consider reliable and efficient customer service to be in delivery time and responses to breakdown in terms of hours, and availability of plant and accessories requested in terms of percentages.

As can be seen from Table 5.19, 61.8% of plant hire companies as compared to 35.6% of hirers consider reliable and efficient delivery of plant should be within four hours from the time an order is received. This finding indicates that there is an over-emphasis on the part of plant hire companies with regard to the length of time within which plant should be delivered to hirers, which demonstrates a lack of knowledge of the industry concerning its customers' needs and thus leads to an inefficient use of company resources. The same findings were obtained when comparisons were made at the lower end of the table. 51.2% of

hirers consider delivery times between 12 to 24 hours to be reasonable as compared to only 27.4% of plant hire companies.

Table 5.19 What is reliable and efficient customer service considered to be? (Delivery time and response to breakdown or services)

HOURS	PLANT HIRE COMPANIES				PLANT HIRERS			
	Delivery time		Response to services		Delivery time		Response to services	
	F	%	F	%	F	%	F	%
1	29	18.5	59	33.9	19	14.7	37	27.6
2	39	24.8	61	35.1	9	7.0	37	27.6
3	8	5.1	11	6.3	3	2.3	8	6.0
4	21	13.4	25	14.4	15	11.6	32	23.9
5	1	0.6	1	0.6	1	0.8	2	1.5
6	3	1.9	5	2.9	-	-	6	4.5
7	-	-	-	-	-	-	-	-
8	9	5.7	2	1.1	8	6.2	3	2.2
9	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-
12	4	2.6	3	1.7	9	7.0	6	4.5
24	39	24.8	7	4.0	57	44.2	3	2.2
Above 24	4	2.6	-	-	8	6.2	-	-
Total	157	100	174	100	129	100	134	100
No information	26		9		15		10	

However, when the same question was directed at the length of time in response to breakdown, the majority of both sets of respondents (89.7% of plant hire companies and 85.1% of hirers) indicated that within four hours was reasonable and considered reliable and efficient customer service.

In Table 5.20, responses of plant hire companies and hirers to the element of availability of plant and accessories were recorded. As can be observed from the table, the majority of responses fall under the 80% or more categories, with heavier concentration on the percentages rounded up to tenths, which was anticipated as no scale was provided in the question. Nevertheless, this finding indicates

that, in general, the availability level of plant and accessories at 80% or more is considered reliable and efficient by both the industry and its customers.

Table 5.20 What is reliable and efficient customer service considered to be? Availability of plant and accessories requested.

PERCENTAGE OF AVAILABILITY	PLANT HIRE COMPANIES				PLANT HIRERS			
	Availability of plant		Availability of accessories		Availability of plant		Availability of accessories	
	F	%	F	%	F	%	F	%
50	5	3.5	12	9.5	2	1.6	5	4.1
55	-	-	-	-	-	-	-	-
60	4	2.8	4	3.2	-	-	2	1.7
65	2	1.4	1	0.8	-	-	-	-
70	7	5.0	4	3.2	3	2.4	7	5.7
75	19	13.5	15	11.9	18	14.3	11	9.0
80	29	20.6	16	12.7	24	19.0	20	16.4
85	8	5.7	1	0.8	4	3.2	6	4.9
90	36	25.5	36	28.6	28	22.2	21	17.2
95	14	9.9	13	10.3	16	12.7	10	8.2
100	17	12.1	24	19.0	31	24.6	40	32.8
Total	141	100	126	100	126	100	122	100
No information	42		57		18		22	

5.5 THE SURVEY FINDINGS RELATED TO BUYING FACTORS AND THE DECISION MAKING PROCESSES OF HIRERS

The aim of this section is to examine the underlying factors of plant hirers and how their decision making processes are undertaken. Specifically, the following aspects are examined:

- Reasons hirers opt for a hire agreement rather than ownership of a piece of plant
- The decision making processes of hirers
- Criteria taken into consideration when customers are making a hiring decision
- Reasons for the termination of further hiring business transactions with any particular plant hire company.

5.5.1 Reasons hirers opt for a hire agreement rather than ownership of a piece of plant

This section begins with the investigation of the underlying motivation of plant users who opt for a hire agreement rather than ownership of a piece of plant. Accordingly, respondents were requested to identify the main reasons for hiring as opposed to owning a piece of plant. In order to generate more information, this question was left open ended to allow for free expression.

The 10 most frequently reported reasons by respondents, not in order of importance, are as follows:

- Insufficient workload to retain plant economically for its working life
- Uncertainty on length of time needed for the piece of plant
- The responsibility of maintaining, servicing, repairing and replacing of plant are passed on to the plant hire company
- To meet fluctuations in demand over and above maximum production level
- Cash flow relaxation and cost effectiveness
- Because of changing needs and technology, hiring allows easier updating of plant
- Flexibility, the ability accurately to match plant with individual job requirements.
- The problem of storage and convenience in movement of plant between various sites
- Short term hire, during peak period, or to replace plant under repair, or while awaiting delivery of new plant
- The difficulty of employing suitable operators for heavy or specialised plant.

5.5.2 The decision making processes of plant hirers

Understanding the decision making processes of its customers allows marketers better to plan their communication strategy. Accordingly, respondents were asked to indicate how plant hiring decisions are undertaken within their company. The responses received are presented in Table 5.21.

Table 5.21 The decision making processes of hirers

DECISION MAKING PROCESS	F	%
All hirings are undertaken in a central office	66	45.8
Decisions are undertaken in regional offices	24	16.7
Decisions are undertaken in regional offices but dealings are restricted to a list of plant hire companies approved by head office	6	4.2
Decisions are delegated to respective project chiefs	38	26.4
Decisions are delegated to respective project chiefs but dealings are restricted to a list of plant hire companies approved by head office	9	6.2
No information	1	0.7
Total	144	100

Table 5.21 illustrates that 45.8% of respondents centralise their hiring decisions as compared to 26.4% who decentralise their decisions by delegating the responsibility to respective project chiefs and 27.1% who employ a combination of both in the various forms illustrated in the table.

These findings indicate that the majority of hirers centralise their decision making, which makes the communication task of the industry easier; especially, direct mailing as a form of communication can be further exploited by the industry.

5.5.3 Criteria taken into consideration when customers are making a hire decision

Both sets of respondents were requested to identify the main criteria taken into consideration when making a hiring decision.

Ten major criteria were suggested by the questionnaire to the respondents, who were also asked to rank these criteria in order of importance. The responses received are presented in Tables 5.22 and 5.23; they are the views of plant hire companies and their hirers respectively.

Table 5.22 Criteria taken into consideration when customers are making a hiring decision - the views of plant hire companies

	ORDER OF IMPORTANCE									
CRITERIA	1	2	3	4	5	6	7	8	9	10
Pricing	56	27	18	18	19	10	5	3	-	-
Back-up service	14	28	28	23	19	21	14	4	4	1
Credit terms	-	3	5	5	3	19	20	42	39	20
Condition of plant	15	24	30	23	22	20	10	4	6	2
Sales personnel influence	1	5	7	9	13	15	16	19	24	47
Past experience	19	19	21	28	25	18	12	9	4	1
Plant hire company's reputation	22	23	29	26	24	12	14	3	1	2
Location of depots	1	3	7	9	8	14	35	32	25	22
Skill and quality of operator	26	18	9	12	20	11	11	9	13	27
Brand and make of plant	3	5	2	3	3	17	18	32	40	33

Note: A total of 27 respondents omitted this question.
Thus N = 156.

Table 5.23 Criteria taken into consideration when customers are making hiring decisions - the views of plant hirers

	ORDER OF IMPORTANCE									
CRITERIA	1	2	3	4	5	6	7	8	9	10
Pricing	46	25	13	12	11	1	7	6	4	2
Back-up service	7	23	31	28	18	8	3	5	2	2
Credit terms	-	8	5	5	5	24	17	21	30	12
Condition of plant	18	17	24	15	19	16	12	4	1	1
Sales personnel influence	5	1	-	-	1	2	1	11	25	81
Past experience	22	6	13	17	22	15	18	10	4	-
Plant hire company's reputation	4	6	10	12	13	21	22	25	12	2
Location of depots	8	9	13	19	20	19	11	19	6	3
Skill and quality of operator	16	31	13	14	14	7	13	5	7	7
Brand and make of plant	2	1	. 4	5	4	14	23	21	36	17

Note: A total of 17 respondents omitted this question.
Thus N = 127.

As can be seen from the two tables, based on the number of frequency, each criterion is ranked as the most important. Plant hire companies rank pricing as the most important, followed by skill and quality of plant operator, company's reputation, past experience and condition of plant; while plant hirers feel that pricing is the most important, followed by past experience, condition of plant, and skill and quality of plant operator.

The fact that both sets of respondents reported that pricing is the most important criterion taken into consideration when making a hire decision, indicates that the industry is highly competitive

and that plant hirers are very price sensitive. However, a notable difference is that while 22 out of 156 plant hire companies reported reputation as the most important criterion, only four of the 127 hirers felt likewise, which raises some doubt about the worth of investing in building a good reputation.

One staggering observation is that 81 out of 127 plant hirers rank sales personnel influence as the least important criterion taken into consideration when choosing a vendor, and that 47 of the 156 plant hire companies supported this view. This finding surely indicates that perhaps the industry should rethink about emphasising personal selling as the main element in their marketing communications mix.

5.5.4 Reasons for the termination of further hiring business transactions with any particular plant hire company

Plant hirers were requested to identify the main reasons for the termination of further hiring business transactions with any particular plant hire company. Ten major reasons were suggested by the questionnaire and respondents were requested to specify all that applied. These reasons are shown in Table 5.24.

As can be seen from the table, the major reasons reported by respondents are: poor back-up service (78%), increase in hire rate (74%), plant provided is no longer reliable and vendors have not invested in new plant (62%), and inability to provide plant once too often (60%).

These findings indicate that in order to maintain customer loyalty, plant hire companies will have to place emphasis on the following elements in their marketing strategy:

- Maintaining back-up service to a level seen by customers as acceptable
- Care will have to be taken in pricing hire rates and if an increase is imminent, it must be justified and communicated to customers

- A policy of reinvesting a percentage of profit in new plant in order to maintain the reliability of the hire fleet
- The availability of plant must be maintained at a level to meet customers' needs.

Table 5.24 Reasons for the termination of further hiring business transactions with any particular plant hire company

REASONS	F	%
Change of company decision makers	11	8.3
Unable to provide plant required once too often	60	45.4
Salesmen have moved on to another company	5	3.8
Legal dispute which has hampered relationship	17	12.9
It is the company's policy to switch suppliers	6	4.5
Plant provided is no longer reliable and vendors have not invested in new plant	62	47.0
Change of credit policy by hirers	4	3.0
Poor back-up services	78	59.1
Increase in hire rates	74	56.1
Change of parent or holding company of plant hire company	2	1.5

Note: A total of 12 respondents omitted this question. Thus, calculation of percentage is based on N = 132 and not the total frequencies in the table.

5.6 SUMMARY OF FINDINGS

In this chapter an attempt has been made to examine the prevailing marketing policies and practices of the United Kingdom plant hire industry and its customers' perception of this approach.

One main conclusion to be derived from the whole discussion is that a majority of the companies within the industry follow a set norm and do not differ very much in their marketing policies and practices. However, it must be pointed out that no attempt has been made to establish if size of an organisation in relation to turnover or number of depots has had any effect on its marketing practices. Below is a brief summary of the findings.

There is a distinct lack of policy in the area of plant acquisition. That is, decisions in regard to when, what and how to acquire plant are undertaken haphazardly by the majority of organisations, while decisions on plant disposal are dictated by cost and profit factors. The issue of hiring heavy plant without operator was not welcomed by the majority of hirers, even though a large number of plant hire companies have expressed that this is a growing trend or that they will under the right circumstances.

With regard to pricing, the study findings revealed that the majority of plant hire companies adopt variable price structures taking several criteria into consideration, the most important being the length of hire and credit risk factors. These practices are the outcome of the price sensitivity of customers. It is the norm in the industry to provide credit to its customers. However, the findings indicate that the credit risk within the industry is lower than average.

Both the industry and its customers have a very low regard for personal selling as a form of promoting the services, which raises some doubt about its effectiveness. With regard to advertising and sales promotion, the majority of companies spend 1% or less of turnover per annum, with allocation varying widely between above and below-the-line advertising. The major forms of sales promotion

used by the industry are publicity, sales brochures and direct mailing.

As far as customer service is concerned, there is an over-emphasis on delivery time on the part of plant hire companies. That is, plant is delivered to sites quicker than what the customers consider reliable and efficient customer service to be in terms of delivery time. On the other hand, while it was agreed by both parties that responses to breakdown time of four hours and availability of plant at a level of 80% or more constitute reliable and efficient customer service, yet "poor back-up service" and "unable to provide plant requested once too often" are two major reasons highlighted by hirers for the termination of further business transactions with any particular plant hire company.

REFERENCES

1. Simpson, George and Kafka, Frite. Basic statistics: a textbook for the first course. W. W. Norton & Co. Inc., USA, 1957, p.34.

2. Simon, H. A. Administrative behaviour. Collier-Macmillan, London, 2nd edition, 1957, p.59.

3. Starr, M. K. Management: a modern approach. Harcourt, Brace, Jovanovich, New York, 1971, p.440.

4. Fisk, G. Marketing systems. Harper & Row, New York, 1967, p.440.

5. McCarthy, E. Jerome. Basic marketing: a managerial approach. Richard D. Irwin Inc., Homewood, Illinois, 6th edition, 1978, pp.39-43.

6. Lipson, A. Harry and Darling, R. John. Introduction to marketing: an administrative approach. John Wiley & Sons, 1971.

7. Shapiro, P. Benson. "Marketing for non-profit organisations". Harvard Business Review, Vol.51, September-October 1913, p.123.

8. Philip Kotler. Marketing management: analysis, planning, implementation and control. Prentice-Hall Inc., Englewood Cliffs, New Jersey, 6th edition, 1988.

9. Philip Kotler. Principles of marketing. Prentice-Hall Inc., Englewood Cliffs, New Jersey, 2nd edition, 1983, p.373.

CHAPTER SIX

ANALYSIS OF THE FIELD STUDY FINDINGS IN SINGAPORE AND A COMPARISON TO THOSE OF THE UNITED KINGDOM FINDINGS

CHAPTER SIX

ANALYSIS OF THE FIELD STUDY FINDINGS IN SINGAPORE AND A COMPARISON TO THOSE OF THE UNITED KINGDOM FINDINGS

6.1 INTRODUCTION

From the outset, the original objective of this study was that equal attention should be given to the plant hire industries in the two countries so that a comparative study could be carried out to establish if there are any significant differences in their marketing practices.

However, in the course of conducting the field survey in Singapore, it became apparent that this objective was over-ambitious due to several imponderables. Firstly, there is the lack of literature and statistics on the industry, which make the task of desk research impossible. Secondly, the unco-operativeness of respondents answering questions which they felt were sensitive resulted in a large number of omissions and, finally, there are the constraints of time as only three months were spent in Singapore.

This inevitably led to the alteration of the study format, with greater emphasis being placed on the United Kingdom study than that of Singapore. Nevertheless, a comparative study will be attempted in the following chapter.

6.2 IMPLEMENTATION OF RESEARCH DESIGN

The two sets of questionnaire were administered to the selected samples through two methods. A total of 30 plant hire companies were contacted through personal interviews, while 51 hirers were reached by telephone interviews. The rationale for adopting these methods of contact are explained below.

The lack of literature and statistics on the industry means that more information will have to be collected from this field research.

There are also the constraints of time available to complete the survey and the fact that a small geographical area is involved which make these methods most time efficient. Furthermore, it was anticipated that there would be a lack of understanding; that is, respondents might not understand certain questions properly and elaboration would be required.

Presentation of analysed data collected in the field survey and that of the 'comparative' study will take the form of tables (refer to Chapter 5, section 5.3).

6.3 INDUSTRY STRUCTURE

Plant hire is a small support industry made up of about 65 companies. The industry has grown up from three types of organisation motivated by different objectives.

- Construction and shipbuilding companies which set up a department to hire out excess plant which is idle in their yards, to generate additional income
- Plant distributors who have a hiring department as a secondary business, not so much to generate income but to provide better service to their customers
- Companies with plant hiring as their main business.

In recent years, a number of companies within the type three kind of operation have either changed ownership several times or have gone into receivership as the mid 1980s recession has brought to the surface the danger of relying solely on hire revenue for company survival. This is especially true when operating within a small country like Singapore.

The three major industrial sectors serviced by the industry are construction, shipbuilding and repair, and off-shore oil refineries, which together contribute an estimated 90% of the industry turnover, with the other 10% coming from shipping, transportation and warehousing, and manufacturing. However, the actual turnover of the industry in money terms is not available, but is estimated to be within 100 million Singapore dollars (about £30 million).

6.4 The survey findings related to marketing policies and practices

In this section, an attempt will be made to examine marketing policies and practices of plant hire companies within the industry, their customers' perception of this approach and, whenever possible, a comparison with that of the UK findings. Specifically, the discussion will revolve around the four way classification of the marketing mix; namely - product, price, promotion and place.

6.4.1 Product policy

Table 6.1 Classification of plant hire companies by plant types

TYPES OF PLANT	F	%
Non-operative	10	33.3
With operative	3	10.0
Combination of both	17	56.7
Total	30	100

Table 6.2 Preferences towards providing operatives with heavy plant as part of the product package

	PLANT HIRE COMPANIES		PLANT HIRERS	
PREFERENCE	F	%	F	%
Customers to provide their own operatives	15	75	18	35.3
Hire company operatives	4	20	27	52.9
No preference	1	5	6	11.8
Total	20	100	51	100

Note: Non-operative plant hire companies which total 10 are excluded from the table.

In an attempt to classify the total respondents of 30 plant hire companies by plant type as shown in Table 6.1, the majority of them are either non-operative or a combination of both types, while only 10% specialise in heavy plant with operatives, which very closely reflects the make-up of the industry.

When respondents were asked to give their opinions as to who they prefer to provide personnel to operate hired heavy plant - that is, whether it should be the plant hire company or the hirer - and why, conflicting views were observed. As can be seen from Table 6.2, the majority of both sets of respondents prefer the others to provide operatives to operate the hired heavy plant. However, it must be pointed out that this finding might be temporary, due to the country facing the problem of a tight labour market at the time when this survey was undertaken.

Nevertheless, on examining the second part of the question as to the reasons for their preferences, some rationales were reported by both sets of respondents, which are presented in Table 6.3.

Table 6.3 Reasons for preferences towards the other party providing operatives to operate hired heavy plant

PLANT HIRE COMPANIES	HIRERS
It is not feasible to provide operators for short term hire	The plant hire company operatives are more experienced and familiar with the plant, hence more efficient
It is difficult to maintain a pool of plant operators	The company is released from the burden of liability to both operatives and plant, which very often led to legal dispute
	It is not cost effective to maintain a pool of operatives

To protect the interests of the company, as customers' operatives are time/production conscious and tend to abuse the plant with no proper care, are the main reasons reported by plant hire companies who prefer to provide operatives with heavy plant on hire. Having a pool of operatives experienced in handling every type of heavy plant within the organisation, thus being more cost effective, is the main reason reported by hirers with preferences towards providing own operatives.

With regard to policy related to the acquisition and disposal of plant, it appears from the responses received that these activities are undertaken haphazardly without much analysis and planning and hence are not rendered further attention.

6.4.2 Pricing policy

In regard to pricing policy, variable pricing structure is the more common strategy practice within the industry, with a majority of 73.3% as shown in Table 6.4. It is standard practice within the industry to offer credit facilities, with the majority of respondents offering a 30 day credit term. However, the majority reported actual average settlement date by debtors to be between 60 and 90 days, as indicated in Table 6.5.

Table 6.4 Pricing strategy practice within the industry

PRICING STRATEGY	F	%
One standard price list	8	26.7
Variable price structure	22	73.3
Total	30	100

Table 6.5 Terms of credit offered as compared to actual average debtors' settlement date

NUMBER OF DAYS	CREDIT TERMS OFFERED		ACTUAL SETTLEMENT DATE	
	F	%	F	%
30	27	90	2	6.7
60	3	10	12	40.0
90	-	-	12	40.0
120	-	-	4	13.3
Total	30	100	30	100

In an attempt to establish the major criteria taken into consideration when quoting hire rates, eight major criteria were suggested by the questionnaire to the respondents, who were requested to rank them in order of importance and indicate any others that apply. As may be seen from Table 6.6, the criterion of credit risk is ranked by 13 out of 28 as the most important, which is equivalent to 46.4%. This finding indicates that the industry is encountering a high credit risk; hence, without proper credit control, the level of bad debt can be substantial. The rest of the observations are very similar to those of the UK findings.

6.4.3 Promotional strategy: personal selling

Within the plant hire industry, personal selling is a crucial element in the promotional mix. Accordingly, this sub-section will examine the industry practice in regard to personal selling. To do so, respondents were asked to indicate the strength of their sales forces, their deployment strategies, attributes taken into consideration when recruiting and how they are remunerated. Hirers were asked to indicate their assessment of sales people from the industry in the context of their job. Responses are reproduced in Tables 6.7 to 6.11.

Table 6.6 Major criteria taken into consideration in the order of importance when quoting hire rates

CRITERIA	ORDER OF IMPORTANCE							
	1	2	3	4	5	6	7	8
Length of hire	6	9	6	4	-	1	2	-
Service level requirement of customers	-	1	1	4	3	2	16	1
Condition and environment where plant is to be used	3	6	3	4	5	5	1	1
Credit risk factors	13	1	3	3	4	3	1	-
Market demand at time of quotation	1	5	2	3	10	5	1	1
Plant availability at time of quotation	3	1	5	-	6	8	5	-
Size of order	1	5	8	8	-	3	2	1
Accessories requirement	1	1	-	1	-	1	-	24

Note: A total of 2 respondents omitted this question.
Thus N = 28.

Table 6.7 Strength of sales force

STRENGTH OF SALES FORCE	F	%
None	2	8
1	4	16
2	7	28
3	3	12
4	7	28
5	2	8
Total	25	100
No information	5	

Table 6.8 Deployment strategy

DEPLOYMENT STRATEGY	F	%
By territories	5	20
By market sectors	11	44
By plant types	6	24
By customers	2	8
Open market	1	4
Total	25	100
No information	5	

Table 6.9 Important attributes considered within the industry when recruiting sales people

ATTRIBUTES	F	%
Knowledge of industry	17	80.9
Personalities	14	66.7
Product knowledge	11	52.4
Self-motivation	6	28.6
Resourcefulness	5	23.8

Note: A total of 9 respondents omitted this question. Thus, percentages are based on N = 21.

Table 6.10 Sales force remuneration methods used within the industry

METHODS OF REMUNERATION	F	%
Straight-salary	6	24
Straight commission	-	-
Combination of both	19	76
Total	25	100
No information	5	

Table 6.11 Assessment of sales people from the industry in the context of their job by customers

ASSESSMENT	F	%
Negative	8	21.6
Positive	29	78.4
Total	37	100

Note: A total of 14 respondents omitted this question. Thus N = 37.

As can be observed from Tables 6.7 and 6.8, the plant hire companies employed an average of 2.6 sales people to cover the entire market, and the most popular deployment strategy employed was "by market sectors"; namely, construction, ship repair and building, engineering, and the oil exploration and refinery industry. The important attributes considered by the industry when recruiting sales people, in descending order, are knowledge of industry, personalities, product knowledge, self-motivation and resourcefulness, while the combination of salary and commission plan is used by the majority to remunerate their sales forces, as indicated in Tables 6.9 and 6.10 respectively. As shown in Table 6.11, when hirers were asked to assess the sales people from the industry in the context of their job, the majority expressed positive opinions.

A comparison of this finding with that of the UK shows two significant differences. Firstly, as can be seen from Table 6.12, while the majority of respondents from the Singapore sample (44%) reported employing deployment strategy by market sectors, the majority of the UK sample (41.1%) reported deploying their sales forces by geographical territories. One main explanation for this difference in practice must be the difference in size of the two countries. Secondly, as shown in Table 6.13, the plant hirers in Singapore expressed a higher regard for the sales people from the industry than those of the UK.

Table 6.12 A comparison of sales force deployment strategy in the two countries

DEPLOYMENT STRATEGY	SINGAPORE		THE UK	
	F	%	F	%
By geographical territories	5	20	44	41.1
By market sectors	11	44	11	10.3
By plant types	6	24	9	8.4
Others	3	12	43	40.2
Total	25	100	107	100
No information	5		76	

Note: For more details on the category of "others" refer to Tables 5.8 and 6.8.

Table 6.13 A comparison of hirers' opinions of sales people from the industry in the two countries

ASSESSMENT	SINGAPORE		THE UK	
	F	%	F	%
Negative	8	21.6	46	52.3
Positive	29	78.4	42	47.7
Total	37	100	88	100
No information	14		56	

6.4.4 Promotional strategy: advertising and sales promotion

Similarly to that of the UK, this industry is not a heavy user of advertising, with the majority of plant hire companies spending less than 1% of annual turnover. This finding became more comprehensible when advertising expenditure and annual turnover of respondents, as presented in Tables 6.14 and 6.15 respectively, were examined alongside one another. However, from an analysis of responses regarding the allocation of advertising expenditure between above and below-the-line advertising, as shown in Table 6.16, wide

variations were found, ranging from a 100% spend on 'above the line' to a 100% spend on 'below-the-line'; hence there is no set practice within the industry where the allocation of total advertising expenditure is concerned.

Table 6.14 Advertising expenditure as a percentage of turnover

% OF EXPENDITURE	F	%
Less than 1	15	75
1	3	15
2	2	10
Total	20	100
No information	10	

Table 6.15 Classification of plant hire companies in terms of turnover

ANNUAL TURNOVER IN SINGAPORE DOLLARS	F	%
<500,000	9	42.9
500,000-0.99 m	5	23.8
1-1.99 million	7	33.3
Total	21	100
No information	9	

Note: At the time of survey, the exchange rate was estimated at S$3.20 to £1.

Table 6.16 Breakdown of advertising budget between 'above' and 'below-the-line advertising

ABOVE/BELOW-THE-LINE	F	%
100/-	8	28.6
80/20	3	10.7
70/30	2	7.1
60/40	2	7.1
50/50	1	3.6
40/60	3	10.7
30/70	1	3.6
20/80	1	3.6
10/90	1	3.6
5/95	1	3.6
-/100	5	17.8
Total	28	100
No information	2	

Table 6.17 Types of sales promotional methods employed within the industry

TYPES OF PROMOTIONAL METHODS	F	%
Exhibitions	3	10
Give-aways	9	30
Sales brochures	15	50
Publicity	17	56.7
Hidden discounts	9	30
Direct mailing	16	53.3
Competitions	4	13.3

Note: A 100% response was received. Thus N = 30.

The most commonly used promotional methods reported by respondents, which are presented in Table 6.17, are very similar to those reported in the UK survey; that is, publicity (56.7%), direct mailing (53.3%) and sales brochures (50%).

6.4.5 Distribution strategy

The majority of plant hire companies make use of both their own transport and outside contractors to deliver plant to requested sites, where hirers will pay a fee for this service. However, in long term hire of six months or above, this fee is usually absorbed by the plant hire company. The rationale for adopting this strategy reported by respondents is that this will speed up delivery, as very often requests for plant are immediate and last minute. This strategy will also free company transport and manpower to respond to breakdowns and to cope with routine maintenance of plant at site (refer to Tables 6.18 and 6.19).

Table 6.18 Modes of transportation used in the industry

MODE OF TRANSPORTATION	F	%
Own transport	2	6.9
Outside contractors	7	24.1
Combination of both	20	69.0
Total	29	100
No information	1	

Table 6.19 Are transportation fees included in the hire rate?

	F	%
Included	4	13.3
Not included	26	86.7
Total	30	100

When both sets of respondents were asked to indicate what reliable and efficient customer service amounts to in terms of delivery and response to breakdown, in general there was a coherence in opinions. As can be seen from Table 6.20, where delivery time is concerned, 59.3% of plant hire companies reported "within four hours" to be

considered reliable and efficient, while 58.9% of hirers reported likewise. However, in regard to response to breakdown, 66.7% of hirers reported "within two hours" to be reliable and efficient, while only 46.4% of plant hire companies reported likewise, which indicates that in general, the level of service provided by the industry in this particular area is below the expectations of hirers. On the other hand, where availability of plant is concerned, the majority of plant hire companies, as indicated in Table 6.21, reported "80% and above" as being reliable and efficient, as compared to "70% and above" reported by hirers.

Table 6.20 What is reliable and efficient customer service considered to be (delivery time and response to breakdown)?

	PLANT HIRE COMPANY				PLANT HIRER			
	DELIVERY TIME		RESPONSE TO BREAKDOWN		DELIVERY TIME		RESPONSE TO BREAKDOWN	
HOURS	F	%	F	%	F	%	F	%
1	2	7.4	3	10.7	1	2	6	11.8
2	6	22.3	10	35.7	1	2	28	54.9
3	1	3.7	6	21.4	6	11.8	7	13.7
4	7	25.9	7	25.0	22	43.1	10	19.6
5	1	3.7	-	-	6	11.8	-	-
6	1	3.7	1	3.6	4	7.8	-	-
7	-	-	-	-	-	-	-	-
8	5	18.5	-	-	8	15.6	-	-
24	4	14.8	1	3.6	3	5.9	-	-
Total	27	100	28	100	51	100	51	100
No info'n	3		2		-		-	

Table 6.21 What is reliable and efficient customer service considered to be (availability of plant and accessories requested)?

PERCENTAGE OF AVAIL-ABILITY	PLANT HIRE COMPANY				PLANT HIRER			
	AVAIL-ABILITY OF PLANT		AVAILABILITY OF ACCESSORIES		AVAIL-ABILITY OF PLANT		AVAILABILITY OF ACCESSORIES	
	F	%	F	%	F	%	F	%
50	2	7.7	2	9.5	1	2.1	7	20.6
60	3	11.5	2	9.5	4	8.3	2	5.9
70	3	11.5	1	4.8	17	35.4	3	8.8
80	8	30.8	12	57.1	20	41.6	11	32.4
90	7	27.0	3	14.3	3	6.3	5	14.7
100	3	11.5	1	4.8	3	6.3	6	17.6
Total	26	100	21	100	48	100	34	100
No info'n	4		9		3		17	

Comparing responses for both the UK and Singapore samples, as Table 6.22 shows, it would appear that where response to breakdown is concerned, the UK plant hire companies are more customer oriented than those in Singapore. While a bigger majority of UK plant hire companies compared to their hirers reported that time taken to respond to breakdown of within two hours amounts to reliable and efficient, their Singapore counterparts fell short of their hirers' expectations in this area of service.

Table 6.22 A comparison of what reliable and efficient customer service is considered to be in regard to time taken in response to breakdown

HOURS	UNITED KINGDOM				SINGAPORE			
	PLANT HIRE COMPANY		PLANT HIRER		PLANT HIRE COMPANY		PLANT HIRER	
	F	CUM %	F	CUM %	F	CUM %	F	CUM %
1	59	33.9	37	27.6	3	10.7	6	11.8
2	61	69.0	37	55.2	10	46.4	28	66.7
3	11	75.3	8	61.2	6	67.8	7	80.4
4	25	89.7	32	85.1	7	92.8	10	100.0
5	1	90.3	2	86.6	-	92.8	-	-
6	5	93.2	6	91.1	1	96.4	-	-
7	-	93.2	-	91.1	-	96.4	-	-
8	2	94.3	3	93.3	-	96.4	-	-
12	3	96.0	6	97.8	-	96.4	-	-
24	7	100.0	3	100.0	1	100.0	-	-
Total	174				28		51	
No info	9				2		-	

CUM = Cumulative

Note: For more details refer to Tables 5.19 and 6.20.

6.5 THE SURVEY FINDINGS RELATED TO BUYING FACTORS AND THE DECISION MAKING PROCESSES OF HIRERS

The aim of this section is to examine the underlying buying factors of plant hirers and how their decision making processes are undertaken. These findings will then be compared to those in the UK, whenever it is possible.

6.5.1 Reasons hirers opt for a hire agreement rather than ownership of a piece of plant

When requested to indicate their reasons for hiring as opposed to owning a piece of plant, respondents reported that hire agreements are usually taken up in the following situations:

- Additional requirements during start-up period or when projects are falling behind schedule
- When there are more short term projects than anticipated
- When plant of their own is under repair
- Special requirements which are unlikely to have future usage.

Common motivations for customers taking up a hire agreement rather than ownership of a piece of plant highlighted in the survey are as follows:

- The responsibility and problems of maintenance are passed on to the plant hire company
- Opportunity of hiring newer and latest model of plant
- To improve the accuracy and competitiveness of contract tendering
- To achieve a balance between capital investment and operating capital
- The problem of storage when plant is not in use.

6.5.2 The decision making processes of hirers

With regard to decision making processes, respondents were asked how plant hiring decisions are undertaken within their company. The responses received are presented in Table 6.23. As can be seen from the table, the majority of respondents reported that their plant hiring decisions are undertaken in a central office. This finding, which is very similar to that in the UK survey, indicates that because of this centralisation of decision making by hirers, the task of communicating with them is made much easier for the industry.

Table 6.23 The decision making processes of hirers

DECISION MAKING PROCESSES	F	%
All hirings are undertaken in a central office	39	76.5
Decisions are undertaken in regional offices	-	-
Decisions are undertaken in regional offices, but dealings are restricted to a list of plant hirer companies approved by head office	1	1.9
Decisions are delegated to respective project chiefs	9	17.7
Decisions are delegated to respective project chiefs, but dealings are restricted to a list of plant hire companies approved by head office	2	3.9
Total	51	100

6.5.3 Criteria taken into consideration when customers are making a hiring decision

Plant hire companies and hirers were asked to indicate those criteria taken into consideration when making a hiring decision. Ten major criteria were suggested by the questionnaire to the respondents, who were also requested to rank them in order of importance. The responses received are presented in Tables 6.24 and 6.25.

Table 6.24 Criteria taken into consideration when customers are making a hiring decision - the views of plant hire companies

CRITERIA	ORDER OF IMPORTANCE									
	1	2	3	4	5	6	7	8	9	10
Pricing	21	3	1	1	-	-	1	-	-	-
Back-up service	2	15	6	2	1	1	-	-	-	-
Credit terms	1	2	3	4	4	2	7	4	-	-
Condition of plant	1	2	12	5	2	2	2	-	-	1
Sales personnel influence	-	1	2	3	6	7	5	2	-	1
Past experience	-	1	1	7	6	8	4	-	-	-
Plant hire company reputation	2	2	1	3	5	6	4	4	-	-
Location of depots	-	-	-	-	-	-	2	1	8	16
Skill and quality of operator	-	1	-	1	3	-	1	3	13	5
Brand and make of plant	-	-	1	2	-	1	2	12	6	3

Note: A total of 3 respondents omitted this question.
Thus N = 27.

As can be seen from these tables, both sets of respondents reported that pricing is the criterion of the utmost importance, followed by back-up service and condition of plant, while the three least important criteria are location of depot, skill and quality of operators, and brand and make of plant. This finding demonstrates that the industry in general understands its customers' needs and is therefore client oriented.

Table 6.25 Criteria taken into consideration when customers are making a hiring decision - the views of plant hirers

CRITERIA	ORDER OF IMPORTANCE									
	1	2	3	4	5	6	7	8	9	10
Pricing	36	5	3	2	-	1	-	-	-	-
Back-up service	6	32	7	1	-	-	1	-	-	-
Credit terms	-	-	3	17	6	6	6	6	3	-
Condition of plant	4	7	27	3	3	2	-	-	-	1
Sales personnel influence	-	-	4	10	13	3	7	6	3	1
Past experience	1	-	1	7	9	15	9	4	1	-
Plant hire company reputation	-	-	-	3	6	11	18	7	1	1
Location of depots	-	1	1	-	1	1	-	5	7	31
Skill and quality of operator	-	1	1	4	6	8	2	12	11	2
Brand and make of plant	-	1	-	-	3	-	4	7	21	11

Note: A total of 4 respondents omitted this question.
Thus N = 47.

A comparison analysis of responses from the two countries' surveys, as Tables 6.26 and 6.27 illustrate, indicates that all parties reported "pricing" as the criterion of the utmost importance, which suggests that plant hirers in general are very price sensitive, especially those in Singapore. While the rest of the criteria are rated very similarly by all parties concerned, there are several notable differences highlighted in the comparison analysis. Firstly, the criterion of "skill and quality of operator" was rated higher in the UK than in Singapore; however, as earlier findings in the preceding section indicated, most plant is hired without

Table 6.26 A comparison of plant hire company views on criteria taken into consideration when customers are making a hiring decision

	THE UNITED KINGDOM PLANT HIRE COMPANY										SINGAPORE PLANT HIRE COMPANY									
	ORDER OF IMPORTANCE										ORDER OF IMPORTANCE									
CRITERIA	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
Pricing	35.9	17.3	11.5	11.5	12.2	6.4	3.2	1.9	-	-	77.8	11.1	3.7	3.7	-	-	3.7	-	-	-
Back-up service	9.0	17.9	17.9	14.7	12.2	13.5	9.0	2.6	2.6	0.6	7.4	55.5	22.2	7.4	3.7	3.7	-	-	-	-
Credit term	-	1.9	3.2	3.2	1.9	12.2	12.8	26.9	25.0	12.8	3.7	7.4	11.1	14.8	14.8	7.4	25.9	14.8	-	-
Condition of plant	9.6	15.4	19.2	14.7	14.1	12.8	6.4	2.6	3.8	1.3	3.7	7.4	44.4	18.5	7.4	7.4	7.4	-	-	3.7
Sales personnel influence	0.6	3.2	4.5	5.8	8.3	9.6	10.2	12.2	15.4	30.1	-	3.7	7.4	11.1	22.2	25.9	18.5	7.4	-	3.7
Past experience	12.2	12.2	13.5	17.9	16.0	11.5	7.7	5.8	2.6	0.6	-	3.7	3.7	25.9	22.2	29.6	14.8	-	-	-
Plant hire company reputation	14.1	14.7	18.6	16.7	15.4	7.7	9.0	1.9	0.6	1.3	7.4	7.4	3.7	11.1	18.5	22.2	14.8	14.8	-	-
Location of depot	0.6	1.9	4.5	5.8	5.1	9.0	22.4	20.5	16.0	14.1	-	-	-	-	-	-	7.4	3.7	29.6	59.2
Skill and quality of operator	16.7	11.5	5.8	7.7	12.8	7.0	7.0	5.8	8.3	17.3	-	3.7	-	3.7	11.1	-	3.7	11.1	48.1	18.5
Brand and make of plant	1.9	3.2	1.3	1.9	1.9	10.9	11.5	20.5	25.6	21.1	-	-	3.7	7.4	-	3.7	7.4	44.4	22.2	11.1

Note: Frequency presented in percentages based on: UK - N = 156, Singapore - N = 27.
For more details refer to Tables 5.22 and 6.24.

Table 6.27 A comparison of plant hirers' views on criteria taken into consideration when making a hiring decision

	THE UNITED KINGDOM PLANT HIRE COMPANY										SINGAPORE PLANT HIRE COMPANY									
	ORDER OF IMPORTANCE										ORDER OF IMPORTANCE									
CRITERIA	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
Pricing	36.2	19.7	10.2	9.4	8.7	0.8	5.5	4.7	3.1	1.6	76.6	10.6	6.4	4.2	-	2.1	-	-	-	-
Back-up service	5.5	18.1	24.4	22.0	14.2	6.3	2.4	3.9	1.6	1.6	12.8	68.1	14.9	2.1	-	-	2.1	-	-	-
Credit term	-	6.3	3.9	3.9	3.9	18.9	13.4	16.5	23.6	9.4	-	-	6.4	36.2	12.8	12.8	12.8	12.8	6.4	-
Condition of plant	14.2	13.4	18.9	11.8	15.0	12.6	9.4	3.1	0.8	0.8	8.5	14.9	57.4	6.4	6.4	4.2	-	-	-	2.1
Sales personnel influence	3.9	0.8	-	-	0.8	1.6	0.8	8.7	19.7	63.8	-	-	8.5	21.3	27.6	6.4	14.9	12.8	6.4	2.1
Past experience	17.3	4.7	10.2	13.4	17.3	11.8	14.2	7.9	3.1	-	2.1	-	2.1	14.9	19.1	31.9	19.1	8.5	2.1	-
Plant hire company reputation	3.1	4.7	7.9	9.4	10.2	16.5	17.3	19.7	9.4	1.6	-	-	-	6.4	12.8	23.4	38.3	14.9	2.1	2.1
Location of depot	6.3	7.1	10.2	15.0	15.7	15.0	8.7	15.0	4.7	2.4	-	2.1	2.1	-	2.1	2.1	-	10.6	14.9	65.9
Skill and quality of operator	12.6	24.4	10.2	11.0	11.0	5.5	10.2	3.9	5.5	5.5	-	2.1	2.1	8.5	12.8	17.0	4.2	25.5	23.4	4.2
Brand and make of plant	1.6	0.8	3.1	3.9	3.1	11.0	18.1	16.5	28.3	13.4	-	2.1	-	-	6.4	-	8.5	14.9	44.7	23.4

Note: Frequency presented in percentages based on: UK - N = 127, Singapore - N = 47.
For more details refer to Tables 5.23 and 6.25.

operatives in Singapore, which explains this observation. The second and most important observation is the fact that sales personnel influence was rated as the least important criterion by the UK respondents, while their counterparts' rating fell around the mid-point mark on the scale. Finally, the lowly ranked criterion of "brand and make of plant" indicates that hirers in Singapore do not attach great importance to the brand or make of plant they hire, which allows the industry greater flexibility in plant acquisition.

6.5.4 Reasons for the termination of further hiring business transactions with any particular plant hire company

Plant hirers were requested to identify the main reasons for the termination of further hiring business transactions with any particular plant hire company. As can be seen from Tables 6.28, the major reasons reported by respondents are: 'Poor back-up service' (90.2%), 'Unable to provide plant required once too often' (74.5%), 'Increase in hire rates' (56.9%), and 'Plant provided is no longer reliable and vendors have not invested in new plant' (35.3%).

A comparison analysis would indicate that these findings are similar to those reported in the UK survey.

6.6 SUMMARY OF FINDINGS

In this chapter, an attempt has been made to examine the prevailing marketing policies and practices of the Singapore plant hire industry and its customers' perception of this approach, as well as, whenever possible, making a comparison analysis with those of the United Kingdom findings to establish if any significant differences exist.

One main conclusion observed from the whole discussion is that, apart from a few exceptional differences, there is a great similarity in the industry marketing practices of the two countries. A brief summary of the findings follows.

Table 6.28 Reasons for the termination of further hiring business transactions with any particular plant hire company

REASONS	F	%
Change of company decision makers	1	1.9
Unable to provide plant required once too often	38	74.5
Salesmen have moved on to another company	10	19.6
Legal dispute which has hampered relationship	7	13.7
It is the company's policy to switch suppliers	1	1.9
Plant provided is no longer reliable and vendors have not invested in new plant	18	35.3
Change of credit policy by hirers	5	9.8
Poor back-up service	46	90.2
Increase in hire rates	29	56.9
Change of parent or holding company of plant hire company	-	-

Note: A 100% response was received for this question. Thus calculation of percentage is based on N = 51.

Like its UK counterpart, the industry has a distinct lack of policy in the area of plant acquisition and disposal, where decisions are undertaken haphazardly. One notable difference in practice, is that while the majority of UK respondents indicated that the plant hire company should provide operatives with hired heavy plant, the Singapore findings make it appear that both sets of respondents (plant hire companies and hirers) prefer the other to provide operatives with hired heavy plant. However, as mentioned earlier, the Singapore field survey was carried out at a time when the country was facing a tight labour market, which might just be the cause of these findings.

With regard to pricing, findings were very similar to those of the UK, with the majority of companies within the industry adopting a variable price structure and offering a 30 days' credit term to their customers. The most important criteria taken into consideration when quoting a hire rate reported are the credit risk factor and length of hire.

Where promotional strategy is concerned, the majority of companies within the industry spend 1% or less of turnover per annum with allocations varying widely between above and below-the-line advertising. The major forms of sales promotion used by the industry identified are publicity, direct mailing and sales brochures. When these findings were compared to those of the UK, a great similarity was observed; however, it is in the area of personal selling that the major difference prevailed, not so much in its practices but in the regard attached to it as a form of communication. While the UK respondents, both the industry and hirers, had expressed low regard for personal selling and its influences, the Singapore respondents reported a more favourable regard for them.

Finally, as far as customer service is concerned, the findings indicated that a delivery time of within four hours and response to breakdown of two hours were considered by both the industry and hirers as reliable and efficient; while the availability of plant at a level of 80% and 70% were reported by the industry and hirers respectively as acceptable. However, when compared to those findings in the UK, it appears that the Singapore industry is less customer oriented than its counterpart, where customer service is concerned.

CHAPTER SEVEN

CONTRIBUTIONS OF THE STUDY AND SUGGESTIONS FOR FURTHER RESEARCH

CHAPTER SEVEN

CONTRIBUTIONS OF THE STUDY AND SUGGESTIONS FOR FURTHER RESEARCH

This chapter is devoted to discussing the contributions of the present study and to providing some suggestions for further research in the area of industrial service marketing. But first, some limitations of this study will be presented.

7.1 LIMITATIONS OF THE STUDY

Taking into account the foregoing findings, the important question to be asked is: How accurate are the findings? Specifically, what are the factors which will affect the findings of the study? In the following, some of these factors are presented. These factors include:

7.1.1 Respondents' bias

7.1.2 The questionnaire design bias

7.1.3 The interviewer's/researcher's bias.

7.1.1 Respondents' bias

One of the main limitations of the study is the respondents' bias. There are several reasons for such bias. One is that there could have been a lack of understanding, i.e. respondents may not have understood the questions properly. Even if they understood the questions, they may have answered the questions in a way which reflected their expectations of what the researcher wanted rather than what they honestly believed, or actually did themselves. This might have occurred, as Rosenberg [1] indicated, because the respondents feel that they are being evaluated according to some hidden criteria, and that they will be judged to be unacceptable in some way. In order to gain a positive evaluation, the author added "Respondents may adjust their responses so as to correspond with what they perceive will be acceptable or 'correct' in the eyes of the researcher".

A more simplistic explanation, but certainly a valid one, is that the required information might not be accessible to the respondent. As Zaltman and Burger [2] indicated, the required information might not be accessible to the respondent whether because he might have once been in possession of the information but he has simply forgotten it, or the terms or categories in which the questionnaire requires recollection and communication are not familiar to him, or are not those in which he normally codes his experience.

7.1.2 The questionnaire design bias

Certainly, one should accept and discuss the possibility that one limitation of the study was brought about by the design of the questionnaire. That is, although the questions selected were tested on a small number of persons similar to the respondents to be used in the actual study, and the questionnaire was adjusted in the light of such a pre-testing operation, it seems that the questionnaire was, to some degree, misleading. For instance, given responses to this question:

> "What do you consider reliable and efficient service to be in the following area? Please state percentage".
>
> Availability of plant requested: _____ %
> Availability of accessories requested: _____ %
>
> (Question 11 in plant hire company questionnaire and question 7 in plant hirer questionnaire).

It would appear that the respondents did not seem to understand what is meant by this question. That is, while this question was intended so that each of the two areas should amount to 100%, some respondents thought (as their responses indicated) that the two areas should total 100% and therefore their responses were very different from what I expected.

7.1.3 The interviewer's/researcher's bias

Another factor which may affect the findings of the study is interviewer's/researcher's bias. That is, one cause of variability in the responses could be the interviewer's/researcher's interpretation and perception in administering the questionnaire which might unconsciously have influenced the respondents and therefore have led to some misunderstanding or confusion.

A great deal of attention has been focused on studies which examine the interviewer's own opinions or attitudes on the topic under investigation in relation to the type of responses he/she reports. In a study on opinions about prefabricated housing, it was found that interviewers who were themselves favourable to such housing reported more favourable responses [3].

Zaltman and Burger [4] support this view when they point out that:

> "when writing down long answers to questions, it is possible that interviewers, consciously or unconsciously, sometimes record selectively according to their own views".

The authors added:

> "Situational factors, such as time-pressure and ambiguity of the responses may be a contributing factor here".

7.2 CONTRIBUTIONS OF THE STUDY

This research, despite its limitations, is thought to make some contributions to the literature of industrial marketing and to offer some insights for the plant hire industry.

Firstly, this study has dealt with a somewhat neglected area, i.e. industrial service marketing, in an attempt to discover the prevailing marketing policies and practices of the plant hire industry and its customers' perception of their approach. In this way, it can be considered a further source for the diffusion of

marketing innovation, particularly in the plant hire industry, in order to help it practise better marketing. However, the important criterion for the diffusion of marketing in this area is that of relevance. Specifically, marketers should judge the value of their contribution, at least in part, in terms of how much it actually does help the plant hire industry practise better marketing. As Austen [5] indicated, any applied science, but particularly an applied social science, tends to hover uneasily between being aridly theoretical and a collection of "cook book" prescriptions applied and applicable to a narrow range of ephemeral situations. It is only by interchange of theory and practice over a wide and divergent range of living situations that a discipline like marketing can broaden and deepen its field while enhancing rather than reducing its practical relevance.

Secondly, the present study, in addition to the body of literature, provides useful empirical data and information which can enable marketers, those of the plant hire industry in particular, to see certain areas for mutual co-operation and concern. Accordingly, the most important contribution that marketers could make would be in determining and suggesting ways by which their organisations can benefit from applying better marketing policies and strategies to meet customers' needs more effectively and efficiently.

7.3 SUGGESTIONS FOR FURTHER RESEARCH

As was apparent from the literature review, there is a general lack of texts specifically on industrial service marketing, meaning that any other attempts at research on this subject area in any form will be encouraged. However, one of the weaknesses of the study is that no hypotheses were formulated to guide the collection, analysis and interpretation of data. Therefore, the recommendation is that any other attempts should include the formulation of hypotheses to guide the study, which would provide more conclusive evidence.

One suggestion is that an investigation could be done to establish that industrial service marketing differs in its practices to other

forms of marketing such as consumer product marketing, consumer service marketing and even industrial product marketing, in order to justify its stand as an area of study on its own. An interesting approach would be to select a sample of organisations from each category mentioned, to investigate into their prevailing marketing practices and to establish any signficant differences.

Still another approach is that of examining the extent to which the application of one specific marketing activity, not all marketing activities examined by this study, differs in practice from the other various forms of marketing. For example, to what extent is the promotion element as a whole, or advertising in particular, practised within the industrial service sector, and how does this compare with the practices of other sectors?

Finally, the comparative method employed in this study could also prove a useful technique in investigating the prevailing marketing practices in other industrial service industries.

REFERENCES

1. See Milton J. Rosenberg. "The conditions and consequences of evaluation apprehensive" in Robert Rosenthal and Ralph L. Rosnow (eds.), 'Artifact in behavioural research'. Academic Press, New York, 1969, pp.279-349.

2. Gerald Zaltman and Philip C. Burger. Marketing research: fundamentals and dynamics. The Dryden Press, Illinois, 1975, pp.254-55.

3. R. Feber and H. Wales. "Detection and correction of interview bias". Public Opinion Quarterly, Vol.6, March 1952, pp.107-77.

4. Gerald Zaltman and Philip C. Burger, op.cit., p.304.

5. Alfred Austen. "The relevance of marketing to developing countries". Paper presented to the Marketing Education Group of the United Kingdom, North Regional Workshop, June 1977, p.1.

APPENDICES

APPENDIX 1

PLANT HIRE COMPANY QUESTIONNAIRE

DURHAM UNIVERSITY BUSINESS SCHOOL, Mill Hill Lane, Durham, DH1 3LB.

Dear Sir,

I am a postgraduate student, at present conducting research on the prevailing marketing practices in the United Kingdom plant hire industry in comparison to those of Singapore.

Your participation will be greatly appreciated and in return a summarised report of the findings will be mailed to you.

All information given in this questionnaire will be treated as strictly confidential.

Please **TICK** the appropriate boxes, unless otherwise **STATED** in a particular question.

1. What is the nationality of your parent or holding company?

American	[ ]	Scandinavian	[ ]
British	[ ]	Korean	[ ]
European	[ ]	Local	[ ]
Japanese	[ ]	Other, please specify	[ ]

_____

_____

2. Which are the market sectors serviced by your company?

Construction	[ ]	Forestry	[ ]
Ship repair	[ ]	Mining	[ ]
Off-shore	[ ]	Public authority	[ ]
Engineering	[ ]	Local authority	[ ]
Agriculture	[ ]	Other, please specify	[ ]

_____

_____

3. The types of plant within your hire fleet?

Air compressors	[ ]	Excavators	[ ]
Tractors	[ ]	Drilling rigs	[ ]
Air tool	[ ]	Hoists	[ ]
Cranes	[ ]	Compactors	[ ]
Dumpers	[ ]	Concrete mixers	[ ]
Dozers	[ ]	Loaders	[ ]
Generators	[ ]	Pumps	[ ]
Dump trucks	[ ]	Rollers	[ ]
Road sweepers	[ ]	Forklifts	[ ]
Scaffolding	[ ]	Tower cranes	[ ]
Trailers	[ ]	Tunnelling equipment	[ ]
Welding sets	[ ]	Winches	[ ]
Work platform	[ ]	Screening equipment	[ ]
Other, please specify	[ ]		

_____

_____

_____

4. In regard to 'heavy plant hire with operator' how does your company feel about customers providing their own personnel to operate the hired plant and why?

_____

_____

_____

_____

_____

_____

5. What are the pricing policies practised by your company?

One standard price list [ ]

Variable price structure [ ]

Other, please specify [ ]

_____

_____

6. What are the credit terms offered by your company?

_____

_____

7. In practice, what is your average debtors settlement date?

_____

_____

8. What are the major criteria taken into consideration when you are quoting a hire rate?
Please rank order of importance by replacing ticks with number in boxes. (1 being the most and 8 being the least important).

Length of hire [ ]

Service level requirement of customers [ ]

Condition and environment where plant is to be used [ ]

Credit risk factors [ ]

Market demand at time of quotation [ ]

Plant availability at time of quotation [ ]

Size of order [ ]

Accessories requirement [ ]

Any other criteria not listed.
Please specify and rank:

_____

_____

9. How many depots are there in your company operation? _____

10. **What do you consider reliable and efficient service to be in the following areas?**
Please state number of hours you would expect to be taken on average.

Delivery time _____ hours

Response to breakdown or services _____ hours

11. What do you consider reliable and efficient service to be in the following areas?
Please state percentage

Availability of plant requested _____ %

Availability of accessories requested _____ %

12. How is transportation of plant undertaken in your company?
Please state percentage.

Own transport _____ %

Outside transport contractors _____ %

Other, please specify: _____

_____

13. As a rule, are transportation of plant charges included in the hire rates?

Yes [ ]

No [ ]

Please comment, if any: _____

_____

_____

14. Please indicate level of expenditure given to the following marketing communication activities in your company by estimating the percentage of a total of 100%.

Press advertising
(e.g. trade magazine and press) _____ %

Sales promotion
(e.g. exhibitions, give-aways, competitions,
sales brochures and direct mailing) _____ %

15. In the context of promotion, what types of communication tool are used by your company?
Please rank in order of importance (1 being the most and 7 being the least important).

Exhibition	[ ]	Hidden discount	[ ]
Give-aways	[ ]	Direct mailing	[ ]
Sales brochure	[ ]	Competition	[ ]
Public relations	[ ]		

Any not listed, please specify and rank:

_____

_____

_____

16. Please state approximately how much is spent on advertising and sales promotion in terms of percentage of turnover _____ %

17. What is the strength of your sales force?
Please state number of salesmen _____

18. How is the deployment of your company's sales force undertaken?

By geographical territories	[ ]
By market sectors	[ ]
By plant types	[ ]
Decision undertaken by individual depot or regional office	[ ]
Other, please specify	[ ]

_____

_____

_____

_____

19. Please state the 5 most important attributes when recruiting a salesman for your company in the order of importance.

_____

_____

_____

_____

_____

20. How are your sales force remunerated?

Straight-salary plan [ ]

Straight-commission plan [ ]

Combination salary and commission plan [ ]

Other, please specify [ ]

_____

_____

21. What are your company policies in regard to plant acquisition and disposal? Please explain in your own words.

Plant acquisition: _____

_____

_____

_____

_____

Plant disposal: _____

_____

_____

_____

_____

22. From your company's viewpoint, please rank the following criteria in order of importance when a customer is making a hire decision (1 being the most and 10 being the least important).

Pricing	[ ]
Back-up service	[ ]
Credit term	[ ]
Condition of plant	[ ]
Sales personnel influence	[ ]
Past experience	[ ]
Hirer company reputation	[ ]
Location of depots	[ ]
Skill and quality of operators provided by hirers for plant normally hired out with operators	[ ]
Brand and make of plant	[ ]

23. Please indicate in percentage, the contribution of each market sector towards your company annual hiring business turnover.

Construction	_____ %	Forestry	_____ %
Ship repair	_____ %	Mining	_____ %
Off-shore	_____ %	Public authority	_____ %
Engineering	_____ %	Local authority	_____ %
Agriculture	_____ %		

Other, please specify:

_____

_____

24. Please indicate the size of your company annual hire business in terms of turnover

_____

_____

25. A summarised report of the result of this survey will be made available to every member of the sample for their contribution and co-operation.
Please tick the appropriate box for a copy

Yes [ ]

No [ ]

Company: _____

Name and title: _____

Address: _____

_____

_____

Telephone: _____ Date: _____

26. Have you any further comments which you would like to make as an operator in this industry?

_____

_____

_____

_____

_____

_____

_____

APPENDIX 2

PLANT HIRER QUESTIONNAIRE

DURHAM UNIVERSITY BUSINESS SCHOOL, Mill Hill Lane, Durham, DH1 3LB.

Dear Sir,

I am a postgraduate student at present conducting research on the prevailing marketing practices in the United Kingdom plant hire industry in comparison to those of Singapore.

Your participation will be greatly appreciated and in return a summarised report of the findings will be mailed to you.

All information given in this questionnaire will be treated as strictly confidential.

Please **TICK** the appropriate boxes, unless otherwise **STATED** in a particular question.

1. What is the nature of your company business?

Construction	[ ]	Forestry	[ ]
Ship repair	[ ]	Mining	[ ]
Off-shore	[ ]	Public authority	[ ]
Engineering	[ ]	Local authority	[ ]
Agriculture	[ ]	Other, please specify	[ ]

_____

_____

2. What is the nationality of your parent or holding company?

American	[ ]	Scandinavian	[ ]
European	[ ]	Korean	[ ]
Japanese	[ ]	Local	[ ]
British	[ ]	Other, please specify	[ ]

_____

_____

3. How are plant hiring decisions undertaken in your company?

All hiring is undertaken in a central office [ ]

Decisions are undertaken in regional offices [ ]

Decisions are undertaken in regional offices but dealings are restricted to a list of plant hire operators approved by the head office [ ]

Decisions are delegated to respective project chiefs [ ]

Decisions are delegated to respective project chiefs but dealings are restricted to a list of plant hire operators approved by head office [ ]

Other, please specify [ ]

_____

_____

4. Based upon your company past experience, what are the common reasons for the termination of any further hiring business transactions with any particular plant hirers?

Change of company decision makers in this area within your company [ ]

Unable to provide plant required once too often [ ]

Salesmen have moved on to another company [ ]

Legal dispute which has hampered relationship [ ]

It is the company's policy to switch suppliers [ ]

Plant provided is no longer reliable and hirers have not invested in new plant [ ]

Change of credit policy by hirers [ ]

Poor back-up services [ ]

Increase in hire rates [ ]

Change of parent or holding company of hirers [ ]

Other, please specify [ ]

_____

_____

5. Heavy plant hire operators often provide their own people to operate the hired equipment. What is your company's opinion about providing your own personnel to operate hired heavy plant and why?

_____

_____

_____

_____

_____

_____

6. What do you consider reliable and efficient service to be in the following areas? Please state number of hours you would expect to be taken on average.

Delivery time _____ hours

Response to breakdown or services _____ hours

7. What do you consider reliable and efficient service to be in the following areas? Please state percentage.

Availability of plant requested _____ %

Availability of accessories requested _____ %

8. Based upon your contact with plant hirers' salesmen, how do you assess them in the context of their job?

_____

_____

_____

9. Besides being called on by the hirers' salesmen, what other information do you like to see mailed to you regularly?

_____

_____

_____

10. Please rank the following criteria in order of importance from 1-10 when your company is making a hiring decision (1 being the most and 10 being the least important).

Pricing	[ ]
Back-up services	[ ]
Credit terms	[ ]
Condition of plant	[ ]
Sales personnel influence	[ ]
Past experience	[ ]
Hirer company reputation	[ ]
Location of depots	[ ]
Skill and quality of operators provided by hirers for plant normally hired out with operators	[ ]
Brand and make of plant	[ ]

11. Please indicate your company average annual spending for plant hire.

Less than £100,000	[ ]	£2 millions-£2.99 m	[ ]
£100,000-£249,000	[ ]	£3 millions-£3.99 m	[ ]
£250,000-£499,000	[ ]	£4 millions-£4.99 m	[ ]
£500,000-£999,000	[ ]	Above £5 millions	[ ]
£1 million-£1.99 m	[ ]		

12. What type of hire packages would your company like to see being offered by hirers which are not on offer at present within the industry?

_____

_____

_____

_____

13. What are the reasons for your company to take up a hire agreement rather than ownership for a piece of plant?

_____

_____

_____

_____

14. Please indicate the size of your company in terms of turnover.

_____

_____

15. A summarised report of the result of this survey will be made available to every member of the sample for their contribution and co-operation. Please tick the appropriate box for a copy.

Yes [ ]

No [ ]

Company name: _____

Name and title: _____

Address: _____

_____

_____

Telephone: _____ Date: _____

16. Have you any further comments you would like to make as a user of plant hire?

_____

_____

_____

_____

APPENDIX 3

TABLES NOT PRESENTED IN THE ANALYSIS OF FINDINGS CHAPTERS

Table 5.25 Nationality of plant hire companies

NATIONALITY	F	%
British	176	96.2
European	2	1.1
Japanese	1	0.5
Other	4	2.2
Total	183	100

Table 5.26 The nature of plant hirers' business

NATURE OF BUSINESS	F	%
Construction	80	55.6
Shipbuilding and repair	7	4.9
Off-shore contractor	2	1.4
Engineering	13	9.0
Mining and quarry	10	6.9
Public and local authority	12	8.3
Forestry	5	3.5
Other	15	10.4
Total	144	100

Table 5.27 Company nationality of plant hirers

NATIONALITY	F	%
American	3	2.1
European	5	3.5
Japanese	1	0.7
British	131	90.9
Scandinavian	2	1.4
Other	2	1.4
Total	144	100

Table 5.28 Plant hirers' average annual spending for plant hire

AVERAGE ANNUAL SPENDING (£)	F	%
Less than 100,000	60	41.7
100,000-249,000	26	18.0
250,000-499,000	21	14.6
500,000-999,000	11	7.6
1-1.99 millions	13	9.0
2-2.99 millions	-	-
3-3.99 millions	-	-
4-4.99 millions	5	3.5
5 millions and above	6	4.2
No information	2	1.4
Total	144	100

Table 5.29 Plant hirers by turnover

ANNUAL TURNOVER (£ m)	F	%
Less than 1	21	41.6
1-4.99	30	20.8
5-9.99	19	13.2
10-19.99	19	13.2
20-29.99	10	6.9
30-39.99	6	4.2
40-49.99	6	4.2
50-59.99	6	4.2
60-69.99	-	-
70-79.99	3	2.1
80-89.99	2	1.4
90-99.99	1	0.7
100 and above	11	7.6
No information	10	6.9
Total	144	100

Table 6.29 Nationality of plant hire companies

NATIONALITY	F	%
American	2	6.7
European	2	6.7
Japanese	3	10.0
Singaporean	20	66.6
Others	3	10.0
Total	30	100

Table 6.30 Classification of plant hire companies by number of depots in their operation

NUMBER OF DEPOTS	F	%
1	27	90
2	3	10
Total	30	100

Table 6.31 The nature of plant hirers' business

NATURE OF BUSINESS	F	%
Construction	23	45.1
Shipbuilding and repair	20	39.2
Off-shore contractors	6	11.8
Engineering	2	3.9
Total	51	100

Table 6.32 Company nationality of plant hirers

NATIONALITY	F	%
American	2	3.9
European	2	3.9
Japanese	4	7.8
British	1	2.0
Korean	1	2.0
Singaporean	39	76.5
Others	2	3.9
Total	51	100

Table 6.33 Plant hirers' average annual spending on plant hire

AVERAGE ANNUAL SPENDING (SIN $)	F	%
Less than 100,000	23	45.1
100,000-249,000	15	29.4
250,000-499,000	2	3.9
500,000-999,000	5	9.8
1-1.99 millions	2	3.9
2-2.99 millions	1	2.0
3-3.99 millions	1	2.0
No information	2	3.9
Total	51	100

Note: At the time of the survey currency exchange rate was SIN $3.20 to £1.