

**A STAKEHOLDER APPROACH TO THE SEGMENTATION OF
THE SHORT HAUL BUSINESS AIR TRAVEL MARKET**

by

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ABSTRACT

A stakeholder approach to the segmentation of the short haul business air travel market KEITH JOHN MASON

The marketing literature deals inadequately with markets which show characteristics of both consumer and industrial markets. In this work such markets are called hybrid markets. The research attempts to find an appropriate research approach for the short haul business related air travel market, which has hybrid market characteristics.

Recent studies of the business travel market (Stephenson and Fox, 1987, Toh and Hu, 1988 and 1990) have investigated corporate and traveller attitude towards frequent flier programmes (see Glossary). However, as yet the airline marketing literature has not investigated the role the purchasing organisation (the employer of the traveller) has to play in a decision to purchase business related air travel.

Market segmentation is selected as a suitable tool to investigate the business travel market. However, a review of the literature on segmentation for both consumer and industrial products reveals that an approach suited to the characteristics of this market is not available. Consequently a two stage research approach for hybrid markets is developed. A case study of nine companies in the first stage of the research is used to develop an understanding of corporate involvement in the purchase of business air travel, and identifies three key stakeholder groups in the purchase. They are the traveller, the travel organiser, and the "organisation". The second stage of the research collects data on the stakeholders. Traveller data on the importance of product elements in the purchase are used in a benefit segmentation of the market. The attitude data from 827 business travellers is analysed by factor analysis to identify six principal purchase benefits. These six benefits account for 60.6% of the variance in the data. Six factor scores for each respondent are calculated and then investigated by a *k* means iterative partitioning cluster analysis. A robust three cluster solution is discovered; i.e. three benefit segments are present in the short haul business travel market, based on traveller attitude. Cross-validation tests are carried out to test the stability of this solution. The three segments are investigated to evaluate the influence in the purchase decision of other organisational stakeholders. Differences between segments are found in the travel policy of the employing organisation, class of travel allowed to travellers, and purchase behaviour.

The research indicates that for hybrid markets such as business travel, the role of the employing organisation may be important in purchase decisions. Consequently, it is recommended that future research should assess corporate involvement in purchases of products that have both consumer and industrial elements. The evaluation of the influences of various stakeholder groups in purchase decisions in hybrid markets may reveal previously overlooked marketing opportunities.

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Declarations

At no time during the registration for the degree of Doctor of Philosophy has the author registered for any other C.N.A.A. or University award. None of the material herein has been used in any other submission for an academic award.

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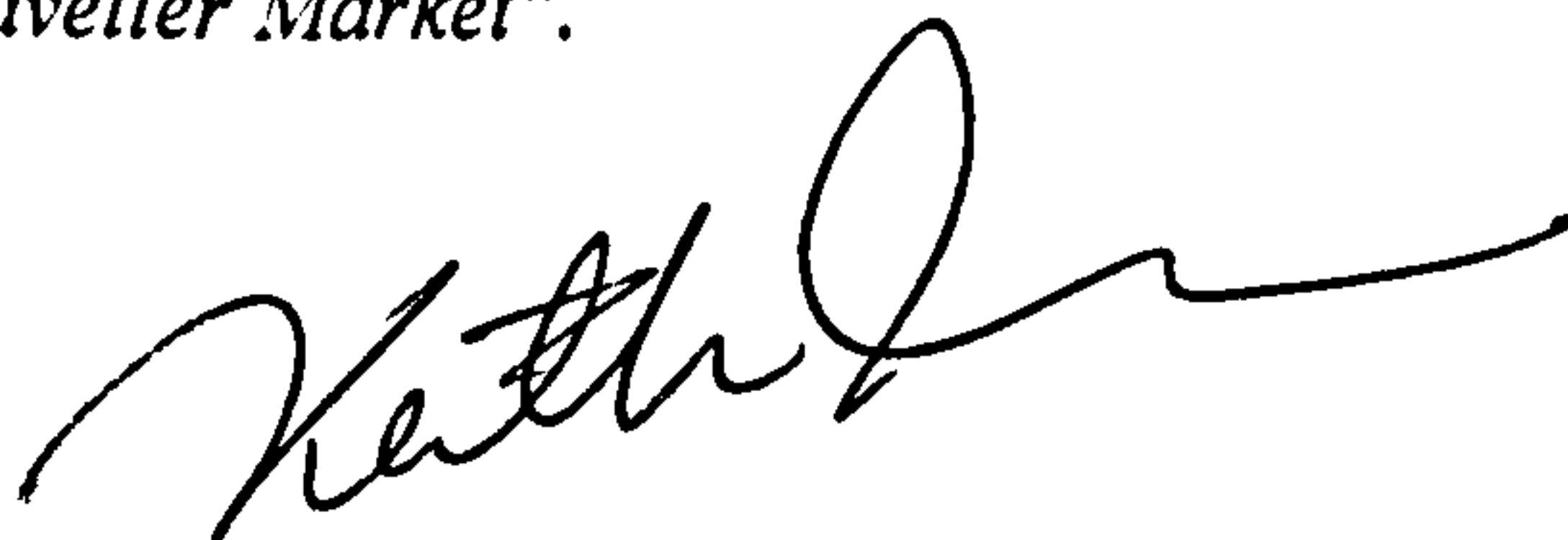
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PART I

INTRODUCTION

CHAPTER 1: INTRODUCTION

INTRODUCTION

The introductory chapter of this thesis provides an initial background to the research. Short haul business travel in the European Union is selected as a suitable area of research in section 1.1 and a research objective is made based on the discussions given. The chapter concludes with an explanation of the structure of the thesis (section 1.2).

1.1 SUBJECT OF STUDY

This research is concerned with the short haul business travel market in the European Union (abbreviated throughout the rest of this work to EU). The following discussion aims to explain the focus of the research by answering the following two questions:-

- ◆ Why research the EU market?
- ◆ Why investigate short haul business travel?

The reason for examining the EU airline industry is because there is an ongoing fundamental change in the legislation in this industry, which is changing the competitive forces in the market. The airline industry has been severely regulated for most of its existence, creating an industry virtually devoid of competition. It was perceived that the lack of competitive pressure within the industry was responsible for lack of consumer choice, high prices and poor service (Caves, 1962). In response to this view the US deregulated its domestic air services market in 1978. The early success of this policy, in terms of lower prices, improved choice and quality led to deregulatory pressures in other markets around the world. By 1987 the European Community (as the EU was called at that time) had begun an evolutionary liberalisation policy for its air services market. As a result of this liberalisation a body of research has developed with two main themes; to predict how the market will develop, and to develop strategies that may be used by airlines operating under the new market conditions.

It is obvious that these two research areas are linked and research in one area is likely to consider, however briefly, the other area. The focus of this research is in the second area. However, to provide a context for the study, a consideration of the changes that are happening in the market is made in the second chapter.

With regard to the choice of the short haul business travel market the following comments may be made. Firstly, the business travel market represents a vitally important part of any scheduled airline's market, since business travellers tend to travel more frequently than those in other sectors of the market, and are prepared to pay higher fares. This is particularly true in short haul markets where business travel may represent a large proportion of a scheduled airline's traffic. Wickers (1994) indicates that about half of all US domestic travel is related to business, and Doganis (1991) indicates that this proportion may be as high as two-thirds within Europe. This may be associated with airline route structures aimed at serving principal business destinations.

It is important from a research perspective to distinguish between short haul and long haul travel. It will be shown later (see chapter 4) that organisations often have different travel policies towards long and short haul travel, and that travellers portray different behaviour depending on whether a flight is long haul or short haul. While some companies allow their executives to travel business class on a short haul flight but make them fly on economy class on a transatlantic flight, other companies have travel policies that are opposite. The comfort of the traveller, and the cost of the ticket are the two main factors that mean purchase behaviour differs between long and short haul flights. Short haul air travel has no specific definition, however, in this research it is taken to mean air travel of less than four hours in length. While this specification is fairly arbitrary, at some stage comfort becomes an important purchase consideration. It seems reasonable that after four hours sitting confined in a seat, that comfort will become an important consideration. This specification also means that domestic UK air travel, and much intra-EU travel is included in the scope of the research.

The focus of a number of studies has been long haul travel (e.g. Vambray, 1976, Goodrich, 1977, Boberg and Choy, 1988, van Oudheusden, 1990, Young, 1990). A number of these studies on the long haul travel concentrate on the tourist markets (e.g. Muller, 1991, Calatone and Johar, 1984). Recent interest in the short haul market has become apparent due to the changes in the legislation (see section 2.1).

Considering the importance of the business travel market it is perhaps surprising that there are only a few profiles of the business travel sector. Some studies have considered the business travel market as part of a study to investigate the entire market (e.g. Vambray, 1976). The rationale for so doing is criticised later (section 2.3). Woodside, Cook, and Mindak (1987) identified a demographic profile of the heavy traveller segment of the market in the US, and suggested that the development of a geo-demographic segmentation was possible. Recently, research interest has turned towards the fact that most business related travel is not paid for by the traveller but the employing organisation. Stephenson and Fox (1987) discovered employing organisations to be critical of frequent flier programmes (see Glossary), which is attributable to \$4 billion in annual excess air travel expenditure. Toh and Hu (1988) in a study of passenger attitude toward these schemes found members of frequent flier programmes to be strongly against corporate confiscation of the rewards earned. A later study by the same authors indicated that airlines should charge higher fares to *"business travellers who travel on corporate expenses, especially on the short business commuter corridors"* (Toh and Hu, 1990, p. 195), while Upton (1992) called for bulk purchase benefits to accrue to the organisation.

It would seem, therefore, that it is timely to be investigate the EU short haul market as the liberalisation policies have changed the intra-EU air travel market, and knowledge of the relationship between the employing organisation and the business traveller is likely to become increasingly important to air travel marketing organisations.

1.1.2 RESEARCH OBJECTIVE

In light of the discussion above the following research objective may be made:-

To provide an analysis of the short haul business air travel market in the EU, with specific interest applied to the area of the relationship between the individual traveller and the employing organisation.

1.2 THESIS STRUCTURE

The thesis is divided into three parts:-

- ◆ Part I: Introduction
- ◆ Part II: Methodology
- ◆ Part III: Results

The introductory part of the thesis (Part I) provides the background for the research. Chapter 2 has three sections. It firstly details the liberalisation policies of the EU toward the airline industry, and analyses the impact of these changes. This is followed by a consideration of the tools available to an airline to communicate its marketing strategy. Finally, the nature of the business travel market is discussed. It is highlighted that the market displays a hybrid nature. In other words the business travel market has characteristics of both consumer and industrial markets. This analysis leads to the an important part of the research - the development of a research approach that is suited to markets which display hybrid market characteristics. Chapter 3 reviews the market segmentation literature. Market segmentation is a method which can be used to analyse markets. The separate treatment for industrial and consumer goods in the literature provides a problem of application of market segmentation in this market. The fourth chapter develops a two-stage research process that is suited to the characteristics of the business travel market. Two research hypotheses are developed. The first can be used to assess whether market segments exist in the business travel market. The second can be used to assess whether the membership of any segments that exist in the market is affected by organisational influences.

The methodological part of the thesis (Part II) develops research tools to operationalise the two-stage research approach in such a manner that the research hypotheses may be evaluated. In Chapter 5 the research instrument is designed. The data required is specified, the measurement technique chosen, the collection method planned, the sampling technique devised, and the validity of the research concept assessed. The analytical tools that are used to investigate the research hypotheses, and the reliability of these tools are examined in Chapter 6.

The results of the application of the research instrument are presented in Part III of the thesis. The preliminary results found in Chapter 7 indicate the size, structure, usage and attitude of the business travel market. The results of the market segmentation study are presented in Chapter 8. Three market segments are identified in the business travel market. These segments are profiled and the research hypotheses are evaluated. Chapter 9 of the thesis assesses the value of the research. A review of the research findings are presented. A discussion of the limitations of the research is given. Following from the assessment of the research and its limitations recommendations for further research are made.

CHAPTER 2: AIR TRANSPORT IN THE EU

INTRODUCTION

Business travellers are the most important customers to scheduled airlines as they travel more frequently and pay higher prices than other customers. Given its prime importance, strategies need to be developed by airlines to attract and maintain the business travel market. Until recently the airline industry in Europe has been heavily regulated. This regulation has effectively divided airline markets between the airlines national governments designate. Such market conditions have meant that controlling demand has been less important to airlines than controlling their costs. A move within the EU has lead to the creation of a more competitive environment for airlines. This change in the legal environment means that airlines need to evaluate how the changes may affect their business, and, in response to these changes, develop marketing strategies that will ensure survival in this more competitive market.

This chapter of the thesis provides a reason for, and a context to the rest of the work. The legislative changes that the EU have brought about are identified and investigated in section 2.1. Without these changes in the market, airlines would continue to concentrate on supply side issues, and research into the demand side of the market would, therefore, be of less importance. It is because of these legislative changes that this research investigates the demand side of the EU airline market. Airlines need to develop and communicate marketing strategies to address this changing market environment. A marketing strategy is communicated to a market through the elements of the marketing mix. The marketing mix variables that are available to airlines are considered in section 2.2. This section given essential background information on the airline product which is a combination of intangible services elements and more tangible product elements. This thesis is primarily concerned with the business sector, given its importance within the market. Section 2.3 begins this investigation with a discussion of the nature of the business travel market and considers what research approach is appropriate.

2.1 THE LIBERALISATION OF CIVIL AVIATION

The airline industry, both in the EU and throughout the world is experiencing a period of extreme legal upheaval. A trend towards a deregulated environment was started by the United States (US) in the mid 1970's. Section 2.1.1 addresses deregulation of civil aviation by investigating the US experience. The US's lead in domestic deregulation has been followed by changing regulatory environments in many trading areas such as the EU, European Free Trade Area (EFTA), and Australia. The legislative changes in the EU market are considered in section 2.1.2, while section 2.1.3. addresses the problems that still face the EU in its attempt to create a competitive environment.

2.1.1 US DEREGULATION

The liberalisation policy in the EU has its roots in the US experience of deregulation. It is here that the economics of free market competition were first employed in the air transport sector. Thus the US experience serves as an indicator of market evolution in Europe, and as such must be considered before any detailed analysis of the EU situation.

Regulation of the air services industry in America began in 1938 with US Civil Aeronautic Act and in 1940 the Civil Aeronautics Board (CAB) was established, responsible for regulating market access, and fares. It was able to award subsidies and control mergers. It also had the power to investigate restrictive trade practices. The main argument given for this extensive industry regulation was that of ensuring public interest. Much questioning as to how well the regulatory system performed in terms of serving the public, was raised during the 1960's and 1970's (Caves, 1962, Douglas and Miller, 1974).

The Airline Deregulation Act passed in 1978, was based on Bamoul, Panzar and Willig's contestable market theory (1982). This theory aims to approximate perfect competition under conditions where there is not a large numbers of both buyers and sellers. The theory postulates that the threat of potential entrants into a market where abnormal profits are being earned would be sufficient to ensure that incumbents would set tariffs at a level that did not attract market entrants. Fawcett and Farris (1989) identify the criteria upon which the contestable market theory is based;

- ◆ Free entry and exit from the market,
- ◆ Economies of scope and scale are not important,
- ◆ There is perfect information,
- ◆ The consumer has the ability to change brand,
- ◆ The incumbent carriers cannot react very quickly to new entrants' lower prices.

The Deregulation Act of 1978 created an environment totally free of the heavy regulations that had applied to the industry. The short term result was very much as expected with a great rise in competition on each route leading to lower fares and the enhancement of route networks connecting many more city pairs, at an increased frequency, than was ever possible under the regulatory scheme.

The incumbent airline carriers were quick to react to this more hostile operating environment. They adjusted their cost structures in an effort to become more competitive, but at the same time also eroded the conditions on which deregulation was based. The development of hub and spoke services began this erosion. The larger the route network an airline had, the greater the likelihood that an airline would succeed. This economy of scope, therefore, was very important and new entrants found it increasingly difficult to compete.

Computer Reservation Systems (CRS) offered consumers considerable benefits, in terms of real time flight availability information and direct on-line booking. However, only the largest airlines could afford to invest heavily in this new technology. While smaller carriers were allowed to buy into these systems, invariably the main operators' flights were displayed more prominently or were easier to access and book. CRS thus limited a new entrant's ability to compete. However once a new carrier had access to a CRS the operating carrier had current flight information about its competitors, thus allowing it to price new entrants out of the market on specific routes while keeping prices higher on routes on which it had no competition.

Frequent flyer benefits were offered to consumers. Once a business person had built up some mileage on one scheme with a particular carrier he/she was loathe to fly with another carrier. Again the largest carriers with the most extensive routes benefited while small entrants found it difficult to attract customers on their benefit schemes.

Thus it can be seen that the criteria that were the basis for a US competitive airline industry were eroded. Economies of scale and scope became of prime importance, consumers were "locked in" to specific brands with frequent flyer benefits, and CRS's enabled incumbent operators to react very quickly to market inroads made by their competitors. Thus after ten successful years of deregulation, where real prices fell and consumer choice increased, the next five years saw the market concentrate substantially to where eight carriers shared 95% of the market (Market Intelligence, 1989).

The US example has shown that freeing the airline market of regulation can lead to cost cutting, lower fares, improved service and revolutionary operational advances (Button, 1989). While the advantages of a more competitive environment are attractive to the EU, it wants to avoid the market concentration to which the US *laissez faire* policy has led. Consequently the European Commission planned a liberalisation of the market place, taking account of the US's experience and the differences that exist between the two regions. These differences and their implications will be highlighted before considering the legislation concerning civil aviation. There are marked differences between the North American and European civil aviation markets, and these differences have important implications toward any liberalisation of the European market. Differences may be noted in the market geography, the demography of its people, its political environment, and competition.

Owing to the shorter distances between major cities in Europe, airlines suffer two-fold. Firstly, road and rail links offer significant competition. Secondly, as fuel consumption is greatest during take-off and landing and the average distance between major cities in the EU is much less than in the US, average fuel consumption is significantly higher, pushing prices up further against other modes of surface transport.

European average income is significantly less than that of its American counterpart (Sawyers, 1987). This fact has, until recently, affected the demand for air services. However the growth of the price inelastic business market and expanded demand in the charter sector has seen air travel increase over recent years. Between 1982 and 1992 the average annual growth in this market has been 3.8% (ICAO, 1994). Based on these figures ICAO forecast that European air travel will increase from 551.7 billion revenue passenger kilometres (RPK) to 800 billion RPK in 2003 (ICAO, 1994).

With regards to the political environment it is important to note that the US market is just one market while EU operators cross up to 15 national boundaries, each with their own laws concerning air transport. EU liberalisation will bring under one set of legislation the laws concerning air transport for all member states.

The liberalisation of the air transport industry is complicated by the strategic importance historically placed on the flag carrying airlines of Europe. Governmental share ownership and subsidy is commonplace. While some member states have battled to protect uncompetitive companies (e.g. France) others have strong arguments concerning the development of their relatively new flag carrying airline (e.g. Greece).

It is unlikely that the national interest will be allowed to prosper at a cost to the EU as a whole. The Cecchini Report (1985), commissioned by the European Commission, concerning the cost to the EU of not achieving a single market in Europe, indicates that a 5-7% EU increase in GDP could be achieved by single market completion. While consumer benefits are seen as one of the main advantages of a free transport market, the EU sees these benefits being absorbed into the overall economies that it is striving toward and intends the civil aviation sector to make a full contribution to the economic growth of the EU (Commission of the EU, 1989).

As the EU is made up of (currently) fifteen Member States, border controls and customs have been present at each landing point. This obviously increases the costs of air travel in Europe in terms of the industry's infrastructure. However these controls may be reduced to meet the Single European Act's objective of the free movement of people within the EU.

Competition boomed in the early years of deregulation in the US market. The Commission is keen to ensure that this environment is maintained in a liberalised Europe. During the early years of deregulation in the US new entrants undercut the incumbent operators' costs significantly. These large operators had to address their cost structures and learn how to be effective competitors in the deregulated market. This situation will also occur in Europe, with one major difference; large European operators may not only be competing with small carriers and new entrants but also, against large US carriers. These US carriers have survived fifteen years of US deregulation and, therefore, have much more operating experience.

Having distinguished the EU market from the US market, the changing legislative environment within the EU may now be considered.

2.1.2 THE CHANGING EU LEGISLATIVE ENVIRONMENT

The legal environment provides the framework within which any airline must operate. The law concerning air transport in the EU is generated from three sources; the EU, individual member states, or law between either the EU or individual member states and third parties (e.g. The US, EFTA, etc.).

Balfour (1987, 1990), Vincent and Stasinopoulos (1990), Kalshoven-van Tijen (1990), and Reynolds and Hockless (1990) provide an excellent insight into the content and implications of EU legal measures that have moulded the legal environment in air transport. Table 2.1 details the key dates in EU air law.

Air law has developed from the Chicago Convention in 1944. At that time, at the end of a war dominated by air power, the strategic importance of airspace was paramount in the minds of negotiating parties. Those states contracting to the Convention agreed that each state should have complete and exclusive sovereignty over its airspace (Art. 1). From this basis, the right to fly from one state to another depended on gaining permission from other states to fly over or into their territories. A system of bilateral agreements, known as Air Services Agreements (ASA), has developed as pairs of states have negotiated such rights and the basis of the majority of these bilateral agreements is a balance of benefits and rights. The traffic rights granted in an ASA are selected from a number of freedoms of the sky (see Glossary). These bilateral agreements generally specify:-

- ◆ the airlines allowed to serve a particular route.
- ◆ the capacity each airline can provide.
- ◆ the price that may be charged for a particular service.

Historically many member states owned their own "flag carrying" airline (e.g. Air France, British Airways, Lufthansa all started under national ownership) and thus a typical ASA would allocate, for a particular route, the two flag carrying airlines of the contracting states operating the route. A 50:50 share of the capacity provided on the route would mean that each airline would gain about 50% of the market, and the price

would be set at a rate that would ensure healthy profits for both airlines. It can be seen, therefore, that these ASA provided virtually no incentive for the airlines to behave in a competitive manner.

The Treaty of Rome (1957) established the European Community (which later became the EU). The Treaty's objective was to create a common market within the boundaries of the Community by abolishing the borders of the internal member state. Art 3 of the Treaty laid out regulation for:-

- ◆ freedom of movement of people, goods, services, and capital.
- ◆ common transport policy.
- ◆ system of undistorted competition throughout the EU.

The Single European Act (SEA), which took effect in 1st July 1987, focused the aims of the Treaty with the objective of completing the internal market by 31/12/92. It can be seen that there is a basic conflict in regard of air transport between the objectives of the EU and the international regime that has governed air transport since the Chicago Convention. The corollary of the aim of the EU to create a internal or "domestic" market is that the bilateral agreements between each pairing of member states has to be abolished. Such a move is fundamentally against the sovereignty clause of the Convention. This provides an argument for member states not wishing to see the creation of a liberalised air services market, and also undermines the regulatory basis of all international air transport.

The Treaty exempted air and sea transport from the provisions regarding the Common Transport Policy, and left the policy making to the EU Council of Ministers. Few provisions were made between the Treaty and the SEA, as decisions had to be made unanimously allowing single states a power of veto. However, the SEA decreed that, in most cases, decisions regarding air transport policy could be made by a qualified majority. Since this provision the development of a single market for air transport within the EU has been fairly rapid, although, the situation with regard to third states has been much slower.

The EU's first legislative development in air transport was based on a memorandum produced in 1979. The directive on inter-regional air service, which took effect in 1983, concerned access to the market and the sharing of passenger capacity between member states.

In 1983 the European Parliament took the Council of Ministers to the Court of Justice for failure to act in the field of transport (Mathijsen, 1985). The Commission subsequently released its second memorandum. Although this document was considered conservative (Balfour, 1987) it led to a more liberalised market. The memo contained regulations concerning fares, capacity and revenue and dealt only with intra-EU services.

The memo contained:-

- ◆ A regulation to allow airlines to apply for tariff proposals to just one government, thus introducing limited price competition.
- ◆ The introduction of fare zones, providing flexibility for discounting. Fare proposals outside the zones were subject to double approval, greatly limiting the ability of a carrier to introduce deep fare discounts. Governmental approval must be given by both the carrier's national government and the government responsible for the carrier's destination. Effective lobbying from the flag carrier of the destination state would thus weakened the power of this policy.
- ◆ A policy to limit governmental interference. A government could only interfere if its airline's seat capacity fell below 25% of a inter-EU city pairing. This policy allowed a carrier on a city pairing to expand its revenue, by increasing the seat capacity it offered.
- ◆ A regulation concerning capacity sharing. Such agreements were only to be allowed if jointly planned, and could be withdrawn from without penalty.

The EU believed that the introduction of increased flexibility would *"improve service to the consumer and the profitability of the efficient and enterprising airline"* (House of Lords, 1985). This memo has provided the framework for initiatives toward liberalising the market since that time.

The Nouvelles Frontieres case, brought before the European Court of Justice in 1986, set an important precedent. Until this case the legal position of the air transport sector to the Treaty's competition policy was unsure, as the Treaty provides no procedural regulation for the application of the competition policy to the air transport sector. The action was brought against some travel agents (including Nouvelles Frontieres) and some airlines (including Air France) and concerned the selling of tickets at fares not

approved by the French government. The French government referred the case to the European Court to indicate whether the tariff system in operation was in breach of the competition rules of the Treaty.

The outcome made clear that the Treaty's competition rules do apply to air services and the Member States are bound to apply Articles 85 and 86 of the Treaty to air transport. These articles are the principle competition rules of the Treaty.

Article 85 prohibits any agreement, deemed by the authority to prevent or distort competition. While this article could be successfully applied to virtually any airline, the authority or the Commission can exempt any agreement that it deems as having beneficial effect (i.e. promoting technical or economic benefit, to the advantage of the consumer), thus providing a path for airlines to apply for exemption from the competition rule. These block exemptions have been used to continue non-competitive practices (such as joint airline planning and co-ordination of schedules, and joint marketing agreements) extensively since their creation.

Article 86 prohibits the abuse of a dominant market position. It may be argued that the major airlines in Europe hold dominant market positions and are in a position to abuse such power (e.g. BA not allowing the SABRE, a US computer reservation system, to print its tickets). Here no exemptions were allowed.

Balfour (1987) has two concerns with the decision of the court. Firstly, that the competition authorities of the Member States have the role of deciding whether an agreement is anti-competitive, allowing *"for great difference of treatment and conflict"* (p 278). Secondly whether the prohibitions of Article 86 for abuse of a dominant position are immediately actionable, or whether the complaint must be referred through the courts, leaving the plaintiff to suffer within the dominated market until the court case is decided.

The EU published three liberalisation packages. The first package of liberalising policies was published in 1987, and became known as the December package. The Council released two Regulations, one Directive and one Decision (Vincent and Stasinopoulos, 1990).

Date	Reference	Comment
1983	Dir 84/416	Directive on inter-regional air services.
15/3/84	Memo No.2	Objectives; Balance interests without deregulation Increase flexibility and competition within present regulation Guidelines for common transport policy
30/4/86	ECJ Case 209-213/84.	Nouvelles Frontières Case. Treaty rules apply to air transport. Art. 85 & 86 Treaty applicable. Block exemptions from Art 85 possible.
7/12/87	Reg No 3975/87 3976/87 Direct. 87/601 87/602	First Phase of Liberalisation. Fare approval, discounts, Capacity sharing, multiple designation, Block Exemptions Fifth freedom
6/7/88	Reg No 2671/88 2672/88 2673/88	Exemptions rules for; Joint planning and co-ordination. CRS
April 89	ECJ No.66/86	Ahmed Saeed case
24/7/89	Reg No 2299/89	Code of Conduct for CRS
24/7/90	Reg No 2342/90 2343/90 2344/90	Second Phase of Liberalisation. Further liberalisation of rules made in Phase I. Also introduction of; Double disapproval. Non-discriminatory Traffic rights allocation. Block exemptions extended until 32/12/92. Cabotage. Predatory pricing.
23/7/92	Reg 2407/92 2408/92 2409/92 2410/92 2411/92	Third Phase of liberalisation Licensing of Air carriers Access to intra-EU Routes Fare & Rates for Air Services

Table 2.1 Key Dates in Air Transport Development (From 1983)

Adapted from EU, 1989-1992; Balfour, 1990; Baker and McKenzie, 1989

The package firstly provides a regulatory procedure for the application of the competition rules (Article 85 and 86) to air transport. Here, then, the decision of the Court in *Nouvelles Frontières* is re-enforced by the Commission. The second regulation allows the Commission to approve group exemptions, from Article 85, for certain forms of co-operation between airlines aimed at increasing productivity and improving services. The Directive introduced a EU framework for the approval of

fares for intra-EU scheduled services. Discount fares meet with automatic approval if they fall in the range of 65-90% of the standard fare, as do deep discounts fares in the region of 45-65% of the standard. Capacity sharing and access to the market were addressed in the Council Decision. Airlines were able to increase their capacity to 55% of the overall route capacity, shared between two countries, in the first year and to 60% thereafter.

This package was only a *"modest first step towards the creation of [a] unified market"* (EU press release, 1990). The EU opinion was that wholesale deregulation on a specific date, like that of the US, was unsuitable for the European market, although the completion of a single market will *"enable the air transport and related services to develop fully"* (Commission of the EU, 1989). This first package was viewed as just the first step towards this unified market.

The December package provided a legal framework for the granting of exemptions from the prohibitions of Article 85 of the Treaty. Exemptions have been granted for joint planning on capacity and co-ordination, revenue sharing, tariff consultation, slot allocation and CRS's. Limitations to the extent of the exemptions are given, such as the manner in which CRS's may be operated. The exemption provides an opportunity for smaller carriers, who cannot afford to develop a CRS without the help of other carriers, to utilise this expensive technology, however the exemption does not allow bias of display, information loading or fees. These exemptions are aimed at providing a *"genuine need for legal security on the part of air carriers"* (Commission of the EU, 1989a).

The case known as Ahmed Saeed was similar to that of Nouvelles Frontieres as it also concerned fare discounting. However its decision is important for two reasons; 1) not only did it re-enforce the decision in Nouvelles Frontieres but 2) it went further and ruled that the principles that applied to tariff agreements (as set out in Nouvelles Frontieres) applied equally to the air transport sector in general, e.g. agreements concerning joint planning. Thus *"agreements between firms or ... trade associations, as well as ... airlines which hold a dominant position ... fall within the prohibitions of Article 85 or 86, or both."* (Reynolds and Hockless, 1990, p.55)

In 1989 a Code of Conduct for CRS was introduced. This regulation, a supplement to the provisions made in the block exemption regulations, is intended to ensure that the computer reservations systems in the EU are used in a *"non-discriminatory and*

transparent way, and present accurate and un-biased information" (Reynolds and Hockless, 1990, p.55).

The second phase of liberalisation was adopted by the Council in June 1990 and took effect from 1/11/90. The package includes two new regulations and extended the time period for block exemption protection. The two new regulations address issues of access, price and capacity;

With regard to access the regulations provide for:-

- ◆ Free cabotage (see Glossary) after 31/12/92
- ◆ Uniform regulations regarding licensing
- ◆ Multiple designation threshold lowered to 100,000 passengers

The principle of multiple designation (see Glossary) made it possible for airlines to introduce new services on routes which previously had no access.

The regulations regarding capacity indicate that:-

- ◆ Bilateral capacity flexibility increased to 67.5% / 32.5% until 1993 when all bilateral sharing restrictions were to be abolished.
- ◆ From 11/11/90 capacity may be increased by 7.5% on previous year's operation.
- ◆ Fifty percent of capacity may be used on fifth freedom routes (see Glossary)

These rules were aimed at encouraging carriers to match flight frequency and unit utilisation to market demand. The success of an airline, in a liberalised Europe, depends on its ability to feed traffic towards its hub airports. Improved fifth freedom rights allow carriers to build a more extensive feeder network.

With regard to fares the regulations provide:-

- ◆ Discount allowed to 30% of fare given for reference to IATA (see Glossary)
- ◆ Double Governmental disapproval (see Glossary) required for proposed tariff changes

First Phase	Second Phase
Double Approval.	Double Disapproval from 1993.
Fare Zone System.	Fares Zone system modified.
Arbitration system for disputes.	Right of appeal to the Commission for "dubious" fare proposals (e.g. dumping, predatory pricing).
Member state intervention to protect capacity of national carrier allowed if share drops to 45% till 30/9/90 and 40% thereafter.	Safety net reduced to 25% by 1/4/92.
Passengers carried between hub and regional airports by aircraft with less than 70 seats are left out of capacity calculations.	Limit raised from 70 to 100, and all inter-regional services to be left out.
Subject left out.	Relations between Member states and its airlines. Traffic rights must be granted in a non-discriminatory manner.
Multiple designation. A State may not object to one of its airports being served by airlines designated by another State. Limited to routes with 1000 round trips pa.	Limit reduced to 600 round trip pa.
Route between hub and regional airports. Authorised in principle, with many derogations	Derogations removed, safeguards introduced.
Combination of points, permitted subject to exemptions granted to certain States	Removal of constraints and exemptions
Fifth freedom authorised to 30% of capacity. Forbidden between hubs.	Limit raised to 50% , between all types of airports.
Cabotage forbidden.	Free cabotage post 31/12/92

Table 2.2: Development of legislation; First and Second Liberalisation Packages

Source: EU Press Release 1989, Kalshoven-van Tijen 1990.

The introduction of double disapproval meant that a government was not be able to protect its flag carrier by vetoing proposed tariff changes from another carrier. Just one of the governments can approve an international tariff change. Effectively the opposite of the double approval requirement included in Memo. No. 2, this measure

went a long way to removing the ability of a Member State to protect its national carrier. The discounting measure would allow a carrier to significantly enhance off-peak load factors improving flight profitability.

This second phase provided much greater opportunity for airline competition than the December package. Table 2.2 details the development from the first to second packages.

Mr. Karel Van Miert, an earlier Member of the Commission with special responsibility for transport, has indicated that the second phase of liberalisation achieved an integrated internal air transport market. He indicated that a common air transport policy had still to be realised (Commission of the EU, 1990).

The third liberalisation package was agreed in July 1992 and took effect on 31st December 1992. Table 2.3 shows how the third package differs from the second. The new bundle of measures contains five regulations regarding:-

- ◆ The licensing of air carriers
- ◆ The access to intra-EU air routes
- ◆ The fares and rates for air services
- ◆ The application of EU competition rules

The aim of regulation EEC No. 2407/92, regarding the licensing of air carriers, is to harmonise the requirements that air carriers must meet to be able to operate within the EU. The regulation means that as long as any carrier can meet the standardised requirements for technical and economic fitness, holds a current Air Operator's Certificate (AOC), and is majority owned and effectively controlled by a Member State or its nationals, then it will be awarded a licence to operate any intra-EU route. Such airlines are known as EU air carriers. This regulation abolishes the national rules of air carrier ownership and it establishes the right for any carrier owned and controlled within the EU to operate anywhere within the EU. Balfour (1992) indicates that this regulation has two important effects. Firstly, a State cannot operate a national monopoly policy, i.e. a carrier established within a State that meets the objectives requirements must be granted an operating licence. Secondly a State cannot refuse an operating licence to carriers not owned and controlled by local nationals.

Second Phase of Air Liberalisation	Third Phase of Air Liberalisation
<i>Licensing of Air Carriers</i>	
Nothing	Rules for economic and technical fitness
	Carriers that pass these rules must be licensed
	National ownership rules abolished in favour of EU ownership criteria
<i>Market Access</i>	
Multiple designation thresholds limited to some extent, fifth freedom limited by capacity	Any EU carrier able to operate any intra-EU route
No cabotage	Cabotage implemented in a transitional period until 1/4/97
Simple safeguards respected State rules	EU safeguards to deal with congestion and traffic distribution problems
Free bilateral capacity within pre-defined zones to protect the balance of benefits between States	No capacity limits
<i>Air Fare & Rates</i>	
Double State disapproval of fares needed to reject a fare within a zonal system	Free pricing, EU can intervene against excessive prices or downward spiralling fares

Table 2.3: Development of Legislation; Second and Third Packages of Air Liberalisation

Source: Adapted from Sorensen, 1992

In practical terms, this regulation means that a carrier wishing to expand into new markets can undertake one of three strategies. Firstly it can set up a subsidiary within another State's territory and maintain effective control of that subsidiary without fear of the other State refusing an operating licence. Secondly a carrier can start operating routes from another State to a third State. Thirdly there are no legal barriers to the amount of "foreign" investment a carrier can make in an airline of another Member State.

Regulation No. 2408/92 concerns the access for EU air carriers to intra-EU air routes. The effect of the regulation is that any EU air carrier is able to operate between any two airports within the EU. The regulation qualifies this rule by allowing protection for inter-regional services served by small aircraft, and cabotage is limited until 1997 when full cabotage is allowed throughout the EU.

Regulation 2409/92 liberalises the system by which fares are approved by the relevant authority, IATA. A carrier can now offer any price it wishes for any of its services. The only stipulation is that the fare must be filed with the respective aviation authority (the Civil Aviation Authority in the UK) 24 hours in advance.

The regulation provides a couple of safeguards to ensure that fares are neither excessively high or *"market forces have led to sustained downward development of air fares"* (Art 6.1.(b))

Two regulations (EEC No.s 2410/92 and 2411/92) regarding the application of competition rules of the Treaty of Rome amend previous legislation (Nos. 3975/87 and 3976/87). The first extends the powers of the EU to apply the competition rules, from international air services within the EU to include domestic air transport services within a Member State. This measure is designed to ensure that fair competition is carried on, not only between States, but also within each State. The second regulation extends the "block exemptions" that were introduced in the second liberalisation package. The EU can grant exemptions from the prohibitions of Article 85 of the Treaty for activities which might have some anti-competitive effects. These activities include joint marketing agreements, consultation on tariffs, joint operations on routes with low passenger numbers, allocation of take off and landing slots at airports, and the development and operation of computer reservations systems (CRS). The block exemptions for slot allocation and CRS operation are only granted if the activity falls within the relevant code of conduct.

Having created legislation to try to create a competitive environment within the EU, the Commission has also addressed its situation with regard to third states.

The Commission proposed various measures concerning the EU's "external relationship" with non-EU countries, however the Council did not approve them (Kalshoven-van Tijen, 1990). Competition policy seem to indicate that non-EU member carriers will be allowed to compete in the liberalised market as long as they

can prove that they do not receive subsidy from their government, however these legal aspects await to be defined in the courts.

It may be argued that large carriers from third states represent an unfair threat to European carriers. In a move to address this threat many European carriers are setting up marketing alliances or participating in cross capital investment.

With regard to non-EU European countries the Commission needs to clarify its position. The airline SAS, while registered partially in a non-EU country (Norway), is considered a special case as it is also registered in Denmark, and Sweden and treated as an EU carrier (EU Directive, 87/601). Carriers registered in all EFTA countries are now treated under the same legislative framework following requests from EFTA carriers. However, carriers from East European countries are treated as third states.

Much evidence in the market indicates that a global market will develop over the next few years. Market analysts await to see how competition policy will develop. Young (1990) indicates that bilateral agreements between particular member states and third countries currently define the legal position. She notes, however, that the SEA states a commitment to a "*Europe without internal frontiers*" (p.25). The Commission wants to facilitate a multilateral (or unified EU) approach to the re-negotiation of bilateral agreements. A legal problem arises as to whether a bilateral agreement between the Britain and the US translates into an EU - US agreement, thus allowing British carriers to fly from other EU countries to the US, and in doing so disrupt the balance of benefits drawn into the initial agreement. The question as to whether the EU has the right or power to assume legal control may be raised (European Air Law Association, 1990). The Treaty is in breach of older agreements such as the ECAC, and the Chicago Convention. The GATT Most Favoured Nation (MFN) clause also complicates the problem. The SEA treats the EU as a domestic market and thus falls within the GATT's MFN clause *en masse*. The assumption of the legal rights of member states is placing severe pressure on the existing bilateral agreements between the Member States and a number of third countries. The US and UK bilateral agreement is currently being re-negotiated. It is believed by many commentators (Airline Business, 1992) that the manner in which these negotiation are resolved will have a profound effect on the European air transport market.

2.1.3 THE POST LIBERALISED EU MARKET

While the legislation to establish a competitive environment for air services within the EU may be in place, a number of commercial and economic barriers still exist in the market which will affect the Commission's aim to create a market where consumers have greater choice and are offered lower fares. These will be briefly considered.

Prior to the EU's liberalisation legislation, the size of an airline's customer base was limited by the size of the national market place. The experience of US deregulation has shown that the magnitude of an airline's route structure and its dominance of hub airports is vital to its survival in a competitive environment (Hanlon, 1989, and Kanafani and Ghobrial, 1985). Operators that only operate on a point-to-point basis without pooling passengers through a hub are extremely prone to direct competition. Carriers that operate through a hub can subsidise a fare war on a particular route by keeping higher fares on the routes where they face less competition.

It is therefore, obvious, that airlines that wish to survive in the newly liberalised market must develop strong route structures. The third package of liberalisation gives airlines the tools they need to extend their route networks and many are adopting a pan-European growth strategy. Katz (1992) indicates that airlines that pursue such a strategy will face problems of limited infrastructure, and restricted marketing strength relative to well established carriers in the new market places.

Infrastructure congestion provides a major barrier to airlines wishing to expand their route networks. Liberalisation aims to allow any airline to compete for any route. This opportunity, however, is severely curtailed by the lack of take off and landing slots available at the most popular airports. Slot allocation, then, has become a prime issue in the debate concerning European liberalisation. Many major hub airports are suffering from capacity constraint. Heathrow is approaching full capacity already, and it is estimated that a *"dozen major European airports will reach full capacity by 1995"* (Market Intelligence, 1989, p.3). The major airlines that operate from these most popular centres are keen to maintain the monopoly they have on their landing slots. This they have been able to do as through maintaining "Grandfather rights", which award slots in the next session to the carrier that successfully operated those slots in the present session. "Grandfather rights" effectively exclude smaller carriers and new entrants from building market share. The Commission has drawn up a code of conduct for the allocation of slots which supports the traditional slot allocation

system. This system makes it a difficult task to enter a market where one of the airports on a route suffers congestion problems. Dagtogolou (1990) indicates that airborne infrastructure also limits the growth of civil aviation, and that a single air space operating within the EU is necessary to increase capacity. Currently 22 airspaces operate over Europe causing massive co-ordination problems for air traffic control. A completion of a single management system would greatly increase air traffic control productivity and increase the number of available flights.

An airline wishing to expand, therefore, will find it very difficult to grow naturally. The industry has responded to the problem of growing within a capacity-restricted industry by considerable merger and acquisition activity. Growth by this method can be used to overcome the next major problem facing airlines wishing to grow in Europe, that of marketing strength. The main retail outlet for airlines is through the CRS distributed within travel agencies market. To enter a new market successfully an airline and its routes must be:-

- ◆ Known by the customer base in the new location
- ◆ Known by the travel agencies
- ◆ Have strong representation on the popular local CRS.

An airline wishing to enter new markets may find that these goals extremely difficult to obtain, and merger and acquisition provides the best method to achieve this.

Whilst merger and acquisition activity continues to consolidate the EU airline industry, it is unlikely that the rewards of liberalisation will accrue to the consumer. Competition is likely to be fierce on the most profitable routes whenever a new entrant threatens the *status quo*. Here the consumer will be offered a greater choice of airlines and prices are likely to fall, however this is only likely to occur for a fairly short period of time. The larger carriers facing competition on specific individual routes will either push out smaller carriers that cannot defend their markets, or they will reduce the competition by investing in those smaller companies.

2.2 MARKETING OF AIRLINE SERVICES

The last section indicated that the EU has created a competitive market for airline services. An airline that wishes to survive in this new environment must develop strategies that will ensure its survival. To this end the marketing concept may be adopted. The marketing concept is based on the central premise that an organisation will succeed if its customers are satisfied. Marketing may be considered as both a set of management practices, and also a philosophy that may be instilled throughout a company.

Chisnall defines the process of marketing as *"the specialized function concerned with the exchange process which underlies the satisfaction of human and organisational needs"* (1985, p.4). The concept of marketing can, therefore, be understood as the provision of products that will fulfil customer satisfaction in order to meet the goals set by the vendor organisation.

Marketing management is a process undertaken by an organisation in which:-

- ◆ The market is analysed.
- ◆ Suitable marketing strategies are planned.
- ◆ The strategies are implemented in the market place.
- ◆ The marketing effort is controlled through feedback mechanisms (Cannon, 1986).

Given the objectives of this thesis, the research will concentrate on the first of these elements. However, the aim of a market analysis is to guide the development of strategy. The culmination of an analysis of the market and strategy formulation, undertaken by an organisation, is found in the variables of the marketing mix. These variables may be constructed in different ways to create product offerings that will attract different groups (or segments) of consumers. The marketing mix was introduced by Borden (1965) and consists of four elements, often known as *"the four P's"*;

- ◆ Product
- ◆ Price
- ◆ Promotion
- ◆ Place (or the distributive channels)

These four elements initially became identifiable as methods that may be used to communicate corporate strategy in manufacturing industries. In recent years, however, there has been a substantial growth of applications in the service sector and Cowell (1984), Foxall (1985), Shostack (1977) draw into question whether the marketing mix developed for industrial goods is a suitable method of developing marketing strategy for services. This section examines the difference between the marketing of goods and of services, and identifies the marketing tools suggested for services.

Firstly a distinction between a "good" and a "service" must be made. Cowell (1984) indicates that services are intangible, perishable, and heterogeneous. A service may be perceived as being intangible as it cannot be seen or touched in the same way that a manufactured good (such as a car) may be. A service is perishable as it cannot be stored. Services are supplied by people, so that each customer is likely to receive a different standard and quality of reward for their purchase, depending on which member of the organisation administers the service, and therefore services may be perceived as heterogeneous.

An airline provides space on an aircraft travelling to a desired destination. This is not a tangible item. The product provided by an airline is perishable as once an aircraft takes off, any unfilled seats represent perished capacity. The quality of the in-flight meals and drink service is dependent on the quality of the cabin crew. It would seem, therefore, that against the criteria of tangibility, perishability, and heterogeneity an airline product may be defined as a service.

Foxall (1985) counters the distinctions between goods and services by arguing that traditional products also have similar traits to a greater or lesser degree. For example, when a tangible consumer durable, such as a washing machine, is purchased, the consumer also purchases certain intangible parts of the product e.g. a maintenance contract, a delivery date. or the perceived level of esteem gained by purchasing a certain brand. Secondly, fresh produce is perishable if it is not purchased or consumption is delayed, in the same way as capacity on a flight perishes if it not taken by a passenger. Finally tangible products, such hamburgers, may not be identical in quality. It is obvious, however, that it is easier to standardise the quality of a product the more tangible it is.

Trying to define whether a product is a good or a service is relatively unimportant, indeed Shostack (1977) has signified that all products exist on a spectrum of tangibility. This spectrum runs from tangible dominated products to intangible dominated products. On this spectrum airline operations are slightly more intangible dominant but do have tangible elements.

Thus it would seem that most "goods" have product elements that are generally thought of as "services", and vice versa. Consequently, the extent to which traditional marketing strategy originally applied to tangible products is also applicable to "services" may be examined.

Buttle (1986) has reviewed the development of the marketing of services. He indicates that a number of authors have suggested alternative marketing mixes specifically designed for service industries, such as Gronroos (1987), Correl and Graham (1982), and Renaghan (1982). Cowell (1984) indicates a preference for a model suggested by Booms and Bitner (1981) which expands the 4 P's into 7 P's as this model provides a greater focus on the elements of a service product which, while they can be addressed in the 4 P's approach, are not specifically mentioned in the earlier method. The "7 P's" consist of:-

- ◆ Product
- ◆ Price
- ◆ Promotion
- ◆ Place
- ◆ People
- ◆ Physical Evidence
- ◆ Process

If it is accepted that there is no distinguishable difference between "goods" and "services", i.e. there are only degrees of tangibility, homogeneity, and perishability, then the 7 P's may be applied to all "products" to develop a marketing mix most suited to the product's true nature. In reality the value in using an approach like the 4 P's lies in forcing the practitioner to avoid errors of omission. Thus if considering 7 P's will assist the marketer (of any product) to avoid omissions during analysis, then such an approach should be applied.

Figure (2.1) lists the 7 P's, and the items to be considered. In the next section this framework is applied to an airline's product offering.

Fig 2.1: The Seven P's of "Product" Marketing

PRODUCT	Range
	Quality
	Brand name
	Warranty
	After-sales service
PRICE	Discounts
	Terms
	Differentiation
PLACE	Sales location
	Channel
	Coverage
PROMOTION	Advertising
	Sales promotion
	PR
	Merchandising
PEOPLE	Personnel
	training
	appearance
	incentives
PHYSICAL EVIDENCE	Attitudes
	Environment
	Facilitating goods
PROCESS	Tangible cues
	Policies
	Procedures
	Employee discretion
	Flow of activities

Source: Buttle (1986)

2.2.1 THE AIRLINE MARKETING MIX

It has been established that Booms and Bitner's 7 P model (1981) is a suitable marketing mix model for products that have significant service elements. It has also been shown that an airline provides a product that is not tangible, that is perishable and is heterogeneous. Therefore it would seem that the 7 P model is appropriate for developing airline products. This section identifies the 7 P marketing mix variables that are available to an airline.

PRODUCT

The first marketing variable to be considered when designing a marketing mix for an airline is the product.

"The airline product is intangible, amorphous, and difficult to analyse, [however], it is capable of satisfying wants and needs, and it has features which will contribute - or fail to contribute to consumer satisfaction." Shaw (1985, p.129)

The routes that an airline serve defines the core of the product that they offer to consumers. For example a customer wishing to fly from London to New York, will only be able to purchase the product of the limited number of operators who have a licence to fly that route. Indeed the product of two operators who fly from London to New York, may be considered somewhat different if one operator flies from Heathrow airport and another from Gatwick.

Since deregulation of the airline industry in the US, any airline has been able to choose to serve any route that it wishes. This freedom has led to the creation of hub and spoke networks, which according to Phillips (1987), offer benefit both to the consumer, in terms of improved service, and to the carrier in terms of reduced costs and competitive advantage.

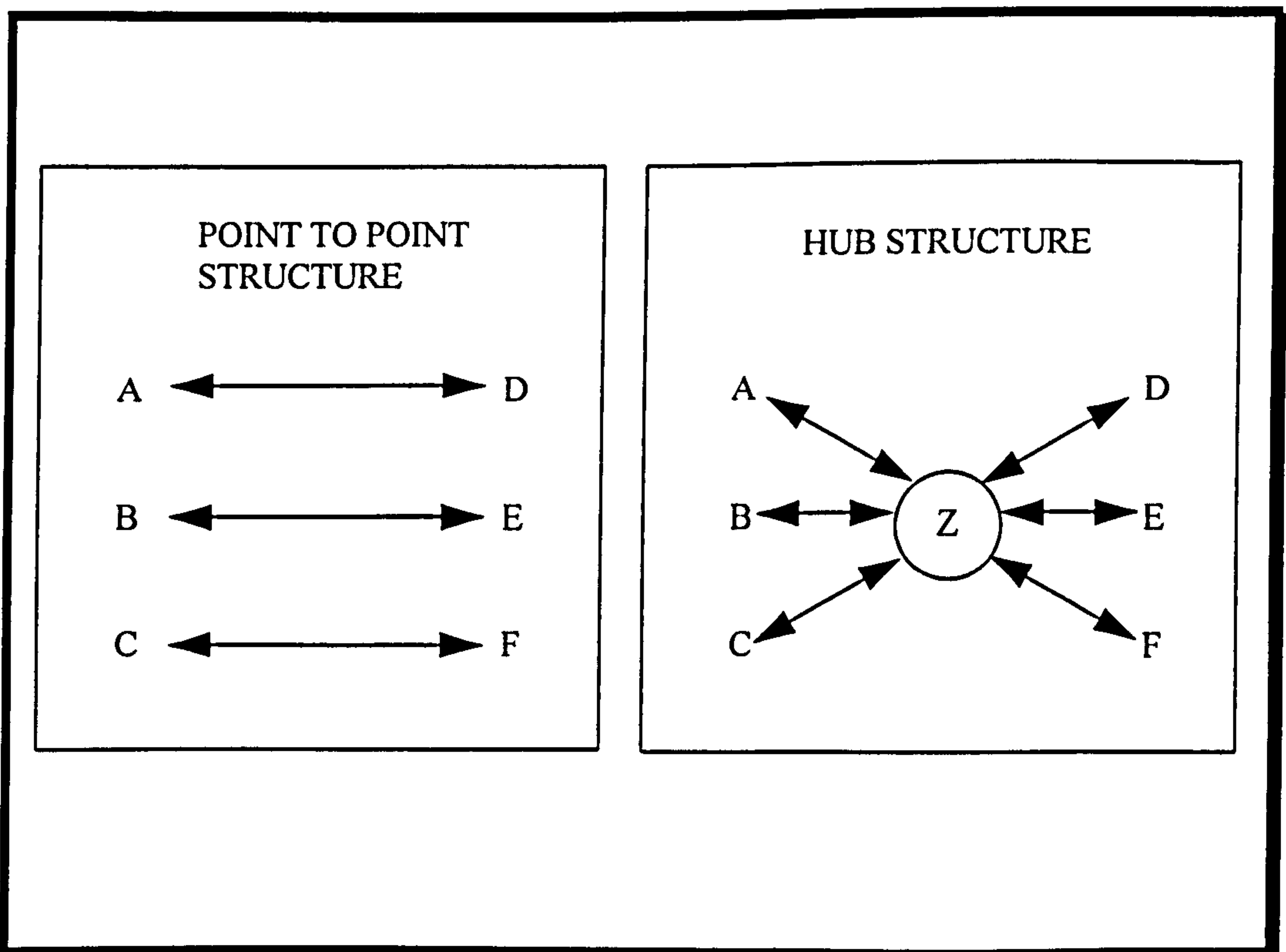
Hub airports offer a central exchange point which connects a large number of points. By using this hub many more city-pairs may be connected without any increase in the flights offered.

Such a system is particularly suited to the vast US domestic air market. Figure 3.4 shows that 3 city-pairs may be connected by 3 direct flights (A-D, B-E, etc.). By directing these flights through hub Z, 15 city pairings may be offered (A-B, A-C, etc.). Theoretically, where n spokes are supported through a hub $n(n-1)/2$ city pairs may be served (Hanlon, 1989). In this case 6 spokes can support

$$\frac{(6(6-1))}{2} = 15 \text{ city pairings}$$

A hubbed system benefits the consumer in terms of wider choice of destinations. This also reduces the number of customers who need to change airline to reach their desired destination (interlining). The reduction of interlining means that carriers have fewer administrative costs, as there is less requirement for the time-consuming organisation of joint tickets, and baggage movement etc.

Fig 2.2: Hub and spoke structure



Cost reductions accrue to the carrier (Kanafani and Ghobrial, 1985). By bringing all passengers through one hub, an airline may consolidate all those passengers with the same destination onto one flight. In effect, each journey, from an origin, serves to "feed" the flights that depart from the hub. The airline's operation schedules its flights so that passengers on feeder flights can transfer to their required outgoing flight. An example of this may be seen in Amsterdam where KLM have organised their flights into a "wave" system.

Airlines may operate larger aircraft as the consolidated flights serve a larger number of passengers. The operation of larger aircraft, in turn, gains technical economies of scale. Flight frequency may be increased. As the system consolidates passengers at the hub, the volume of traffic to each destination will increase, thus allowing the operator to increase the number of flights (Samuels, 1990). This has been identified as a particularly advantageous benefit to the business passenger (Morrison and Winston, 1986). While an increase in the volume of flights may occur, it is possible that load factors may decrease, as there are likely to be fewer passengers on each flight. A balance needs to be drawn between frequency of flights (aiming to maximise traffic) and the value of unutilized capacity.

The major disadvantage resulting from hub and spoke networks is the increased travel time the passenger endures compared with a direct service. European Community airlines will need to balance the benefits of such a system against this major disadvantage.

The use of hub networks in the US has led to the domination of a limited number of major airports and enabled the growth of anti-competitive behaviour (Button, 1989). Carriers that operate linear routes (i.e. an Origin-Destination pairings) are extremely prone to direct competition from competitors operating in a hub-and-spoke manner. For example, should a small competitor enter a market on a particular linear route, a large carrier, operating a hub-and-spoke network, has the ability to adopt a low cost pricing strategy, on that specific route. The large carrier can adopt this strategy as it can pay for losses in the short run on the route through profits made in markets where it does not face strong competition. Both carriers will lose heavily on this route until one chooses to leave the market. This invariably will be the linear operating carrier, as it cannot subsidise the price war from profits made on other routes, and, free from competition, the larger carrier can then raise prices.

Airlines will need to investigate the extent to which the target market would be prepared to suffer extended journey times in order to gain the perceived benefits of such a system. Research is required into the value placed on the benefits provided by a new routing system, the relationships between the benefits and thus the specific marketing mix that would attract the target market.

Once an airline has selected the routes that it will serve it must make decisions regarding the timing of its schedule and the frequency of flights. Airlines suffer from peaks and troughs in demand. Leisure travellers are, generally, not that concerned about the time of a flight's departure and arrival. However, business travellers place high importance on the timing of flights. Morning and evening flights are those that are in most heavy demand, particularly those on Monday mornings and Friday evenings (Wells, 1989).

Airlines have attempted to even out demand by use of peak time premium pricing and discount fares at other times. Yield management (see Glossary) allows carriers to segment the market by time of flying. Historical data of the demand profile for each flight is built up over time and a computer system will be used to allocate the number of seats that may be sold within each price band. On peak flights an airline is likely to offer few seats at a discount price, and allocate most of the seats to the fare types that earn most money. These are generally used by business travellers who require flights at times that will suit their business appointments, and are generally willing to pay the higher price for this service. Thus a product aimed at the business traveller may be provided on these flights. However, those people who are able to take advantage of non-peak discount flights are less likely to be business travellers, as they are less time sensitive, and thus different product offerings can be made to them.

For business passengers the possibility of altering flight arrangements may be important. In effect the business traveller demands flexibility in timing of the purchased flight. The cost of providing additional flights is vast so the operator must balance the extra demand that it would receive from increasing flight frequency, with the additional costs incurred.

Punctuality is of great importance to travellers. While many circumstances may affect an airline's punctuality, many of these being out of the control of the airline, it is important to try and reduce the chance of delays. Where delays are unavoidable,

passengers like to be kept informed of the problems and the progress in solving them. SAS had a reputation for not being punctual (Carlzon, 1989). The company asked its staff for time saving suggestions and implemented the best 150, which led to SAS becoming the most punctual airline operator in Europe. This reputation is very marketable as people may choose such an airline for its reliability. Shaw (1985) indicates 5 sources of flight delays

- ◆ Traffic handling delays
- ◆ Aircraft turnaround delays
- ◆ Aircraft technical delays
- ◆ Air traffic control and airport delays
- ◆ Weather delays

While some of these causes are out of the control of the airline, the consumer purchases the ticket from the airline and looks to the airline for any delay. The quality of staff response during flight delays is important and will affect the customer's perception of an airline.

Although the routes and schedule provide the core of an airline's product, a wide selection of other variables are available to an airline when constructing its product. The variables listed below can be amassed in different measures to construct a range of products aimed at different market segments. For example, an airline may provide a comfortable product, providing free drinks and quality newspapers for the business traveller on the same flight as a cheaper, less comfortable product is offered to the leisure traveller.

The company will need to develop a cogent market plan in which all the marketing variables used, have the same focus. If a carrier positions itself in the market as a high class, sophisticated airline, the product offering would not be cogent if the price was not sufficiently high, the front-line staff did not meet the same standards of service as their clientele would normally receive in a high class hotel, or the in-flight cuisine was not of an appropriate standard.

Some product variables may be constant within a market segment (e.g. complimentary drinks to all first class customers) whereas others will change depending on other variables, such as length of flight (e.g. Business class customers may receive well prepared cuisine on a long flight but receive no food on a domestic U.K. shuttle).

An airline may design products for each of the markets it serves. Below three groups of consumers are identified (Leisure, business, and rich leisure traveller). These groups are then divided by the distance they travel. Figure 3.6 shows how in-flight products can be altered to differentiate one product from another.

	Short Haul	Long Haul
Leisure	Duty free service	Film
Business	Free drinks	Lounge & bar areas
Rich Leisure	A la carte menu	Sleeping bunks

Table 2.4: Product Differentiation by Market Segment

Thus it is important to the airline marketer to be aware of all the controllable variables that are available, so that a distinctive market offering, designed for a specific consumer group, may be constructed.

Traditionally the quality of a product has been the combination of the factors used in the construction of that product. In this regard the airline industry is no different from any other industry. Analogous to the strength of a chain being found in its weakest link, an airline product may be perceived as being only as good as its least effective element. SAS chose a strategy to be 1 percent better than their competitors in a 100 ways, rather than be 100 percent better than their competitors in just one (Carlzon, 1989). This emphasises both the importance of relative competitive advantage, as advocated by Porter (1980), and the symbiotic nature of the marketing variables.

Perhaps the most discernible part of an airline's product is the product consumers receive during the flight. The in-flight product is composed of three parts. The comfort element, the service element, and the entertainment element. While some airlines have reduced to a minimum the in-flight product (e.g. People Express), the majority of carriers use their in-flight product as means of distinguishing their product from that of their competitors.

During a flight a customer's comfort is dependent upon the seat he or she is allocated. Seat pitch (see Glossary) and width has been used in advertising as a unique selling proposition (U.S.P) by many carriers (e.g. Qantas, BA, Virgin). Virgin's "Upper

Class" product currently has a 15" seat pitch advantage over its long haul rival BA Club World.

The quality and number of lavatories will also affect the perceived level of comfort, as will headroom. In recent years airlines have taken positive steps to isolate smoking passengers in separate compartments, indeed on smaller aircraft, where compartmentalisation is not possible, some airlines have undertaken a no-smoking policy, in response to consumer surveys. Comfort may also be increased by the supply of complimentary travel packs. Toothpaste and brush, a razor, and other such items are generally included. While these items may increase the comfort of a passenger's flight, they are more likely supplied as a tangible cue (see section on Physical Evidence, below) to the passenger's flight.

The in-flight service received by passengers is an important product element. Flight attendants provide in-flight service, and their role seems vital as their *"competence and amiability is, at 77%, the biggest determining factor in voting for the Best Airline"* (Business Traveller, 1989, p. 20). While their tasks may vary between market segments, they may include a mixture of the following:-

- ◆ Board and disembark passengers.
- ◆ Serve food and drinks.
- ◆ Issue and ensure proper completion of necessary customs documents.
- ◆ Ensure the safety procedure is taught and understood by the passengers.
- ◆ Deal with individual passenger needs.
- ◆ Sell duty free goods.

Here the opportunity exists for the airline to differentiate its products from those of its competitors, in order to communicate its market strategy. The role of the cabin crew will be discussed below (See section on People below).

The final element of the in-flight product is the entertainment provided. Cuisine is a common feature of most flights. Depending on the length of the flight and the class of transit, and the time of transit, the food will alter in quality. Passengers may be offered a choice of reading material, from women's magazines to daily papers. Carriers often have their own in-flight magazine which may be used for promotional activities (see below). Film presentations have become common on most longer haul flight. Until recently, however, the choice of film has not been at the customer's

discretion. BA has developed a smaller seat mounted video screen. Should the passenger want to watch a film, he or she may choose a film from the catalogue, using small earphones to listen to the sound track.

It would seem that consumers want to have a certain amount of freedom once on a flight. BA's business products are now being promoted with the message that their passengers are able to sleep, work, relax, and entertain themselves during a flight. The longer the flight the more important the in-flight product becomes. Virgin has, on its long haul "Upper Class " product, introduced a bar area and work suite. The carrier has even evaluated a plan for a flying creche. It would seem, therefore, that providing consumers with the choice of how they spend their time is an important consideration for operators in the 1990's.

After sales services may be developed as part of an airline product. Lost baggage tracing and other services may be provided for when the service fails to satisfy. A complaints department should aim to suitably rectify any grievances so that post-purchase dissonance does not arise. Clubs for brand loyal users, known as frequent flier schemes, may serve to remind consumers of their use of an operator's network. These act as a tangible cue to the consumption of the product, and also attempt to "lock" consumers into always using the same operator.

In summary, an airline has two major product elements. Firstly the route network that an airline serves, and the frequency and punctuality with which it operates those routes defines the core of its product. In addition to this, an airline product is constructed of the comfort and service given to the traveller in terms of seat pitch, in-flight entertainment, and cabin-crew service.

PRICE

A airline may offer many different prices. In the previous section it was noted that the liberalisation of air transport in Europe has led to the possibility of any airline charging any price for its services.

Pricing may be used to provide cogency for the marketing proposition. For example, if the product offered was of low quality (e.g. no meals provided, no complimentary drinks) then the price should reflect this by undercutting higher quality competition.

The business traveller wishes to have flexibility of flight timing, while the non-business traveller is less likely to need flexibility. A number of restrictions on a ticket have been developed by carriers, which not only determine the price of the ticket, but also define the market segment the ticket is aimed at. Shaw (1985) identifies a number of these.

- ◆ Minimum stay conditions
- ◆ Maximum stay conditions
- ◆ Advanced booking conditions
- ◆ Standby conditions
- ◆ Return/stopover conditions

These restrictions can be combined to define the particular conditions of a specific ticket. For example discount fares to European destinations often have a minimum stay requirement, combined with the condition that the ticket holder must stopover in the destination at least one Saturday night (see Appendix I). It is unlikely that business travellers, would take advantage of such a discount fare as, due to the restrictions, they would have to stay away from home longer than necessary.

PLACE

The major channel through which an airline distributes its products to its consumers is through travel agencies. Computer Reservation Systems (CRS) are now widespread throughout Europe. Via networked computer technology, a travel agent may make availability enquiries, book tickets and other services on line to a central computer. This information can also be used by the operator as a management information system.

Travel agents account for 80% of U.K. ticket purchases, while discount or "bucket agents" account for some 13%, with the carriers selling the rest of the flights (Market Intelligence, 1989). Discounts are not available to consumers who purchase their tickets directly from an airline, so agencies are the most common form of booking, for both business and non-business travel. Discount agencies account for a large percentage of the independent holiday travel flights.

The marketer must consider the markets that are being served and select suitable distribution channels. A growth area open to carriers is the development of a direct booking operation which offers either discounts or group arrangements for high consumption users (i.e. large organisations that purchase a considerable amount of air travel).

PROMOTION

Airline promotion may be either "above the line", "below the line" promotion or public relations (PR) promotion.

"Above the line" is the term used for promotional activity in the *"traditional commission paying media - press, T.V., radio, cinema, outdoors"* (Jefkins, 1983). The majority of above the line promotional budget is spent in press advertising. Target markets are reached through specialist, business and consumer press.

It is the airline's advertising which will communicate a message to the consumer. It is important to ensure:-

- ◆ The message is correct.
- ◆ The media selected will reach the target market.
- ◆ The source of the message is plausible.
- ◆ The message is decoded in the desired fashion.

Product branding may be used to communicate, to the target market, a product's added value or differential. A brand is a name that consumers know and react to, and which manipulates a buyer's perception of worth. An established brand will provide the customer with a guaranteed set of benefits.

It is the aim of the marketer to differentiate its product from those of its competitors. Many airlines place tremendous importance on the quality of their in-flight product in their market communications. Distinctive product branding communicates competitive advantage to consumers, however, as a unique selling proposition, a carrier's in-flight product can easily be copied and thus is not particularly good. It seems, therefore, that other methods of providing brand distinctions are necessary.

For example British Airways' Brand Management Dept. aims to provide brand distinction by developing psychological and functional value to the consumer (Moyle, 1989).

BA Club World has psychological value built into its slogan "delivers the customer ready to do business". The brand is built on this benefit rather than the services it offers. When new developments are introduced a new approach will not need to be planned as the slogan signifies the aim of the brand. It is the functional value of an airline product that fulfils the psychological worth of a brand. For example, the functional value of a comfortable reclining seat offered on a long flight may facilitate the fulfilment of the airline's "ready to do business" slogan.

"Below the line" is the term given to all forms of promotion, other than above the line promotions, with exception of Public Relations (PR). These include sales promotions, merchandising, point of sales promotions, direct marketing, and sponsorship. This form of promotional activity is growing, particularly in the business travel market (Intel, 1989). Below a selection of common promotions are listed.

- ◆ Frequent flier schemes
- ◆ Free economy class ticket with business class ticket
- ◆ In-flight magazine promotions
- ◆ Air miles promotions
- ◆ Car rental deals

Public Relations (PR) is the *"planned and sustained effort to establish and maintain [a] mutual understanding between the organisation and its public"* (Jefkins, 1983). PR is an often overlooked form of promotion. R. Branson, however, has used it successfully to promote his airline Virgin Atlantic, and has shown that press releases, conferences and publicity stunts can be created and controlled like any other marketing variable.

PEOPLE

"SAS figured out that the average passenger came into contact with five employees on an average trip. Each created a "moment of truth"... This amounted to 25 million "moments of truth" p.a." (Kotler 1988, p.23)

The procedures adopted by the front-line staff of an airline are an important part of the airline product. The quality of staff output should be regulated and this may be achieved by staff procedures. The market position assumed by the carrier may indeed be communicated to the target audience but if this positioning is not enforced by the manner in which staff behave, the evaluated market plan will fail.

These staff procedures define the passenger's perception of the carrier. It is therefore vital that any marketing plan addresses these procedures so that the market positioning decided upon in the market plan is enforced by the manner in which the staff deal with the customers.

Cabin crew, counter staff, and enquiries staff constitute a very important part of the airline product and should be considered as a marketing variable. Many companies, during recruitment, look for specific types of people that suit the company ethos (e.g. IBM) and in this way an airline can enforce the chosen market position.

During the late Seventies and early Eighties, many airlines communicated a subservient image of their cabin crew (e.g. "I wish they all could be Caledonian Girls"). While such an image is still popular with Asian-Pacific carriers, (particularly Singapore airlines), European carriers have moved toward a less sexist image. SwissAir have assumed a logo of "How very civilised", implying that the service received on one of their flights is somewhat more sophisticated.

PHYSICAL EVIDENCE

The environment the customer experiences will contribute to the airline product. The colour used for cabin decor can assist the airline to comfort the passengers. While the layout of the cabin and the furnishings used all contribute to the product. These variables can also be used to segment the market. Business travellers can expect a higher quality of furnishing than economy passengers, and it is common on larger jets to find that there is a difference in colour schemes between compartments.

An airline may provide the customers with tangible cues to their purchase. Travel packs and tags have little or no money value, however they serve to remind the consumer of their flight. Passengers may keep their in-flight magazines.

Merchandising has become a popular way in which consumers may receive tangible cues to their purchase. Branded toys, T-shirts, and ties provide the possessor of the product with a tangible reminder of the flight.

PROCESS

This final section involves the method by which the quality of the product is ensured. Once a idealised product has been planned this must be communicated to the staff that will be involved in providing the product. Here staff procedure policies are useful. Review and control mechanisms must be built in to the product to ensure that the customer actually receives the desired product. Currently little is known about the success of such control methods within the airline industry. The collaborating organisation has recently developed a monthly monitor of passenger opinions. For one week in every month 10 passengers on every flight are asked to complete a questionnaire. The questionnaire investigates passenger attitude towards the punctuality, the ground handling service, the cabin crew, and the quality of the catering. The data are compiled and analysed to discover where within the airline's network the service is not being provided at the required standard. Not only is the system used to ensure service quality, it can also be used to reward those airport workers, and cabin crew who are providing a particularly good service. The results of this research unfortunately cannot be presented in this thesis as the work was carried out on a commercial basis and the findings are confidential.

COGENT PRODUCT OFFERING

The preceding discussion regarding the product elements available to an airline to construct a marketing mix gives an idea of the total product offering of an airline. It has been noted throughout that the final product must represent a cogent, consistent product. In changing one element of the product an assessment should be made of the likely implications for the other product elements.

2.3 THE BUSINESS TRAVEL MARKET

The last section identified the product elements that are available to an airline to communicate its marketing strategy to its customers, once an analysis of the market has been undertaken. This section provides an analysis, based on the literature, of the nature of the business travel market which, it is shown below, represents a very important part of the air travel market.

Demand for air travel is derived in nature. That is people tend not to purchase air travel purely for the utility that the flight gives them, but because they need or want to travel to a different part of the world to attend a business meeting, to take a vacation, to visit friends and relations (VFR), or for other reasons.

Business travellers are particularly attractive to scheduled airlines as:-

- ◆ They tend to travel more frequently than leisure passengers.
- ◆ They tend to be prepared to pay higher prices than leisure passengers.

In short haul markets, such as those served by the collaborating organisation, business travel may represent a large proportion of a scheduled airline's traffic. In a report on the US market, Wickers (1994) indicates that about half of all domestic travel is business related. Doganis (1991) indicates that this proportion may be as high as two-thirds within Europe. Business travel, therefore, represents a vitally important market to short haul EU carriers. To survive in a more competitive environment, scheduled airlines will need to try to attract and maintain a significant business travel market. Given its importance, this thesis will, therefore, investigate the business travel market.

A number of studies have considered the business travel market as part of the entire travel market. Richie, Johnston and Jones (1980), in an investigation of leisure and business travellers, evaluated consumer perception of four product elements; choice, fares, service, and schedule. The study showed that scheduling was more important to the business sector while fares were more important to the leisure market. Good, Wilson, and McWhirter (1985) investigated passenger preferences for fare plans, and identified two groups; price sensitive vacation travellers; and predominantly male business travellers who indicated a high *"degree of negative feelings of business travellers to minimum stay requirements and advanced booking restrictions"* (p.22).

The rationale for considering leisure and business markets together is that the airlines often exploit the differences in the factors of demand of these two markets. In a study of the US domestic airline passenger market, Brunning, Kovacic, and Oberdick (1985) conclude that *"with respect to airline passenger travel, it is advisable to view the travelling public as a series of semi-distinct markets"* (p. 17). By so doing airlines can manage the peaks and troughs in demand, and, thereby, maximize their revenue per flight. The disadvantage with such an approach is that the richness and complexity of the factors of demand in both sectors tend to be overlooked in a bid to find the main differences between the two markets. In the above examples (Richie, *et al*, and Good, *et al*) the traditional view of business travellers as consumers that place high importance on scheduling factors and low importance on price is re-affirmed. However, little new information about the market is gained. While price elasticity may be the main distinguishing feature between business and leisure travel, it is unlikely that all business travellers follow this stereo-typical pattern (e.g. a self employed person who pays their own fare may consider cost to be highly important). To gain a more comprehensive understanding of the business travel market, this thesis will, therefore, concentrate on this market in isolation and not as a part of the entire air travel market.

A case will be made in the next chapter that, to investigate markets, a market segmentation study may be undertaken. Separate bodies of literature have developed for consumer marketing and industrial marketing. To consider the business travel market using the applicable body of literature, the market should be defined as either being consumer or industrial in nature. However, the following literature review will show that the distinction between consumer and industrial products or services is not necessarily obvious.

The Industrial Marketing Committee Review Board (IMCRB, 1954) defines consumer products as *"goods [and services] destined for use by the individual ultimate consumer in such form that they can be used by him without further commercial processing"*. Using this definition it would seem that business related air travel may be defined as a consumer service, as the individual consumer (the business traveller) uses the air service as a completed product, which requires no further commercial processing.

By contrast a definition given by Parkinson and Baker, with Moller (1986) of industrial products indicates that business related air travel could also be considered as industrial service. They state that an industrial products includes "*product[s] or service[s] to satisfy organizational rather than individual goals*" (p. 6). As demand for business travel is derived from a need for business people to travel in the pursuit of their business, business travel also falls within the scope of the definition of industrial products.

It would seem therefore that the definitions given fail to classify business related travel adequately. Analysis of these definitions indicates two dimensions that may be used to classify products. These are:-

- ◆ The number of people involved in consuming the product, and
- ◆ The intended use for which the product is purchased.

Both classification criteria can be criticised. The first criterion distinguishes consumer and industrial products by the number of people that use the product. The IMCRB definition considered the individual ultimate consumer, while Lilien talks of institutional customers. This criterion seems sufficient to classify products such as jeans, and machine tools, however, many examples could be highlighted where classification is more difficult. The household grouping provides the most obvious example of where products are consumed by more than one individual. Cars, holidays, and joints of meat may all be purchased for consumption by more than one individual, yet these products would naturally be considered as being consumer products, and a piece of wood may be used by only one craftsman in the production of a finished cabinet, yet is obviously an industrial raw material. Products such as those described can be classified using the intended use criterion, i.e. whether further commercial processing will be applied to the product.

The value of the intended use criterion may be criticised. The purpose of classifying a product as being either consumer or industrial is that it allows different marketing strategies to be applied. However, under certain circumstances the marketer does not know whether a product is purchased for industrial or private consumption, and the product is sold without any recognition of this. For example, tools and building materials are purchased by building contractors and DIY enthusiasts alike from both DIY stores and builder's merchants. Special treatment (such as discounts) may be afforded to high value customers irrespective of the use to which the purchases are

applied. Fern & Brown (1984) provide a strong argument that definitions of consumer and industrial products fail to classify many products, and provide a number of examples of products which have elements of both consumer and industrial markets. Smith and Bard (1989) support this view and note that the boundary between the two markets is becoming blurred. They provide an example of a product group (faxes and computers) that seems to fall between consumer and industrial markets, and note that although the product may be selected by the user, if it is being purchased for a business application, it is likely that certain processes will be undertaken that are essentially industrial in nature (i.e. payment authorisation, budgetary signature, order forms, etc.).

This situation is also true for airline services. When an airline ticket is purchased the airline is unaware of the reason for travel. It is assumed that business travellers place high value on ticket flexibility (being able to change flights, etc.) and low value on cost; thus high cost, fully flexible tickets are aimed at this market. However the airline does not distinguish between travellers if a leisure traveller wishes to purchase such a ticket. Due to the nature of this market it would seem, therefore, difficult to specify whether air services consumed for business related reasons are consumer or industrial products.

If the boundaries between industrial and consumer markets are blurred, as for business air travel, the question that may be asked is what is the importance of the distinction? The distinction has developed because industrial markets invariably are more difficult to investigate than consumer markets. This is because buying behaviour in companies is very different from an individual purchasing a product, for example:-

- ◆ There are often more people involved in the decision making,
- ◆ The decision making process may take longer
- ◆ The decision to be made is often technically complex
- ◆ Each buying organisation is likely to be significantly different from every other buying organisation (Webster & Wind, 1972)

The case made by Fern and Brown (1984), and Smith and Bard (1989) is that for certain products these distinctions are not necessarily true. Under such conditions the question to be answered is what is the best way to investigate the business travel market? It is possible that air business travel can be perceived as a hybrid market, featuring elements of both consumer and industrial markets, and that research

approaches from each may be adopted, possibly with some adaptation. This will be investigated in the next chapter (see sections 3.3 and 3.4)

Let us consider, therefore, in a little more detail, the nature of the business travel market. There are many reasons why an individual may make a business trip which include negotiations, planning meetings, extraordinary board meetings, sales visits, conferences, training, "trouble-shooting", regular committee meetings, routine progress meetings, etc. Doganis (1991) divides the reason for business travel into routine and non-routine. Non-routine travel tends to be more important than routine travel, and due to its non-routine nature, has lead times which are too short to allow flight booking in advance. For example, consider the following situation. A London engineer needs to make an emergency visit, to a plant in Paris that has stopped production due to a technical fault. It is likely that factors such as price, class of seat, and loyalty to a favoured airline will be given much less consideration than seat availability on the first flight to Paris from the closest London airport. Under different circumstances the same engineer making the same flight for a different reason (such as a planned conference visit) may consider a different set of product elements to be important, such as class of ticket, leg room, etc.

It would seem that when considering the selection of a flight a business traveller is influenced by both organisational and personal motives. Based on organisational motives, a business travel may want:-

- ◆ To arrive at the destination in good time, to meet business objectives.
- ◆ To be able to work on the flight if necessary (perhaps a report needs to be prepared as soon as possible after the visit).
- ◆ Short check-in times so that working time can be maximised at the destination. This may be particularly important on one-day trips.

Although the individual has a number of business-related wants, he/she will also have a list of wants that do not relate to business objectives. The traveller may want:-

- ◆ To arrive home after the trip in good time to spend time with his/her family.
- ◆ To be recognised by staff and other travellers as being important in his/her organisation. Perceived status may be important to some business travellers.
- ◆ A high quality in-flight service.

- ◆ To earn points on his/her frequent flier scheme by flying with a regularly selected airline.
- ◆ A certain amount of leg room.
- ◆ Free drinks, newspapers, etc.
- ◆ To buy duty free goods.

These lists do not purport to be comprehensive as the wants of each traveller will be different. However, they serve to show that traveller preference may be based on a wide set of motives. If the behaviour of business travellers was based, purely, on motives such as given above, it would seem acceptable to consider the market as a consumer market (individual consumers, using a finished product), and, therefore, investigate the market by applying research approaches solely from the consumer marketing literature. However, the airline user's motives may not be the only set of motives that affect the purchase of air travel.

Cost is likely to be a low consideration to the traveller when the cost for the ticket is not borne by himself/herself. Companies invariably incur the cost of business travel. American Express undertake an annual survey of business related travel. The studies show (1990, 1991, 1993/4) that travel expenditure represents a large cost to many organisations, and that many organisations are beginning to apply closer control over the spending of executives on business trips. It would seem, therefore, that the organisation which employs a business traveller may have some influence over the purchase.

Organisations are concerned with elements of an airline's service that relate to the company's representative being capable of completing, successfully and cost effectively, the purpose for which the trip is being undertaken. Organisations may, therefore, be concerned with:-

- ◆ Price of flight.
- ◆ Price of parking at the airport.
- ◆ Time of arrival at destination.
- ◆ Safe carriage of any materials (e.g. sales samples, portable computing equipment, etc.).

The needs or wants of the traveller may not be the same as the needs or wants of the company. In some cases there may be some conflict between the objectives. The

question that may be asked, therefore, is whether organisational involvement in the purchase of business travel has a significant influence on buyer behaviour?

It can be summarised that the business air travel market has elements that would be expected in both consumer and industrial markets. Travellers may specify the flight that they want to take, based on a set of personal wants. In some and possibly many cases this may be the complete decision making process, however in other cases this choice may be limited by a company travel policy. In a most extreme case, the traveller may have very little decision making power, as a travel manager in the organisation may select and book the flight for the traveller.

It would, therefore, seem that the market has a hybrid nature, i.e. it has elements of both consumer and industrial markets. In light of this should the market be treated as consumer or industrial? To treat it just as a consumer market, may lead to errors of omission as the analysis would exclude organisational influence. Alternatively, a purely industrial analysis may understate the importance of the personal element of the traveller's motives. To decide how best to investigate this market it is proposed that both the consumer and the industrial marketing literature be considered (in Sections 3.3.2 and 3.4.2) and a method that best suits the business air travel market be developed (in Chapter 4) based on this investigation.

2.4 SUMMARY

This chapter has investigated the marketing environment in which any EU airline is operating. The US experience of airline deregulation has shown that under a completely non-regulated environment effective competition can be eradicated by the largest airlines. The EU has created a new legislative environment in which it aims to create a competitive environment for air transport. In this newly competitive market, airlines need to adopt marketing strategies that will ensure corporate survival. The tools available to an airline that it can use to communicate its strategy were discussed. The business travel market has been identified as being highly important to short haul airlines, so it is important that airlines have a strong understanding of this market. The nature of the market has been shown to have elements of both consumer and industrial markets, and consequently it has been suggested that both consumer and industrial marketing literature be considered in an attempt to find a suitable research method.

The three elements of that have been covered in this chapter (legislation, the marketing mix, and business travel market analysis) are all important to provide a rationale and a context for this thesis.

CHAPTER 3: MARKET SEGMENTATION: A LITERATURE REVIEW

INTRODUCTION

This chapter provides a critical review of the published literature on market segmentation. Section 3.1 provides an overview of market segmentation, by investigating the issues surrounding the subject. Consumer market segmentation is considered in section 3.2. Section 3.3 reviews the industrial segmentation literature.

3.1 BACKGROUND

The previous chapter has highlighted the current situation in the airline industry in the EU. The market in which airlines operate has been shown to be changing from one where on each route there is likely to be only two flag carrying operators to one where there may be many carriers operating. To survive in this new competitive environment, airlines will need to protect and build their market share. The development of marketing strategy provides a method by which an airline can attempt to protect and build its market. As identified in the last chapter, a vital part of an airline's market is its business related travel.

Following air liberalisation the business traveller is faced with increased choice, and, therefore, an understanding of the behaviour of this market is essential to EU carriers. EU carriers must try to attract passengers based on product attributes that are important to those passengers. To develop such products, an investigation of the value placed, by passengers, on product factors in the decision making process is, therefore, required. This chapter looks at a method by which an airline can develop this marketing strategy; namely market segmentation.

The concept and philosophy of marketing is based on the central premise that an organisation will succeed if the customer is satisfied. It can be understood as the provision of products that will fulfil satisfaction to consumers in order to meet the goals set by the vendor organisation. The process of marketing has been defined as the *"specialized function concerned with the exchange process which underlines the satisfaction of human and organisational needs"* (Chisnall, 1985, p.4). The exchange process provides utility or satisfaction to the purchaser by fulfilling demand and some form of recompense to the vendor. This exchange process is carried out in a market.

Market segmentation is one of the main tools available to a company to develop an understanding of its market, and develop a successful marketing strategy. Identified as a strategy development tool in the mid-1950s (Smith, 1956), market segmentation quickly grew in popularity both in academic and practical fields, and is recognised as one of the most important concepts in marketing (Yankelovich, 1964, Unger, 1974, Wind, 1978).

The purpose of market segmentation is to identify which consumers within a market react in the same way to marketing stimuli so that market demand may be subdivided into economically viable segments. Investigation of the attributes that make the group unique provides an insight into the consumers that make up the group, and it is this understanding that can be used to design products specifically suited to that market segment.

Segmentation's popularity may be attributed to two main benefits. Firstly, from an academic perspective, many published segmentation studies have added to the understanding of consumer behaviour. Secondly, segmentation in practice facilitates the development and adoption of a marketing plan. Definitions of marketing tend to include the satisfaction of organisational objectives through customer satisfaction (Chisnall, 1985, Cannon, 1986). Market segmentation is a tool which an

organisation can use to do this. The concept of marketing may be perceived as a philosophy that may be adopted by a company, while market segmentation may be seen as an operational tool that enables the company to apply the marketing philosophy. Segmentation, therefore, provides a framework by which an organisation can:-

- ◆ Gain an understanding of its customers.
- ◆ Develop products that will meet consumer demand.
- ◆ Provide an analytical tool that enables the organisation to decide how to allocate its resources in an efficient manner. By definition, each segment will have a different degree of attractiveness; segmentation analysis provides the information necessary to allocate resources in the most efficient manner (Tynan and Drayton, 1987).
- ◆ Provide a guideline as to how to promote those products through the analysis of its consumers.
- ◆ Facilitate the development of a strategy that will meet its objectives.

The concept of market segmentation was introduced by Wendell Smith (1956). He identified market segmentation as a marketing strategy and distinguished it from product differentiation strategy. The study criticised the established economic theories of perfect competition and pure monopoly as suitable models to explain the market behaviour experienced at that time. Smith argued that the conditions for perfect competition, particularly those of consumer and producer homogeneity, were unrealistic. Observation of real world examples showed that, within a particular sector, differences could be identified in consumer characteristics and requirements, and producers would not all produce standard mass market goods. Both product differentiation and market segmentation models recognised these differences.

Product differentiation strategy was identified as being an attempt to shift or alter the demand schedule for the product of an individual producer in the market. This

technique was perceived as a supply side attempt to change the demand curve through the use of a producer's promotional strategy.

Smith noted that producers recognised that consumers have different characteristics and requirements from the products they consume. In other words multiple demand schedules could be identified where only one was previously recognised. New production techniques meant that these producers could manufacture specialised goods to offer to groups of consumers within a mass market without reducing production efficiency. By offering specialised goods to potentially high earning market segments the producer could allocate its resources in a more efficient and therefore profitable manner. Market segmentation was, therefore, identified as the technique that could be used to achieve this more efficient marketing strategy.

The literature that followed Smith's original paper falls into two broad categories:-

- ◆ *Theory.* Literature aimed at developing the concept of market segmentation.
- ◆ *Procedure (or strategy or practice).* Studies that test segmentation theory by its application to specific market examples.

This research project examines the business air travel market. It has been shown that while the business travel market exhibits some characteristics of a consumer market the market also exhibits some industrial market characteristics, and may, therefore, be considered as containing features of both a consumer and an industrial market: in other words, a **hybrid** market.

Although it has been established in the literature that both the concept of segmentation and most of the approaches developed are equally applicable to consumer and industrial markets (Webster and Wind, 1972, Nicosia and Wind 1977), separate bodies of literature have developed for both consumer and industrial

markets. As business related travel has elements of both consumer and industrial markets it is important that both bodies of literature are considered. The section that follows will, therefore, look at the basic concept of market segmentation. This will be followed by a review of the studies undertaken in consumer markets (section 3.3), while an investigation of the literature pertaining to industrial market segmentation is considered in a separate section (3.4).

3.2 SEGMENTATION THEORY

By the early 1970's Clayclump and Massy (1972) noted that a general theory of segmentation had not been developed. To date this situation has not been rectified although there have been notable additions to the theory (e.g. Mahajan and Jain, 1978, Tollefson and Lessig, 1978). This lack of theoretical development may be attributable to the fact that:-

- ◆ While the concept of segmentation has its roots in economic theory, many studies have drawn from the literature pertaining to behavioural theories, causing a lack of research focus.
- ◆ Academics and practitioners tend to choose different research objectives which also leads to a lack of focus in the research (Wind, 1978).

To date there have been many definitions of segmentation. The following discussion attempts to identify the key elements of a good definition of segmentation. Smith originally defined segmentation as a "*rational and ... precise adjustment of product and marketing effort to differences in consumer or user requirements*" (1956, p. 5). Segmentation, therefore, was viewed as a framework within which strategy could be developed. The definition acknowledges that the concept of segmentation is focused on the demand side of markets, in contrast to product differentiation which is a supply led strategy.

Incorporated in Smith's definition was a recognition that consumer data was currently available to the organisation. Smith noted later (1978 p.316) that "*whereas segmentation's initial contribution to marketing planning was predominantly that of providing a framework for the analysis of existing data, its utility has now expanded so as to provide a basis for identifying the data needed for strategy selection and implementation*". Smith's comment indicates that segmentation research had developed to include the assessment of data used to segment markets.

Some definitions (Thomas, 1980, and Tynan and Drayton, 1987) imply that a product or brand already exists. These definitions indicate that segmentation strategy's role is in identifying which market segments the product or brand should be aimed at and how the product should be promoted to that segment through the use of a marketing mix. These definitions seem inconsistent with the general concept that segmentation strategy is demand led, as in these circumstances the product is already supplied to the market. Indeed one of the main benefits offered by segmentation is one of new product development (Beane and Ennis, 1987). It may be suggested, therefore, that a good definition should possibly make clear at its outset that the strategy involves an investigation of the demand side factors in the market place. Morden (1985) does indeed make such a case. He defines segmentation as "*the analysis of a particular market demand on the basis of its constituent parts, so that "Sets of Buyers" can be differentiated*" (p.1), however, his definition does not include any indication as to how a segmentation strategy is to be effected by the organisation. It is the product offering that links the organisation to the demand side of the market, and a worthwhile definition should consider this relationship.

Engel, Fiorillo, and Cayley (1972, p.10) define market segmentation as "*a systematic method of studying markets, how markets are related to consumer characteristics, needs, wants, and preferences, and how products fit into those markets in the process of satisfying consumer wants*".

This definition provides the concept's elements of theory and procedure, however, it could be improved by adding a consideration of the aim that the producer has for undertaking the strategy. This could be achieved by appending the words "*and organisational objectives*". Smith's definition explicitly recognised the commercial rationale for the strategy and this should be maintained.

Engel, Fiorillo, and Cayley's definition indicates that market segmentation is based on three basic premises:-

- ◆ *Consumer heterogeneity.* The consumers in a market exhibit differences from one another. These differences may be measured against one or many dimensions.
- ◆ *Market causality.* Differences in market demand is related in some way to the differences between its consumers.
- ◆ *Market segregation.* Groups or segments of consumers can be isolated within the market by identifying the differences between the consumers.

These premises accept that markets are constructed of individuals, each with his/her own characteristics and requirements, although within a market there may exist groups of individuals with similar characteristics and requirements. By aggregating the demand schedules for individuals within each group multiple demand schedules can be identified. Frank, Massy, and Wind (1972) note that the existence of multiple demand schedules provides opportunity to the market oriented company to offer specially designed products for one, many or all of the groupings.

As market segments exist due to the differences in consumer characteristics and requirements, investigation of these variables may be used to identify the groupings. The aim of a segmentation analysis is to find a variable or group of variables that will allow the division of the market so that members within a grouping will have similar

traits (and thus respond in the same way to the firm's marketing activities), and members of different groupings will have inherent differences.

To enable an organisation to identify market segments, a segmentation model may be used. A segmentation model incorporates a dependent variable, this is the basis on which the market is split (known as the segmentation base), and one or more independent descriptor variables. The descriptor variables are used to identify and define the segments. The design of the segmentation model and the bases which may be used to segment a market will be considered in the following sections on segmentation procedure (3.2.1. and 3.3).

Two schools of segmentation research may be identified; the behavioural and the normative schools. The marked difference between these two strands of research is in their focus. This difference may be seen mainly as a result of the way segmentation research has developed. The division in literature has been produced by; firstly the need for knowledge about how consumers behave in the market place; and secondly the need for a prescriptive practical segmentation framework for companies in the real world.

The behavioural school of research is concerned primarily with the identification of market segments as *"these differences [which] can lead to insights about the basic process of consumer behaviour"* (Frank, Massy, and Wind, 1972, p. 11, word in bracket added). Research of this type adds to the literature concerning buying behaviour. Its value is two-fold:-

- ◆ The identification of market segments will certainly provide the practitioner with valuable marketing information about the market he/she serves, and may well lead to the development of new marketing strategies.
- ◆ From a purely social scientific standpoint, the research adds to our understanding of how and why consumers behave in the way that they do.

Behavioural studies are concerned with evaluating whether a particular characteristic or form of buying behaviour may be used to segment the market. Studies of this nature may be criticised for their potential lack of usefulness from a practical perspective, as they may overlook the environment in which segmentation takes place. Behavioural studies are concerned primarily with developing an understanding of consumer behaviour. Practical considerations such as the feasibility and cost effectiveness of targeting particular market segments are evaluated as separate issues.

Normative segmentation research builds on the early findings of behaviourally oriented work (Mahajan and Jain, 1978), but unlike this work the focus of normative research is not on why individual differences occur, but how these differences can be used to improve the efficiency of the organisation's market offerings. Research from the normative school is concerned with how the consumer differences identified through a segmentation study may be used to improve an organisation's profitability. The development of a marketing strategy based on a segmentation study will require the organisation to incur costs associated with product development, additional promotional costs, and possibly suffer the loss of production economies. Normative theory, therefore, provides a framework within which segmentation as a management tool may be utilised by indicating how best to allocate resources.

Clayclamp and Massy (1972) note that segmentation provides a method by which a firm can optimise its profit by defining segments based on differing price elasticities and achieve an equilibrium by equating the marginal profit earned in each segment. The paper lists four problems associated with segmentation, namely; defining segments, measuring elasticities of response to marketing variables on a segment by segment basis, information limitation, and organisational constraints. They provide a multi-stage theory of segmentation which aims to overcome these problems. The multiple stages may be perceived as stages of market aggregation. Their model

indicates that aggregation of the market will continue from a situation of total disaggregation until the marginal profit gained by segmentation will be balanced with the administrative, promotional, research, development and production costs of utilising the strategy. Similar models and criteria have been developed by others in this school (Mahajan and Jain, 1978, and Frank, Massy, and Wind, 1972, and Tollefson and Lessig, 1978).

The value of normative theory is that it provides a model that explicitly recognises and allocates the costs associated with a segmentation strategy. However, the example given in Clayclump and Massy (1972) concentrates on price information, while indicating that other elements of the marketing mix may be included in the model. The authors do not consider how the interrelation of these other elements may affect the model. Lessig and Tollefson (1972) note the inadequacy of using only one buying characteristic (the dependent variable) and some socioeconomic and personal characteristics. The concept of segmentation indicates that all members of a segment react in a similar fashion to a marketing stimulus. This could be price but it might also be something else, therefore, one segment may be constructed with those who react to price and another could react to some other stimulus. Lessig, and Tollefson, therefore, make a strong case for multivariate analysis of buying characteristics.

There is value in the development of the concept of segmentation offered by normative theory, but it is limited as the concepts are difficult to operationalise. For example, data is required for both response elasticities and media consumption and distribution. Thus, according to Wind (1978) it is largely overlooked by practitioners.

3.2.1 SEGMENTATION PROCEDURE

A body of literature has developed that is primarily concerned with the practice of undertaking a segmentation strategy. A good general introduction to the subject may be found in Frank, Massy, and Wind (1972). Major reviews of the research are given by Wind (1978), Beane and Ennis (1987) and Tynan and Drayton (1987). Engel, Fiorillo, and Cayley's edited (1972) publication brings together major contributions on the subject that had been published elsewhere over the previous fifteen years.

Much of the literature tries to identify the best way to segment a market. The following sections will consider:-

- ◆ The selection of the variable(s) to be used in the segmentation model
- ◆ The research design to be employed

There has been a limited amount of literature published concerning the method by which a market should be segmented and no specific model of base selection has been developed. The literature in this area tends either to provide:-

- ◆ Lists which show which markets have been segmented by which bases
- ◆ Guidelines that indicate the conditions under which a particular base may or may not produce a successful segmentation
- ◆ Criteria which can be used retrospectively to assess the quality of a particular segmentation.

Wind (1978) notes that, while the theory of segmentation implies that there is a single best way to segment the market, in practice, selection of the variable for a segmentation study will depend on, the current state of knowledge about how well particular bases segment the specific market, and the current managerial needs. A list is given that provides a guide as to which base to use under various management

decision making situations such as product positioning, new product development, pricing, and advertising. Bases that are useful for developing a general understanding of the market are also listed. The situation specific behavioural bases in general and benefits sought in particular are noted as being particularly successful at meeting the needs of management as it facilitates product development and guides communications strategy.

A number of criteria for evaluating the base or bases used for segmenting a market have been identified (Frank, Massy, and Wind, 1972, Engel, Fiorillo, and Cayley, 1972).

- ◆ The segmentation base should divide the market into homogenous groupings that tend to respond to the company's marketing activity differently.
- ◆ To be able to identify market segments, the variable(s) used should be measurable in some way. This measure will depend on the type of variable. The measure may be objective such as a consumer's age, gender or geographic location, or inferred such as personality traits, lifestyle, or benefits sought from the product. The quality of the measure will affect the quality of the segmentation. Inferred measures may be tested for their reliability (i.e. does a measure actually gauge a characteristic or trait accurately).
- ◆ The market segment(s) should be accessible to the organisation through the use of media or distribution channels. If a product is developed for a particular group of consumers and this targeted group cannot be easily reached by some method, the segmentation is inefficient. The structure of magazine readerships and television programme audiences can be used to access market segments. For example a product designed for women

could be accurately targeted at this grouping by its promotion through female oriented magazine titles.

- ◆ The segments that are targeted should be of a sufficient size to warrant separate marketing attention. The market segmentation should lead to an increase in profit, and therefore it may not be worthwhile for an organisation to spend the marketing funds required to serve a particular segment if that segment represents a markedly small part of the entire market. A segment may be considered economically viable if the company can earn *"adequate profit by catering to the specific needs of its members"* (Tynan and Drayton, 1987, p.302).

Yankelovich (1964) indicated that a market may be segmented in many different ways. These different bases will provide different findings. For example, the car market is segmented using value, aesthetic and brand loyal bases, which he indicates are all important with regard to marketing planning. However the paper does not indicate:-

- ◆ Whether these segments are divergent, cogent or mutually exclusive
- ◆ How these three approaches could be combined so that all three are considered in a consistent marketing programme, although he indicates that it is important to find the *"most pragmatically useful way of segmenting the market"* (p. 84).

The major criticism of all of these approaches is that they do not objectively indicate the optimum base for segmentation. If an objective selection method is not available a pragmatic solution offered by Thomas may be adopted. *"Researchers find that it is possible to devise alternative methods [to segment markets], ...test the meaningfulness of each, and from the results, come up with an optimum selection of segmentation variables"* (1980, p. 25). While this solution is similar to the approach

used by Yankelovich (1964) and therefore suffers the same problems, it is the most practical method currently available. Consequently the available consumer segmentation bases will now be considered.

In order that a segmentation of a market may be undertaken a research instrument must be designed. Four research designs have been identified by Wind (1978).

Studies that apply an *a priori* design decide in advance the base on which the segmentation is to be undertaken. For example, consumers may be grouped according to heavy, medium and light consumption. Studies of this type generally involve the following stages; base selection, descriptor variable selection, sample design, data collection, segment formation, segment profiling, and strategy development.

A study using a clustering based segmentation is similar to an *a priori* design with the exception that the number and type of segments are not known in advance. The clusters are formed by the application of a cluster analysis, and achieved by forming respondent clusters based on a set of relevant variables that are selected in advance. Psychographic and inferred behavioural variables are the most commonly used for designs of this nature.

Flexible research design uses a dynamic analysis technique such as conjoint analysis to identify market segments. An evaluation of importance placed by respondents on product attributes is calculated by forcing the respondents to trade product attributes one with another. Computer simulation of consumer choice behaviour is used to "*develop and examine a large number of alternative segments, ... composed of ... consumers ... exhibiting a similar pattern of responses to new 'test' products*" (p. 322). This design is particularly useful for new product development as it enables the researcher to identify which combination of product attributes will be most attractive to the market segments.

The final segmentation model is componential. Developed by Green, Carroll, and Carmone (1977), this design extends the flexible model to include not only data about product attributes but also includes respondent characteristics. Its purpose is to predict which type of consumer will be responsive to what type of product feature.

While dynamic models based on methods such as conjoint analysis are seen to be suited to the development of new products, in the case of this research the lack of availability of the latest interactive data collection techniques meant that the paired cards method was the only available method by which such an analysis could be performed. It is noted (Norusis, 1990) that as the number of variables and the number of options within each variable rises the number of pairs of cards becomes very large, making the data collection process very labourious from the respondent's perspective. In the fifth chapter 23 product elements are identified for evaluation by respondents. To investigate the importance of these product elements by conjoint analysis would have meant too large a number of paired cards to make the technique suitable. Consequently (as will be discussed in chapter 5) a segmentation based on a cluster analysis was performed.

3.3 CONSUMER SEGMENTATION BASES

Taxonomies of segmentation bases are given by Engel, Fiorillo, and Cayley (1972, p.11) and Frank, Massy and Wind (1972, p. 27). Both classify segmentation bases into either general or situation specific consumer characteristics, and whether the base is inferred or objective. Segmentation studies that use general consumer characteristics (e.g. demographic data such as age, gender, stage of life, life style) try to assess the extent with which variations in these characteristics account for differences in market behaviour. Situation specific studies, on the other hand, investigate consumer behaviour towards the product (for example, whether the

consumer is a heavy or light user of the product or loyal to a particular brand) and try to discover how variations in behaviour can be explained by consumer characteristics.

Others have considered the segmentation bases under different schemes. Crimp (1985) divides segmentation variables into two categories; descriptive variables (geographic, demographic, product usage) and explanatory variables (social-psychological). This division is useful in explaining the nature of the segmentation bases. Tynan and Drayton (1987) consider the segmentation variables used to segment consumer markets under five headings: geographic, demographic, psychological, psychographic and behavioural. Psychographic bases are not included in Engel, Fiorillo and Cayley's taxonomy. However, they may be seen as an extension of psychological segmentation as they combine its two main elements, namely; personality and motivation.

The following discussion of the types of segmentation bases aims to inform the reader how market segmentations may be achieved by applying the various bases. It identifies the benefits and disadvantages of each base, and evaluates the suitability of each base as an approach to segment the business air travel market. The bases are discussed under Tynan and Drayton's headings, however psychological and psychographic bases are considered together as one is an extension of the other.

GEOGRAPHIC

A market may be segmented on a geographical basis. Research investigates whether consumer needs differ between regions, thereby indicating the validity of a location-specific market offering. This base may be used where a producer is not of a sufficient size to serve an entire market, and therefore chooses to serve only part of a

market. Such a strategy may be particularly prevalent where domestic markets are very large (such as the USA).

Promotional media are often divided so that producers serving a fairly small geographical region can promote their products to their targeted geographical area. For example, in the UK, independent television franchises tend to cover only two or three counties, and advertising space in national newspapers is sold on a regional basis.

A fairly new method of applying a geographic segmentation is through the use of postcodes. New information technology has enabled census data to be analysed at postcode level. All the dwellings in a postcode tend to be of a similar nature. ACORN (a classification of residential neighbourhoods) was developed using the 1981 UK census data. Its aim was to investigate social deprivation in Liverpool. 38 neighbourhood types were identified using 40 variables from the census (Tynan and Drayton, 1987). Marketers can use this information to identify specific postcodes where the residents are likely to match the target social profile for their product. Classification schemes such as ACORN and Pinpoint are particularly useful for direct marketing promotions and local media selection.

A travel market may be segmented by the residence of the consumers. An airline can develop a customer database that can be used to promote regional services by segmenting the database into regions. A list of names and addresses can be developed by running competitions, providing enquiry services, and the like. Regional media promotion can also be used to promote local airline services. An ACORN classification of high usage customers may be developed using the customer database. This profile can then be used to target potential customers, and promote the airline's service in a cost effective manner.

For the business travel market a problem in applying this base arises. Business travellers have both business and residential addresses. The airline must decide which address to seek for inclusion on the database. A work address would provide the airline with a opportunity to promote their services to the company as a whole by arranging to visit the company. This may reap some additional business, however the lack of a home address will mean that an ACORN (residential) profile of a potentially good source of business will be lost. Also direct marketing to that traveller will not be possible if the home address is not collected. Behavioural aspects of the market such as whether the traveller journeys to/from the airport from his/her home or place of employment will be overlooked unless data of this nature is collected. Here the problem of investigating the hybrid nature of the business market can be seen.

Database marketing of the type described above requires vast computing facilities, a large number of data entry personel, and researchers. While such an approach may assist in meeting the objective of this research (i.e. to develop an understanding of the consumers in the market), it is a very expensive approach, and there may well be a more cost effective segmentation approach available.

DEMOGRAPHIC

Demographic segmentation has perhaps been the most frequent base for segmentation studies. It is more appealing than other bases as the data can be easily measured, gathered, comprehended, and transferred (Beane and Ennis, 1987). The common demographic variables are age, gender, family size, life cycle, and religion. Social class variables include income, occupation, and education. Demographic segmentation is based on the notion that buyer behaviour is related to a person's demographic profile. It would seem natural that the purchase of a high performance

sports car is related to income, a women's interest magazine is related to gender, and a family holiday is related to life cycle.

A particularly well known segmentation study based on demographics may be found in Frank, Massy, and Boyd (1967). The purchase behaviour of a panel of consumers to 57 grocery products was evaluated to see if demographic data could be used to predict behaviour. They did not find any strong evidence in support of this theory. Haley (1968, p.30) gives a number of examples of other research projects that show demography to be a poor predictor of behaviour, and contents that consumers are somewhat more complex than is revealed by a simple demographic study.

Combinations of demographic variables may be used to increase the descriptive value of the segment. For example, SAGACITY is a computer-based segmentation of the U.K. population based on the combination of life cycle, income, and occupation variables, derived from census data (Crimp, 1985).

While multivariate studies may improve the predictive value of demographic segmentations, the basic shortcoming of these bases is that they do not consider directly the personality, motives, and desires that consumers have, but rather, are proxy measures of these elements. The basic assumption is that people who possess the same demographic profile will exhibit the similar behaviour. While this is true to a certain extent, the measures do not enable the marketer to predict specific behaviour as they do not gain an comprehensive understanding of the consumer. For example those people who live in houses down a rich street are more likely to buy new cars than those people living in a council-owned tower block. Demographic profiles can, therefore, be used by car manufacturers to target prospective customers. However, the demographic profile will not be able to assist the marketer to predict which brand of car a family living in the rich street is going to buy, or why.

Beane and Ennis (1987, p.21) note that "*demographics will not be good descriptors of segments if the segments do not clearly exist*", however they indicate that once segments have been identified by other bases, demographics provide a good method by which the segment may be described. A demographic profile of a segment may be particularly useful when selecting media for promotional communication as media vendors provide extensive data concerning audience demography, thus enabling the efficient allocation of spending on promotion.

Research shows that business travellers are predominantly male, aged between 25 and 54, and fall into the AB socio-economic classification (Shaw, 1990). It would seem, therefore, that demographic segmentation of the individuals in this market is possible, however this analysis does not consider the demographic profile of the organisation for which the traveller works or the behavioural aspects of the market. This includes the individuals needs, wants and motives and also organisational information which may affect behaviour such as the size of the company that a person works for, the culture of that organisation, the person responsible for budgetary authorisation, and other such factors of an organisational nature. As the objective of the research is to investigate the nature of the market a demographic segmentation would not seem to be a highly appropriate base. However, the importance of gaining demographic data to profile any identified segments has been highlighted, and thus it is appropriate to collect data of this type for such a purpose.

PSYCHOLOGICAL

Deficiencies in both geographic and demographic segmentation bases, has led to the development of both psychological and behaviouristic segmentation methodologies (Thomas, 1980).

Psychological bases use consumer personality, attitude, motivation, risk, and the like to segment the market. The bases fall into two areas; personality, and motivation (Clayclump and Massy, 1972). Psychographic segmentation is an extension of the practice of psychological segmentation, and involves the construction of groups of consumers who have similar psychological profiles (or activities participated in, attitudes, interests, and opinions). It combines elements of consumer personality and motivation.

Wells (1975) describes psychographics as a quantitative attempt to place consumers on psychological dimensions. This indicates the more complex nature of these segmentation bases. The researcher will try to measure the consumer's personality, value systems, beliefs or lifestyle. Crimp (1985) indicates that this may be achieved by assessing consumer attitudes to either the relevant activity or the specific products (i.e. brands) available for carrying out that activity.

Wells and Tigert (1971) used the responses to a battery of 300 statements with regard to consumer's activities, interests and opinions to develop profiles of consumers in a number of different markets, including eye make-up and bread shortening. Respondents were asked to rate how much they agreed with statements such as "When I set my mind to do something, I usually can do it", and "I enjoy looking through fashion magazines". The profiles identified included the price conscious, child-oriented, and fashion conscious consumers.

The main benefit offered by psychographic research is that it can be used to gain an understanding of the consumers for particular products. This profile not only facilitates the design of the product but is particularly useful as an aid to copy writing. The demographic profile of attractive segments can be used for media selection.

The value of psychographic research rests on the researcher's skill. The analytical techniques used to identify psychographic segments rely on the measurements of internal constructs. If these measurements are poor then the resultant analysis may be questioned. It may also be questioned as to whether there is a causal link between a person's attitudes and his/her buying behaviour. For example a person who is fashion conscious may not necessarily have the disposable income necessary to purchase high fashion on a regular basis.

British Airways have undertaken a psychographic segmentation of business travellers. They identify four groups based on traveller psychology:-

- ◆ *The Hawk* - demands a master/service relationship from the cabin crew.
- ◆ *The Professional Traveller* - demands quality service, punctuality, a few disruptions in-flight .
- ◆ *The Playboy* - treats travel as an adventure and will try to flirt with attractive cabin crew.
- ◆ *The Nice Guy* - appreciates all service and is unlikely to complain of poor service (Channel 4, 1988).

The value of this research can be seen as it has been used to develop BA's in-flight service for business travellers, however the research does not address how the decision to fly with the airline was reached, and the influence that the employing organisation had in this decision. Organisations are possibly more concerned with ticket price and flight frequency than the quality of in-flight service, and thus a trade-off between the various product elements may need to be considered. Where an organisation has a strong influence in the decision making process, research into the psychology of the traveller is likely to have less value than research into the needs and wants of the organisation. As organisational influence in purchase decisions becomes more important in the business travel market, and the objective of the

research is to gain a greater understanding of this market, a psychological approach does not seem appropriate.

BEHAVIOURISTIC

This fourth group offers a number of segmentation strategies based on the behaviour patterns of the consumer. While some of the findings may be common for more than one product, these bases are situation specific and the findings, therefore, tend to be unique to the market observed. While the findings are limited to the specific market, they are commonly more useful than general bases in describing that particular market. The techniques segment the market based on consumer knowledge of the product, consumer attitude, or response to the product. These bases include product usage, brand loyalty, user status, and benefits sought.

Product Usage

The reasons for which a consumer may purchase a product or the occasion that leads to a purchase may be used to segment a market. Beane and Ennis (1987) note that beer drinkers may purchase beer at different occasions or for different reasons (heavy, escapist drinker, social drinker, and the beer-with-meal drinker). Examples of this type of segmentation can be seen in air transport. Air transport has generally been divided into business travellers, visiting friends and relatives (VFR) travellers, and vacation travellers. This type of segmentation may be described as person-situation segmentation, and may be used to achieve a marketing objective for each group (e.g. build loyalty in regular consumers, encourage greater consumption in occasional users, etc.). As discussed in the last chapter, segmentation according to the reason for travel identifies the main differences between the groups. To develop a more comprehensive understanding of any one group requires further research.

User Rate

The segmentation method based on user rate only analyses current users. Twedt (1972) investigated a number of markets and discovered that in most of the product categories 50% of the consumers accounted for between 80 and 90% of purchases. Consumers are divided into light, medium, and heavy usage groups, and investigation of these groups may reveal segment specific characteristics that may be used to design marketing communications. Woodside, Cook, and Mindak's investigation of U.S. heavy airline travellers concluded that this group could be *"identified easily by readily available demographic and media usage data"*, profiled and thus targeted (1987, p.9). The major criticism of this base is that it does not explain or predict behaviour. For example, Twedt (1964) acknowledges that within the heavy user half there may be two (or more) groups of like minded consumers (segments). The implication is that the group of heavy users of air travel may be constructed of business travellers and leisure travellers. This base does not distinguish these two groups which may have very different purchase behaviour.

User Status

User status segmentation is performed by segmenting consumers according to their status as a user of the product (e.g. non-users, ex-users, potential users, first-time users, and regular users). This base offers the advantage of helping the researcher to understand the reason why people use or do not use the product. Information may be thus used not only to select target groups, but also to design advertising copy for the targeted segments. An application of this research approach in the business travel market may well be beneficial. However, there is a problem in its application as it is difficult to identify and then interview non-users of a service. The author has been involved in research of this type with the collaborating organisation. A list sufficient

for quantitative analysis of non-users of Air UK's services could not be constructed, and thus the research methodology employed was qualitative in nature (Air UK, 1993). While a qualitative approach may well reap important information, its findings cannot be inferred onto the population.

Studies using loyalty status as their segmentation base aim to identify the characteristics of brand loyal consumers, and as such is another form of user status segmentation. By concentrating research on brand loyal group the marketing firm can:-

- ◆ Try to ensure continued loyalty by serving this group better
- ◆ Search for new consumers with the same characteristics.

Brand loyalty research has been reviewed by Charlton (1973). Much of the research is based on purchase data of a panel of consumers of frequently purchased consumer goods. Charlton surmises that while consumers may be identified in certain markets as being brand loyal, *"brand loyalty does not generalise over product fields. i.e. a housewife brand loyal in one product field is not necessarily brand loyal in another"*.

Frequent flier schemes are designed by airlines to reward high consumption consumers with additional benefits (such as free flights and upgrades) and thereby aim to maintain customer loyalty. Toh and Hu (1988) investigated passenger attitudes to frequent flier schemes. They discovered that the membership of these schemes is predominantly constructed of business travellers, and that although frequent fliers usually belong to more than one scheme, they concentrate on just one. The research also showed that frequent flier schemes were important in the choice of an airline. This would seem to indicate that these schemes have some value in maintaining brand loyalty. It should be remembered that the organisation that employs the traveller is likely to be incurring the cost of the travel. Stevenson and Fox (1987) in a study of 204 corporations found that 80% felt that frequent flier

programmes caused higher than necessary overall corporate travel costs. More recently, in the UK, a report indicated that a growing number of corporations wished to see benefits earned from high consumption, accrue to the company that incurred the travel cost, not the traveller (Upton, 1992). It would seem, therefore, that a study of brand loyalty focused directly on the individual traveller would overlook a potentially significant influence on the decision making process by the organisation employing the traveller.

Benefit Segmentation

Benefit segmentation was introduced by Haley (1968) and currently attracts the majority of academic interest in segmentation theory. The reasons for this popularity is that firstly it is an intuitively attractive method of segmentation as the marketer gains an understanding of why consumers buy a product, and secondly because it provides information that can be easily used for strategy development.

Benefit segmentation focuses on consumer responses to marketing stimuli, i.e. what the customer really wants from the product. *"The goal of benefit segmentation is to find a group of people all seeking the same benefits from a product. Each segment is identified by the benefits being sought"* (Thomas, 1980, p.26). Wind (1978) notes that benefit segmentation studies can be used to:-

- ◆ Develop a general understanding of the market.
- ◆ Position products.
- ◆ Develop new products.
- ◆ Make advertising decisions.

In his pioneering study Haley (1968) successfully segmented the toothpaste market based on the principal benefit sought by the consumer. He found four segments in

this market; those seeking flavour and appearance, those concerned with the brightness of their teeth, those seeking decay prevention, and those interested in a low cost product. Haley notes that by identifying benefits segments in a market, the marketer discovers *"the basic reason for the existence of true market segments"* (1968, p.31). In other words, by the identification of benefit segments within a market the researcher has discovered real segments, and thus achieved the aim of a segmentation study, i.e. *"to determine why a person buys a product, and therefore, why similar people might buy the product if the benefit is communicated to them"* (Beane and Ennis, 1987, p.23).

A product may offer multiple benefits, and each benefit may appeal to consumers in different segments. However, segments can be identified by the analysis of the total configuration of the benefits sought (i.e. the bundle of benefits sought), and a relative value placed on each benefit.

Yankelovich (1964) segmented a number of markets based on a non-demographic basis. He segmented the watch market and identified that two benefit segments were unserved in the market (low cost, and durability). The development and promotion of a new brand (Timex) aimed at these two segments was particularly successful.

Young, Ott, and Feigin (1978) investigated the Canadian tourism market. The tourist board wished to attract more Americans to Canada on vacation. Six benefits segments were identified, from which the tourist board could develop products aimed at each of these segments. For example, a group of consumers were identified as looking for a vacation that was not too expensive, in a location they had not been to before, that had clean air and camping facilities. This profile was sufficient to guide strategy formulation and new product development. Young, Ott, and Feigin (1978, p.406) note that *"segmentation on benefits desired is usually the most meaningful type to use from a marketing standpoint as it directly facilitates the product planning, positioning, and advertising communication"*.

Benefit segmentation may not only be used to investigate the benefits consumers seek in the purchase of current product but may be used to investigate latent demand for currently unserved benefits as it *"allows for the monitoring or anticipation of changes in consumer tastes or buying patterns"* (Morden, 1985, p.3).

From the studies that have been highlighted, the popularity of benefit segmentation may be seen to be derived from its practical utility in terms of developing an understanding of the market and in strategy development. Benefit segmentation may be applied to the business travel market. The adoption of a benefit bundle approach will enable the assessment of the value placed by the market on a number of product attributes. It has already been highlighted that in the decision making process, the importance of product attributes such as price, comfort, and schedule will be evaluated. Therefore, segments may exist in the market based on the the bundle of benefits sought in the purchase decision.

While a benefit segmentation may be undertaken in the business travel market, the market's hybrid nature complicates its application. Benefit segmentation has been shown to be a good method of identifying the underlying needs, wants and motives of the consumer, which is an objective of this research. However, by segmenting the market based on the motives of the traveller, the objectives of the employing organisation would not be considered. It has been shown in the last chapter that the objectives of the company may be in conflict with those of the traveller and thus benefit segmentation which does not consider the wants of the organisation would not comprehensively address the market.

A disadvantage of benefit segmentation is that it may not directly help media planning. Media circulation data is classified in terms of demographic profiles. Profiles of benefit segments in terms of demographic data will not necessarily provide easily accessible groupings. In the Timex case (Yankelovich, 1964), the

benefit segmentation identified the majority of the entire market as being underserved. This meant that accessibility to these segments was not difficult. In Haley's example (1968), profiles of the identified benefit segments did show marked demographic differences. Haley maintains that to serve the entire market a number of brands may be developed. An example of such a strategy may be observed in the washing powder market where two main producers provide many different brands based, each with a different principal benefit (e.g. price, cleanness of taste, without bleaching agent, smell, combined with conditioner, etc.). The difficulty with such a strategy is again access to the market. The marketer cannot easily target the audience and thus we see mass market promotion of each brand.

Calatone and Sawyer (1978) note that the benefits sought by individual consumers may be affected over time by the promotional activities of the firms in the market, and by changes in the marketing environment such as legislative, and economic change. Such an approach is particularly appropriate when legislative changes affect a traditionally regulated sector such as air transport, as the introduction of competitive forces into the market may significantly change the behaviour of the market. The legislative review in section 2.1. indicated that the EU hopes to see a market where there is increased competition, greater choice, and reduced fares. A benefit study will enable the assessment of whether the legislative changes will affect the benefits that business travellers seek from airline products. It would, therefore, seem appropriate to investigate the benefits sought by customers in the business travel market.

Young, Ott and Feigin (1978) indicate that benefit segmentation is not suitable for markets where either price or style is the overriding consumer consideration. They indicate that further segmentation by benefits would not be advisable in the case of price sensitive market, or necessary in the case of style sensitive market. It can be argued that these limitations on the base do not apply to the business travel market. It has already been shown that the business travel market tends to be a fairly price

inelastic market. This view is supported by a number of experts in the air transport field (Doganis, 1991, Shaw, 1985, Taneja, 1982), however it has been suggested above that air travel may become more price elastic following liberalisation of the air industry in the EU. While this may be so, there is no evidence to support a view that price is an overriding consideration to the business traveller, and, therefore, this first limitation does not seem to apply. Air transport is often perceived as being glamorous, however, at its core air transport is merely the movement of people from one location to another. While different airlines might promote different benefits to the market, two airlines operating on the same route essentially provide a commodity - transport. If the favoured airline ceased operation, a passenger would use the alternative because it provides the same service; i.e. transport to the desired destination. The ability of airlines to develop a product based on style is limited by their control over product delivery. Airlines operating the same route share the same airport facilities, possibly the same ground staff (e.g. in Charles de Gaulle airport where there is a ground handling monopoly), and are controlled by the same air traffic controllers. Therefore, although airlines attempt to differentiate themselves one from another through use of stylish imagery, style does not play a significant role in this market.

It would seem that benefit segmentation is a base by which the business air travel market might be segmented. As different consumers place different values on the various product attributes, the benefit bundle technique is an approach that can be used to address this complexity. The approach has been noted as being suitable for a general investigation of a market (Wind, 1978), which is appropriate for this research project, given its objective. While the base seems to be suitable for segmenting the business travel market, any segmentation model will still need to address the influence of the employing organisation.

3.4 INDUSTRIAL MARKET SEGMENTATION

The basis on which the concept of segmentation was developed by Smith (1956) for consumer products, namely that of consumer and product heterogeneity can be seen as being equally valid for industrial goods as it is for consumer goods. Cheron and Kleinschmidt (1985, p.101) indicate that *"the industrial market has become heterogeneous and complex because of the multitude of products and their uses as well as the variety of customers"*. Segmentation is, therefore, an important concept to be adopted by industrial marketers in the same way that it has been in consumer markets (Wind and Cardozo 1974).

The majority of segmentation literature focuses either exclusively on consumer segmentation or does not investigate industrial segmentation in any great depth. This may be attributable to the following reasons:-

- ◆ The structure of industrial markets tend to contrast markedly with consumer markets. Specialist industrial markets may have a fairly limited number of purchasers, when compared to consumer markets. Also an industrial vendor may rely on one particular company to purchase the majority of its output (Webster, 1991).
- ◆ The traditional approach to selling industrial goods was also at variance with the approaches made in consumer markets. Due to the structure of the market the traditional method of selling industrial goods was by sales people calling on prospective firms. In a market where there is only a relatively small number of purchasers and vendors, a company will aim to build strong direct relationships with its customers.
- ◆ The segmentation approaches suggested in the consumer research may not be overtly applicable to industrial markets. For example, while some segmentation bases have a natural counterpart in an industrial setting (e.g. loyalty, or usage rate) others do not (e.g. consumer life cycle).

Consequently a separate body of industrial segmentation literature has developed. Essentially industrial segmentation strategy is the same as consumer segmentation. It aims to identify groups of consumers that react in the same way to some marketing stimuli so that the producer can develop products that will satisfy consumer demand more fully. The main difference between industrial and consumer segmentation is that the consumer in an industrial market is the purchasing organisation, and it is unlikely that only one individual will be involved. This provides the industrial marketing organisations with a set of research and implementation problems that are different from their counterparts in consumer markets. Organisations are constructed of individuals. Each individual brings into the organisation a set of beliefs, attitudes, and motivations, however, in the organisational environment, the individual has a company role to fulfil, possibly within a department, which may affect the way that he/she makes decisions. Within the organisation there will be formal and informal structures that affect the way the organisation operates. To discover consumer characteristics, needs, wants and preferences, the industrial marketer is, therefore, faced with a particularly complex task, and will have limited time and money with which to achieve it.

Webster and Wind (1972) and Wind (1978) indicate that most segmentation approaches are equally applicable to both consumer and industrial markets. This view is challenged by a number of authors who see the differences in the markets are such that different approaches may be more appropriate (Bonoma and Shapiro, 1984, Plank, 1985, Cheron and Kleinschmidt, 1985, Doyle and Saunders, 1985). Indeed, with the passage of time it appears that Webster's opinion altered. In a single author text, he states that *"because industrial buying behaviour is fundamentally different from consumer buying behaviour, the methodology of market segmentation and the specific variables used for segmentation must also be different."* (1991, p.104). The methodology of industrial segmentation will, therefore, be considered below, followed by a discussion of industrial segmentation bases (see Section 3.4.2).

3.4.1 INDUSTRIAL SEGMENTATION RESEARCH APPROACHES

This section considers the models that have been developed for industrial segmentation. Plank (1985) indicates that the base or bases used to segment a market should be selected in an objective fashion. He identifies three segmentation approaches and classifies studies as being either; unordered, two-stage, or multi-stage. Segmentation approaches are unordered if they provide no systematic method by which base selection may be achieved. Wind (1978) makes a case that base selection should be dependent on managerial requirements (e.g. pricing decisions, new product development) and provides a list for consumer markets. However, the literature in the industrial sector has not been sufficiently developed to provide such prescriptions. Studies of this type provide the foundations for such a development. While their base selection is unordered, they add to the accepted wisdom of how companies buy, and which segmentation bases are successful at segmenting various markets. Unordered studies, therefore, also provide the knowledge structure upon which normative industrial segmentation approaches are based.

A number of two-stage base selection models have been developed that order the base selection at firstly a general level and then at a more specific level. These models provide a normative framework for segmentation base selection, and work from the general to the specific. The first stage of segmentation is concerned with data that is general (not situation specific) and often easily collected (Sharma and Lambert, 1990). The focus is on the organisation as an entity in the entire market place. This stage is regarded as a macro-segmentation. If this preliminary stage does not produce a practically worthwhile segmentation a second stage may be undertaken to add a behavioural element to the study using situation-specific variables (Doyle and Saunders, 1985).

The first two-stage model was developed by Frank, Massy and Wind (1972). Other similar two-stage models have been developed by Wind and Cardozo (1974), Choffray and Lilien (1978), and Cheron and Kleinschmidt (1985). Each model indicates that macro-segmentation provides a first step toward segmenting a market. At this level the cost to the organisation is small as published secondary data can be used. The models indicate that if the macro-segmentation does not provide a worthwhile segmentation, a behavioural segmentation at a micro level will need to be undertaken. They provide a number of bases that might successfully segment the market at the micro-level. Models of this type, however, *"do not provide specific guidance on the ordering of these [segmentation] factors"* (Hlavacek and Reddy, 1986, p. 10)

In an attempt to provide a model that can be used to order segmentation factors Bonoma and Shapiro (1983) proposed a multi-stage nested segmentation model. This model identifies a number of levels of segmentation. The highest level provides a general macro-segmentation of the market. Each subsequent level segments the market at an increased level of specificity. The marketer segments the market at each level, moving from the most general to the more specific, until a suitable segmentation has been achieved. Segmentation may not be *"necessary or even desirable ... to go through every stage ... for every product"* (p.8). The model notes that the outer nests are segmentation bases that use easily observable characteristics about industries and companies, while the potential bases of the inner nests are "more specific" and subtle (Bonoma and Shapiro, 1983, p. 8). The model identifies five segmentation bases:-

- ◆ The outer-most nest refers to the demographic profile of the purchasing organisation, such as industry type, company size, and geographic location, which may be used as primary segmentation variables.

- ◆ Operating variables refer to the operating ability of the organisation and can be used, generally, to separate potential customers from current customers. These variables include the technological capabilities of the organisation, whether the organisation is a user or non-user of either the brand or product type, and whether the organisation has the operating, technical and financial ability to use the product.
- ◆ The middle nest refers to five purchasing variables. These are the degree to which an organisation has a formalised purchasing function, the power structure in the purchasing situation, existing relationships between the organisation and suppliers, general purchasing policies, and purchasing criteria.
- ◆ The fourth level of segmentation refers to the situational factors of the purchase, such as the urgency with which the product is required, or the size of order.
- ◆ The inner-most nest refers to the personal characteristics of the decision making unit. These include the personality, motivation, and perceptions of individuals who make up the decision making unit.

Bonoma and Shapiro's nested model combines the various elements of complex models of buyer behaviour such as those suggested by Sheth (1977) and Nicosia and Wind (1977) with a normative segmentation approach. They theorise that at each level the researcher will gain a fuller segmentation of the market, but indicate that each subsequent nest is more difficult to investigate than the last. Such a list is useful to practitioners of industrial segmentation as it provides a comprehensive structured list of segmentation bases. However, like the two-stage models it does not provide a mechanism for identifying the most useful segmentation base or bases.

A model of base selection for various marketing decision making problems, under various market conditions, such as the list provided by Wind (1978) for consumer goods would provide a considerably useful tool to practitioners, however this is unlikely until studies in a wide number of industrial markets, applying a wide range of bases have been undertaken. This thesis provides an additional study to this developing body of literature, although it has been proposed that this study be considered in a special sub-class due to the hybrid nature of the business travel market.

3.4.2 INDUSTRIAL SEGMENTATION BASES

A number of segmentation variables have been used to segment industrial markets. Some approaches concentrate on the organisation as an entity at a macro-level. At a micro-level some bases focus on the interaction of individuals within a group who are involved in the purchase, called the buying centre or the decision making unit, while others focus on the personality, attitude and motivation of individual people within the company. The macro-industrial and micro-industrial segmentation bases will be investigated below, as will the applicability of each base to the business travel market.

MACRO-SEGMENTATION

This section will consider the following macro-segmentation approaches; geographic, demographic, end-use, heavy usage, and purchase loyalty. A large proportion of industrial segmentation studies have used the organisational entity as its focus of analysis. This is primarily due to reasons of data collection. Published secondary data is freely available to vendor companies wishing to investigate the organisations that they serve. Sales data and information provided by sales staff can also be used

to segment markets. The two-stage and multi-stage industrial segmentation approaches begin at this macro-level. A segmentation at this level that leads to the development of a successful strategy may mean that further study is neither necessary nor cost effective.

A company may choose to segment its products on a geographical basis. A regional segmentation strategy may be adopted if product specifications need to be altered to meet technical requirements in different geographical regions. Terpstra (1987) notes a case where a Japanese machine tool producer increased the performance specification of its product to serve the American market, as American production techniques required a higher utilisation of the product, causing greater wear.

A producer may choose to target a particular geographical region and not serve others. Such a strategy may be based on a high concentration of prospective customers in one region (Haas, 1989). The strategy may also be helpful if the main promotional techniques employed by the producer are regional sales visiting, and a media promotion. As indicated before (section 3.3), the hybrid nature of the business travel market provides the marketer with problems in applying this base, due to the traveller's different addresses for residence and industry location, both of which may be the origin or destination of a journey.

A number of demographic variables are available to the industrial marketer. The most commonly used demographic variables are the industry in which the company is operating as defined by its Standard Industrial Classification (SIC) coding, and the organisation size.

SIC data has been used from the early 1960's to identify industrial sales prospects (Hummel, 1960). Companies are designated to a particular SIC code depending on the nature of their businesses. The first two digits of the classification will indicate the major industry grouping, the third will divide companies into industry sub-

groups. In this way each additional digit in a company's coding denotes a closer definition of its business operation. A vendor company may segment the market based on the SIC coding. Within a detailed industry coding there may be some subdivisions that will be potentially more attractive segments than others. The main benefit of this base is that SIC data is freely available through published sources, as it is collected and produced by the government. The development of electronic methods of interrogation (using CD-Roms etc.) means that analysis of this data can be more complex (Griffiths & Pol, 1994). Griffiths & Pol (1994) provide a recent example of segmenting a market based on the SIC codes. A company's market share for their retail equipment was divided by retail SIC. The analysis showed the company to be strong in mature retail markets but had poor sales in developing markets. This segmentation study had implication for the company's product development, communication, and marketing mix strategy.

In a survey of European companies (American Express, 1993/4) travel and entertainment expenses were shown to be highest per employee in the energy, chemicals, and metals, and the financial services sectors. It was companies in these sectors that had the highest proportion of written travel policies (70% and 68% respectively). It would seem, therefore, that an airline might choose to concentrate its promotional activities in these sectors, and the promotion might be aimed at the policy makers within the organisation, rather than on the individual traveller.

Analysis of the size and structure of a company may provide useful segmentation information. Depending on the vendor's product, the size of a firm will often indicate which are the most potentially attractive firms. Published data of the consumption in the market may be compared with previous sales figures by company size to evaluate which size of company represents the most attractive market segment. Haas (1989) segments the trunk manufacturing market by company size to show that 6% of the firms in the market account for more than 60% of the value of shipments. Analysis of this type is not possible in the business air travel market as purchase is usually

through an intermediary (i.e. a travel agent) which makes compilation of such information virtually impossible.

The use to which the purchasing company applies the product can be used to segment the market. Unger (1974) demonstrates this method of segmentation by dividing the fragrance compound market according to the end use application. He identifies four major product types in which fragrance compounds are used in production; soap; cleaning products; perfumes and toiletries; and industrial and environmental products. Within these four groups, Unger identifies around seventy individual markets. The nature of the end use of the product will influence the needs and requirements of companies in each market. Unger therefore indicates that to be successful, a company selling such products should develop marketing strategies based on the specialised needs of the user. The airline market provides a transport service. The transport service is not put to different uses depending on the industry that the travellers are employed in, and, therefore, this base has little application in the business air travel market.

A market may be segmented based on the volume of the product consumed. Consumers may be divided into heavy and light users to identify the most attractive for marketing efforts. Asseal & Ellis (1976) found that 10% of the customers in the telecommunications market accounted for 40% of the value of the market. Analysis of the demographic profile of the heavy usage group may be used to identify potential customers. This base suffers from the same disadvantage as its consumer segmentation counterpart; i.e. high consumption customers may purchase the product for different reasons and, therefore, profiles of the high volume segment may not reap particularly useful marketing information.

The loyalty displayed to vendor organisations and the sourcing policy exhibited by a company are potential segmentation variables (Haas, 1989). A company's loyalty to a vendor and its policy with regard to a particular purchase may well depend on a

number of different situational variables (Cardozo, 1980). An analysis of brand loyalty in the business air travel market earlier, showed that a potential conflict in interest exists between the travelling individual and the organisation that bears the burden of travel cost. An application of this segmentation approach to a hybrid market would need to address behaviour and interaction of both the individual and the organisation. Such an approach would be seen as a micro-analysis.

MICRO-SEGMENTATION

A second group of segmentation variables have as their focus the people within the purchasing company who are involved with the purchase. Early industrial buying behaviour literature concentrated on the individual purchaser within the organisation, while later studies have tended to investigate the intra-company group interaction that industrial decision making process invariably causes. More recently a number of studies have looked at the benefits sought from a product by the company. The three approaches will be considered separately.

Approaches focused on the individual

At a most detailed level, a study of industrial purchasing will involve the analysis of the individual people involved in the purchase. The individual's personality, motivation, and commitment to his/her job, department or organisation have all been identified by various models of industrial purchasing as having an influence in buying behaviour (e.g. Sheth, 1977, Bonoma and Shapiro, 1985). While it is obvious that individuals within the organisation will affect the buying behaviour of the organisation, there are few published accounts of successful segmentations based on individual characteristics.

Early segmentation variables identified by Cardozo (1968) concentrated mainly on the industrial buyer's personality. He suggests that the way in which the buyer processes information, the buyer's characteristics and perception of risk are all potential segmentation variables. Other models produced around that time also aimed to segment markets based on the individual buyer. Wilson (1971) looked at buyer's decision making style and identified three types of buyer (normative, switcher, and conservative). Kernan & Sommers (1966) provide an early link between units of segmentation variable. They link the culture of the purchasing organisation with the degree of involvement of the buyer to develop a communications strategy for a vendor. For example, when approaching an innovative firm, in which the buyer is highly involved in the purchase, the vendor might adopt a strategy that indicates that its product will maintain the purchasing firm's innovative edge. The behavioural elements of these approaches indicate that industrial purchases are not made, purely, through rational behaviour (Webster, 1993).

Segmentation approaches based on the industrial buyer can be criticised on two counts. Firstly the decision to purchase one product as opposed to any other available product may not fall exclusively to the industrial buyer. There are other people in an organisation that may have influence in the decision making process. A marketing strategy may not be successful if the views and objectives of these others in the organisation are not considered. This criticism can be applied to studies that concentrate solely on one individual in a situation where others may have some influence. It has been shown that while the individual business traveller may have a strong influence in the air service purchase decision, the involvement of others in the organisation in the decision making process may well affect the purchase decision. It is appropriate, therefore, that a segmentation of the business air travel market does not consider only the traveller as a individual consumer but also the industrial environment in which the decision is made.

Secondly a segmentation approach based on the personality, motivation and objectives of the industrial buyer may be difficult to implement in a number of markets (Cheron and Kleinschmidt, 1985). In markets where there are many purchasers, the vendor organisation may not rely heavily on traditional promotion methods such as visits by sales staff. In such a situation, data regarding the industrial buyer may not be easy to collect. In markets where sales staff can be used to collect data other problems face the vendor organisation. The main objective for any salesperson is to make sales, therefore, sales staff are likely to be less concerned with data collection because they may not perceive its value. The competence of sales staff to collect data may also be questionable. The collection of data on the industrial buyer is obviously very difficult in the business travel market. The large number of purchasers, and the large volume of tickets purchased mean that direct data collection for every buyer is impossible, and cost prohibitive. The value of such data can also be questioned. The individual traveller, in many instances, will have a significant role in the purchase decision making, but the role of travel cost management is becoming more important, and thus segmentation approaches that concentrate solely on the individual buyer would not be appropriate for the business travel market.

Approaches focused on the buyer centre

Recognition that for many industrial purchases the decision process involves an interacting group of more than one person, has led to much investigation of the decision making process within an organisation (Choffray and Lilien, 1978). The group may communicate through formal and informal means, and its decisions may be affected by personal, departmental, and other influences. By understanding these processes, the industrial marketer aims to identify market groupings, and thus develop marketing strategies that will be able to exploit this understanding.

Webster and Wind (1972) developed a concept known as the buyer centre. They state that *"members of the organisation who interact during the buying decision process can be defined as the buyer centre"* (p77). The buyer centre is also referred to in the literature as the decision making unit (DMU). The two names describe the same concept, and are, therefore, synonymous. Consequently the two names will be used interchangeably.

Wind and Cardozo (1974) state that *"once the marketer has formed a set of acceptable macro-segments, he may divide each of them into micro-segments, ... on the bases of similarities and differences among DMUs"* (p.157). Micro-segmentation approaches of this nature have investigated similarities and differences in the DMU with regard to:-

- ◆ The structure and behaviour of the buyer centre, and
- ◆ The member(s) of the DMU that possess the highest degree of influence on the purchase.

When a DMU is formed each member will have a set of objectives that he/she wish to see fulfilled. These objectives may be task related (regarding the purchase) or non-task related (not connected to the purchase, e.g. gaining status over other members). Also these objectives may be departmentally based, organisationally based or personally based. Members of the buyer centre fulfil a number of roles in the decision making process (Webster and Wind, 1972). These are:-

- ◆ Users; those people who use the product once purchased
- ◆ Influencers; those have influence over the choice of product to be purchased
- ◆ Buyers; those that actually undertake the administrative task of purchasing the good (often this role is fulfilled by a purchasing agent or department)

- ◆ Deciders; those who actually decide which product to purchase from the alternatives identified
- ◆ Gatekeepers; those that distribute information about alternatives. This role can be very important as gatekeepers can act as decision filters, restricting the number of alternative that are considered by others in the DMU.

Each role may be fulfilled by an individual or a number of people, and an individual may fulfil more than one role. So that suitable communications strategies may be developed, the vendor company may try to discover who fulfils these roles for their prospective clients. This multiple role model would seem to be an appropriate one for the business travel market, which has been identified as being hybrid, with some elements of a consumer market and some of an industrial market (see section 2.3). This approach recognises the traveller (i.e. the user) as a consumer, but also recognises that others in the organisation may influence the purchase decision.

To attempt to use the decision making unit model to segment the business traveller market, the members of the DMU and the role that each plays must be identified. However the membership of the DMU cannot easily be identified. A purchase initiator cannot easily be identified for business related air travel, since the demand for this service is derived. Business travel is initiated for many different reasons and possibly by many different people in an organisation. Business travel may be required; to meet clients, travel to undertake a service contract, commute to work, travel to other corporate offices in different cities, and for many other reasons. The initiator for any of these reasons may be difficult to identify. For example, if a sales person is travelling to meet with clients, a number of different scenarios may be plausible. The sales person may be making a sales presentation. Here the initiator may have been; the sales person, the sales person's manager, a telesales operator making the contact, etc.

The influencer role is also difficult to investigate. A traveller may have been influenced in the choice of airline to use through a number of channels, such as airline advertising, management preference, the traveller's husband/wife, etc.

This argument may be applied to the other roles as well. The only roles that can easily be identified is that of the buyer and the user. To gain sufficient quality of data on the DMU of any air travel purchasing company will require an in-depth analysis of that organisation. The large numbers of organisations that purchase air travel, each possibly employing a slightly different purchase methodology will mean that the investigation of a small number of companies, in-depth, using the DMU model will not supply sufficient data to infer the results of such a study on the population.

A number of studies have indicated that the composition of the DMU is dependent on the purchase situation. Robinson, Faris, and Wind (1967) developed a buygrid model that has been used by various researchers to investigate specific purchase situations (e.g. Doyle, Woodside, and Michell, 1979, Cardozo, 1980, Crow and Linqvist, 1985 and Lynn, 1987). Johnston & Bonoma (1981) however state that *"no...two companies [will] follow exactly the same procedures in even highly similar purchase situations"* (p.146) but concede that while procedures may differ between companies, the model does provide a framework against which industrial behaviour can be studied. The buygrid model is based on the general premise that the nature of the purchase to be made will affect the buying behaviour of the organisation.

The model identifies three purchase situations. In a "new task" situation, where the selection and purchase of a product that has not been purchased by the company before, the organisation is likely to face a set of problems with which it is unfamiliar. There will be a high need for information, and the consideration of the alternatives

will be given high importance. The purchase may be particularly important to the company and thus a large group of high level staff will be in the DMU.

In a "modified rebuy" situation the purchase of an item may become complicated in some manner, for example the normal supplier may go out of business. Here the organisation will have less information needs as it has purchased this type of good before, and thus have experience. In such a situation the considerations of the alternatives may be limited, based possibly on a purchasing policy developed for that product. For example, the company may have specific service. or delivery requirements and only consider those vendors that meet these objectives. The number of people involved in the purchase may be less than for a "new task" purchase. and they may be of a lower hierarchical level.

In a "straight rebuy" situation, where a regularly purchased item is simply re-ordered, the price, delivery lead time, batch size, etc. are the company's main consideration. A relationship already exists with the vendor and thus the number of people involved in the purchase may be small.

The purchase of air travel for business purchases does not fall directly into any of these categories. Usually the purchase of air travel will be a situation similar to a straight rebuy, with the details of flight times, restrictions and price being the company's main considerations, however, the purchase will not always be from the same supplier (i.e. airline). The destination and departure points will affect the airlines that will be considered in the purchase.

The model identifies a number of "buy phases". These are the various stages through which a company passes during a purchase decision being made. These stages are:-

- ◆ recognition of a problem (or need) and a general solution
- ◆ determination of the characteristics and quantity of the needed item

- ◆ description of the characteristics and quantity of the needed item
- ◆ search for and qualification of potential sources
- ◆ acquisition and analysis of proposals
- ◆ evaluation of proposals and selection of supplier(s)
- ◆ selection of an order routine
- ◆ performance feedback and evaluation (Robinson, Faris, and Wind, 1967)

McWilliams, Naumann, and Scott (1992) found that DMU size was affected by the stage of purchase decision making and buy class. The study found the DMU to be larger in new task situations, than either modified rebuys and straight rebuys. The size of the DMU was also found to alter depending on the purchase phase. The study investigated the views of 204 respondents who were purchasing agents in 18 firms. These agents were asked to identify the degree of influence eight functional groups which were potential buyer centre members had on specific purchases. Where points were allocated to a group, the group was counted as a buyer centre member, where no points were awarded the group would not be counted. This method of counting buyer centre size appears to be spurious as it, in fact, measures groups involved in the buyer centre but does not measure individual membership. For example, if the engineering department is allocated some points by a particular respondent one member of the buyer centre is counted, however more than one member of the engineering department might be involved in the purchase.

Due to the fairly basic nature of the purchase, the application of purchase phase analysis in the business travel context is difficult. Although these stages may be undertaken at the new task stage, they are unlikely to be undertaken at in a re-buy situation.

Crow and Linqvist (1985) in a study of 200 organisational buyers discovered that the number of people in the DMU was affected by the size of the firm. As firm size increases the study shows that the DMU also grows. In the new task situation the

size of the DMU rises from 1.96 people in companies with less than 100, to 2.81 for companies with more than 1500 employees. Although this rise is significant the size of the DMU in the larger companies seems to be very small. This may be due to two reasons. Firstly the new task situation (purchasing fire detectors) did not represent a very important purchase to many of the sample. Secondly the method of asking the individual purchaser the size of the buyer centre may not provide reliable results. For example the purchaser may overstate his/her importance in the purchase and understate the role others may play in the purchase. Also the study showed that the level of education held by the buyer affected his/her ability to identify the size of the buyer centre.

In a study of the Certified Public Accountancy (CPA) market, Lynn (1987) showed that in the selection of vendors of accounting services, small firms tend to rely on the advice of consultants external to the firm, while in larger firms in-house expertise meant that external buyer centre influence was less likely.

In a situation where there are a number of people involved in the decision making process, each with their own set of objectives, a conflict between the members may well be likely. It is not difficult to envisage a scenario where production engineers wish to select a product which has a high specification, while members of the DMU from the finance function wish to select a lower specification product for cost reasons. Individual members of the DMU will bring to the decision making process, strategies that they believe may conclude the decision making process in the way that they would want (i.e. purchase of the individual's preferred product) and to this end they will use whatever power that they hold within the group. Webster & Wind (1972) state "*conflict must be resolved by finding some kind of consensus among the organisation members*" (p.68). In other words there is an underlying assumption of consensual decision making in the DMU approach. They go on to identify a number of methods of reducing conflict within the DMU, however they recognise that consensus may not be truly reached as they indicate that there is only a "*quasi*

resolution of conflict" (p. 68). It would seem intuitively true that in real life situations consensus is unlikely to be achieved in a large number of purchases. The stakeholder model (as considered in detail in section 4.1), in contrast to the DMU approach, assumes conflict in the decision making process, which may be more appropriate to model many industrial decision making processes.

Increased awareness of travel and entertainment costs within an organisation may mean that a conflict of interests will develop between the people involved in the purchase of business related air travel, particularly between the person responsible for the budgeting the cost, and the person taking the flight. It would seem, therefore, that it is important to identify the member or members of the DMU that possess the greatest degree of influence.

A number of studies have tried to discover which members of the DMU possess the greatest amount of influence. While studies that investigate the overall size and membership of the DMU provide a greater understanding of the decision processes undertaken by a firm, this information does not assist the marketer in designing marketing strategy. On the other hand, by discovering the member or members of the DMU with the greatest degree of influence, the marketer knows where best promotional resources should be allocated.

Studies have shown that the influence of DMU members in the purchase decision will be dependent on the type of purchase being made, hierarchical and functional position, and the degree of involvement in the purchase. Johnston & Bonoma (1981) hypothesised that an individual's hierarchical and functional level position within the organisation will affect the amount of involvement in buying decisions. These hypotheses are supported by a number of studies.

Cardozo (1980) in a study of 30 organisations found that participation in the purchase decision by individuals of various job descriptions was affected by the type

of product being purchased (products for maintenance and repair, product components, production materials, and production equipment). Senior management was found to have significant involvement in only the purchase of production equipment and the choice of new production materials. Purchasing and operations departments had significant involvement in all purchases, while the engineering department was only involved where components and materials purchases would have an effect on the production process. This study is useful as it shows where participation may be found, however, the degree of influence was not discovered. By asking respondents in a study of eighteen firms which level of hierarchy was "responsible for" decision making, Mattson (1988) found that the type of product being purchased affects the decision making processes, with new task purchases being decided at a higher hierarchical level than other purchases.

Choffray & Lilien (1978) in a study of new task equipment purchase successfully applied a decision matrix to show the key influencing participant in the decision process. Their findings show that in 63% of the market, production engineers held the greatest degree of influence, which had significant implications for communication strategy.

McCabe (1987) found that the degree of influence in the decision making process was dependent on the degree of uncertainty and, therefore, risk associated with the purchase. Studies show that membership and influence of the DMU are dependent on the type of product being purchased. This may be explained by the amount of perceived risk facing the firm. For example, consumable low cost production materials will represent a much lower risk to a firm than high cost equipment. Moriarty (1983) in a study of the purchase of computer terminals found that companies that purchased IBM terminals tended to have a higher level of perceived risk than those companies that chose an alternative supplier, indicating that the companies that selected the market's leading vendor were seeking security.

To apply the DMU model to the business travel market, those within the organisation with the greatest amount of influence in the purchase decision should be identified. Composition of the buyer centre will be dependent on the importance of the purchase, the technical sophistication, and the size of the firm.

The purchase of business travel is likely to be either a modified rebuy or a straight rebuy, and thus the purchase of air travel does not represent a high risk purchase for most companies. However, it has been shown that, although the business traveller may have a significant role in the purchase of air travel, companies are taking a greater role in the control of business travel costs. An attempt may, therefore, be made to identify other sources of significant influence within the organisation.

The power exerted by the people in the various purchasing roles within a DMU will affect the purchase decision. Five different powers that an individual may use to exert influence over others may be identified:-

- ◆ Reward power - via monetary, social or psychological authority
- ◆ Coercive power - the ability to impose punishment
- ◆ Attraction power - being liked or respected
- ◆ Expert power - via technical competence and skill
- ◆ Status power - via hierarchical position (Bonoma and Shapiro, 1983)

Thomas (1984) in an investigation of the bases of influence found that expert power demonstrated by an individual has the strongest influence over other members of the DMU in a new task situation. In such a situation it would seem imperative for the marketer to gain support of the individual within the organisation that has the most likely expertise of the product type. The view is supported by Lynn's (1987) study of accounting services where the chief financial officer with high expertise in the area was found to have strong influence.

In the business travel market status power and expert power are likely to affect purchase decisions more than other bases of power. Those that travel on business to represent their company may well have a fairly important role within the company, and may travel often. A traveller's high position will lead to status power, and high frequency of travel will lead to expert power (i.e. expertise in air travel). Therefore, for an organisation to take greater control over its travel expenses, it will need a DMU member with greater status power than the traveller (possibly a senior director who may develop a rigorously employed travel policy), or greater expertise power (possibly a central travel purchaser responsible for all travel expenditure).

Critique of the DMU concept

The studies that have developed and investigated the concept of the DMU have added a behavioural element to the industrial marketing literature. The DMU model is an attractive concept which is easily understood and helps us understand the human decision processes which act in the industrial buying process. The model provides a structure which can be tested under many different market conditions. Indeed the DMU literature shows that :-

- ◆ The purchase situation will affect the size, and composition of the buyer centre
- ◆ Different people in the buyer centre or DMU hold different degrees of influence in the purchase decision
- ◆ These people may bring different objectives to the decision making process based on their personality, hierarchical position, and organisational role.

The research to date, therefore, has been successful in investigating the structure and the behaviour of the buyer centre. However, a number of criticisms can be made

about the DMU model in general, and its suitability as a segmentation base specifically.

The following discussion investigates a number of criticisms at the DMU model in general. Webster & Wind (1972) state that the "*marketing communicator must make sure that accurate and complete information is available to all members of the buying centre*" (p.57). Such a statement indicates that all the individuals involved in the purchase of a specific good need to be identified. This is obviously very difficult unless the marketing organisation has good contact with all the organisational consumers and potential organisational consumers in the market. The development of such a contact would only be conceivable in markets where there is only a small number of purchasers, and the vendor organisation can allocate a large amount of its resources to a strategy of sales visiting. In such a situation the vendor organisation can tailor its communication strategy to the structure of each company's DMU.

Situations as described above do not exist in all markets, and clearly do not exist in the business travel market. It is difficult in circumstances where there is a large number of buyers to decide how best to research the market. Research methodologies that have been developed to investigate the composition of the DMU in various markets fall into two categories:-

- ◆ *Individual membership identification.* Studies of this type tend to be depth studies of a small number of firms to identify the actual members of the DMU (e.g. McCabe, 1987, Doyle, Woodside, and Michell, 1979). As a consequence of such a methodology, the findings of such studies tend to be rich in information, however, generally cannot be inferred on to the population. This is particularly so for markets with a relatively large population, such as the business travel market.

- ◆ *Identification of functional involvement.* Studies of this type concentrate on functional groupings, not identifiable individuals within the organisation (e.g. Mattson, 1988, Choffray and Lilien, 1978, Lynn, 1987, McWilliams, Naumann, and Scott, 1992). It can be argued that this methodology does not truly investigate the buyer centre. Essentially the methodology gains proxy measures of the membership of the DMU, and investigates a representation of the buyer centre, rather than the buyer centre itself. The reason why the DMU concept is attractive is that it looks beyond formal organisational structure to the interaction of the actual individuals involved in the decision process. By gaining proxy measures of the individuals in the process (i.e. functional areas or job descriptions), the applicability in real life situations of the concept of the buyer centre, and the value of the findings of studies that have used such a methodology may be questioned.

The following discussion considers whether the DMU model is suitable for use as a segmentation base. To segment the market using the DMU, the researcher must seek similarities and differences among the characteristics of the DMUs, of which the following have been identified in the above discussion; size, composition, and influence.

The literature regarding the size and composition of the DMU shows that companies, of similar size, tend to have similar DMU structures under the specific purchase situations. Therefore it would seem that DMU size and composition are functions of the importance of the purchase to the organisation. Thus a segmentation study based on DMU size and composition may discover segments which are actually constructed of organisations which place the same amount of importance on the purchase. As the size of the organisation (as opposed to the size of the DMU) is likely to have a strong effect on the importance placed on the purchase, segments of this type may be more easily identified using demographic profiles. It can, therefore, be argued that

segmentation based on the size and composition of the DMU add little to macro-segmentation.

The review showed that buyer centre members who possess expertise power, exert the greatest amount of influence within a DMU. Some studies have shown that the power structure characteristics of the DMU can be used to segment the market. For example, Choffray and Lilien (1978) demonstrate that segments can be identified based on this DMU characteristic, however, they also highlight the importance of linking the segments to observable demographic characteristics. Without such a link, individual companies within the market cannot be allocated to market segments. To date, there have been few successful examples of such segmentations.

It can be further noted that, under a number of specific situations, it may be fairly easy to predict where the expert power lies. This is possible as expertise power has been shown to be dependent on the purchase situation (e.g. new task, rebuy, etc.). The previous discussion showed that differences in expertise power tended to depend on company size. Small companies purchasing technical products, in a new task situation, relied on consultants whereas larger companies had such expertise in-house. It follows, therefore, that segmentations based on this buyer centre characteristic provide little additional benefit to a macro-level segmentation.

Finally, the value of segmentations based on DMU characteristics can be further questioned. Segments based on the member(s) of the DMU that has (have) most influence should help the producer to direct marketing communications. However such knowledge does not provide a guide to designing the content of the communication. For example, a segmentation may identify a group of companies where the greatest amount of influence is held by a particular participant (e.g. the managing director), However within this segment, key participants from different companies are likely to rate different product specifications as being the most important. In such a situation the success of the segmentation approach is limited as

it does not facilitate product development or the content of promotional communications. In this situation, an investigation of the benefits sought by the key participants may reveal a more effective segmentation. It is obvious, however, that to adopt such an approach, the key participant must first be identified.

The discussion has shown that the DMU approach is an attractive model to address industrial markets. It recognises that purchase decisions are made by the interaction of a number of people in an organisation. Much research has been undertaken, and this has greatly added to our understanding of how decisions are made within organisations. With regard to application in the business travel market, the approach has been shown to be appropriate as a method of addressing the multiple person involvement in the purchase. The major drawback of the model is that it requires the identification of all members of the DMU which in most markets is virtually impossible, other than by an in-depth case study approach. The case study approach has been criticised as the findings from its application could not in many cases be inferred on to the population. This approach would certainly not be appropriate for the business travel market as the large number of potentially diverse buyers would mean that studying a few companies in detail would not reap information that could be used to segment the market as a whole. Approaches that identified the functional areas involved in the purchase were criticised as they simplified the decision process, by gaining proxy measures of the individuals involved in purchases.

In the next chapter a model similar to the DMU model is developed, but overcomes some of the problems regarding application of the DMU model to the business travel market. Stakeholders are groups or individuals that have a vested interest in the behaviour of an organisation. The stakeholder model does not require the identification of all the actual individuals in the decision making process, and consequently a larger-scale quantitative approach can be feasibly undertaken.

Approaches focused on the benefits sought

Plank (1985) notes that many industrial segmentation designs are based on industrial buyer behaviour and calls for more studies that use segmentation approaches based on what firms require rather than on how they buy. This view is supported by Hlavacek and Reddy (1986), in their criticism of Choffray and Lilien's decision matrix.

Benefit segmentation provides such a method. Consumers do not purchase items for the items themselves, rather they purchase products to fulfil a need. Each company has needs different from other companies and thus will seek products that will best satisfy its needs. It has been previously noted that one of the purchase phases that a DMU passes through is that of specification definition. During this phase the company defines the requirements of the product to be purchased. As different companies have different needs to be fulfilled it is likely that the specifications defined by one company will be different from another, i.e. companies seek different benefits from the same product. It is possible, therefore that for a specific product, there may well be a number of groups within the market that seek the same set of benefits; i.e. benefit segments.

The use of benefits sought as a segmentation base for industrial markets is supported by a number of authors (e.g. Bonoma and Shapiro, 1983, Wind and Cardozo, 1974). De Kluyver and Whitlark (1986) comment that "*conceptually, benefit segmentation is well suited to industrial products. It provides a detailed and multifaceted picture of customer needs for product design, pricing, distribution, and marketing support decisions*" (p.275). Like its consumer counterpart, industrial benefit segmentation "*can provide a better understanding of the causal factors operating in adecision*" (Lynn, 1986, p.15). This understanding of the causal factors in the decision making process can aid the marketer by providing clear product design and communication strategy guidance. DMU studies have tended to investigate the behaviour of the

DMU while benefit segmentation studies are not particularly interested in the process of decision making but in the outcome of this process (i.e. the selection criteria). The most useful DMU studies have attempted to identify the power structure within a DMU so that the purchase criteria can be predicted for those that hold most influence. Benefit segmentation is, therefore, a logical extension of the behavioural studies of the DMU. Normative research studies will naturally seek to apply research findings in the development of marketing strategies that will enhance profitability. Benefits sought is, therefore, a segmentation base that facilitates a normative approach to segmenting industrial markets.

A number of benefit segmentation studies have been undertaken in the industrial field. Brown, Shivashankar, and Brucker (1989) provide an interesting paradigm for segmenting industrial markets based on the requirements of the consumers. The model owes much to the end use segmentation approaches suggested by Unger (1974) and Doyle and Saunders (1985), but takes these approaches further by providing a framework for the analysis of the requirements of prospects in each grouping and also links the segmentation approach to resource allocation by identifying the most attractive segments. The methodology applied (an expert panel formed within the vendor organisation) seems to require a strong commitment from a large number of people within the vendor organisation, and seems to assume that the company has a number of functional areas (*"membership of this group should include a product manager, and experienced people from... Marketing, Engineering, Manufacturing, R&D, Purchasing, Finance, Customer Service, etc"*, p. 105). Such a methodology would require not only the company to have large staff numbers from which the expert panel can be formed, but also to have a culture that would support the commitment from such a large and diverse group over a significant strategy development period. The research identified a number of potential markets for air moving products (fans, air conditioning, etc.), by studying in-depth a number of companies that used such products. This approach is not suitable in the business

travel market as the results of the in-depth analysis of a small number of firms cannot be inferred onto the population of a large numbers of buyers found in this market.

Moriarty (1983) identified 33 criteria that may be used to select the purchase of computer terminals. In a survey of more than 300 purchasers, the importance of each of the criteria, and the variability within the market for meeting each of these criteria was used to identify seven key benefits sought; terminal speed, ease of use, aesthetics, compatibility, service, delivery, and price. Two benefit segments were identified; one group sought low cost and ease of usage; the other sought a stable reliable supplier of a broad range of goods. Moriarty demonstrated that membership to a benefit segment was dependent on observable characteristics (industry type), which had marketing implications for the brand leader in the market. From the study IBM knew which markets to target, and what product benefits should be highlighted in the marketing communication.

The industrial professional services market is investigated by Lynn (1986). She applies a similar methodology to Moriarty to investigate 38 criteria used by respondent's (either the Chief executive officer, chief financial officer, or financial controller) in 321 firms in the selection of accounting (CPA) services. The analysis showed that CPA firm size, CPA specialisation, CPA competency, and fees discriminated benefit segments most. The study shows that industrial service markets can be segmented by a "benefits sought" approach. Dawes, Dowling, and Patterson (1992) in a study of 17 criteria used to by respondents in 253 companies (the corporate position of the respondents were not identified) to select management consultants found that there were few differences in the importance of choice criteria across different consulting assignments, industry type and frequency of purchase. In this market, therefore, benefits sought did not provide a successful segmentation approach, but did add to the knowledge of what product elements were important to companies.

A segmentation approach that links the benefits sought and the benefits that can be delivered by the vendor is developed by de Kluyver and Whitlark (1986). In an analysis of the air compressor market, a four stage procedure is applied. Firstly an audit of the vendor's managerial, technological, and financial objectives is undertaken. This is used to define potential target markets. The second stage involves the formation of benefit segments, by clustering, based on all the benefits that might be sought by potential customers in the target markets. The third stage repeats the formation of clusters, this time based on the benefits that the company can deliver in light of its managerial, financial, and technological objectives and capabilities. Finally these segments are evaluated for attractiveness. The methodological approach builds on the prescriptions of the normative segmentation school (see section 3.2) as both the financial, managerial and technological capabilities of the vendor company and the segmentation analysis are considered simultaneously.

Bennion (1987) demonstrates how a benefit segmentation can be applied to a basic industry (steel forging). Respondents rated the importance of 22 variables. A factor analysis performed on these scores identified five key benefits sought; vendor management quality, price, product quality, order policy, and production flexibility. From the factor scores a cluster analysis revealed five distinct market segments. The study shows how benefit segmentation can serve as the micro-segmentation stage. It also provides a practical assessment of how closely the sponsoring company serves each of the markets. This analysis had important implications for the marketing strategy of the company involved.

It has been established that business travel is a hybrid market (see section 2.3), and therefore, it is important to consider the consumer element of this market. However, it is also important to discover how the consumer (i.e. the traveller) relates to the organisation for which he/she works. Consumer actions are the outcome of the decision making process. Therefore, this research needs to look at consumer

benefits, and also the how the consumer relates to the employing organisation (that has a vested interest or stakeholding in the purchase). A detailed analysis of the DMU model has revealed that it is not appropriate for this type of hybrid market. A stakeholder approach will be described in detail later (section 4.1) from which more may be learnt about this hybrid market.

In the examples given above, two research approaches have been adopted; expert panel, and customer survey. Brown, Shivashankar, and Brucker's expert panel approach (1989) has been shown to be less desirable for application in the business travel market. The other studies collect information about the importance placed by a selected member of the organisation on a number of purchase criteria, and collect the data from one person within the organisation. From the researcher's perception, the person from whom the data are collected are used to represent the view of the organisation as a whole. Such an approach assumes that the person interviewed can and will present the views of the organisation, irrespective of his/her individual view. The obvious research difficulty related to such an approach is how to select the person (or group) to represent the view of the "organisation as a whole". A number of the studies select the respondent by firstly undertaking a literature review of the market, and then by undertaking preliminary in-depth research in a small number of firms. Bennion (1987) indicates that the respondent should be someone "*directly involved in the purchase decision making process*" (p.10). Whether this approach is suitable for the investigation of the business travel market can be evaluated. This will be considered in the next chapter.

3.5 SUMMARY

The purpose of this research project is to undertake an analysis of the short haul business air travel market in the context of changing legislation in the EU, and particularly in light of increased competition. To do this market segmentation has

been identified as a suitable investigation method. This chapter has shown that while the basic theory of segmentation is the same for both consumer and industrial products the differences between these markets have led to the development of separate bodies of literature. Industrial markets have proved to be more difficult to segment than consumer markets, not least because industrial procurement is a function of a complex decision making process.

A number of segmentation bases have been identified for both consumer and industrial products. Consumer literature is well developed in the practical field which has led to the development of guide-lines as to which base to select in various circumstances. Due to their more complex nature this development has currently not been achieved for industrial markets. Considering the hybrid nature of the business travel market a base is required that will consider both the consumer and industrial elements of the market. It would seem that both the buyer centre approach and the benefit segmentation offer approaches that are suitable for this market. While the DMU model has been criticised, particularly because of its underlying assumption of consensus within the DMU, its multiple role approach seems to address the complex nature of purchase decision making. The benefit sought approach looks at the outcome of the decision making process, placing less importance on the process itself. A segmentation model suitable for the business travel market, which takes into account the analysis of this chapter, will be developed in the next chapter.

CHAPTER 4: MODEL DEVELOPMENT

INTRODUCTION

This chapter develops an approach that may be used in to segment the business air travel market (Sections 4.1 and 4.2). To undertake a market segmentation study, a conceptual model of buyer behaviour is developed (Section 4.3), and the value of this model is assessed by the testing of two hypotheses (Section 4.4).

4.1 STAKEHOLDER MODEL FOR A HYBRID MARKET

The purpose of this chapter is to develop a research model that is suitable for the segmentation of the business air travel market.

In the second chapter, the nature of this market was investigated. The analysis showed that the market cannot be easily classified as either consumer or industrial. To analyse the market, segmentation was identified as a suitable tool. The third chapter considered the literature pertaining to market segmentation. The review indicated that no base selection technique was developed specifically for hybrid markets such as business travel, and thus the available bases were investigated for their suitability to segment the business travel market. A base was sought that best matched the characteristics of the market and the needs of the research objectives. Due to the hybrid nature of the market, this analysis considered both the consumer and industrial segmentation bases.

It was shown that each base investigated had some shortcomings in its applicability to the business travel market. However, the two most suitable approaches seemed to be the DMU approach and the benefits sought approach.

The DMU model was identified as being a suitable model to address the industrial elements of the business travel market. The disadvantage of this approach is that to investigate fully the DMU within a firm, an in-depth study needs to be undertaken. As there are a large number of diverse buyers in the market, such an approach would reap much information about those companies studied, however the findings could not be easily generalised. Furthermore, there is an underlying assumption of consensual decision making in the DMU approach which may not apply to a hybrid situation where the individual's objectives may conflict with that of his/her employing organisation.

To overcome the problems associated with the DMU model, it is proposed that a stakeholder model may be used instead. Stakeholder theory is a strategic management concept, which can be used to investigate the decision making processes in organisations. Although it is not prominent in the segmentation literature it seems that such an approach may be appropriate to model the buying behaviour of organisations, as, like the buyer centre concept, it is a model which takes into account the existence of corporate decision making. The stakeholder concept recognises that decisions are made by a number of people within an industrial setting. It acknowledges that a number of people or groups have a vested interest in the decision, and that different stakeholders do not necessarily agree.

The theory draws from the notion of corporate shareholders. Shareholders are those people or organisations that own a company, and place objectives on the company, such as profit maximisation. However, as companies grow, ownership becomes divorced from the day-to-day control of the organisation (Thompson, 1990). The managers who have effective control over the company may not be shareholders and may develop their own objectives (e.g. revenue maximisation) for the company. While these managers do not have a share in the company, they hold a stake or vested interest in the company. Freeman (1984) defines stakeholders as *"any group or individual who affects, or is affected by, the achievement of the organisation's*

objectives" (p.46). Haines (1977) identifies seven stakeholder groups involved in a business; managers, employees, shareholders, customers, suppliers, lenders, and society.

Johnson & Scholes (1988) indicate that the stakeholders, using their perceptions of the power structure in the organisation, will determine the objectives for that organisation. Stakeholder theory postulates that the objectives of the organisation "*will take account of the various needs of these different interested parties who will represent some type of informal coalition*" (Thompson, 1990, p.116). Freeman (1984) develops a strategic management model using stakeholder theory. The model is used to develop strategies based on an assessment of the power structure of the various stakeholders and goals that each group seeks. The stakeholder model is, therefore, similar to the buyer centre model as it, too, attempts to identify the decision making power structure in an organisation. The difference is that the stakeholder model does not attempt to identify individuals, and it does not assume consensual decision making. The DMU model has been criticised in the previous chapter as some studies that apply the DMU concept actually gain only proxy measures of the individuals in the decision making process. The stakeholder model does not attempt this but rather identifies groups of people that hold a similar vested interest in the decision, and attempts to discover how much power each group has.

Stakeholder theory focuses on the strategic management of the firm. The definition of a stakeholder may be adapted slightly so that the focus of the definition is the decisions made by the company rather than its performance. The definition will now read:-

"any group or individual who affect, or is affected by, the decisions of the organisation" Adapted from Freeman (1984).

This adaptation can be justified as a company's achievements are a function of the decisions it makes, and therefore the definition is adapted only in its focus, and not its meaning. By changing this focus, the definition now indicates that each decision within a company has a group of interested stakeholders. It is intuitively true that employees, shareholders and other stakeholders do indeed have a vested interest in the decisions made by the company.

The stakeholder theory is normally applied to strategic decision making, but the concept that stakeholders have a vested interest in a decision can also apply to increasingly less strategic decisions within the company. For example, if the cost of air travel represents a large cost item to a company, shareholders will be interested in the class (and thereby the cost) of travel taken by the travelling employees of the company, as it directly affects the profitability of the company. For each decision made by an organisation, there will be a group of stakeholders that have a vested interest. It is possible, therefore, to apply stakeholder theory to the purchase of air travel.

Rather than investigating, in-depth, each firm to discover those involved in a decision, stakeholder theory identifies **in advance** a number of stakeholder groupings that have a vested interest in a decision, and then collects data regarding these groupings. In this way an understanding of the buying behaviour of companies can be developed. While this approach is more rigid than the DMU approach, it enables the application of a quantitative instrument, which would seem desirable for hybrid consumer/industrial markets where there is a large number of diverse buyers such as the business travel market. The stakeholder model differs from the DMU approach in that it accepts that consensus may not be reached during the purchase decision making process. Such an approach is particularly suitable for hybrid markets, such as business travel, where an individual's personal objectives may be in conflict with that of his/her employing organisation.

The second base that was identified as being most appropriate for application in this market was benefit segmentation. Benefit segmentation has been identified as being a useful base in both consumer and industrial markets. The review highlighted that its application in industrial markets is more difficult as the purchase criteria or benefits sought by an organisation are the result of a complex decision making process. The review of the DMU (in Section 3.4.2) highlighted that people within the buyer centre bring different objectives to the decision making process. The amount of influence of each member of the DMU will affect how successful he/she is at achieving his/her objectives in the decision making process. Simply stated, the purchase decision can, therefore, be perceived as a function of the DMU members' objectives and influence. While this decision model is conceptually simple, the critique highlighted the methodological difficulties associated with investigating the DMU, and also questioned its applicability for market segmentation studies. It may, therefore, be questioned if it is necessary important to undertake a detailed investigation of the structure and process of the DMU in order to identify appropriate benefit segments.

From a segmentation perspective the process of decision making is really less important than the decision that is the outcome. To apply benefit segmentation to an industrial market the researcher, therefore, needs to identify the criteria sought by the "organisation as a whole", and not just individuals within the organisation. A method which identifies the benefits sought by the DMU as a group, but does not necessarily need to identify the individual members of the DMU, would provide the practitioner with a model with less operational problems than the DMU approach. The value of the study, however, is dependent on the selection of a suitable person within the organisation to complete the survey. Such a model recognises that decisions within a company are made by a DMU but overlooks the decision processes and merely looks at the decision made. To gain this information a methodology of questioning one key respondent has been used in a number of industrial benefit segmentation studies (Moriarty, 1983, Lynn, 1986, Bennion, 1987), and is supported by a number of authors (Phillips, 1981, Mitchell, 1994). The disadvantage of the benefit approach is

that it does not gain much information about the purchasing decision making process of the organisation. As the review has shown that the role of the organisation is becoming more important in the purchase decision of business travel, information collected regarding organisational buying behaviour would be valuable.

It is appropriate to assess whether such an approach is suitable for the business travel market, where there is an important element of consumer purchasing. The key informant approaches to discover the purchase criteria has been applied in a number of markets in which there is not any significant consumer element, for example, steel forging, and accountancy services. (While it has been identified that the purchase of computers does have a consumer element (Smith and Bard, 1989), Moriarty's study of the purchase of computer terminals was undertaken before personal desktop computers had a strong influence in the market). The problem in hybrid markets is to discover the purchase criteria of the organisation beyond the key informant. To investigate a hybrid market, a suitable approach may be to discover the benefits sought by an important stakeholder in the purchase, and then investigate the nature of the employing organisation, and in particular how it relates to the key stakeholder

Therefore, a suitable research method that may be applied to hybrid markets, such as business travel, would involve a two stage approach:-

Stage 1: The decision processes would be considered through the application of a case study approach. This part of the study would be used to identify significant categories of stakeholders in the purchase decision.

Stage 2: The second part of the study would involve questioning an important group of significant actors or stakeholders to identify benefits sought in the purchase, so that any benefit segments may be identified. The collection of information on the other significant actors that have a stakeholding in the purchase, at this stage, would enable an assessment to be made of the extent

of the consumer and industrial elements in the hybrid market, and in particular how the stakeholder group being studied relates to the organisation.

By using this methodology some of the shortcomings of both the buyer centre and benefits sought approaches for hybrid markets could be overcome. This structure would enable a segmentation based on the benefits sought, and would also enable the development of an understanding of decision making behaviour in the market.

Such an approach also has a practical advantage of the potential for obtaining significant results with the budget constraints of the research. Consequently this approach is adopted as being a suitable research approach for the business travel market, and is considered in section 4.2.

4.2 RESEARCH APPROACH FOR THE BUSINESS TRAVEL MARKET

The findings of a study to identify stakeholders is presented in section 4.2.1. The purpose of the second stage of the research approach for the business travel market is considered in section 4.2.2, and two sets of research hypotheses are established in section 4.2.3.

4.2.1. STAGE ONE: CASE STUDIES TO IDENTIFY STAKEHOLDERS

A depth study of the air travel purchasing behaviour of a number of companies was undertaken as a first stage in the research approach detailed above (4.1). The purpose of the study was to:-

- ◆ Develop a deep understanding of the behaviour, motives and attitudes of organisational customers of business air services, with the aim of collecting rich data that could be used in the design of a questionnaire suitable for quantitative analysis.
- ◆ Identify stakeholder groupings that are common to companies and that could therefore be used in the second quantitative stage of the study.

A series of nine depth interviews were undertaken with organisational travel managers. The organisations for whom the travel managers worked were all large, and operating in different industries. The respondents were questioned on the companies' buyer behaviour, travel policies, and flight selection and booking methods.

The details of these case studies, which represent a vital and substantial part of the research, are found in Appendix III. This chapter restricts itself to a summary of the findings of the research which revealed a number of items about the nature of business related air travel:-

- ◆ Policy and corporate philosophy toward business travel was different for each of the companies studied. This provides evidence to suggest that a quantitative study of the business travel market may be appropriate as the results of in-depth analysis of a small number of firms could not be generalised.
- ◆ All of the organisations had some form of travel policy. Many of the policies were flexible or provided a guideline to the traveller and/or the travel manager as to the manner in which the air ticket should be purchased. Some of the policies were rigid, and some open to interpretation. These differences are important in the design of the research tool. The mere

presence of a travel policy does not indicate that an organisation takes strong control over its travel expenses, indeed it may be more an indication of the size of an organisation. The research tool should be able to quantify these elements.

- ◆ A number of the organisations used the corporate status of the traveller to designate the ticket class. The grade of travel allowed to the corporate travellers of the organisations interviewed may be dependent on the length of the flight. There are two variables to be considered. Firstly, comfort; most of the organisations indicated that the longer a flight the more likely the traveller would be allocated a better class of ticket. Secondly, ticket flexibility; some travellers were allocated a poorer class of ticket on transatlantic routes than they were allowed on short haul routes. This would seem to indicate that ticket flexibility is more important on short haul routes than longer haul ones.
- ◆ The source of ticket payment may influence buying behaviour. The case studies revealed that some industries have their air travel paid for by clients or budgeted through a project budget and this likely to affect the type of ticket purchased.
- ◆ The study revealed that organisations may have preferred carriers for a number of reasons; price, brand favouritism, and reciprocal relationships. Data should be collected to investigate further this element.
- ◆ Most of the companies surveyed expressed concern about the influence that frequent flier schemes were having on their business travellers. It was felt that the scheme erodes the power of the company to make rational purchasing decisions with regard to air travel. It is also a strong indication of the significance of the consumer element in a hybrid market.

The case studies found that the people involved in the purchase of air travel within an organisation may be some or all of those listed below:-

- ◆ The traveller
- ◆ The person who books the flight
- ◆ The traveller manager or travel administrator
- ◆ The traveller's secretary other person/people within the traveller's department
- ◆ The person responsible for the cost of the travel.
- ◆ The company's travel agent.

To meet the objective of this part of the research, a number of stakeholder groupings that are common to all companies need to be identified and defined.

While this study has identified the above groups of people that *may* be present in the purchase of organisational air travel, only the first two (i.e. traveller, and person who organises the flight) will be common in every corporate purchase (although in some cases they may be the same person). The involvement of the other people listed in the purchase of air travel will be dependent on the individual company purchasing the air service. As it has already been established, collection of data on all the members of the DMU is not practical or possible in a quantitative study. In the section 4.1 it was noted that to apply the stakeholder concept to the purchase of business travel, stakeholder groupings would need to be identified and classified in advance. These stakeholder groupings would need to be common in all air travel purchases, irrespective of the company bearing the cost of the travel. From the list of potential members of the buyer centre, a set of stakeholders may now be established.

THE TRAVELLER - A STAKEHOLDER

For every air ticket purchased by an organisation, the person who takes the flight can be identified, and thus is common to every purchase situation. It is self-evident that the person who is actually consuming a travel service may also be perceived as holding a stake in the service's purchase. It has already been established that the user has both a personal and an industrial stake in the purchase. For example, the quality of the service, such as seat comfort and food, will have a significant impact on the user at a personal level. As a representative of the organisation for whom he/she works, the traveller also holds a corporate stake in the air service, since, for example, if the traveller misses an important meeting due to a delayed flight then he/she may be perceived badly by those let down.

THE TRAVEL ORGANISER - A STAKEHOLDER

For every flight purchased there is a person or group of people who books the flight, and makes the various flight arrangements. These people may invest much time and effort in organising travel, and be judged on their performance. It would seem that these people have a vested interest in the purchase, and thus the person or group of people who are responsible for making these arrangements may be identified as a stakeholder group.

The individuals who have an "travel organiser" stakeholding in the purchase of air travel may differ between companies. The role of organising travel may have been assumed by an employee in a purchasing role such as a "Office Services Manager", although, in many organisations this role is often assigned to secretaries, clerks, or departmental office juniors. The depth study highlighted the growth in importance of travel management within large organisations. However, in a small company, it is possible that a traveller may also organise his/her flight. In such a situation the

traveller may be perceived as having both a "traveller" stakeholding and an "organiser" stakeholding. The objectives assumed by this stakeholder group will be dependent on the person or group of people who hold this stakeholding within a company. However, the vested interest will tend to be of a personal nature. For example a travel manager may wish to minimise the cost of air travel as it affects his/her performance in that role, while a secretary may wish to spend as little time as possible on the purchase as he/she has other work to complete. By questioning the airline user about the method of ticket consumption, data regarding this stakeholder group may be collected.

THE "ORGANISATION" - A STAKEHOLDER

The "organisation" is taken to mean an actual or assumed "official" stakeholding as sometimes laid down in written corporate policy statements, informal agreements, or unwritten corporate or departmental policies. The previous two stakeholder groups are constructed of individuals or groups of individuals that have a direct involvement in the purchase. However, others in the company may also hold a vested interest in the purchase of air travel. For example, the traveller's manager may be responsible for budgeting the cost of the ticket, which will affect the department's profitability if it is viewed as a profit centre. The financial department may also be concerned about consumable expenses such as travel, and managers at a company's head office may develop a policy for the purchase of air tickets. All these corporate employees, have a direct or indirect involvement and, therefore, have a vested interest in the purchase of air travel, which will tend to be based on "organisational" rather than personal objectives. However, the corporate members involved will differ from one company the next. To address the interests of these other people it is suggested that a third group of stakeholders be called "organisational" stakeholders. Here the interests of the "organisation" as a corporate entity be considered. The organisation as a whole is likely to be concerned with the cost of travel and also the elapsed time spent by

employees travelling in pursuit of the company's business (particularly if flights are delayed). These concerns are likely to be expressed as "company policy", whether written down in a formal statement or "understood". The concerns (and any resulting policies) may be assessed by asking the airline user questions about the company he/she is employed by.

THE TRAVEL AGENT - NOT A STAKEHOLDER

Table 4.1 shows that the people identified as potentially involved in the purchase of organisational air travel can be allocated into one of the three stakeholder groupings. The depth study showed that travel agents also potentially have an important role in the purchase of air travel, and their role was considered. However from a research perspective, the study is concerned with the benefits sought by the traveller's organisation, not the travel agent, which is a separate organisational intermediary in the purchase channel. This is not to deny that another research study may be required to investigate the role of independent intermediaries. However, to include travel agents as a separate stakeholder would confuse the focus of this study.

Potentially involved in the purchase	Stakeholder Group
The traveller	Traveller
The person who books the flight	Travel Organiser
The traveller manager or travel administrator	Travel Organiser
The traveller's secretary other person/people within the traveller's department	"Organisation"
The person responsible for the cost of the travel.	"Organisation"
The company's travel agent.	Not a stakeholder

Table 4.1 Buyer Centre members allocated into Stakeholder Groupings

4.2.2 STAGE TWO: BENEFIT SEGMENTATION

In section 4.1 a two stage research approach to the business travel market was proposed. It was indicated that the second stage of the study would involve questioning the most important significant actors (i.e. stakeholders) in the purchase to identify their benefits sought from the purchase. This would enable benefit segments in the hybrid market to be identified. This second stage would also collect information on the other significant actors with a stakeholding in the purchase so that the extent and nature of the hybrid market may be assessed.

The first stage in developing the benefit segmentation model is the selection of the most important stakeholder group so that it may be surveyed.

It is proposed that the traveller is surveyed to identify the purchase criteria necessary to undertake a benefit segmentation. There are two main reasons for this selection:-

- ◆ The business travel market has a hybrid nature, with a significant consumer element, and thus it would seem important to interview the individual traveller to ensure that the consumer element of the market is sufficiently considered.
- ◆ It was established above that of the three stakeholder groups only the individual traveller and the individual who books the flight will be present in every purchase situation in every company. Of these two the, easiest to identify and interview would be the traveller, as he/she can be interviewed at an airport, or in-flight. Travel organisers would be difficult to identify and survey as they cannot be found at one location such as an airport, a list of names and addresses cannot be easily constructed, and if such a list were available, a postal survey would be required which tends to have lower

response rates compared to the face-to-face interviews which would be possible in the case of the individual traveller (Chisnall, 1986).

Having selected to survey the traveller the next stage of the research is to develop a suitable research instrument to identify the benefits sought in the purchase of business related air travel and to collect information that will enable the profiling of the market. The design of the research instrument is considered in chapter 5. Having established the purpose and basis for the study, it is now possible to develop hypotheses against which the research may be evaluated.

4.2.3 THE RESEARCH HYPOTHESES

This thesis is concerned with developing an understanding of the business travel market which has recently become more competitive in the EU following changes in legislation. To investigate the market, market segmentation was identified as a suitable technique. An analysis of the nature of the business travel market revealed it displays elements of both consumer and industrial markets. From these investigations two major research problems become apparent:-

- ◆ The business travel market has traditionally been treated as single segment of the entire air travel market (see Section 2.3). This approach has meant that a comprehensive understanding of the market has not been developed. Given the size of the sector, are there segments within the business travel market which warrant separate marketing attention?
- ◆ The business travel market displays a hybrid nature with both consumer and industrial market features. Is it possible to discover the nature of decision making in this hybrid market so that airlines will be better able to focus

marketing efforts towards the business traveller, or the organisation for whom he/she works?

To segment the market an appropriate segmentation base must be selected. This required an investigation of the various consumer and industrial segmentation bases which highlighted that they are somewhat deficient in their suitability for segmenting a hybrid market such as the business travel market. Benefit segmentation was identified as being a suitable base to segment both consumer and industrial markets, however the research approaches to industrial applications were criticised as not fully addressing the complexity of industrial decision making. The buyer centre or decision making unit model was identified as being a suitable model to investigate industrial decision making, however a number of difficulties were identified in its application to the business travel market. The stakeholder model approach was subsequently investigated and determined to be more suitable for a hybrid market with a strong consumer purchasing element. A two-stage research approach, based on the stakeholder model has been developed that considers the complex decision process within the organisation, and also addresses the outcome of that decision process, namely the benefits sought in the purchase of air travel.

The research will, thus, segment the short haul European business market based on the benefits sought by the business traveller, and then investigate whether these benefits sought are influenced by the other stakeholders in the purchase decision. The basic concept of the research is, therefore, that if market segments exist in the business travel market, then the membership of these market segments is influenced by both consumer and industrial elements. Two sets of research hypotheses can be used to test this concept, and can be formally stated as:-

1H_0 = *All passengers travelling for business purposes seek similar groups of benefits from short haul air travel.*

1H_1 = *Business derived air travellers may be assembled into market segments based on the group of benefits they seek from short haul air travel.*

2H_0 = *The membership of benefit segments in the business derived short haul air travel market is determined solely by the objectives of the individual traveller.*

2H_1 = *The membership of a benefit market segment is influenced by other people within the organisation that employs the traveller, and/or policies set down by that organisation.*

The segmentation approach is original, in air transport, as;

- i) The effect of the business environment on the airline user's consumer behaviour will be evaluated for the first time.
- ii) The importance of the various product elements in the purchase decision process of European short haul business travel will be assessed for the first time in published research.

4.3 SUMMARY OF PART I

This thesis is concerned with the market for business related air travel. The importance to airlines of the business traveller, the user of airlines travelling in the process of his/her work, is evident. Airline marketing literature considers business travel as a segment of the total consumer airline market. However, there is evidence to suggest that travel expenditure is becoming an increasingly important expenditure and organisations employing air business travellers are subsequently beginning to

look for methods of control. It is, therefore, important to consider this market separately.

To classify the purchase of business-related air travel as being either a consumer or industrial market in nature is difficult as business travel displays elements of both market types. As separate bodies of literature and research approaches exist for consumer and industrial markets, a research approach that considers both has been developed. A market segmentation based on the benefits sought has been proposed based on a stakeholder model that recognises the complexity of the industrial decision making process. Two sets of research hypotheses have been stated that will be tested by application of the developed research model.

The application of such an analysis of the short haul European business market will provide an original market segmentation approach suitable for other markets that display a hybrid nature and assist in the marketing strategy for a short haul European carriers in the liberalised EU market.

PART II
METHODOLOGY

CHAPTER 5: OPERATIONALISING THE MODEL

INTRODUCTION: THE RESEARCH DESIGN

This chapter details the manner in which the second stage of the research approach, a benefit segmentation of the business travel market, is undertaken. In order to investigate the research hypotheses given in section 4.2.3 it is necessary to design a suitable research tool. The following items need to be considered in the design of a research instrument:-

- ◆ The data required
- ◆ The data measurement technique
- ◆ The data collection method
- ◆ The sample
- ◆ The validity of the research instrument
- ◆ The analytical approach
- ◆ The reliability of the measures employed

Section 5.1 details the data required to operationalise the model. The data measurement techniques are explained in section 5.2. The data collection method and sample methodology are detailed in section 5.3, while the validity of the instrument is considered in 5.4. The analytical methods used to investigate the research hypotheses, and an assessment of the reliability of the study are considered in Chapter 6.

5.1 DATA REQUIRED

The first stage of the research identified three main stakeholders in the purchase decision of business related air travel services; i.e. the organisation, the travel manager/organiser, and the traveller. The research aims to discover whether these stakeholders have an influence on the purchasing and usage behaviour of that traveller. The stakeholder model indicates that the relationships that exist between

these stakeholders and also the benefits the most important stakeholder seeks from air services must be fully investigated. Before the data required by the study can be specified, the target consumer must be identified.

Target Audience

The study concentrates on the collaborating organisation's target market; the business traveller. To study this market a survey will be undertaken. It was established in the last chapter that a quantitative study of this type is suitable as the market has so many diverse consumers that the findings of a qualitative study of a small number of the population could not be generalised. The individual traveller was identified as a suitable respondent for this market which combines elements of industrial and consumer markets and has, therefore, been defined as a hybrid market. (The validity of such an approach is considered later, in section 5.4). In order that only those respondents in the target audience are interviewed a filter is applied. The survey is to be conducted pre-flight boarding (see section 5.3). It is during this period that travellers tend to be in a hurry, and is particularly true of business travellers as they tend to not to check-in for their flight until a short time before the flight is ready to board. The application of the research tool, therefore, requires a quick filtering question so that the period of time that the respondent has to complete the survey will be maximised, and also so that the researcher will not waste time during the data collection process. For the research project, a business traveller is defined as a **respondent who has travelled by air for business purposes at least once in the last twelve month period or is currently travelling for business purposes.** This definition ensures that all respondents who at the time of interview are travelling for business purposes are questioned, which ensures that the entire business travel market is investigated, irrespective of frequency of travel. The study is particularly interested in the London market as the basis for the collaborating organisation's marketing strategy and is focused on their Stansted base.

Fig 5.1: Data required

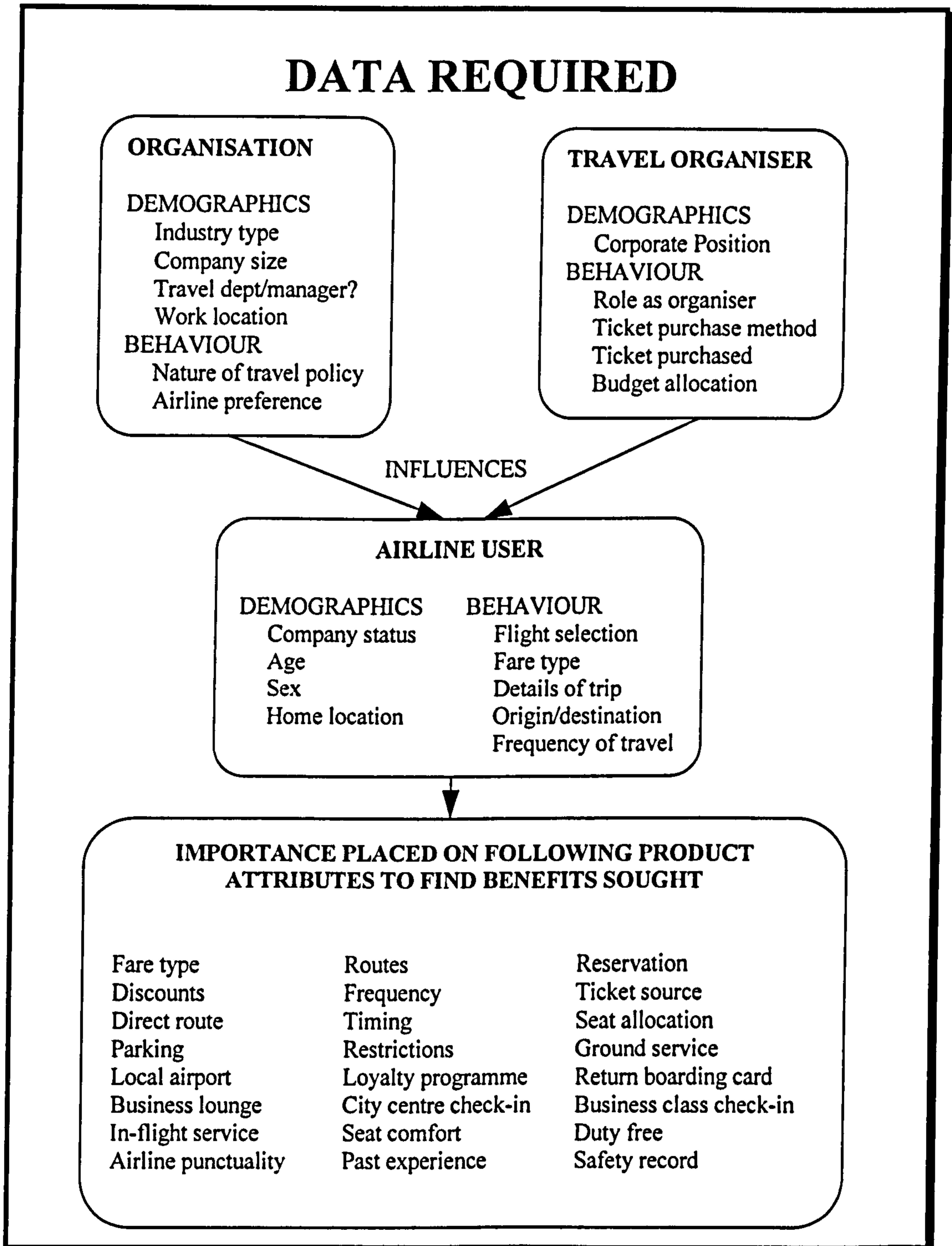


Figure 5.1 indicates the data required from the study. The data requirements are based on the analysis of the business travel market (see chapter 2), experience gained during periods of secondment (totalling 11 months) spent at the collaborating organisation in the market research department, and the first stage of the research (see Appendix II, and chapter 4).

The diagram also shows that demographic and behavioural data will be collected about three stakeholder groups. This data will be used in the profiling of the market segments that the survey aims to identify. Investigation is required of the relationship between the airline user and the organisation to which he/she belongs, and the organiser stakeholder as regards decision-making behaviour.

The importance of various product attributes that are sought in the purchase of air travel need to be evaluated. The airline product contains elements of the "Seven P's": product, price, place, promotion, people, physical evidence, and process. Investigation of the traveller's use of and attitude towards these elements will provide data that will be used to identify and profile market segments.

The basis upon which figure 5.1 is derived (i.e. analysis of the business travel market, researcher experience in the airline industry, and the first stage of the research) can be used to develop a full set of individual items of data required to be collected by the research tool. A discussion of the reason for including each item of data is presented in the section on questionnaire content later in this chapter. The data to be collected includes organisational and personal details, behaviour regarding the current business trip, geographic and demographic details, and the importance placed by the traveller on a number of product attributes from which benefit segments are to be sought. These items of data are as follows:-

Organisational and Personal Details

Industry type
Company size
Size of site where traveller is employed
Number of people who report to traveller
Organisational status of traveller
Whether the organisation has a travel department or manager
Whether the organisation has a travel policy
Who, within the organisation is responsible for setting a travel policy
The nature of any such travel policy
The traveller's feelings toward organisational travel policy
Whether the organisation has preferred airlines
The nature of any such preference
The class of travel that people within the traveller's organisation are allowed both on short haul and on long haul travel

Behaviour regarding this specific business trip

Who selected, booked, and paid for the flight
Method of ticket purchase
Policy regarding the internal accounting for fare payment
Was the traveller given the choice as to which airline he/she would use?
Flight details
Origin/destination
Fare type
Number of trips in the last 12 months
The length of this trip
The traveller's preferred airport and the reasons why it is preferred

Geographic and Demographic Details

Age of traveller
Gender of traveller
Traveller's home postcode
Traveller's work postcode

The importance the traveller places on the following product attributes:-

In the questionnaire, the respondent is to be asked to rate the importance of the following 23 product attributes. The list, in table 5.1, has been constructed through the process of the analysis of the airline product given in chapter 2 (section 2.2). The items below are classified in terms of Booms and Bitner's seven P model for product marketing mix development (1981). By doing this marketing mixes can be developed for any segments identified in the second stage of the research. It may be noted that none of the 23 items included refer to promotional activity, as any communication strategy for any selected market segments will need to be developed after the segments have been identified, profiled and selected.

Product Attribute	7 P classification
Timing of outward flight	Product
Timing of return flight	Product
Flight frequency	Product
Ticket price	Price
Ticket discount	Price
Ease of reservation	Place
The lack of ticket restrictions	Product
Direct route	Product
Seat allocation at reservation	Process
Parking assistance	Process
Quality of ground service	People
Flight from local airport	Product
Return boarding card on departure	Process
Business lounge available at airport	Physical evidence
City centre check-in	Product
Exclusive business class check-in	Product, Process
In-flight service	Product, People
Seat comfort	Product, Physical evidence
Duty free	Physical evidence
Frequent flier programme	Product
Airline punctuality record	Process
Past experience of an airline	Product
Airline safety record	Product

Table 5.1 Product elements allocated to the 7 P model

5.2 QUESTIONNAIRE DESIGN

Having identified the data required by a the second stage of the research, a suitable data measurement tool can now be designed. In order that the data required may be collected there is a need to ask questions of individuals in the target audience. Therefore the suitable data collection method is by questionnaire.

5.2.1 QUESTIONNAIRE ADMINISTRATION

Before a questionnaire can be designed, the method by which the questionnaire will be administered has to be selected (Churchill, 1983). The method of questionnaire administration has important implications on the design of the questionnaire itself. Three principal methods of questionnaire administration are considered:-

- ◆ telephone
- ◆ post
- ◆ face-to-face interview

Zaltman and Burger (1975) list the advantages and disadvantages of these methods of administration. They note that the technique to be applied should be selected based on the conditions in which the study is being undertaken. These conditions include; the funds available for the study, the time available, and the amount of data required. They continue that both telephone and mail methods of survey gain a "*wider and more representative distribution of sample*" (1975, p.312) than respondents selected by interviewers for personal interviews. This advantage is desirable where the target audience is widely distributed in terms of its geography or demography. For this study, however, the target audience is tightly defined as those who have travelled by air for business purposes at least once in the past twelve month period, or are currently travelling for business purposes.

To undertake such a study using postal or telephone methods two sampling methods are considered. The first sampling method would involve approaching a very large number of prospective respondents and then filter out those who do not meet the definition of business traveller. Such a method would gain a very low response rate and also be very wasteful of postal or telephone resources.

The second possible sampling method would be to target respondents in one of two ways; using a list of business travellers; or issuing the questionnaire in a special interest publication. A list of business travellers is available from the collaborating organisation, which operates a frequent flier loyalty scheme rewarding passengers for repeat purchase of its air services. The scheme has some 9,500 passengers enrolled, who could be contacted to answer a questionnaire. Stephenson and Fox (1987) highlight that loyalty programmes affect the buying behaviour of business travellers. Therefore, to target only those business travellers who are already members of a loyalty scheme would introduce unnecessary bias into the study, thus the use of such a list is deemed inappropriate. The cost of administering the survey by distribution via a specialist magazine (such as *Business Traveller* magazine) is prohibitive for this research.

Having evaluated both telephone and postal studies as being unacceptable due to sampling problems, a personal face-to-face interview is selected as being the most appropriate for the study.

Generally personal interviews represent a high cost in terms of interviewer cost. In this study this cost is minimal as the research student will personally undertake the interviews, thus overcoming this disadvantage. A further consideration with regard to questionnaire administration is that the time available to complete a personal interview is highly limited. A fairly large set of data needs to be collected for each respondent, and a large number of respondents need to be contacted. The time is available for the research student to collect data is limited (see section 5.3 re: access at

Stansted) therefore a self-completion questionnaire is considered appropriate. This has implications for the design of the survey form.

5.2.2 QUESTIONNAIRE DESIGN AND LAYOUT

The final design of the questionnaire used to investigate the research hypotheses is contained in Appendix III.

The target audience for the survey is people travelling for business purposes. It is likely, therefore, that these people will have many demands on their time and thus the questionnaire will need to vie with these other demands. In order to be successful in its competition, the design of the survey form is very important, since a form that is unattractive or badly presented may produce a non-response from the interviewee. A number of comments may be made regarding the general design of the survey form.

A5 Design

Firstly, the survey form has an A5 folded design (dimensions: 14.85cm x 21.00cm) which is a more manageable size than A4 (dimensions: 21.00cm x 29.7cm). As it is intended that respondents will be approached to complete questionnaires in the departure lounge (see section 5.3) it is possible that they will not have a hard surface to rest against. As the form may be folded so that it is four leaves thick, respondents can complete the form, without a hard surface to rest against.

The form reads like a book with questions printed upon both sides of the paper. This provides an advantage over an A4 design. Often A4 questionnaires have print on only one side of a sheet. Such a design would require more sheets of paper than the A5 design and thus make the questionnaire seem longer and possibly reduce the willingness of respondents to complete the questionnaire.

The last reason that the form is in an A5 design is that it allows for a full introductory page. As the questionnaire is to be completed by the respondent individually, the reasons why a respondent is asked to complete a questionnaire, and for whom, need to be fully explained. The full introduction page provides this information and a contact name and address, should the respondent wish to discover more about the study.

Typeface

A clear and simple typeface was chosen for the survey form. It is felt important that the form should be as easy to read as possible, and the simple type face was chosen to meet this objective. The size of text was chosen to make the respondent more willing to complete the questionnaire. Large question numbers were used to indicate to the respondent that the questions are short and simple.

Page design

Most of the questions in the survey form have a number of multi-choice answers. Such lists of answers consume a large amount of vertical space. The multiple choice lists however tend to be short in horizontal width and thus the page is divided in two columns so that two questions may be printed side by side, maximising the use of space.

Collaborative recognition

Although the collaborating organisation enabled the collection of data at Stansted 'airport by negotiating on the researcher's behalf with the airport authority, the BAA,

for the purposes of this study the collaboration was not made known to the respondents. The reason for this is that it is likely that respondents will react less favourably to a survey commissioned by the collaborating organisation, will be more likely to refuse to take part in the survey, and will take less care in completing the research. The survey is made under the auspices of Polytechnic South West (the former name of the University of Plymouth). As the research tool does not identify its collaborative contact it is felt appropriate that respondents should remain anonymous, and indeed it would in fact be illegal to collect personal details for the collaborating organisation, without strongly indicating to the respondents that these details would be used for commercial benefit.

5.2.3 QUESTIONNAIRE CONTENT

The research hypotheses were investigated using 34 questions. These may be regarded as falling into six sections:-

- ◆ Organisational demography
- ◆ The method under which organisations operate (organisational behaviour)
- ◆ Organisational policy (organisational behaviour)
- ◆ Traveller demography
- ◆ Traveller behaviour
- ◆ Traveller attitude

During the following explanation, the reader should refer to the question number in the questionnaire that may be found in Appendix III. Organisational demography is researched using questions 1, 2, and 3. The industrial classification of the organisation employing the traveller is identified. This data will be used to profile the benefit segments identified. Based on the study of travel managers, questions 2 and 3 are used to identify the company size and also the size of the company site where the

traveller works. The case studies seemed to indicate that there is a relationship between company size and corporate travel policy. Question 2 is used to investigate whether such a relationship does exist and whether any causality may be identified. Question 3 is be used to investigate whether the size of the site where a traveller works has any influence over travel behaviour or attitude.

Organisational behaviour is an indication of the relationships between the stakeholders within the organisation. Thus to investigate the stakeholder relationships a large group of questions in the research instrument is devoted to organisational behaviour. The questions related to organisational behaviour are questions 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, and 20.

Question 7 identifies whether the organisation employing the traveller has a travel department or manager, while question 8 discovers whether the company has a travel policy. Question 9 identifies who is responsible, within the company, for setting a travel policy if one exists and question 10 investigates how rigid the travel policy is. Questions 12 and 13 collect data regarding preferred airlines. These questions are based on the first stage of the research which highlighted how corporate airline preference might affect traveller choice of airline.

Question 14 is used to collect more data regarding the nature of travel policy. While the respondents may not know whether a travel policy exists or its exact nature, they may have knowledge of the grade of travel afforded to other members of the organisation. During the first stage of the research one respondent indicated that all staff members are "partners" and that as such all travel on the same class of ticket, irrespective of corporate status. The information collected by this question, therefore, represents an indicator of the culture of the company. The question is divided into long haul and short haul travel. The case studies indicated that some companies have a travel policy which depends on flight length. As this research is particularly interested in European travel the question defines "short haul" as travel within Europe.

Questions 15 to 20 collect information about the business trip the respondent is undertaking at the time of interview. The way in which a company selects, books, pays and budgets for a flight will be used to profile any benefit segments identified in the second stage of research. If the research hypothesis 2H_1 , that the organisation has influence over the travel behaviour of the airline user, is true, then any benefit segments identified will have different profiles in terms of these organisational behaviour indicators.

The only question that explicitly investigates the organisational “attitude” is question 31 which asks the respondent to assess the importance to the company of the airline product attributes given in question 29. While this question represents a quasi-measure of corporate importance, it may identify a perceived difference between the traveller and the organisation in terms of benefits sought. The validity of this approach is considered below (see section 5.4)

The airline user's geographic and demographic profile will be identified through analysis of questions 4, 5, 6, 32, 33, and 34. Questions 4, 5, and 6 are used to identify the traveller's status within the organisation. The order in which these questions are asked is important. It is assumed that the respondent will not read through all the questions before completing the form. Therefore the open-ended form of question 4 will identify how much responsibility the respondent has within the organisation. Having answered question 4, question 5 locates the respondent within the organisational hierarchy. Considering the target audience, it was felt that the respondents would be intelligent enough to realise that question 4 and question 5 may be used to check the reliability of their answers. The third check on organisational status, question 6 asks the respondent to register his/her job title. Questions 5 and 6 were used as for test of the questionnaire's reliability (see section 6.2.2). The sequence in which questions are asked is considered further in the next section.

The respondent's age and sex are identified at the end of the questionnaire (questions 32 and 33). These demographic data are to be used in the profiling of benefit segments. The geographic location of the respondent's home and work is identified in the final question of the survey, by postcode.

The behaviour of the traveller is identified by a sequence of questions in the second half of the survey form. Questions 21 to 26 collect data about the traveller's current trip and his/her previous travel behaviour. The flight number identifies the flight sector that the traveller is about to take, since flight numbers are unique and reveal the departure and destination airport. The traveller's origin and destination are identified for geographic analysis. The length of business trip and the number of trips the traveller has taken in the last 12 months and the ticket type data are collected. These data will be used to profile benefit segments identified.

Traveller attitude data are collected by questions 11, 27, 28, 29 and 30. The traveller's attitude toward travel policy may provide an insight into the membership of benefit segments. Questions 27 and 28 are to be used for analysis for the collaborating organisation who at the time of writing this thesis is attempting to increase its market share in the London market and wishes to assess the value of airport location on the consumer. Question 29 and 30 collect attitude data regarding the importance of airline product attributes to the traveller. Question 29 assesses consumer attitude on a 5 point interval rating scale. It is these ratings that will be used to investigate the first research hypothesis H_1 , that business air travellers may be assembled into market segment based on the group of benefits they seek from short haul air travel, by undertaking a cluster analysis. A full discussion of the rating scale used will be given later in this section.

Question Phrasing

Chisnall (1986) notes that the phraseology of the questions is important if the correct data are to be collected. The questions used in the survey were written having consideration of the target audience. Business travellers tend to be well educated, literate and intelligent people, therefore the questions were written to be understood by this audience. As business people, it was felt respondents would have a familiarity with terminology common within a business environment. This frame of reference was used to provide credence to respondents regarding the quality of the survey, therefore terms such as "policy", "non-supervisory staff", and "company travel budget" were used and not further explained. To ensure that the phraseology was suitable, the questionnaire was piloted with 10 respondents who are in the target audience.

Response Format

The method by which a respondent answers a question must be planned during the design of a questionnaire. The type of response format chosen for each question will depend on the type of question asked, the length of time available, and the method of questionnaire administration. The survey is to be self completed by the respondent and in a short period of time, therefore the response format should be as easy to use as possible.

Churchill (1983) identifies three methods of question response; open-ended, multiple-choice, and dichotomous. An open-ended question leaves the respondent to complete an answer without any guidance. This can lead to problems quantifying responses. Tull and Hawkins (1987) indicate that *"open-ended questions are generally inappropriate for self-administered questionnaires because most respondents will seldom write elaborate answers"* (p.261). In the survey form open-ended questions

are only used in questions 6, 22 and 23. Questions 22 and 23 collected geographic data which cannot realistically be collected by any other response format. As indicated earlier question 6 is used to check the validity of questions 4 and 5.

Most of the questions on the survey form have multiple-choice response formats. This style of data capture is particularly suited to self-administered questionnaires (Churchill, 1983) and is also easier to tabulate and analyse than open-ended questions. Dichotomous questions are those that have only two possible answers. While the survey does not have any truly dichotomous response frames, questions 7, 8, and 12 are dichotomous. The responses to these questions is either "yes", "no", or "do not know". These responses are natural for questions 7, 8, and 12 and, like closed questions generally, are particularly well suited to determine points of fact (Bailey, 1987).

5.2.4 QUESTIONNAIRE SEQUENCE

A number of "rules of thumb" concerning the order in which questions are asked are detailed by several authors (Tull and Hawkins, 1987, Churchill, 1983, Crimp, 1985, Chisnall, 1986). These rules indicate that:-

- ◆ Early questions should be easy, objective and interesting.
- ◆ Questions should be gathered in logical groups and sequenced from one topic to the next.
- ◆ Initial questions should not bias the frame of reference to later questions.
- ◆ Difficult or sensitive questions should be positioned towards the end of the questionnaire.
- ◆ Classification information should be last.

These rules have been followed as closely as possible. The early questions are easy and objective, and since the general subject is likely to be of interest to the respondent, it is believed that these questions will not cause respondents to discontinue the completion of the survey. The questions are grouped into three logical groups. These groupings are identified by large titles which assist the respondent in the completion of the form. The most difficult question (Q29) is left to the penultimate page of the questionnaire form. Finally demographic data regarding the respondent's age and gender are not asked until the end of the questionnaire.

5.2.5 RATING SCALES

Collection of data regarding the value or importance placed on product attributes by respondents is necessary in order that a benefit segmentation of the market may be undertaken. These data are collected by question 29. The respondent is required to rate the importance of product attributes. A rating scale based on the Q-sort approach (Green and Tull, 1978) is used. Such a scale is common in marketing research (Crimp, 1985). The respondent rates the importance of each product attribute on a ranked continuum scale.

The number of items recorded on a rating scale has been comprehensively investigated (Friedman and Friedman, 1986, Cox, 1980, Green and Tull, 1978). An odd number of items on a scale allows the respondent to state a neutral attitude (e.g. neither positive nor negative) rather than forcing him/her to state a positive or negative attitude when he/she is uncertain. An even scale that forces the respondent to make such a decision is, therefore, likely to bias the results, and thus a odd number of items seems to be suitable for this study. Cox (1980) indicates scales with between five and nine items are suitable for market research. Morton-Williams (1978) notes that researchers tend to favour five point scales than seven point scales since they are easier for respondents to understand. It is also noted that answer patterns for seven

point scales indicate that respondents tend to favour the extreme points and one item each side of the of the mid point. For this study a five point scale is used.

The scale allows the respondent to indicate the level or strength of importance that they feel each product attribute has. The scale has the following items "high", "fairly high", "neither high nor low", "fairly low", and "low". Chisnall (1986) notes that the point descriptions (such are "high importance") should be easy for the respondents to understand. The aim in construction of such a scale is to choose a set of point descriptions that evenly balance possible responses from one extreme to the other. The point descriptions that have been made try to fulfil this aim, however, the extremes are difficult to define. The word "high importance" has been chosen for one extreme as it is has more meaning to respondents than "maximum importance". The selection of the other extreme is difficult. however "low importance" or "unimportance" seem to be the most obvious choices. The word "unimportance" implies a degree of negative feeling towards the item, whereas "low importance" implies no feeling toward the item. For the purposes of this survey it was felt that "low importance" was a more suitable extreme. as the purpose of the scale is to identify those products that are most important to the traveller. To use "unimportance" as an extreme, the research would identify those product items that travellers considered were irrelevant to the air service. Some airlines have based their products on research findings of what travellers consider to be unimportant. For example, People Express provided a low cost service that did not offer food or beverages, as some travellers thought this to be unimportant. However, this airline and other "no-frills" operators did not survive, and they also served the leisure market. This research is concentrated on the business market in Europe in which service is likely to be more important to travellers, and although some product element may not be particularly important, their removal may be detrimental to the operator that adopts such a strategy. For example, British Airways re-instated the olives in their salads which had been removed as a cost saving after an outcry from their business travellers. Therefore, due to the nature of the business travel market it would seem

appropriate to use “low importance” as the other extreme of the scale. A score (from one to five) relates to the importance given by the respondent to each product attribute. These scores will be used to identify market segments within the target audience by a process of factor analysis and then cluster analysis (see Chapter 6).

5.2.6 QUESTIONNAIRE TEST

The questionnaire design was evaluated prior to the administration of the survey by two methods. Firstly, the design was discussed at length with a number of members of the Market Research Society, from UIS, Air UK, and GfK. Jeff Deighton Division Manager of GfK Market Research suggested a number of ideas that might improve the original draft. These included suggestions regarding the question sequence, order of multiple-choice responses answers, ideas for additional questions, changing phraseology to improve question understanding, and re-design of question 29. The original draft of the questionnaire and the suggestions made by GfK are included in Appendix IV. The changes made to the instrument are discussed in the consideration of the validity of research instrument (see section 5.4).

Secondly, the revised design was tested in a pilot study of 10 respondents in the target group. The time to complete the survey was noted and the completed forms were analysed to check that the answers could be easily tabulated. The average time for the completion was 5min 32sec which was considered an appropriate length for the survey.

5.3 DATA CAPTURE

Once the survey form has been the designed, the methodology by which the sample is drawn and the method by which the data is to be captured must be selected.

Sample Methodology

Churchill (1983) gives a six stage methodology for drawing a sample as can be seen in Figure 5.2.

The population is defined as:-

All persons of who have travelled within Europe from a London airport by air for business purposes at least once in the twelve month period from 15/6/91 to 15/6/92.

(The criteria of "at least once" shall be taken to include any travellers who are in the process of taking their first business trip at the time of the survey, for, although they have not gone through the consumption period at this stage, the purchase decision has already been made)

The sampling frame is a means of representing the elements of the population for probabilistic samples. The population defined above cannot be represented without the full passenger lists for all airlines operating intra-European routes from London's four airports (Heathrow, City, Gatwick, and Stansted). Consequently a probabilistic sample cannot be drawn. and therefore a non-probabilistic sample methodology is assumed.

The sampling unit is defined as "**the individual business traveller**".

Stansted airport is owned and operated by BAA plc. (formerly British Airports Authority) and was approached for permission to conduct the survey in a number of locations. BAA indicated that a customer could only be approached with the explicit permission of the airline with whom the customer was flying, and, given this

permission, the longest period the researcher would be allowed to approach passengers was two weeks. The permission to approach passengers was only gained from the collaborating organisation, Air UK, using their Stansted airport base. The BAA limited the amount of time to draw the sample to a two week period. The sample is drawn, therefore, from all Air UK passengers travelling from Stansted airport, within Europe, with Air UK between 25/5/92 to the 15/6/92 with the exception of 30th and 31st of May which, as weekend days, traditionally have a low number of business travellers.

The validity of inferring findings from this sample on the population of business travellers may be criticised, as the sample is drawn from only Air UK passengers. By virtue of their flying Air UK it may be argued that they prefer the benefits offered by this airline as opposed to others. However, the following two comments can be made.

Firstly, it can be argued that airlines provide a core product of transportation, and that if a favoured airline ceased to operate on a particular route, a traveller would use an alternative carrier. This is because, essentially, all airlines provide the same service; i.e. transportation to a desired destination. There are considerable and understandable constraints on the service provided, most notably because of aircraft design and safety requirements. However, airlines struggle in their bid to develop and maintain a unique selling proposition (e.g. a product based on the greatest amount of leg room in the market), as other airlines can copy that product benefit. Consequently, it would be acceptable in this market to survey passengers from only one airline, as although there might be some potential for bias in the sample, this would not be as great a risk as in many other markets.

Secondly, the survey can be repeated on other samples of the business travel market that fly on other airlines, and from other locations to see if this has an effect on the results of the study. This is an accepted academic approach to research. For example, a study of the chemical particles found in one river estuary may be analysed, and the

findings presented for critical examination. This critical examination would involve repeating the same study in another river estuary to see if the findings of the first study were valid. While repeating the study in other airports on passengers travelling on other airlines is appropriate, and could be used to test the validity of the study, it is beyond the funds of this research project to undertake such studies. However further research of this type is encouraged to test the findings of this study.

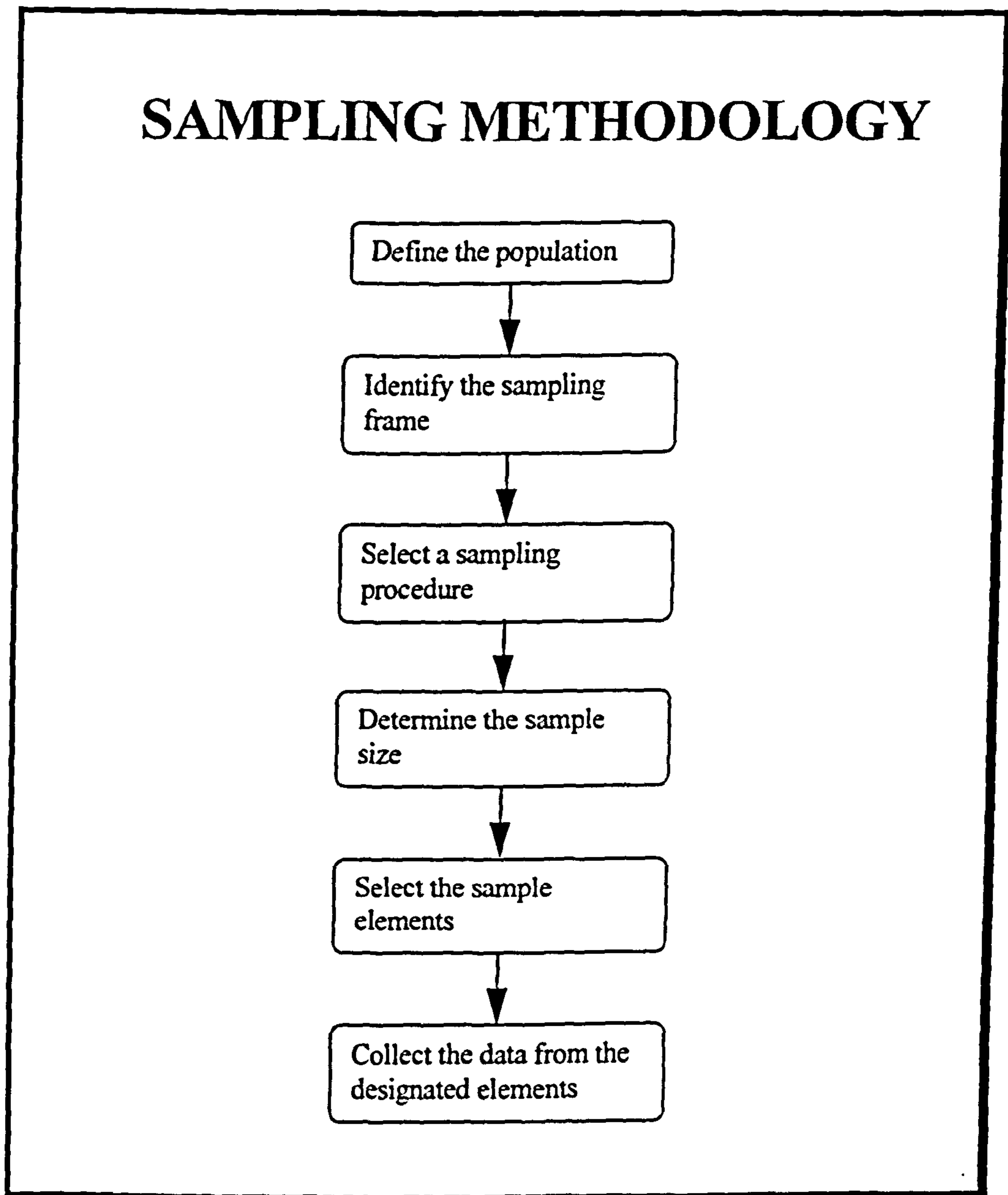
With regard to sample size, Tull and Hawkins (1987) note

"The determination of the proper sample size has traditionally been taught by one method in statistics classes and often practised by an entirely different approach in the field. The reason for this is that traditional sampling theory generally ignores the concept of cost versus the value of information....Practitioners have been forced to deal with the realities of sampling economics regardless of whether theory recognises them (p. 381).

Having consideration of the time constraint imposed by BAA plc. and the limited passenger numbers during that period flying with Air UK for business purposes, a statistically calculated sample size could not necessarily be achieved. However a number of measures may be used to calculate a target sample size.

Matear (1991), undertaking a similar study in the short sea ferries market, operates a sample size target of 10% of the population. Table 5.2 below shows that using this measure, a sample size of 719 would be appropriate.

Fig 5.2: Sampling methodology



Air UK Passengers carried ex Stansted in 1990	187,000
Passengers carried in a two week period	7,192
Sample size = 10%	719

Table 5.2: Sample Size

Churchill (1983) indicates that a sample size can be calculated if the population variance is unknown by the equation:-

$$n = \frac{z^2}{H^2} (est\sigma)^2$$

Where n = sample size. $Z = 2$ (95% Confidence). and H = Desired precision

To investigate the business traveller market and evaluate its importance to the entire air travel market it is important to discover how many times business travellers travelled for business purposes during a twelve month period. The precision with which this statistic is calculated may be set at a level to provide an accurate figure within one trip. Thus the desired precision, H , can be specified as +/- 0.5 trip. The estimate of s.d. is the range (50 trips) divided by 6. The sample size is thus calculated as 1111 (see below).

$$n = \frac{2^2}{0.5^2} (8.33)^2 = 1111$$

These measures of sample size provide a target number of questionnaires to be collected.

Data Capture Methodology

The data are to be collected at Stansted airport. Air UK passengers are approached at pre-flight boarding and asked a standard filtering question: "*Good morning/afternoon/evening (as appropriate), Are you travelling for business purposes today?*" If the respondent answers in the affirmative the following question is asked "*I am a researcher from Polytechnic South West, in Plymouth. I wonder whether you would you mind completing this questionnaire?*" If the respondent is content to complete a questionnaire the survey form is issued, and a suitable collection point arranged.

This data capture method can be criticised on two grounds. Firstly, the respondents may be too hurried at a check-in to complete a survey. As indicated below, respondents were able to complete the questionnaire prior to flight departure, giving them about an hour to complete the five minute survey. This was accepted as being reasonable. Indeed, it may also be questioned whether respondents would spend any more time on such a survey if it was administered at any other location (e.g. place of work, or at home) as it is likely that there would be other calls on their time (e.g. meetings, work, time with family, TV, etc.). Secondly, the data capture method may be criticised as respondents are not currently in the decision making process. While this is accepted, the first stage of the research indicated that there is often only a short period of time between the decision to travel, and when the trip is made. It would, therefore, seem acceptable to ask respondents to report on decisions made only a short period of time prior to the travel date. The fact that the traveller is currently entering the consumption experience may bring back to his/her attention the product items that he/she considers to be important, which are then reported.

Figure 5.3 shows a schematic plan of Stansted airport. The researcher is allowed, whilst being accompanied by a member of the collaborating organisation's staff, in the

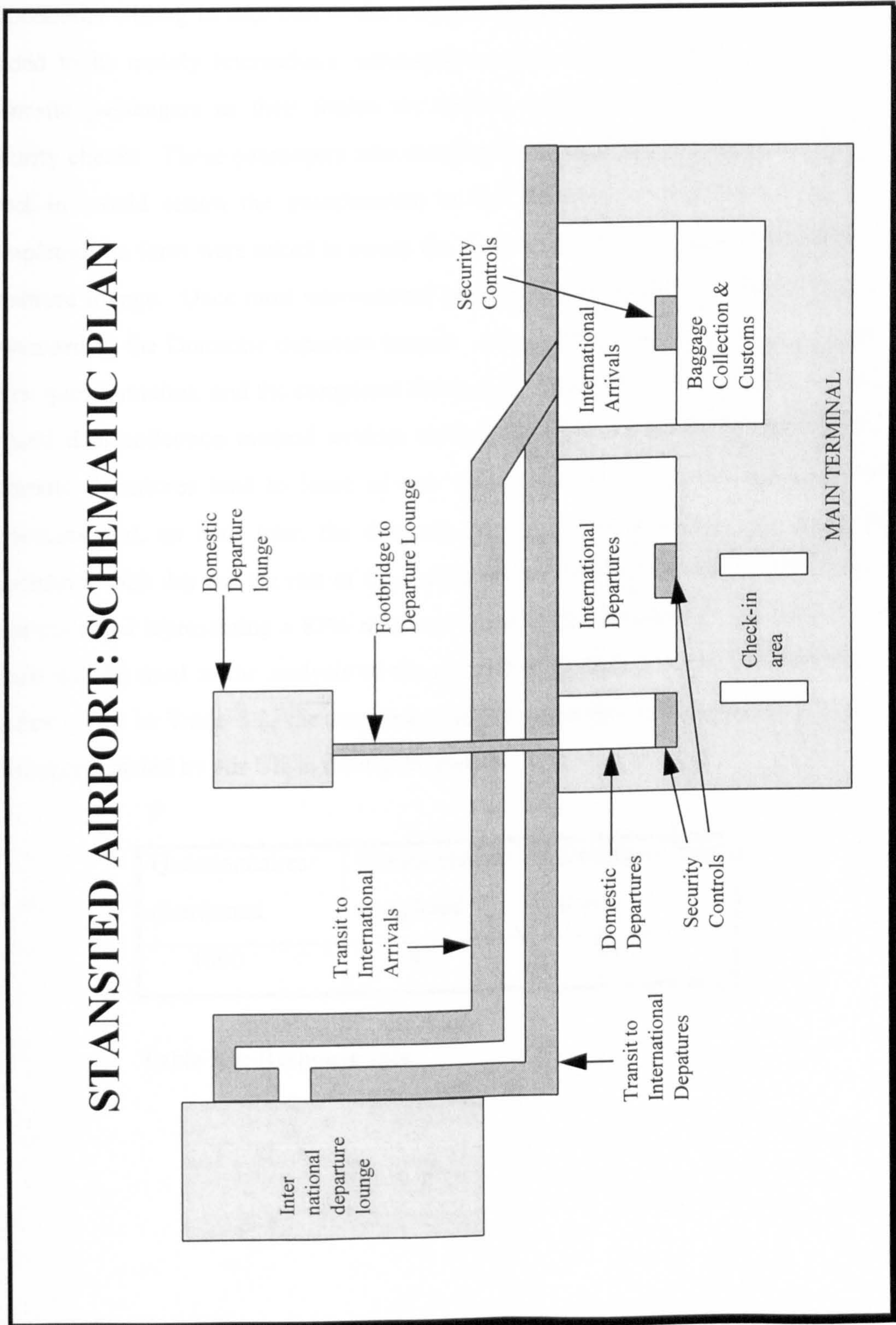
departure lounges. The International departure lounge is situated some half a mile from the main terminal building, and the two buildings are connected by a passenger transit train. The domestic departure lounge is situated at the end of a passenger footbridge some 10 minutes from the main terminal building. The data will be captured in these lounges before each flight.

Data Capture

The survey was undertaken on the weekdays between 25/5/92 to the 5/6/92. The survey began at 05:30 and was continued throughout each day until 20:00, the time of the last scheduled departure. This methodology avoided time of travel bias.

During the first few days the researcher spent the early morning in the international departure lounge as passengers using this lounge were the first to depart. It became evident that the majority of international passengers do not travel to the departure lounge until a few minutes before boarding as they tend to spend time in the duty free shops, bars and cafes in the main terminal building, while most domestic travellers tend to go to the departure lounge as early as three-quarters of an hour before boarding. Most of Air UK's international flights depart close together, consequently most of the passengers board at about the same time, irrespective of destination. This meant that response rates were low and those returned tended to be incomplete. It was felt that a different data collection method was required for international passengers.

Fig 5.3: Schematic plan of Stansted airport



A different approach was applied for the rest of the survey which was more successful. Passengers were approached in the queues for check-in and those respondents willing to take part in the survey were given their survey forms. These tended to be mainly international passengers as they have to check-in earlier than domestic passengers as their flights are earlier, and they have to undergo more security checks. Those passengers who completed the questionnaire whilst waiting to check-in would return the questionnaire to the researcher. Those who had not completed the form were asked to return the form to an Air UK representative at the departure lounge. Once most international passengers had checked in, the researcher proceeded to the Domestic departure lounge. As passengers arrived there they were given questionnaires, and the completed forms were collected prior to boarding. This revised data collection method worked well as the international departure and the domestic departures tend to leave in two waves, the first being the international departures and, an hour later, the domestic departure. This pattern was repeated throughout each day for the rest of the survey period. During the survey 827 forms were collected representing a 83% response rate of those distributed (see Table 5.2) which will be used in the analysis of the research hypothesis. Using the passenger figures given in Table 5.2, the responses gained represents approximately 11% of passengers carried by Air UK in during the period.

Questionnaires distributed	Questionnaires completed	Response Rate (%)
1000	827	83

Table 5.3: Response rate

5.4 VALIDITY OF THE RESEARCH INSTRUMENT

If the hypotheses 1H_1 and 2H_1 developed earlier (section 4.2.3) are accepted, that is that there are market segments in the business travel market based on the benefits sought in the product, and that the membership of these market segments is influenced by the industrial element of the business travel market, then the research will provide evidence to suggest that the business travel market displays a hybrid nature. If this concept is established, then it has implications for the market strategies adopted by airlines wishing to attract this market, as it would suggest that strategies aimed solely at the traveller could be improved by considering the other stakeholders in the purchase. It is, therefore, appropriate at this stage of the study to consider the validity of the research instrument developed to investigate the concept of the hybrid nature of the business travel market.

Validity is the extent to which a measure or indicator of an abstract concept is accurately represented. It concerns the relationship between a concept and the indicator of that concept (Carmines and Zeller, 1979). In other words a measure is valid if it measures what it is intended to measure. In this research the concept that is being investigated whether the business travel market displays a hybrid nature, i.e. there are consumer and industrial elements in this market. To investigate this concept three stakeholders in the purchase of business travel have been identified, and a quantitative instrument designed to collect data that can be used to assess the influence that each stakeholder has in the purchase. The market for business travel is large and so segmentation study is suitable, as substantial market segments may be present in the market.

Three main tests of validity can be used to assess a concept:-

- ◆ Content validity
- ◆ Criterion validity
- ◆ Construct validity.

While tests of validity may be applied to a measure of a concept, it may be noted that *"validity is usually is a matter of degree rather than an all-or-none property, and validation is an unending process"* (Nunnally, 1978, p. 87). That is to say some measure may be valid to an extent, however that measure may be improved in light of the knowledge gained from its application. Therefore, to say that a measure of a concept has validity would be incorrect, however a positive outcome of a test of the validity of a measure would *support* the validity of that measure.

5.4.1. CONTENT VALIDITY

For a measure to have content or face validity, the researcher must identify the full domain of the concept, and then include in the instrument, measures that consider that full domain. Content validity, therefore, depends on ensuring all the items included in the instruments measure the concept or some sub-concept, and that no element of the concept is omitted from the instrument. Cronbach (1984) considers the content validity of an examination. The examination, as a measure of a student's understanding of the course would have content validity if all aspects of the syllabus are tested in the exam. This procedure becomes complicated when there is no consensus about the domain of content, the concept is multi-dimensional, and consisting of several sub-concepts, and the measure is lengthy and complex (Bailey, 1987).

For this research, four sources were drawn upon to provide content validity to the measure. Firstly, Carmines and Zeller (1979) indicate that a thorough search of the literature pertaining to the phenomenon should be undertaken to lead to its understanding. An analysis of the business travel market, in chapter 2, concluded that choice of business travel is the result of personal and industrial motives of the traveller, the travel policy of the firm, and the influence of others within the organisation.

Secondly, the researcher's experience in the field of air transport was used as a basis for developing the research instrument. During a three year period the researcher undertook a number of periods of industrial secondment. This amounted to 11 months working in the industry full time, while projects for the collaborative organisation were continued on a part time basis when the researcher was present at the academic institution where the research project was registered. The experience gained in the industry included involvement in the development of a customer survey for the collaborating organisation. The survey development was guided by Air UK's market research manager (a member of the Market Research Society), and involved visits to travel agents, and corporate buyers, talking informally to travellers at a number of airports, and progress meetings with directors of the company who have many years experience of the airline industry. The passenger survey is still being used today, as detailed in Air UK's Approach magazine, a publication aimed at the business traveller (Air UK, 1994/5). The researcher was also involved in a number of group studies with business travellers as part of a study to assess the suitability to the business travel market of Air UK's single cabin service. Finally, a two Airline Business conferences were attended which provided the opportunity for the researcher to learn more about the airline industry in general and the business traveller in particular. It is believed that the experience gained by the research student during these periods of secondment provided a realistic understanding of the relevant issues in the business traveller market, and therefore this experience was drawn to construct the research instrument.

Thirdly, the first stage of the research, a study of nine companies that purchase air services was used to develop an understanding of the business travel market. The purpose of the first stage of the research was to develop an in-depth understanding of corporate purchasing of air travel. The analysis of the interviews (Appendix II) was used to develop an understanding of the industrial situation within which the purchase decision is made. The knowledge gained from these case studies provided the basis

upon which the questions regarding the employing organisation, the traveller's organisational position, status, and role, were designed in the questionnaire.

Fourthly, experts in the field of market research were consulted as to the structure and content of the study. It was noted earlier that a number of members of the Market Research Society who work for UIS Ltd., Air UK, and GfK Ltd were consulted during the development of the questionnaire. The comments made by Mr Deighton from GfK are included in the Appendix IV. Mr Deighton's main criticism was levelled at question 28 in the first draft of the survey. This question was an attempt to identify both the benefits sought by the traveller and also the "organisation". The purpose of the question was to identify differences between the benefits sought by the traveller and the employing organisation. The criticism is made that the traveller may not be able to assess the importance placed on product elements by the employing organisation. This difficulty was considered and accepted in chapter 4, leading to a research approach which focused the benefit segmentation on the traveller. A suggestion was given that a different research approach that might be considered; i.e. to interview those within the organisation "*who have formulated or know the [travel] policy*". Having identified three stakeholders in the purchase, a research approach that might have been adopted would have been to interview a representative from each stakeholder grouping in each company so that an assessment of the benefits sought by each group, and the relationship between the groups could be identified.

The reason that a survey of all three stakeholders was rejected was because its data collection would have been impractical due to budgetary and time constraints. To undertake such an approach, a method of interviewing a representative sample of each stakeholder grouping would have been required. A suitable sample of the business travel market would have needed to be drawn. Sykes (1990) highlights that is not always necessary to collect a large sample for it to be representative, indeed many industrial studies are based on quite small samples, as the population is small (Hart, 1987). However, for this study it was required to collect data regarding a wide range

of buying situations in the market. The business travel purchase is made in virtually every industry, and within every industry there are usually large, medium, and small sized companies, each exhibiting possibly different buying behaviour. To concentrate on only a small sample, the diversity of the demand side of the market would not have been considered. As this is the first study to consider the industrial element in this market, it is important to collect information about purchasing of travel services in different industries and different company sizes. Therefore, although a survey of each stakeholder grouping would have been attractive, the method of application would have been impractical as the survey would have required a travel budget beyond that allowed for in the research fund to undertake personal interviewing. It would have taken a large research team to collect this data, and would have required a list of potential respondents which was not available.

5.4.2 CRITERION VALIDITY

Criterion validity (also known as predictive validity) refers to the extent with which predictions based on the findings of the instrument come true. Nunnally (1978) notes that predictive validity *“is at issue when the purpose is to use an instrument to estimate some important form of behaviour that is external to the measuring instrument itself, the latter being referred to as the criterion”* (p. 87). Cronbach (1984) gives an example where a test of the likelihood of success on a course is used to select candidates. This can be tested for predictive validity by correlating those scores to marks awarded to the successful candidates during that course.

Tests of predictive validity may be criticised on a number of points. Firstly, the criterion upon which the test is based may be not valid. For example, graduation scores may be used to predict future success in the work place. Here the selection of a suitable measure of “success” is difficult, and the definition of “success” (e.g. promotions gained, salary level, etc.) should be examined with as much scrutiny as the

original measure. Bailey (1987) notes that the criterion should have content validity, proved through usage. Carmines and Zeller (1979) criticise criterion validity as it is a purely empirical test, which does not consider the conceptual basis of the instrument. They go on to note that, for social sciences there is often no reasonable, obvious or accepted criterion against which the instrument can be assessed.

To develop a test of predictive validity of the research instrument some criterion needs to be defined. This research assesses the behaviour of the business travel market. A suitable test of the instrument's criterion validity could have been to see if predictions about the behaviour of the market were true. The criterion might have been choice of airline. However, this is was not the point of the study. What was sought was an investigation of the factors that affect choice for business travel, not to predict what airline will be selected. A study could have been undertaken to see which of the airlines in the market best provided the factors that were sought and thus test to see the validity of the study. However, the background to the study indicated that the market is changing in the context of revised EU legislation. Thus it would not be appropriate later to study the choice of airline, as the market would be changed in substance and thus the criterion would be contaminated. A predictive validity test was, therefore, not undertaken.

5.4.3 CONSTRUCT VALIDITY

Concept validity is the most complex form of validity and requires the researcher to have a knowledge of the nature of the concept being measured and how it relates to other concepts (Tull and Hawkins, 1987). For example, the construct validity of the concept that self-esteem is related to participation in school activities can be tested, by administering a test of self-esteem to a number of children, and the correlating these scores with their participation in activities (Carmines and Zeller, 1979). To assess a measure's construct validity three steps are involved:-

- ◆ Specification of the theoretical relationships between the concepts
- ◆ The empirical relationship between the measures of the concepts must be examined
- ◆ The empirical evidence must be interpreted in terms of how it clarifies the construct validity of the measure.

The concept that has been developed in the previous chapter is that a business traveller's membership of a benefit segment is related to the influence of other people within the employing organisation and/or policies set down by that organisation i.e. the business travel market displays a hybrid nature. To test the validity of this construct a measure of the benefits sought by travellers, and the collection of data regarding the influence the three stakeholders have in the purchase decision will be administered.

The benefit data will be used to classify respondents into benefit segments, and the information regarding the influence the three stakeholders have in the purchase will be used to investigate the effect the industrial elements of the market. Two sets of hypotheses are given. If the two alternative hypotheses are accepted, this research provides one piece of evidence to support the construct validity of the concept.

5.5 SUMMARY

This chapter has detailed the method by which the research tool was designed and used to gather data that may be used to investigate the research hypothesis 1H_1 that a number of market segments exist within the short haul business air travel market which may be identified through the analysis of the benefits sought by that traveller, and hypothesis 2H_1 that the membership of benefit market segments is influenced by the other stakeholders groups in the organisation which employs the traveller. The

validity of the research approach has been considered. The next chapter details the analytical methodology that will be applied in the investigation of the research hypothesis.

CHAPTER 6: ANALYTICAL METHODOLOGY

INTRODUCTION

This second chapter of the methodological section of this thesis concerns the analytical methods that are used to investigate the research hypotheses. These analytical methods will be applied to the data collected using the research tool as detailed in the previous chapter. Section 6.1 details the preliminary analysis technique used to investigate the short haul business air travel. The techniques used in the identification and subsequent profiling of benefit segments that exist in this market are detailed in Section 6.2.

6.1 PRELIMINARY ANALYSIS TECHNIQUES

The first stage in the analysis of market research data consists of classifying respondents in terms of their demographics and other responses. The simplest form of classification is by one variable only." Harris (1991, p.74).

Before complex analysis of a large set of data is undertaken, preliminary analysis of that data set provides a useful understanding. An initial profile of the respondents may be developed by extracting simple frequency and cross-tabulation tables.

For questions with multiple choice answers the proportion of the sample that responded to each answer option can be listed in a frequency table. Using this technique a preliminary understanding of the demographic profile of the airline users and also the organisational demography can be obtained. Once frequency tables have been extracted from the data set, cross-tabulation of data items may be used to develop a greater understanding of the data set. The chi-square test of independence

can be used to test whether the two variables that are cross-tabulated are or are not independent of one another. If the statistic is significant, conclusions derived about the sample from the table can be inferred onto the population.

Cross-tabulation is a useful technique as it allows simultaneous analysis of the interaction of two or more variables, however the operation becomes more complex as the number of variables used in the analysis are increased. Statistical grouping techniques, known as cluster analysis, can be used to undertake these more complex investigations and will be considered in the next section.

6.2 CONSTRUCTION AND PROFILING OF BENEFIT SEGMENTS

The preliminary analysis gained through the application of the above techniques will provide the background understanding required to investigate the research hypotheses further. The first hypothesis, 1H_1 , is used to investigate whether benefit segments exist in the short haul business air travel market. To explore this a cluster analysis will be undertaken on the benefits sought by the respondents. Details of this technique will be given in Section 6.2.3. This analysis will be operated on data derived by a data reduction technique known as factor analysis. This technique is considered in Section 6.2.1. The second research hypothesis, 2H_1 , that business travellers who are identified as having membership of a certain market segment are influenced by other people within the organisation that employs them, and/or policies set down by that organisation, is investigated through a segment profiling operation. This procedure is considered in Section 6.2.4. The data collected by the research instrument are analysed using the SPSS-PC statistical software package.

6.2.1. FACTOR ANALYSIS

In order to identify whether market segments based on the bundle of benefits that business air travellers seek (H_1), data were collected from 827 respondents who rated the importance of the 23 product attributes given in question 29 (see Appendix III). Thus a matrix of 827 by 23 data items is used to investigate the research hypothesis. To begin this investigation a factor analysis is performed. Factor analysis is based on the assumption that underlying factors, components or elements can be identified and used to explain complex relationships. The purpose of the technique is, therefore, to identify these underlying factors.

Willson (1991) describes factor analysis as a technique which:

"is able to reduce a system of many scaled measurements (or variables) down to a smaller number of measures, known as (common) factors". (p. 61)

The technique is a method of data reduction and the factors that are identified should provide a more coherent comprehension of the data.

Factor analysis was performed on the data for two main reasons:-

- ◆ To identify common or similar variables, or underlying factors, and thereby reduce inter-correlation between variables. It also reduces the number of variables which have to be analysed by the "cumbersome cluster analysis process" (Saunders, 1994, p.16)
- ◆ To extract measures, or factor scores, that may be used by further research techniques, such as cluster analysis (Willson, 1991, and Harris, 1991).

The technique therefore analyses the scores that respondents gave for the 23 product attributes and identifies where inter-correlation exists between the various product

attributes. These are then grouped together into common factors, and factor scores for each respondent are then calculated, which can then be used in further analysis. Prior to administering a factor analysis to the data, it is important to see if the data are suitable for factor analysis. Tests of sampling adequacy and sphericity were undertaken:-

- ◆ The Kaiser-Meyer-Olkin test to measure the sampling adequacy is an index for comparing the magnitudes of the observed correlation coefficients to the magnitude of the partial correlation coefficients. This test was performed on the data which gained a value of 0.86607. The high value for the statistic supports the use of factor analysis to investigate these data.
- ◆ To test the hypothesis that the correlation matrix (see below) is an identity matrix (i.e. all diagonal terms are 1 and all off-diagonal terms are zero), Bartlett's test of sphericity was applied to the data. The value of the test statistic was large (4959.83) and the significance level equal to 0.00000. Norusis (1990) indicates under such conditions the hypothesis is rejected and the data are suitable for factor analysis.

Having accepted that the data were suitable for factor analysis, a four stage factor analysis was undertaken. The results of this analysis are given in Appendix V.

- ◆ Construct a Correlation Matrix
- ◆ Determine the number of factors present
- ◆ Rotate factors for interpretation
- ◆ Compute factor scores for each respondent

Firstly, a data matrix of the score given by each respondent for each product attribute is constructed (see Figure 6.1). The correlation coefficient is the extent to which a product attribute varies with respect to variation in all the other product attributes. A matrix of correlation coefficients between all original product attributes is constructed.

Secondly, the number of factors that are present in the data are determined. Factors are extracted by means of a principal component analysis (PCA) in which product attributes are grouped together. Extraction by PCA is selected as:-

- ◆ In marketing research applications with 15 or more variables, extraction by PCA and common-factor tend to produce similar results, and
- ◆ PCA is less susceptible to misinterpretation as it entails linear combinations of actual variables (Green and Tull, 1978).

The primary principal component is the group of product attributes that accounts for the largest amount of variance in the sample. The second principal component explains the next greatest amount of variance which is not correlated to the primary principal component. Successive principal components, which are not correlated to the other components, explain progressively less variance in the data. As many principal components as there are product attributes may be extracted, therefore a criterion for selecting the number of factors must be determined. One commonly used criterion for selecting factors is to use those factors that have an Eigenvalue, the total variance explained by a factor, greater than 1 (Kaiser, 1960). Using this criterion, six factors were extracted from which a factor matrix was then constructed (see Appendix V).

Fig 6.1: Data matrix

DATA MATRIX PRIOR TO FACTOR ANALYSIS

	1	2	3	4	5	6	7	8	9	19	20	21	22	23
1															
2															
3															
4															
5															
6															
7															
.															
.															
.															
.															
.															
824															
825															
826															

The factor matrix gives the linear coefficient of each factor in respect of each product attribute whereby:-

$$\text{Product Attribute} = aF_1 + bF_2 + cF_3 + dF_4 + eF_5 + fF_6$$

Where a, b, c, d, e , and f are factor coefficients or factor loadings.

Thus:-

$$I8 = .481986F_1 + .08438F_2 + .12974F_3 + .06822F_4 + .04020F_5 - .23394F_6$$

Where $I8$ is the product attribute "Direct route".

Although the factor matrix gives the relationship between the extracted factors and the individual product attributes, it is constructed in a manner that makes interpretation of the factors difficult. The third stage of the factor analysis, therefore, is to rotate the factor matrix to assist in the interpretation of the factors. Varimax and quartimax orthogonal rotation methods were considered. Varimax rotation (Kaiser, 1958) increases the number of large and small absolute factor loadings, and individual product attributes are more highly correlated with single factors. By so doing, the interpretability of the factor is enhanced. The quartimax minimises the number of factors that are needed to explain a variable. The outcome of this procedure often results in a general factor with high-to-moderate loadings on most variables (Norusis, 1990). This means the factors are often harder to interpret than if varimax rotation had been used. Consequently varimax rotation is applied to the factor matrix. As an example refer to Appendix V which shows that after rotation Factor 4 is highly correlated with price and price discount product attributes (I4 and I5). Interpretation of the factors is given in Section 8.1.

The final stage of the factor analysis procedure is to calculate factor scores for each respondent to be used during further analysis. The score for j th factor for the k th respondent is given by:-

$$\hat{F}_{jk} = \sum_{i=1}^p W_{ji} X_{ik}$$

Where X_{ik} is the standardised value of the i th product attribute for respondent k and W_{ji} is the factor score coefficient for the j th factor and the i th product variable. This calculation is used to compute a score for each factor which is given to each respondent. The data set now has dimensions of 827 respondents by 6 factor scores. These factors scores are used by the cluster analysis to investigate the research hypothesis H_1 .

6.2.2. RELIABILITY OF THE ATTITUDE DATA

The factor analysis was performed on data collected on a five point rating scale of traveller importance on product elements (question 29). It is appropriate to investigate the reliability of the scale used to collect these data. Error in the measurement of a phenomenon due to chance is known as random error. *“The amount of random error is inversely related to the degree of reliability of the measuring instrument”* (Carmines and Zeller, 1979, p.13). The reliability of a measure, therefore, may be questioned if, under repeated applications, the measurement given is not the same. For example the reliability of a weighing device may be questioned if it gives two different weight readings for the same rock. Here some faulty part of the mechanism within the device may be causing inconsistent results. Like validity (see section 5.4), reliability is not an all-or-nothing property. Every measurement has some degree of error associated with its measuring device. For a social research device, such as the questionnaire used in this research, there are many potential sources of random error:-

- ◆ *Short term characteristics:* e.g. the respondent is in a bad mood and this affects the answers that he/she gives.

- ◆ *Situational characteristics:* e.g. a member of the airline is watching a respondent complete the survey.
- ◆ *Characteristics of the measurement process:* e.g. a respondent does not have sufficient time to complete the questionnaire, and consequently rushes his/her answers.
- ◆ *Characteristics of the measuring instrument:* e.g. an important product element has not been included in the device.
- ◆ *Characteristics of the response process:* e.g. a respondent inadvertently ticks the wrong check-box in the questionnaire.
- ◆ *Characteristics of the analysis:* e.g. data entry is not accurate. (Tull and Hawkins, 1987)

To check the reliability of the measuring instrument used in the research there are three main methods; test re-test, alternative form, and internal consistency.

The most obvious method to assess the reliability of a measuring device is to see if the same results are achieved by repeated measurements. The test re-test method of assessing reliability involves applying the same test to the same subjects, under as similar test administration conditions as possible (Nunnally, 1978). The results of these repeated applications are then correlated. A high correlation coefficient between the two sets of results provides evidence to suggest that the measuring device is reliable. There are a number of potential problems with using this method of assessing reliability. Firstly, the first administration of the first test may affect the results of the second. The administration of the first test may sensitise a respondent to the items in the test, which previously he/she had not considered. This process will affect that respondent's answers in the second test. Secondly, a respondent's attitude may change during the period between the two tests. For example, a person's attitude toward crowd trouble at football matches may be affected by a new incident between the two administrations. Thirdly, a respondent taking the second test may be able to remember the answers he/she gave previously (Bailey, 1987).

To be able to examine a questionnaire's reliability using the test re-test method it is necessary to identify certain members of the sample upon which the test may be repeated. In the case of this research the members of the sample were not identified in advance, and the questionnaires were anonymously completed. (The reasons for this approach have been considered previously in chapter 5). A further problem was if the test was to be repeated under the same conditions the respondents should be tested again when they are at an airport, about to make a flight, which is obviously impracticable. For these practical reasons it was not possible to undertake a re-test assessment of the reliability of the research instrument.

Alternative form assessment involves administering two versions of the same research instrument to the same respondents. A reliability coefficient can be calculated by correlating the answers of the two versions of each question. There are two problems associated with this form of reliability assessment. Firstly, respondents may realise that questions are duplicated in alternative forms. This may lead respondents to believe that their honesty, not the reliability of the test is being examined. Secondly, there is the practical limitation of the methods, as two forms have to be constructed which may be difficult. In a review of the methods of reliability undertaken in 100 psychographic studies Edris and Meidan (1990) found none that had used this method of assessing reliability. They attribute this to difficulties with developing alternative forms. As it was not possible to re-interview the respondents it was not possible to undertake an alternative form test.

A method that allows the assessment of a measure's reliability through only one administration, which therefore could be applied to this research instrument, is split-half reliability. The items in the test are divided in half, and the scores on the halves correlated to obtain an estimate of reliability. The disadvantage of this method is that the way in which the items are partitioned affects the correlation coefficient that will be discovered. For example, 125 methods of partition would be possible for a ten

item scale, each leading to a different estimate of reliability. An estimate of reliability similar to split-halves, but which obtains only one result is a measure of internal consistency. This is a coefficient based on both the average correlation among items (the internal consistency), and the number of items. The most commonly used estimate of internal consistency is Cronbach's alpha (Carmines and Zeller, 1979). The statistic is calculated using the following equation:-

$$\alpha = \frac{(k)\text{cov/ var}}{1 + (k - 1)\text{cov/ var}}$$

where k is the number of items in the scale, cov is the average covariance between items, and var is the average variance of the items. The closer to 1.0 the coefficient is, the greater is the evidence that the scale is internally consistent. Nunnally (1978) indicates that the alpha coefficient is a good estimate of reliability in most situations, since "*the major source of measurement error is because of the sampling of content*" (p. 230).

A internal consistency test of reliability was applied to the product element data. All items in the index should be designed to measure precisely the same thing. In this case the index measures the importance placed by respondents on airline product elements. Cronbach's alpha for all twenty three items in the index was 0.8772. While this provides some evidence for the reliability of the scale, the method of calculation means that as the number of items in the test (k) increases so does the coefficient. However the factor analysis revealed a number of sub-groups of benefits within the data. The product elements that were associated with each benefit were tested for reliability (with the exception of the sixth factor against which only one variable is associated).

Factor	Variables in the analysis	Cronbach's Alpha
1	13, 14, 15, 16, 19, 20	0.8155
2	17, 18, 21, 22, 23	0.7761
3	6, 7, 9, 10, 11	0.7557
4	4,5	0.8791
5	1,2	0.7550

Table 6.1 Internal consistency coefficients

Table 6.1 shows Cronbach's alpha for each group of sub-groups. All these values are in excess of the 0.6 level suggested as being satisfactory (Churchill and Peter, 1984) which supports the internal consistency and reliability of the rating scale.

6.2.3 CLUSTER ANALYSIS

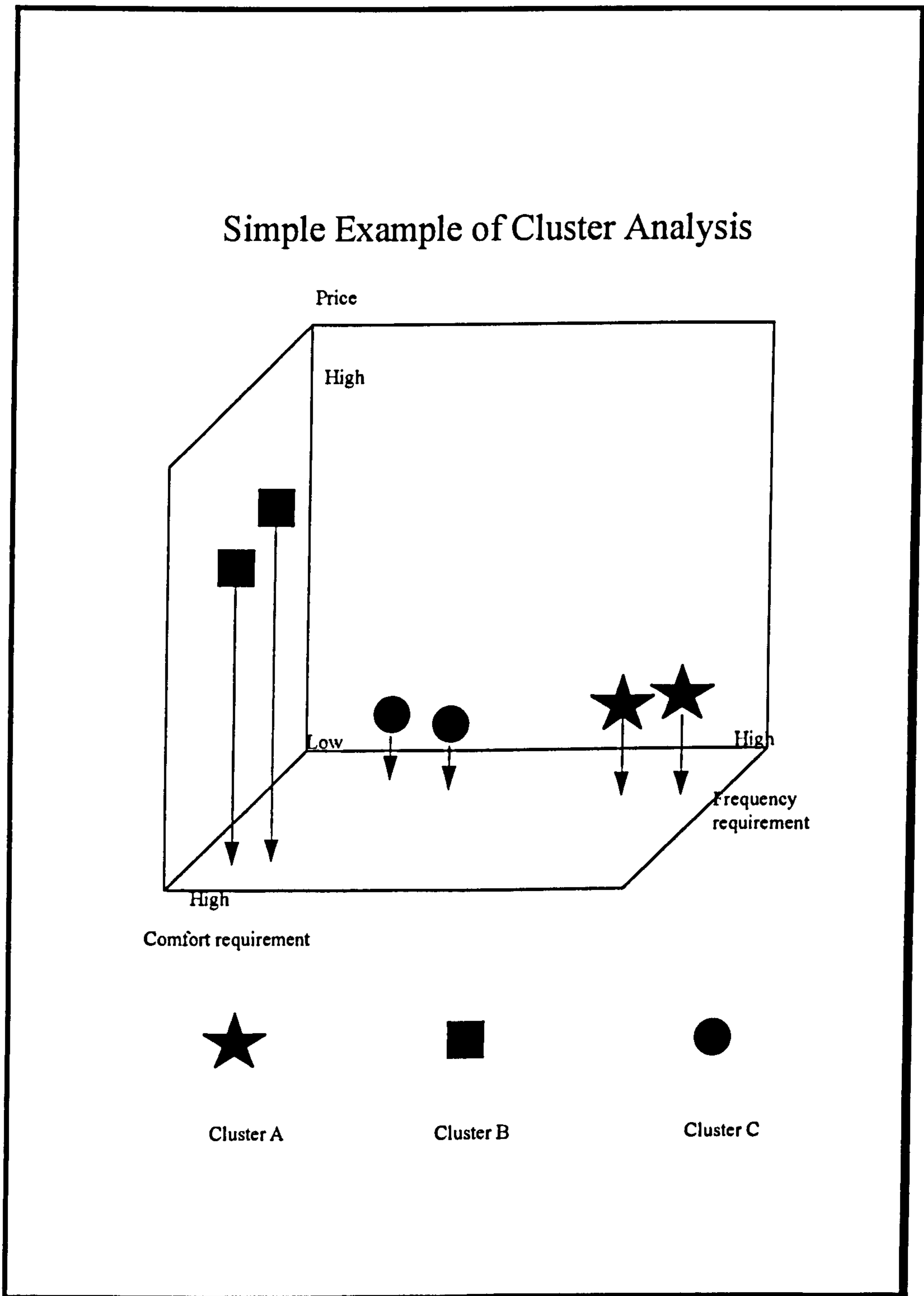
Market segmentation is based on the premise that a group of consumers are similar to each other and different from other consumers, and that these consumers can be identified in some way (Saunders, 1994). Cluster analysis is the technique that is used to investigate hypothesis H_1 ; whether business derived air travellers may be assembled into market segments based on the group of benefits they seek. Cluster analysis is a technique employed commonly in market segmentation research to identify groups or clusters of respondents that are similar to each other and different from other clusters of consumers in some respect. Everitt (1980) notes that no universal definition of the term "cluster" has been made, however he maintains that *"the common feature of most proposed definitions is their vague and circular nature, in the sense that terms such as similarity, distance, alike, etc., are used in the definition, but are themselves undefined"* (p.59).

In practical terms clusters can be identified using a distance measure in multi-dimensional space. To achieve a good cluster solution, the clusters should have large distances between the clusters but the members of a particular cluster should be close together. If the number of variables are small then graphical methods may be employed to identify clusters. Figure 6.2 gives a graphical representation of six respondents to a survey that collected data regarding the price of an air ticket that a traveller is prepared to pay, the importance placed on flight frequency, and the amount of comfort required by the traveller. The six respondents can be grouped into three clusters of two members. Cluster membership is determined by the three dimensional proximity of each respondent to the others, i.e. a respondent is assigned to a specific cluster because he/she has similar requirements as another respondent. In the example, the two respondents in Cluster A have a high frequency requirement, require medium comfort, but are not prepared to pay a high price, while those in Cluster B desire a high level of comfort and are prepared to pay a premium rate.

When the number of dimensions of the data is large, a statistical method of identifying clusters is required. There are a number of statistical techniques that may be employed to undertake a cluster analysis. A full discussion of the merits and demerits of these techniques is given by Everitt (1980). There are two major decisions that must be made regarding a cluster analysis:-

- ◆ The measurement of similarity
- ◆ The clustering method

Fig 6.2: Simple cluster analysis



Clusters are identified by grouping similar respondents together. As a result of undertaking a factor analysis (section 6.2.1) each survey respondent has a score for each of the six extracted factors. Using these factor scores, respondents can be, notionally, placed in 6-dimensional space. A measure of the similarity between respondents must be derived. Euclidean geometry, can be used to measure the distance between respondents in multi-dimensional space. Based on Pythagoras' Theorem the distance, D , between two respondents i and j placed in 6 dimension space is given by:-

$$D = \sqrt{\sum_{k=1}^6 (X_{ik} - X_{jk})^2}$$

Where X_{ik} is the value of the k th factor of respondent i .

Squared Euclidean distance as a measure of distance is unsatisfactory where data scales are not standardised as clusters can be dominated by a particular variable which is measured on a large scale. Everitt (1980) recommends "*in most accounts of clustering, standardization of the variables to zero mean and unit variance*" (p.10). The factor scores given by the principal component analysis, while not standardised, have been computed upon data collected on standard rating scales, thus this measure of distances is suitable for the analysis.

There are two main types of cluster analysis; hierarchical and iterative partitioning. Hierarchical methods include single linkage, complete linkage, average linkage, and Ward's minimum variance method. The hierarchical methods were developed primarily for biological taxonomies of species. Two main problems are associated with using these methods:-

- ◆ Hierarchical methods irrevocably allocate respondents to clusters. This may be problem if a respondent is poorly classified at an early stage. (Everitt, 1980)
- ◆ The classification of respondents into a hierarchy may not be appropriate for certain applications such as marketing research.

Partitioning cluster analysis aims to maximise the homogeneity within clusters, and maximise the heterogeneity between clusters. It is an iterative process in which respondents are allocated on repeated iterations to a cluster until each respondent cannot be better allocated to another cluster. As respondents can be re-classified if they are poorly allocated at first it has an advantage over hierarchical methods. Such a technique is suitable for marketing research data (Harris, 1991). It has been used to discover benefit segments in the banking services market (Calatone and Sawyer, 1978). Consequently a k means iterative partitioning method of cluster analysis was used (SPSS-PC's "Quick Cluster") to seek benefit segments in the data. The algorithm is based on nearest centroid sorting, and is particularly suitable analysis technique for large data sets, as it requires substantially less computer memory, and computation time (Norusis, 1990). The three stage analysis is as follows:-

- ◆ Initial cluster centres are selected
- ◆ Successive cases are assigned to the nearest cluster, and the cluster centre is re-calculated by averaging the dimensions of all the cases currently assigned to that cluster. The cluster centres thereby migrate to the concentrations of respondents.
- ◆ Once every case has been considered and final cluster centres have been calculated, each case is re-assigned to the cluster which it is now nearest.

In order to use this algorithm, the number of clusters must be defined in advance. This method implies some *a priori* knowledge of the number of clusters (n) that exist in the data. Where this is not available, as in this case, the analysis may be applied

repeatedly to extract a number of solutions. The analysis is applied for solutions with six, five, four, and three cluster solutions. The factor scores of the first n respondents as used for initial cluster centres.

During the iterative process the cluster centres migrate as each subsequent respondent is assigned to a cluster. At the end of the three stage process the final cluster centres may have migrated from their initial co-ordinates. These new co-ordinates are used as new initial cluster centres. The analysis is repeated until the final cluster centres are the same as the initial cluster centres. At this point the membership of the various clusters is robust, i.e. repeating the analysis will not re-allocate any respondent into another cluster. Such a solution does not automatically occur. Six, five and four clusters solutions proved not to be robust, however, a robust three cluster solution was extracted after 12 iterations of the analysis method. To account for the potential effect of outliers Punj and Stewart note that "*the use of a decision rule to stop the clustering short of the inclusion of all observations is probably advantageous*" (1983, p. 144). A convergence criteria of 0.02 was used was used to stop the procedure. Each respondent's cluster membership, and distance from the cluster centre was saved for cross-validation purposes, and subsequently used in cluster profiling.

To evaluate the validity of the discovered three cluster solution, two procedures of cross-validation was applied to the data. The sample was randomly split into two halves. The first test of cross-validation involved using the cluster centres of a new analysis on one half of the data as an input into the other half of the data. Cluster analysis was applied to one half of the data, as detailed previously. Each respondent was, thereby, classified to a cluster. The final cluster centres from the solution gained for the first half of the data was then used as initial cluster centres in the hold out sample. The analysis was undertaken and each respondent in the second half of the data allocated to clusters under the new analysis. By this stage each respondent had a cluster membership allocation for the first analysis, and the split-half cross-validation analysis. The two sets of membership allocations were then correlated. Table 6.2

shows the cross-validation kappa coefficient of agreement for both pairs of allocations.

First half of sample	Second half of sample
$k = 0.7599$	$k = 0.8103$

Table 6.2: Cross-validation correlation coefficients

McIntyre and Blashfield's cross-validation procedure (1980) was also applied to the cluster solutions. Use of this procedure is supported by Punj and Stewart (1983), and Saunders (1994) for its simplicity. This procedure avoids the use of discriminant coefficients which was suggested in a validation procedure developed by Field and Scholenfeldt (1975), but strongly criticised by Saunders (1994) due to a need to also cross-validate the discriminant coefficients. To undertake McIntyre and Blashfield's cross-validation procedure cluster analysis was performed on the first half of the data, and then respondents in the second half allocated to clusters based on the least Euclidean distance from the cluster centers gained by the analysis of the first half of the data. The degree of agreement between the nearest centroid assignments in the hold out sample and the results from the cluster analysis on the hold out sample was found to be 0.7311. The results of these two cross-validation procedures provide evidence as to the stability of the three cluster solution found in the entire data set.

6.2.4 CLUSTER PROFILING

To complete the analysis of the data collected by the passenger survey the benefit market segment identified by the cluster analysis must be profiled. The technique for profiling the cluster is the same one as used for the preliminary analysis, as described in Section 6.1. The clusters are described in terms of the other data collected by means of cross-tabulation. Statistical significance is investigated using the chi-square test of independence.

The second research hypothesis, 2H_1 which states that the membership of a benefit market segment is influenced by the organisation which employs the traveller, is investigated using this technique. The hypothesis will be investigated by examining relationships between organisational demographic and behavioural data and the cluster membership.

The profiling procedure enables the researcher to develop a detailed understanding of the market segments. Demographic and behavioural indicators of each segment are developed, so that the population of business air travellers can be classified into the market segments, and thus appropriate marketing strategies can be adopted for each segment.

6.3 SUMMARY OF PART II

Part II of this thesis has taken the research hypotheses developed at the end of the first part of the study and developed a research instrument and appropriate analytical techniques to investigate these hypotheses. The research instrument was developed in Chapter 5. The data required was identified by a combination of the secondary research undertaken in Chapter 3, gaining first hand experience in the market through periods of work secondment (11 months in total) with the collaborating organisation, and through a qualitative study (section 4.2). Techniques by which the data were to be collected and measured were considered in sections 5.2 and 5.3. The validity of the research instrument was addressed in section 5.4. Chapter 6 considered the analytical approaches required to investigate the research hypotheses. Techniques for undertaking factor analysis, cluster analysis and cluster profiling were detailed. The results of the investigation are considered in the third part of this thesis.

PART III
RESULTS

CHAPTER 7: PRELIMINARY RESULTS

INTRODUCTION

To address the research objective, that is to provide an analysis of the short haul business travel market, the research tool has collected data that can be analysed to provide a profile of the three stakeholders; the "organisation", the individual business traveller, and the travel organiser (sections 7.1, 7.2, and 7.3). The information given in this chapter details the results of this preliminary analysis of the business air travel market. This analysis compares the findings, where possible, with work published elsewhere on the business traveller. The analysis provides evidence of the hybrid nature of the market.

7.1 PROFILE OF THE "ORGANISATION" STAKEHOLDER

This profile of the organisations that employ the respondents includes a demographic analysis (section 7.1.1) and also an analysis of the corporate travel policies utilised within these companies (section 7.1.2).

7.1.1 INDUSTRIAL DEMOGRAPHIC PROFILE

The respondents were employed by companies involved in a wide range of industrial activity. The largest single group were employed in manufacturing (27%) while service industries were represented by some 24% of those sampled. The next largest group was "Other", possibly indicating that respondents felt their industry was not well described in the options given in the question (Question 1). Within the "Other" group, four industries were common; pharmaceutical, telecommunication, computer/I.T. and education. The importance of business travellers from manufacturing industries is supported in a survey of business travel managers (Cook,

Davies, and Haver, 1994). This study found the proportion to be much higher (66% of the sample), however, this may can be attributed to the study's focus on large companies which, therefore, undersampled small sized companies, which may work in other industries. The distribution of the sample in this research is shown in table 7.2.

Table 7.1 shows that respondents were fairly evenly distributed in terms of the size of company for which they work. The largest proportion (20.7%) worked for the companies with more than 10,000 employees. The smallest group was from companies with between 10-24 employees (5.5%). The other segments were almost equally distributed with each group accounting for between 10% and 15% of the sample.

Company Size	Percentage
0 - 9 employees	11%
10 - 24 employees	6%
25 - 99 employees	13%
100 - 249 employees	10%
250 - 999 employees	15%
1,000 - 2,499 employees	11%
2,500 - 10,000 employees	13%
More than 10,000	21%

Table 7.1: Corporate size by respondent

A cross-tabulation of industry size and industry type provides a greater insight into the industrial nature of the companies that create business-related travel. The chi-squared test of independence indicates that these two variables are interrelated, i.e. that the type of industry in which an organisation is operating is related to the size of organisation. Table 7.2 shows the a breakdown of the four largest industrial sectors by company size.

Respondents employed in manufacturing industries accounted for 27.3% of the sample. This sector is dominated by larger companies with more than 250 employees. 20.5% of the sector work for companies with between 250 and 999 employees, while the largest companies (more than 1000 employees) account for 45.5% of the sector.

No of Employees	Manufacturing	Services	Oil/Gas	Other
< 25	10.71%	21.50%	4.55%	25.56%
25 - 99	12.05%	16.50%	12.12%	12.22%
100 - 249	11.16%	8.50%	3.03%	13.33%
250-999	20.54%	16.50%	12.12%	9.44%
> 1000	45.54%	37.00%	68.18%	39.44%
Tot	100%	100%	100%	100%

Table 7.2: Industry by Organisational Size (No. of employees)

The second largest industry type, described as services, represents 24.4% of the sample. Analysis of the organisational size indicates that no one size dominates this sector. 37% people in this sector were employed in organisations with more than 1000 employees. This proportion was some 8% lower than the average for the sample as a whole. Companies with less than 25 employees accounted for 21.5% of firms in this sector, and represented the second largest group. Service companies with between 100 and 249 employees were the least common, accounting for only 8.5% of the sector. The rest of the sample was evenly distributed throughout the other company sizes. It would seem, therefore, that service companies have a lower potential to earn economies of scale than companies employed in more traditional manufacturing.

A large proportion of the respondents that fell into the "Other" category worked in either education, pharmaceuticals, I.T., or telecommunications. 39.4% of this group is accounted for by companies with more than 1000 employees. It is interesting, however, that 25.6% of these firms are small firms with less than 25 employees. This

profile would seem to suggest that small firms engaged in consultancy work are popular in these areas, with the possible exception of education.

8% percent of respondents were employed by companies in oil or gas exploration. It is not surprising, considering the nature of this industrial sector that 68.2% of these respondents worked for companies with more than a thousand employees. Large companies in this industrial sector would seem to be an obvious target for an airline, and therefore an airline should be able to identify these large companies and approach them to try to gain their business.

7.1.2 CORPORATE TRAVEL POLICY

An analysis of the data reveals a number of details regarding corporate travel policy. Firstly, 60.3% of respondents indicated that their organisation had a travel policy of some nature. This may be compared to two other studies. A study of travel managers indicated that 77% of the companies surveyed had a written travel policy (Cook, Davies, and Haver, 1994). This higher figure may be attributable to the focus of that study on companies that already have travel managers. This figure may be compared to the findings of a survey of 350 British companies which indicated that 52% of firms have a written travel policy (American Express, 1993/4). The survey reported in this thesis reveals that 52% of policies are decided by company directors, while a further 13% are set by travel departments. This provides some evidence of the importance of business travel to the “organisation” and travel organiser stakeholder groupings, and, therefore, indicates the potential value of a marketing effort directed towards the employing organisation.

Nearly all (97.9%) of those who that indicated that their company had a travel policy, had a written policy of some nature. The vast majority of policies seem not to be rigid in nature. 70% were described as guidelines for preferred practice, a further 7% noted

that their policies were open to interpretation, while the remainder of the respondents described their company's travel policy as consisting of rigid rules that must be adhered to. 37.5% of respondents who indicated that their company had written travel policies, also indicated that the policy had an unwritten element. 55.4% of these travellers had their travel behaviour influenced by their manager, while the rest of this group were influenced by the person within the organisation who organises travel. It can be seen, therefore, that many "organisation" stakeholders have formal policies and structures in place that can be used to influence the decision making process. It has also been shown that members of the employing organisation can bring informal influence to bear in the decision making process.

Tables 7.3 and 7.4 below show the grade of travel given by respondents for their organisation, for both European and intercontinental trips.

Grade/Status	First Class (%)	Business Class (%)	Economy Class (%)
Co. directors	18	53	29
Senior manager	6	53	41
Other mngt	1	42	57
Supervisors	*	29	70
Non-supervisory	*	22	78
Others	1	26	73

Table 7.3: Travel Grade by Corporate Status for European travel

Grade/Status	First Class (%)	Business Class (%)	Economy Class (%)
Co. directors	27	53	19
Senior manager	12	61	26
Other mngt	4	49	47
Supervisors	2	38	60
Non-supervisory	1	30	69
Others	1	31	68

Table 7.4: Travel Grade by Corporate Status for Intercontinental travel

The tables suggest that many organisations have policies that award incremental grades of travel as employees graduate through the organisational hierarchy. Table 7.3 shows that 71% of company directors and 58% of senior directors are allowed to travel either first class or business class within the short haul market. As travellers of this status account for 57% of the market, the research provides some evidence that there is a market for a business class product. The tables show that organisations tend to allow a higher grade of travel for intercontinental travel compared with European travel, with an approximate 10% swing toward the higher grades for intercontinental travel.

A cross-tabulation of travel policy with organisational size reveals that larger companies are more likely to have a travel policy than smaller companies. 79.5% of the largest companies have a travel policy of some nature. This figure falls consistently throughout the organisational size classifications to the smallest companies, of which only 26.1% have travel policies. An industrial analysis shows that oil and gas exploration companies are the most likely, of the four largest sectors, to have a travel policy with 74.6% respondents working in this industry indicating that they are employed by organisations that have a travel policy.

This preliminary analysis has demonstrated the role that the “organisation” stakeholder group has in the business travel market through its use of formal travel policies. The data provides some evidence of the industrial element of the hybrid nature of the business travel market.

7.2 PROFILE OF THE TRAVELLER STAKEHOLDER

An analysis of the data collected regarding the individual business traveller is considered in a section regarding the demographic profile of this stakeholder (section

7.2.1) and a section that considers the traveller's travel procedure and attitude (section 7.2.2).

7.2.1 DEMOGRAPHIC PROFILE OF TRAVELLER

The respondents were predominantly male (88.5%). While the Sex Discrimination Act provides equal opportunities for men and women alike, there is an historic bias towards male domination within the employment market for managers. It will probably take many years before there is a more equitable division of men and women employed in similar roles throughout the work environment. Cochrane (1990), writing on behalf of the Business Woman's Travel Club (BWTC), indicates that while the number of women travelling for business purposes is growing, the services provided by the travel industry are male oriented. As the proportion of female respondents is so small they will not be considered separately in the analysis to follow. However, as this proportion rises the travelling business woman may become a significant market segment.

The respondents were classified into socio-economic groupings as defined by the Market Research Society. Wolfe (1984) summarises these definitions as:-

- ◆ A - Higher managerial, administrative or professional
- ◆ B - Intermediate managerial, administrative or professional
- ◆ C1 - Supervisory, clerical, junior administrative or professional
- ◆ C2 - Skilled manual workers

The vast majority of the respondents fall into a AB social classification (82.3%). 50.9% of respondents noted that they were either company directors or were senior managers, while another 6.3% is accounted for by self-employed professional people. 20.0% of respondents do not have direct responsibility for any subordinates, however

this does not necessarily indicate that these respondents are of a lower classification. In fact the majority of these respondents are employed in some type of executive position. Thus the profile of the respondents may be considered as dominated by mainly professional people.

Age	Percentage
Under 18	0.2%
18 - 24	1.2%
25 - 34	26.2%
35 - 44	35.2%
45 - 54	29.4%
55 - 64	7.1%
65 +	0.6%

Table 7.5: Age Distribution

Table 7.5 shows the age distribution of the sample. It shows that the vast majority (90.7%) of business travellers are between the ages of twenty five and fifty four, with a further 7.2% of the respondents aged between fifty five and sixty four. This figure may be compared to the results of a study of US domestic passengers (Toh and Hu, 1990) which indicates that 93% of the members of frequent flier schemes are thirty years or over. This evidence seems to suggest that business travel is unlikely for employees early in their career.

The largest single group of travellers is between thirty five and forty four (35.1%). There are progressively fewer travellers above this age band, which implies that as employees get older they tend to travel less for their work. This may be partly due to employees being in corporate positions where they can choose to travel less and partly due to the possibility that older employees gain a corporate position which requires less travel.

A cross-tabulation of social stratification with respondents' age was undertaken. A chi-squared test of independence indicates that the two variables are not independent of each other. The tabulation shows that the highest socio-economic classification, A, is predominately populated by travellers in the thirty five and fifty four age group (75.3%), while the next two white collar classes B, and C1 have fairly similar age distributions. 73.8% of group B and 75.4% of group C1 are aged between twenty five and thirty four. While groups B and C1 are similar, group B has a slightly older profile. 53.8% of skilled labourers in the C2 classification are aged between twenty five and thirty four, with a further 23.1% aged between forty five and fifty four, with the rest of the respondents evenly distributed in the rest of the age groupings.

A cross-tabulation of respondents' socio-economic classification and company size reveals information regarding the profile of business travellers. 57.4% of respondents fall into the A classification. Of these senior managers, 30.7% worked for companies with more than 1000 employees. This figure is significantly lower than the average for all respondents (45.2%) and may be compared to the proportions of groups B and C1. 67.5% of respondents falling in the B classification and 62.3% of C1 respondents worked for companies with more than a thousand employees. Thus the study shows that business travellers who are senior managers are likely to work for companies of any size while those who can be described as falling into social classifications B and C1 are more likely to work for large companies. Such a structure may imply that those falling in to the A classification and who work in smaller companies need to travel more than those working in larger companies.

Table 7.6 shows the residential geographic distribution of respondents and also where they work (the regions described below are defined in Appendix VI and shown in Figures 7.1 and 7.2. The majority of the respondents live in the area close to Stansted (60.9%), while Scotland (11.1%) and Anglia and the Midlands (9.9%) are the next largest. Although the largest proportion of respondents also work in the Stansted

catchment region (42%) a large group work within the M25 boundary (24%) indicating some degree of commuting behaviour.

The table shows that by far the greatest number of respondents live in the catchment area of the airport, indeed 81.5% of respondents travelled to the airport from their home as opposed to leaving for the airport from their place of work. 78.4% of the respondents indicated that the ease of access to the airport by road was the reason for selecting Stansted airport to fly from. This would seem to indicate that it is the location of the travellers' homes rather than their place of work, and the ease of road access which determines from which airport they choose to travel.

Region	At Home	At Work
Stansted Catchment	60.9	42.0
West of Catchment	4.8	6.0
Kent Corridor	1.6	0.3
Within M25	6.7	23.9
Scotland	11.1	13.9
Anglia & Midlands	9.9	7.4
Other	4.8	6.1

Table 7.6: Geographic Distribution of Respondents

Fig 7.1 Residential Geographic Distribution

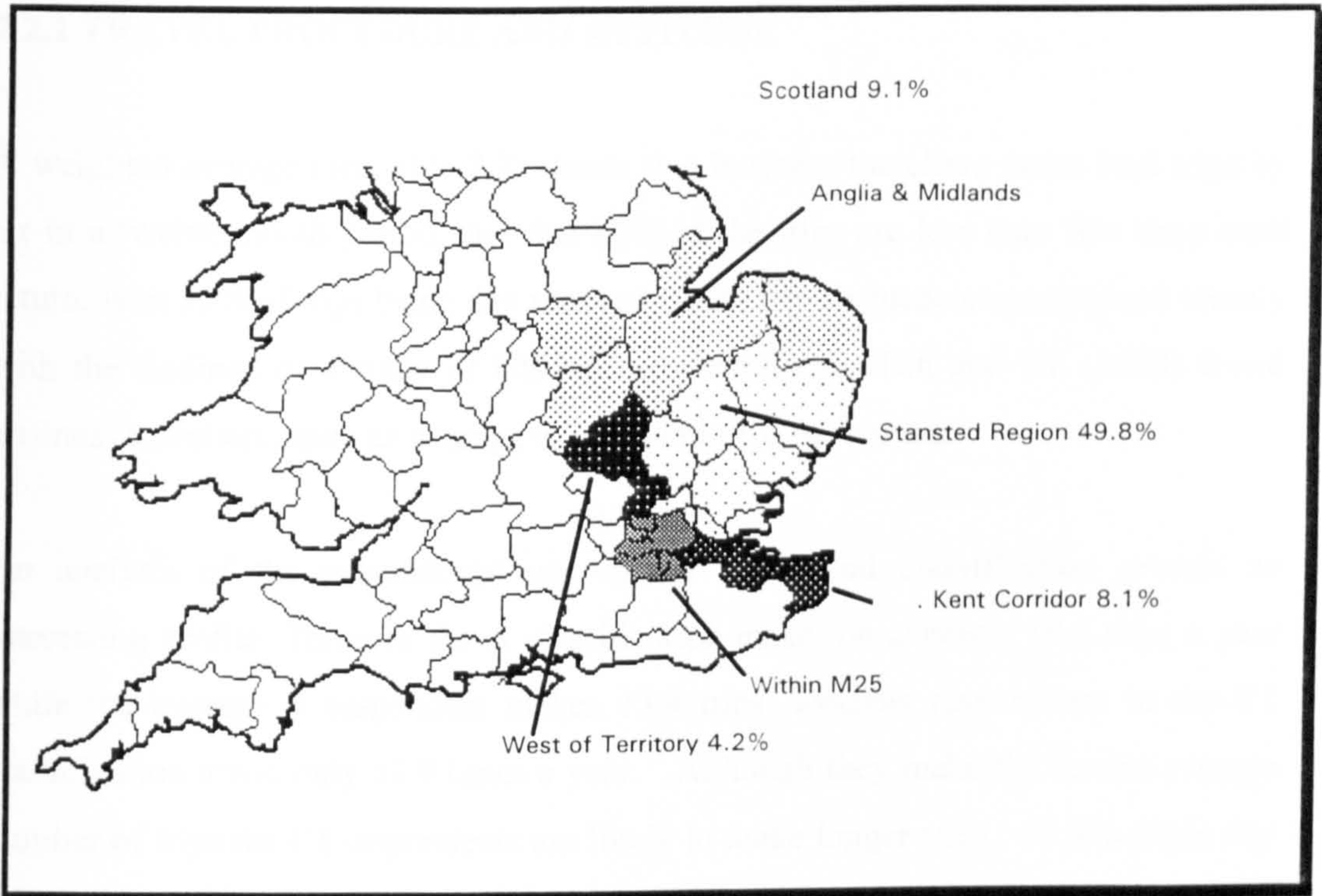
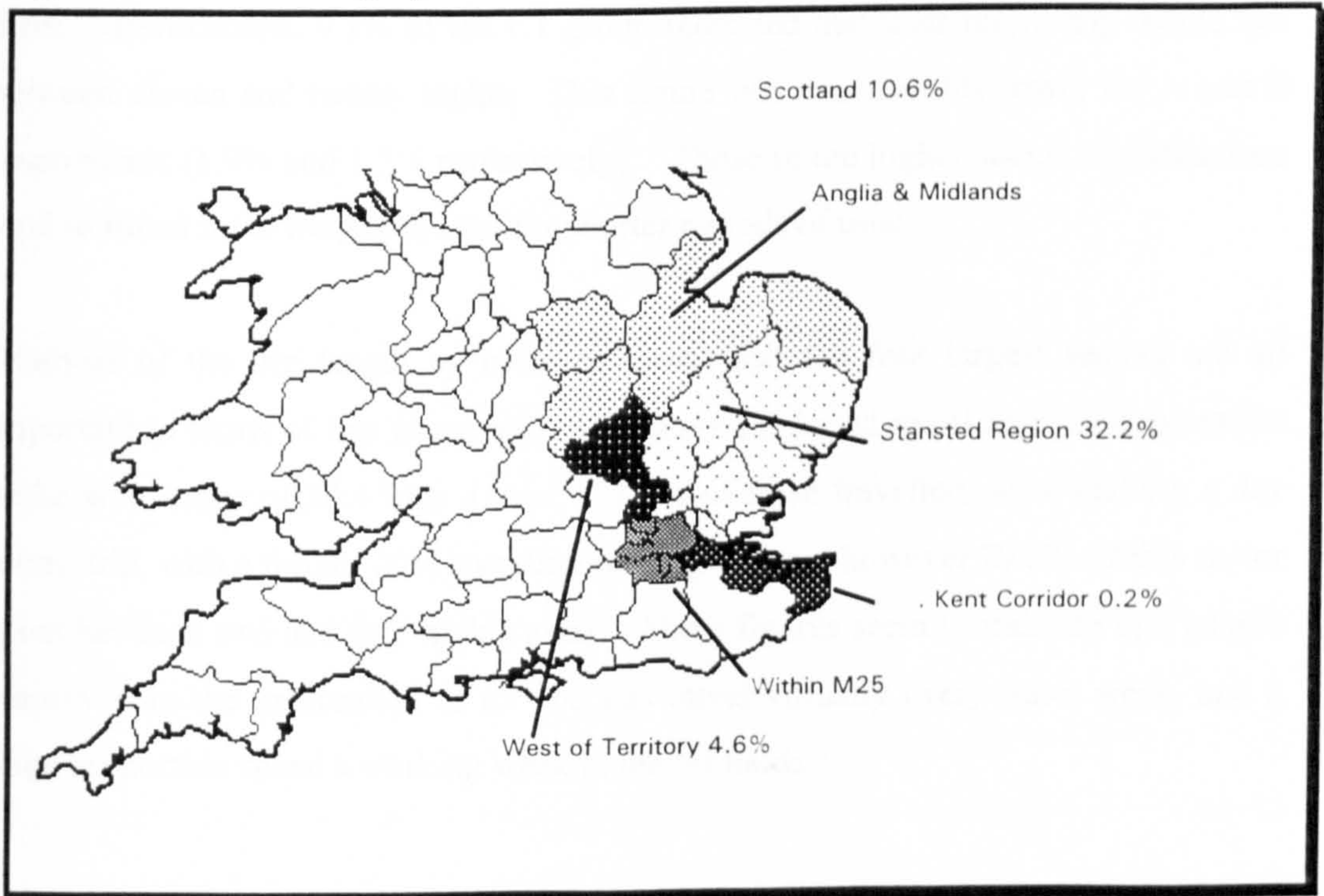


Fig 7.2 Industrial Geographic Distribution



7.2.2 TRAVEL PROCEDURE AND ATTITUDE

A weighted average (see table 7.7) shows that business travellers make 16.6 trips by air in a twelve month period, and that 90% of the trips are less than five days until return, with 39% of trips being day returns. These trip frequencies correspond closely with the findings of a study of US business travellers. Toh and Hu (1988) found business travellers make an average of 17 round trips per annum.

An analysis of the respondents' trip details and social classification reveals an interesting profile. Those in the A classification make, on average, 19.2 trips a year while the average B respondent makes 13.4 trips, whereas respondents in the C1 classification travel only 10.9 times a year. Although they make the fewest average number of trips the C1 respondents are likely to make longer trips. 33.8% made day returns, in comparison with 42.2 % of A classification, and 38.7% of B classification. While the profiles for trips lasting one night and two to four nights were similar for all three classifications, 9.1% of the C1 group indicated that their return trip would last between eleven and twenty nights. This figure was considerably lower for A and B respondents (1.9% and 1.5% respectively). Those in the higher social classifications tend to travel more frequently, but for shorter periods of time.

Analysis of the trip length by industry shows that the four largest sectors are all important in terms of trip frequency. Travellers employed in oil and gas exploration make an average of 20.4 trips a year. 21.5% of these travellers were making a day return trip, with a further 20% spending one night away, however 29.2% of this sector spent between two and four nights away. These figures seem to indicate that people employed in the exploration of oil and gas travel virtually every other week, and a large proportion spend a working week in the oil fields.

Number of trips	Mid Class Value	Frequency	Value by Freq
First trip	1	44	44.0
2-5	3.5	185	647.5
6-9	7.5	115	862.5
10-19	14.5	224	3248.0
20-29	24.5	109	2670.5
30-39	34.5	45	1552.5
40-49	44.5	39	1735.5
50+	55	49	2695.0
Total		810	13455.5
		Average	16.61

Table 7.7: Average Number of Business Trips Per Year

Travellers from manufacturing industry seem to have a slightly different travelling behaviour. Like those in the oil industry, they travel frequently. The average traveller employed in the manufacturing industry makes 18.3 trips a year, although the trips tend to be of a shorter length. While those spending two to four nights away accounted for 23.5% of respondents, 38% were making a day return trip, and 28.5% were spending only one night away from home.

Respondents from the services industry and "other" industries have similar travelling patterns. Travellers from both sectors have an average of between 16 and 17 trips a year, and are most likely to be making trips with either a one day or one night stop.

A high proportion of respondents (75%) gave a positive of their company's travel policy opinion (by ticking responses one or two to question 11), while a further 17% indicated a neutral opinion (response 5 in question 11). This positive opinion is not surprising considering that a high proportion of the respondents were company directors and senior managers, who are most likely to set the policies. Moreover these policies tend to favour employees higher up the corporate hierarchy (see section 7.1).

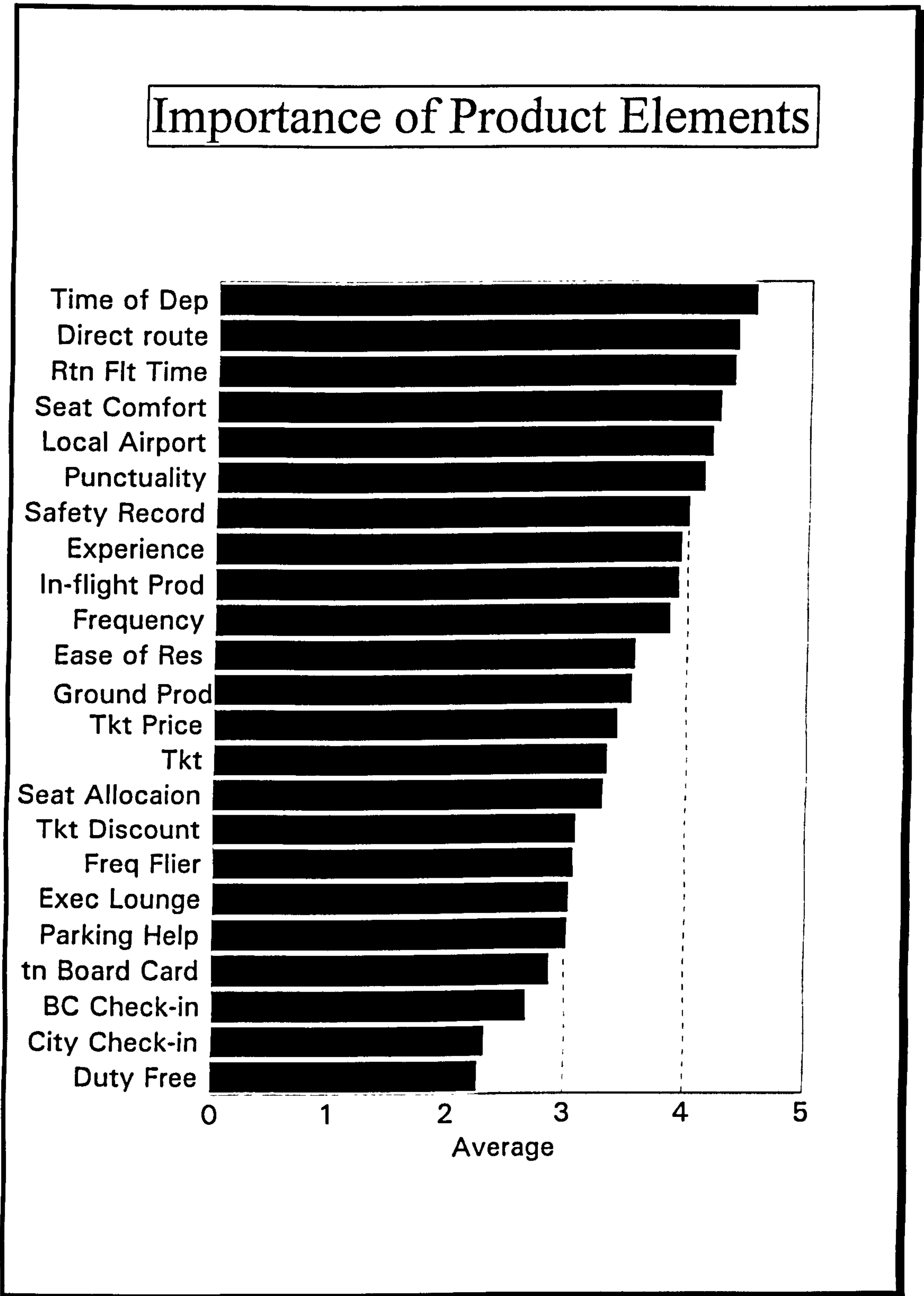
Indeed 82.7% of those respondents falling in to the A social classification were positive about their travel policy, while 72.5% of B's and only 59.6% of C1's held similar opinions.

A cross-tabulation of opinion towards travel policies with whether respondents currently worked for a company that employs a travel policy, reveals that those respondents that work for companies with travel policies are more positive about such policies than those that do not. 79.1% respondents who indicated that their company had a travel policy held a positive opinion towards travel policies, while only 52.5% of respondents that work for companies without a travel policy gave a positive opinion.

Figure 7.3 shows the average importance placed by all respondents on the various product elements. It is the individual ratings, given to these product elements, by each respondent, that have been used in the development of the benefit market segments. These segments will be described in some detail in the next chapter. However, analysis of the average importance of each product element for of the business traveller market, as a whole, provides a basic understanding of the requirements of the market.

The product elements valued as being most important concern flight scheduling. The timing of the outward flight was rated as the single most important factor indicating that the passengers have arranged meetings around the time they can arrive at their destination. This is supported by the consumer behaviour of the respondents, i.e. frequent travellers, predominantly making either day return trips or one night stays. Direct route is the next most important factor indicating that non-stop flights are are vital in the short haul market.

Fig 7.3: Importance of product elements



The fourth most important product element is seat comfort. An analysis by the author for Air UK of passenger attitude toward seat pitch concluded that passengers expect a certain level of seat comfort, which was considered during their purchase decision making. This level continually increases as airlines offer additional leg-room to attract more passengers.

In a study of long haul passengers departing from a South East Asian airport, van Oudheusden (1990) found the quality of food to be the most important product element, with punctuality in arrival and departure timing as the next most important attributes. It would seem that the importance of food quality may be attributable to the length of the flight and regional differences. However, van Oudheusden's study also provides evidence in support of the importance of scheduling in the purchase decision.

Flight frequency seems to be less important to the respondents. The implication would seem to be that the respondents plan their trips well and that additional flights are not necessarily that important. Price also seems to be of less important to the respondents. Only 35% of respondents indicated that they thought price was the most important of product element for their employing company. It is not surprising that a cross-tabulation of the importance of price and company size reveals that the smaller the company, the more important the price becomes to the traveller.

The product elements valued the least include duty free shopping and availability of exclusive business class check-in. For business people who travel as frequently as the research has shown, it is understandable that duty free shopping is not important. The low importance placed on exclusive check-in is more difficult to comprehend. Exclusive check-in facilities are promoted by airlines to aid the business traveller in his/her movement through the airport. The objective of such a facility is to minimise a business traveller's check-in time. Observation by the author revealed that these facilities can become crowded before a flight, and thus their value may be reduced.

7.3 PROFILE OF THE TRAVEL ORGANISER STAKEHOLDER

The travel organiser stakeholder has been identified as that person or persons within the organisation with the responsibility for booking corporate travel. 63.7% of those surveyed indicated that their company has no travel manager or travel department. However the remaining companies do have at least one person within the organisation responsible for organising or managing the travel activities of the organisation's employees. This figure seems to be growing according to the American Express surveys of Travel and Entertainment (T&E) expenses (1990, 1992, 1993/4).

An analysis of industry type indicates that the three largest sectors all had similar profiles with regard to the presence of travel managers or departments. Between 32% and 33% of respondents employed in manufacturing, service industries, and "other" industries indicated that their companies had a travel manager or department. Only oil and gas exploration companies differed significantly from this overall profile where 62.7% of respondents indicated that their organisation had a travel manager or department.

A cross-tabulation of the size of employing company with the presence of a travel manager or department indicates that the larger a company is, the more likely it is to have a travel manager or department. 75.3% of the largest companies have either travel managers or travel departments, whereas less than ten percent of all other size companies have either a travel manager or travel department. Travellers employed by companies with more than 1000 employees represent 45.2% of the total sample, and thus the importance of travel management in the business travel market is evident.

Analysis of the booking behaviour of the respondents reveals some interesting points. The majority (69.8%) of respondents select their own flights. A number of comments can be made about this result. Firstly, it can be noted that airline advertising and direct marketing aimed at the traveller is well justified. It would seem, therefore, that

the focus of the research methodology on the business traveller was justified, and that the traveller is indeed the most important stakeholder in many organisations. However, the result indicates that some 30% of business travellers, making on average 17 trips per annum, do not have a decision making role in the purchase of their flights. This result provides some evidence for the hybrid nature of the business travel market, and may be compared with the recent findings of a research team from the University of Westminster, and the Southampton Institute of Higher Education. A survey of 133 Institute of Travel Management members found that 70% of corporate travel policies granted travel choice discretion to senior employees, but 20% were planning to reduce traveller's choice of airline over the next twelve months (Cook, Davies, and Haver, 1994). It would seem, therefore, the corporate stakeholder group's role in decision making is growing. This represents an important sector of the market, and indicates that the adoption of marketing strategies aimed at the other stakeholder groups may be a worthwhile exercise for airlines.

With regard to distribution, most tickets are purchased from travel agents. 60% of respondents obtained their tickets from a business travel agent while another 15% obtained tickets from general travel agents. The third most popular source was direct from the airline. Tickets are generally paid for by the company in the form of an account sent by the travel agents, while 15% of tickets are paid for directly by the traveller and then claimed back from his organisation.

The most popular ticket type purchased was full fare (25%) while a similar number of respondents did not know what type of ticket they held. 19% of the sample held PEX tickets while another 13% had paid an APEX fare (for a definition of the various ticket types see Appendix I).

Analysis of a cross-tabulation of fare type and company size revealed that respondents employed by larger companies are less likely to know the sort of ticket they hold than those employed by smaller companies. This figure goes up from 16.7% of

respondents working for the smallest size of companies progressively to 29.5% of respondents in the largest company size class. Companies employing less than 25 people were the group least likely to travel with a full fare ticket (15.9%) while 35.3% of companies with between 250 and 999 employees were most likely to use this type of ticket.

The actual booking of the selected flight tended to fall to other people in the organisation. 14% of respondents indicated that their secretaries booked their flights, while a further 30% indicated that their department (no-one individually named) booked their flight and 29.5% revealed that a travel manager booked their flight. 28% of respondents booked their flight themselves. Not surprisingly, this is particularly prevalent in the smallest size of company, where 54% of respondents were responsible for booking their own ticket. This figure fell to 17.8% for respondents working for companies with more than 1000 employees.

The research shows that 78% of companies do not have a preferred airline, while of those companies that do, nearly half favour the airline every time while a further 39% favour an airline on a specific route or routes. 21% of very large firms have a preferred airline and tend to use it almost always or on specific routes. This evidence suggests that a potential "tied" or loyal market may exist which is constructed of large firms that purchase a high number of flights on particular routes. Any short haul airline which could attract purchase loyalty from such organisations would probably find the outcome of such an arrangement very rewarding.

7.4 SUMMARY

This preliminary analysis of the three stakeholder groups provides a substantial insight into the structure of the business travel market and the manner in which short haul business travel is selected, booked and used.

A demographic analysis revealed that the respondents were predominantly male. The majority were either of an A or a B social classification. Most respondents were aged between twenty-five and fifty-four, while the largest single group of respondents were aged between thirty-five and forty-four. Most respondents travelled to Stansted airport from their homes by private car. The airport attracts customers from within a fairly small catchment area (Essex, Cambridgeshire, Hertfordshire, suburban areas to the North East of London).

Business travellers tend to work for companies from the very small to the very large. While the distribution of travellers among these organisational sizes is fairly even, companies with more than 10,000 employees had the highest frequency of traveller, accounting for some 20% of the market. The industries employing the respondents were diverse. The most frequently identified were the manufacturing, services and oil industries. Information technology, telecommunication, pharmaceuticals and education were also identified as industries representing a sizable market for business travel.

More than a third of all respondents indicated that the organisation for which they work employs some personnel with responsibility for the management of corporate travel expense. Some 60% of companies had a written travel policy. Although the policies were, on the whole, flexible in nature, it does imply that organisations have some influence over their staff with regard to business travel. While those in senior corporate positions tended to view these policies positively, respondents in positions further down the corporate hierarchy had less positive opinions. This may be explained by the fact that travel policies tend to favour those in higher corporate positions.

Business travellers tend to select their own trip itineraries, however, they tend to let others in their organisation book the flights. Most tickets are purchased from

specialist business travel agents, and paid for on a business account. A quarter of tickets are full fare. Larger organisations tend to purchase higher revenue tickets, while it would seem that the smallest companies tend to shop around for cheaper tickets, and thereby incur some restrictions on their ticket (such as booking restrictions and stop-over requirements).

The business air travel market is populated by high frequency purchasers. The average traveller makes in excess of 16 trips per annum, the number of trips being influenced by the industry in which he is employed.

The core product elements (see section 2.2) are most important to the individual business traveller. Flight times and direct routes were identified as the most important elements of the airline product. Price was identified as being of low importance to most traveller, while it was the single most important consideration to their employing companies. Recent studies (American Express, 1993/4, Cook, Davies, and Haver, 1994) indicate that travellers choice may well be reduced by their employing company, and thus this result may well have an affect on the market in the coming years.

The next chapter analyses three benefit market segments identified through the application of the factor and cluster analyses described in chapter 6 to assess the evidence of the hybrid nature of the business travel market.

CHAPTER 8: BENEFIT SEGMENTATION ANALYSIS

INTRODUCTION

A detailed description of the data collected by the application of the research instrument was given in chapter 7. This chapter provided a preliminary analysis of the structure and behaviour of the business air travel market by profiling the three classes of stakeholder in the purchase decision process.

Having gained a preliminary understanding of the market, attention may now be turned to the research hypotheses. Sections 8.1 and 8.2 detail the results of an analysis to investigate the first pair of research hypotheses:

1H_0 = All passengers travelling for business purposes seek similar groups of benefits from short haul air travel.

1H_1 = Business derived air travellers may be assembled into market segments based on the group of benefits they seek from short haul air travel.

Six underlying benefits sought by the traveller are identified through a factor analysis in Section 8.1. Three market segments are shown to exist through the application of a cluster analysis (Section 8.2). A profile of each of the market segments is constructed. The second research hypothesis, i.e. whether the membership of these market segments is influenced by the organisation which employs the traveller, is addressed in Section 8.3. The chapter concludes with a summary of the results section of this thesis.

8.1 FACTOR ANALYSIS

It has been previously indicated (Section 6.2.1) that factor analysis assists in the understanding of complex relationships by identifying any underlying factors, components or elements that generate those relationships. By completing Question 29 of the survey, respondents have evaluated the importance of a number of product elements often offered by airlines. This analysis aims to identify which are the key underlying benefits that respondents seek from the purchase of air services.

In Section 6.2.1 two reasons for undertaking a factor analysis were propounded. The first was to reduce the duplication in the data set by identifying the key benefits sought. The analysis achieves this by identifying variables that inter-correlate. The second was to extract factor scores for each respondent for each of the key benefits identified. It is these scores that were subsequently used in the analysis to identify benefit segments (Section 8.2).

As indicated in Chapter 6, a four stage analytical methodology was applied to the data. In the first stage a correlation matrix was constructed (see Appendix X). This matrix displays the correlation coefficient of each variable (i.e. product element) with every other variable. The factor analysis algorithm uses this matrix to identify the common factors. From the matrix it is apparent that a number of variables are highly correlated. For example, variables I4 and I5 (ticket price and ticket discount) have a 0.79 correlation coefficient, timing of outward flight and timing of return flight (I1 & I2) have a correlation coefficient of 0.60, and a number of other variables are notably correlated (e.g. ease of reservation and lack of ticket restrictions, in-flight service and seat comfort, etc.).

The number of factors present in the data set are determined in the second stage of the analysis. Six factors were identified as having Eigenvalues greater than 1, and thus meeting Kaiser's selection criterion (1960). These six factors account for 60.6% of all

the total variance in the data set. The third stage of the analysis involves the rotation of the factor scores matrix, by a varimax algorithm, to enhance the interpretability of the factors. Appendix V shows the rotated factor matrix.

The factor loadings may be analysed to interpret the nature of the common factors. For each of the six factors a loading is calculated for each product element. The product elements that associate most closely with a specific factor may be identified by the magnitude of the factor loading. Product elements that registered a factor loading of a magnitude greater than 0.5 were considered important when interpreting the nature of the factor. A similar criterion was used by Matear (1991) in an analysis of the short sea ferry market, and this criterion was suggested as being suitable by Willson (1991) in a study of lifestyle, reported at a conference concerned with modelling technique applications in the field of marketing.

Interpretation of the nature of the factors is useful in gaining a greater understanding of the underlying key benefits that affect the purchase of air services. Table 8.1a-f list the six factors and indicates the important constituent product elements. The names that have been given to the factors have been chosen by the researcher to provide a description of the product factors that gained high factor loading in each factor.

Product Element	Description	Factor Loading >0.5
13	Return Boarding Card	0.60
14	Business Lounge Available	0.67
15	City Centre Check-In	0.79
16	Business Class Check-In	0.70
19	Duty Free	0.64
20	Frequent Flier Scheme	0.57

Table 8.1a: Factor 1 - Business Travel Exclusivity & Added Value

Product Element	Description	Factor Loading >0.5
17	In-flight Service	0.62
18	Seat Comfort	0.71
21	Punctuality	0.76
22	Past Experience of Airline	0.71
23	Safety Record	0.59

Table 8.1b: Factor 2 - Comfort & Experience

Product Element	Description	Factor Loading >0.5
6	Ease of Reservation	0.63
7	Lack of Ticket Restriction	0.59
9	Seat Allocation at Reservation	0.63
10	Parking Assistance	0.59
11	Quality of Ground Service	0.64

Table 8.1c: Factor 3 - Air Service Usability

Product Element	Description	Factor Loading >0.5
4	Ticket Price	0.91
5	Price Discount	0.86

Table 8.1d: Factor 4 - Price

Product Element	Description	Factor Loading >0.5
1	Timing of Outward Flight	0.86
2	Timing of Return Flight	0.86

Table 8.1e: Factor 5 - Scheduling

Product Element	Description	Factor Loading >0.5
12	Local Airport	0.80

Table 8.1f: Factor 6 - Local Airport

It will be noted that the sixth factor (local airport) has only one product element closely associated with the factor, and it may be questioned as to why that factor has been included as, in this particular case, factor extraction has not help reduce the number of variables. Principal component analysis is performed in such a way that there can be as many principal components as there are the original variables. Therefore, a method of deciding how many common factors exist must be selected. The reason that factor is included as a separate factor is that, although only one product element is closely associated with it, the factor meets the criterion for selection as a factor that had been set; i.e. Eigenvalue greater than one (see section 6.2.1). It is perhaps surprising that this product element is not more closely associated with the fifth factor, however, as the analysis revealed the item as a separate key purchase benefit it is decided to include the factor.

8.1.1 ANALYSIS OF COMMON PURCHASE FACTORS

The principal component analysis performed on the importance ratings given to the various product elements by the respondents identified six common purchase factors (i.e. benefits). To develop further the analysis of the short haul business travel market started in chapter 7, it is worthwhile from a marketing perspective to develop a profile of the respondents that viewed particular benefits as being important and not important, because as Saunders notes *"the results from exploratory factor analysis can help the interpretation of the clusters"* (1994, p.16). It may be remembered that a benefit segmentation involves identifying groups of consumers that seek a similar bundle of benefits in the purchase. This analysis of each individual key benefit, while providing useful information regarding the nature of the business travel market, is not,

it should be emphasised, a market segmentation. However this analysis does fall within the scope of this research given its research objective.

The subsequent six parts of this section each consider a key purchase benefit. The method employed to carry out this analysis is to undertake chi-squared tests of independence on the product elements that closely associate with each key benefit, with the demographic and behavioural data collected about the three stakeholders in the purchase of air travel. It should be noted that the chi-squared analysis of independence was chosen as a suitable analysis method as all the variables selected for investigation, including age, number of trips, and trip length, were collected as categorical data (this can be seen by examining the questionnaire in Appendix III). Consequently analytical techniques that are suitable for continuous data, such as analysis of variance have not been employed. Multiple discriminant analysis was considered as a suitable technique, however, not employed as it requires predictor variables to have a normal distribution which is not the case with this data set.

Tables 8.2 - 8.7 show the results of a number of the tests of independence. Each table refers to one key benefit (or factor) in the purchase of business related air travel. The tables show the product element tested for independence, the demographic or behavioural variable against which the product element is being tested, and the p-value from the test. The p-value is probability that, due to chance sampling error, the hypothesis that the two variables are not independent will be accepted when this is not true. A 95% confidence level for the tests was adopted, however, a number of variables have been included in these tables that fall marginally outside this level. These tests are marked “*”.

Factor 1: Business Travel Exclusivity & Added Value

The most important elements identified in Factor 1 seem to be those that distinguish the business traveller from those travelling for other purposes. It may be surmised that those respondents who gave high scores to product elements such as exclusive business class check-in, the availability of a business class lounge, and membership of a frequent flier scheme may be looking for business travel exclusivity (i.e. seeking status), or may wish to see additional value for business class products.

The chi-squared test of independence is used to identify where significant differences exist between the demographic and behavioural profile of respondents in terms of the importance attached to the various product elements. Table 8.2 shows which demographic and behavioural data variables are significantly different.

The major findings of the investigation of these cross-tabulations can be highlighted. The analysis reveals that older travellers are more likely to place a higher value on a return boarding card that is issued on departure than their younger counterparts. 19.0% of travellers aged over fifty five thought this facility to be of high importance compared with only 9.4% of respondents aged forty five to fifty four and 8.4% of those aged thirty five to forty four. This facility was rated significantly more important by those using Apex and monthly return tickets than those on the normal single or return fare type. It is not surprising that those passengers holding these ticket types rate this facility higher as holders of these ticket types must book their return flight at the same time as they check-in for the outward flight, and therefore, passengers are more likely to have planned their full schedule in advance. The return boarding card facility was more highly valued by those making day return trips than those on longer trips.

Those respondents who worked for organisations where a travel policy was set by either the company director or a travel manager was more likely to value the

availability of a business lounge higher than those in other companies. This would seem to indicate that those who worked for companies where a travel policy was more formally recognised would expect more from the service they receive. Those travellers that pay for their air travel either on a company account or by using a company credit card are the most likely to value a business lounge more than those who pay for their air travel themselves. This would seem to indicate that as long as someone else is paying for the ticket, travellers are likely to place high value on service items that accrue benefit to themselves and not their organisation.

Product element	Variable	Significance level
Return boarding card	Age	0.01355
Return boarding card	Fare type	0.05560 *
Return boarding card	Trip length	0.02996
Business lounge	Travel policy maker	0.00331
Business lounge	Ticket source	0.05282 *
Business lounge	Method of payment	0.01755
Business lounge	Number of trips	0.01782
Business lounge	Trip length	0.09971 *
City centre check-in	Age	0.05183 *
City centre check-in	Travel policy	0.04278
City centre check-in	Flight selection	0.04120
City centre check-in	Trip length	0.00682
City centre check-in	Sex	0.03339
Business class check-in	Ticket source	0.00930
Business class check-in	Method of payment	0.04755
Business class check-in	Number of trips	0.00029
Business class check-in	Age	0.03898
Duty free	Age	0.00081
Duty free	Ticket source	0.00238
Duty free	Method of payment	0.01903
Duty free	Number of trips	0.07501 *
Duty free	Sex	0.00098
Frequent fly programme	Number of trips	0.00000
Frequent fly programme	Trip length	0.01060

Table 8.2: χ^2 Tests of Independence for Product Elements closely associated with Factor 1

The analysis shows that as the numbers of trips made in a year increases, the value placed on a business lounge also rises. Only 7.2% of travellers who had made less than five trips in the past twelve months rated this service as highly important in comparison to the 23.4% of travellers making forty or more trips who rated this service similarly.

The age, and sex of a traveller were identified as significant descriptor variables with regard to respondents' opinions of the importance of a city centre check-in service. Older travellers and female travellers assessed such a service significantly higher than the population as a whole.

The use of an exclusive business class check-in was rated by respondents of the highest corporate positions as being more important than those lower in the corporate hierarchy. 14.1 % of A respondents rated this facility as highly important and a further 12.9% thought it to be fairly important. These proportions are higher than those for respondents in the B (10.1% and 11.7%) or the C1 classifications (8.7% and 10.1%). A traveller's age and the number of trips he/she makes during a year also indicate the importance placed on this service. Older travellers and those that travel more frequently rate exclusive business class check-ins as more important than their younger counterparts who travel less frequently.

The analysis reveals that duty free shopping is not of high value for most business travellers. Those who had their flights paid for by their clients rated this element as more important than other travellers. The analysis shows that the attraction of duty free shopping diminishes with age, and with the number of trips made during the year. It is those travellers in the 18-24 age band, and those that travel least frequently that value this facility most highly. Finally, women rate this facility with more importance than their male counterparts.

It is not surprising that those who travel more frequently, and thus can reap the rewards, value frequent flier schemes more highly than those who travel less. 32.9% of those travellers who have made in excess of forty trips during the past twelve months rated this facility as highly important, while only 5.4% of first time travellers placed similar importance on the facility.

This analysis of the elements that contribute to the first factor reveals that the most frequent travellers, and those in the highest corporate positions seek exclusive service and added benefit from the consumption of their air travel.

Factor 2: Comfort & Experience

Factor 2 may be interpreted as an element of air services in which consumers seek in-flight comfort and determine current purchase behaviour based on positive previous experiences of an airline's quality.

Product element	Variable	Significance level
In-flight service	Travel policy maker	0.09736 *
In-flight service	Home location	0.05178 *
Seat comfort	Ticket source	0.00079
Seat comfort	Method of payment	0.01726
Seat comfort	Age	0.08979 *
Punctuality	Size of organisation	0.02858
Punctuality	Flight booked by	0.08261 *
Punctuality	Ticket source	0.09686 *
Punctuality	Fare type	0.02938
Past experience	Industrial activity	0.08900 *
Past experience	Travel policy maker	0.08373 *
Past experience	Ticket source	0.04228
Past experience	Number of trips	0.00004
Safety record	Travel management	0.05787 *
Safety record	Trip length	0.03282
Safety record	Age	0.04610
Safety record	Work location	0.08844 *

Table 8.3: χ^2 Tests of Independence for Product Elements closely associated with Factor 2

Table 8.3 show the demographic, industrial and behavioural variables that were identified as being significantly different with regard to the importance of in-flight service, seat comfort, punctuality, past experience of an airline or an airline's safety record.

With regard to in-flight service the findings were not particularly interesting. Those people who were employed by organisations that have a formalised travel policy set by the travel department rated in-flight service more highly than those working for other companies. The fact that in-flight service was considered, on average, to be not highly important (see figure 7.4) may imply that all travellers expect a certain minimum level of in-flight service in the EU market. The fact that the past experience of an airline contributes to this factor implies that consumers may continue to purchase this key benefit based on previous experience until the consumer has a bad experience and switches airline.

Those who travelled more frequently and were above 55 years of age were significantly more likely to rate seat comfort as more important than the survey population as a whole.

Past experience of an airline seemed to be affected by industrial characteristics. The travellers who were employed by those companies where the travel policy was set by the directors or travel manager placed more importance on past experience of an airline than other respondents. It is not surprising that as the number of flights taken during a year increases, the importance placed on past experience of an airline also increases. 36.8% of respondents taking more than twenty flights in the last twelve months, while only 10.8% of first time fliers, though this factor important.

Factor 3: Air Service Usability

Making a ticket easy to purchase, offering a fully flexible ticket, and ensuring a high quality of ground service improves the ease with which a consumer may use an air service. The third factor indicates that another key element considered in the purchase decision of an air service may be the ease with which a consumer can use the service. Table 8.4 shows the variables which affect the product elements that contribute to the third factor.

The size of an organisation, and its policy affects the importance placed on the ease with which a flight may be reserved. Small companies, with less than a hundred employees rated ease of reservation significantly higher than those in larger organisations. 26.5% of travellers working for small companies rated this product element as highly important compared to only 18.2% of travellers working for medium size organisations. The importance placed on this factor rises again for large companies with over a thousand employees, with 21.9% of travellers employed in this sector rating ease of reservation as highly important.

Those working for companies that did not have a travel policy rated ease of reservation more highly than those that did. This result may support the previous finding. It is probable that small companies are less likely to have travel policies and those who worked for small companies rated this feature highest.

Ease of reservation was identified as an element that becomes significantly more important to travellers as they travel more frequently. This element is also more important to those travellers who are directly involved in the purchase of the ticket. Those who purchase tickets with their own money (35.3%), and those pay by credit cards (32.6%) value the ease with which they can reserve their ticket as highly important. This figure is significantly higher than for travellers less involved in the purchase. For example, only 19% of those respondents, who indicated that tickets

were paid for on a corporate account with a travel agent, rated ease of reservation as of high importance. The degree to which a traveller is involved with the purchase of a ticket also influenced the value placed on the flexibility of a ticket. Those more involved with the ticket purchase (i.e. those paying for it personally, and those charging the ticket on a credit card) wanted more ticket flexibility than the rest of the population.

Product Element	Variable	Significance level
Ease of reservation	Size of organisation	0.05800 *
Ease of reservation	Travel policy	0.01545
Ease of reservation	Travel policy maker	0.08244 *
Ease of reservation	Flight booked by	0.09155 *
Ease of reservation	Method of payment	0.00776
Ease of reservation	Budget method	0.02251
Ease of reservation	Number of trips	0.01249
Lack of restrictions	Method of payment	0.01242
Lack of restrictions	Trip length	0.03288
Seat allocation	Industrial activity	0.04557
Seat allocation	Travel policy	0.06636 *
Seat allocation	Travel policy maker	0.00984
Seat allocation	Flight selection	0.03663
Parking assistance	Travel policy	0.08213 *
Parking assistance	Travel policy maker	0.06536 *
Parking assistance	Number of trips	0.00927
Parking assistance	Age	0.05223 *
Parking assistance	Work location	0.04374
Ground service	Trip length	0.08526 *
Ground service	Age	0.01369

Table 8.4: χ^2 Tests of Independence for Product Elements closely associated with Factor 3

Those travellers who paid for their air fare with their own money placed a significantly higher importance on a ticket that did not contain restrictions, than those who had their fare paid by others. 28.1% of those in this group rated lack of ticket restrictions as highly important compared to 22.9% of the travellers who paid for their ticket by using a company credit card, and only 14.7% of those travellers whose fare was paid directly by their employing company.

With regard to the quality of the ground service, the research shows that older travellers are more likely to value this service as highly important. Greater awareness of ground services is likely to develop as business people travel and gain greater experience of air services.

Factor 4: Price

The fourth factor is concerned with the price of air travel. Table 8.5 shows that the importance placed by business travellers on price is dependent upon the size of organisation for which they work, their hierarchical position within the organisation, and the travel management policies of the organisation. The findings for ticket discount were fairly similar to those for ticket price so the latter will only be considered in the analysis below.

Business travellers who work for small companies consider the price of air travel to be more important than those who work for larger companies. 31.0% of those employed in companies with less than a hundred employees rated ticket price as highly important. This figure compares to only 16.8% of travellers working for medium size companies, and 19.2% of travellers working for companies with more than a thousand employees.

Analysis indicates that ticket price is more important to respondents in the highest corporate positions. 25.2% of travellers in the A social classification rate price as highly important. This figure drops to 21.1% of those in the B classification and 20.8% in the C1 grouping.

It is interesting that the price of a ticket is more important to respondents who work for companies without a travel policy, when considered with the finding that small

companies rate ticket price more highly than larger companies. This may indicate that the price of air travel represents a large expenditure for a small company, and although a formalised travel policy may not be developed the expenditure is important. Indeed those travelling on the cheapest tickets, Apex fare, placed the highest store on the price of the ticket purchased. 47.4% of travellers holding an Apex ticket thought price to be highly important while only 18.0% of travellers who held a full fare ticket rated this element to be important.

Product Element	Variable	Significance level
Ticket price	Size of organisation	0.00000
Ticket price	Hierarchical position	0.03079
Ticket price	Travel management	0.07341 *
Ticket price	Travel policy	0.00009
Ticket price	Travel policy maker	0.00810
Ticket price	Flight booked by	0.00000
Ticket price	Ticket source	0.00164
Ticket price	Method of payment	0.00000
Ticket price	Budget method	0.01584
Ticket price	Fare type	0.00000
Ticket price	Trip length	0.01713
Ticket discount	Size of organisation	0.00394
Ticket discount	Travel policy	0.00208
Ticket discount	Flight booked by	0.00069
Ticket discount	Ticket source	0.00002
Ticket discount	Method of payment	0.00000
Ticket discount	Budget method	0.04951
Ticket discount	Fare type	0.00004
Ticket discount	Trip length	0.00125

Table 8.5: χ^2 Tests of Independence for Product Elements closely associated with Factor 4

This analysis would seem to indicate that some part of the business travel market is trying to minimise expenditure, while another part of the market may consider other purchase factors to be more important.

Factor 5: Scheduling

Analysis of factors 5 (scheduling) indicates that these factors are not particularly important to any one group of consumers based on individual variables such as age, and sex. This result may indicate that these items are of fairly equal importance to all business travellers and that a minimum core product needs to be provided by any airline wishing to serve this population.

Product Element	Variable	Significance level
Time outward flight	Size of organisation	0.03201
Time outward flight	Hierarchical position	0.01025
Time outward flight	Flight selection	0.03016
Time outward flight	Ticket source	0.00029
Time outward flight	Method of payment	0.00882
Time return flight	Industrial activity	0.00299
Time outward flight	Hierarchical position	0.03466
Time outward flight	Flight selection	0.09549 *
Time outward flight	Ticket source	0.05416 *
Time outward flight	Method of payment	0.08491 *

Table 8.6: χ^2 Tests of Independence for Product Elements closely associated with Factor 5

Those in the B social classification rated the timing of the outward flight as being highly important was lower than those in the A and the C1 classifications. 51.9% of B group travellers thought this element to be highly important, compared to 66.9% of those in the A grouping and 67.6% in the C1 group. This would seem to suggest that those in the B grouping tend to place less importance on arriving on time to meet their business commitments, than those in other social groups.

71.8% of those travellers who indicated that their choice of flight was made to coincide with their business schedule rated the importance of outward flight time very highly. This figure is significantly higher than the 57.5% of those travellers who indicated that their flight was selected by their travel manager or department. This

seems to suggest that the degree with which a traveller is involved in flight arrangements will affect the importance that he/she places on the scheduling of the trip.

Factor 6: Local airport

The sixth purchase factor was identified as being flight from a local airport. Table 8.7 shows that the two variables that affect this factor are geographic. Analysis of these variables show that those living or working in either Stansted catchment region, or Scotland where Air UK has a strong presence, rate this factor significantly higher than those who live and work in other areas.

Product Elements	Variable	Significance level
Local airport	Home location	0.00000
Local airport	Work location	0.00010

Table 8.7: χ^2 Tests of Independence for Product Elements closely associated with Factor 6

Having considered the nature of the six identified factors the final stage of the factor analysis involved the calculation and recording of the factor scores for each respondent. It is these factor scores that were used to undertake the cluster analysis, which will be considered in section 8.2 below.

8.2 THE FIRST RESEARCH HYPOTHESIS

Section 4.2.3 identified two research hypotheses. The first hypothesis, below, can now be evaluated.

1H_0 = All passengers travelling for business purposes seek similar groups of benefits from short haul air travel.

1H_1 = Business derived air travellers may be assembled into market segments based on the group of benefits they seek from short haul air travel.

Section 6.2.2 detailed the analytical method by which a benefit segmentation analysis was undertaken. Principal component analysis discovered six key purchase benefits from importance ratings placed by the respondents on twenty three product elements. Factor scores for these six factors were calculated and saved for further analysis. An iterative partitioning method of cluster analysis was applied to the six factor scores stored for each respondent. A robust three cluster solution was identified in the data. Therefore, it may be stated that the analysis has identified three market segments based on the key benefits sought in the purchase of air services.

Having regard of the outcome of the cluster analysis (i.e. that three clusters were identified in the data), the null hypothesis 1H_0 is rejected and the alternative hypothesis is 1H_1 therefore accepted. This acceptance of the alternative hypothesis on the following basis:-

- ◆ Four sources (literature search, researcher's experience in the field of air transport, case studies of travel managers, consultation with market research experts) were drawn upon in an endeavour to ensure the content validity of the research instrument.
- ◆ The data collected on the rating scale has been tested to evaluate its suitability for factor analysis.
- ◆ The reliability of the data collected on the rating scale was examined, and the results of this examination provide evidence of the scale's reliability.
- ◆ Six key benefits sought in the purchase of short haul business air travel have identified by the application of a principal component analysis. These

six benefits account for 60.6% of the variance of the data.

- ◆ Factor scores for each respondent for these six benefits were calculated and an iterative cluster analysis discovered three clusters in the data. The validity of this solution is supported by the results of two cross-validation procedures.

8.3 PROFILE OF MARKET SEGMENTS

The purpose of this study is to gain a detailed understanding of the short haul business air travel market. The analysis that has been carried out has identified three segments within this market. It is appropriate that the structure of the entire market is identified and a profile of each of the market segments constructed so that the market may be understood as fully as possible, in order that a marketing strategy may be developed.

To begin the investigation of the identified market segments, the mean factor scores for each segment, or cluster centre show how each segment rates the importance of each factor differently. Table 8.2 shows the cluster centres for the three identified clusters.

Cluster	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
1	0.1896	0.2447	-0.0560	0.1852	-0.5291	1.4515
2	0.1238	-0.0420	0.1860	0.5351	0.7038	-0.2326
3	-0.2056	-0.0685	-0.1564	-0.6049	-0.4500	-0.4221

Table 8.8: Mean Factor Scores for Identified Clusters

These data can be used to develop wheel diagram profiles of each cluster (see Figures 8.1, 8.2, and 8.3). A wheel diagram is a two-dimensional figure. For each factor an axis is drawn from a central point, thus forming a spoke of a wheel shape. Each spoke is scaled from -1 at the central point to +2 at its outermost point. A dotted line joining

the zero point on each spoke shows where importance of a factor is neither high nor low. Each cluster has its mean score for each factor plotted on a wheel diagram and the points joined to form a profile. Where a factor score is positive it is plotted outside the dotted line. These diagrams show the characteristics of each cluster in terms of the profile that is created. The shape of the profile for each cluster can be compared to identify which items are most important (points inside the dotted line) and least important (points outside the dotted line) to the cluster.

The Market for Business Air Travel

Table 8.9 shows the proportions of the market represented by each cluster (i.e. market segment).

Segment	Proportion of the market
1	18.5%
2	40.3%
3	41.3%

Table 8.9: Market Segments

Each segment is populated by demographically similar travellers. No statistically significant differences were found between the segments for age, company size, industrial activity or industrial travel policy. The travel behaviour was also similar in terms of the number of trips made per annum and also the length of the current trip being undertaken. Considering that the market under investigation is populated by fairly similar consumers in terms of their demographic characteristics, it is not surprising that an analysis based on the key benefits sought has not been able to distinguish between respondents in terms of these "hard" data items. While there are no statistically significant differences for these variables a number of identifying

characteristics can be found. Table 8.10, below, shows the independent variables which differ significantly between the three segments using the chi-squared test of independence. Once again a 95% confidence level for the tests was adopted, however, the reader will note that one of variables (marked “*”) included falls marginally outside this level. It may be noted again that the chi-squared test of independence is a suitable analytical technique to apply as all the variables investigated are of a categorical data type.

Variables that influence segment membership	Significance
Corporate position	0.04324
Travel policy decision making	0.05349 *
Class of travel for directors	0.03729
Class of travel for senior managers	0.00300
Class of travel for other managers	0.00925
The ticket source (distribution)	0.00732
The fare type	0.00014
The payment method	0.01279
Gender	0.01499
Geographic location of home	0.04569
Geographic location of work	0.00106
Product elements 1 to 22	0.00000

Table 8.10: Segment membership explanatory variables significance levels

From Table 8.10 the behavioural and demographic profiles of the three identified market segments can be summarised. This is shown in Table 8.11.

	Cluster 1 (%)	Cluster 2 (%)	Cluster 3 (%)
Corporate position			
A	60.6	49.6	59.4
B	27.5	41.7	30.3
C1	11.9	8.8	10.2
Gender			
Male	93.6	90.4	84.0
Female	6.4	9.6	16.0
Fare Type			
Full fare	30.3	23.3	21.4
Pex	16.5	18.6	20.2
Apex	7.3	8.9	18.9
Monthly return	9.2	7.6	7.4
Euro budget	14.7	6.4	13.2
Don't Know	20.2	34.3	17.7
Ticket Source			
Direct from Airline	12.7	9.2	20.7
Self write ticket	0.9	3.3	2.8
Business travel agent	66.4	65.4	56.9
General travel agent	13.6	14.6	14.6
Don't know	2.7	6.7	2.4
Travel policy decision making			
Director	61.3	54.3	52.4
Travel manager	13.3	13.1	12.9
Departmental manager	9.3	8.0	6.5
Finance department	1.3	9.7	7.1
Traveller	6.7	3.4	12.9
Don't know	8.0	10.9	6.5
Payment method			
Traveller	16.4	8.4	19.6
Company account	69.1	77.7	61.6
Company credit card	11.8	8.8	13.1
Residential region			
Stansted territory	44.5	53.8	56.1
Within M25	8.2	6.3	4.1
Scotland	5.5	8.8	13.8
Anglia & Midlands	10.9	9.2	8.1
West of territory	4.5	5.4	2.8
Not stated	17.3	11.3	10.6
Work region			
Stansted territory	27.3	34.2	36.6
Within M25	30.9	20.0	15.0
Scotland	7.3	12.1	16.3
Anglia & Midlands	10.0	6.3	5.7
West of territory	4.5	5.8	3.7
Not stated	16.4	14.2	18.7

Table 8.11: Market segments behavioural and demographic profile

It was indicated in table 8.10 that the membership of each cluster was dependent on the importance placed on product elements 1 to 22. Table 8.12, below, shows the proportion of each cluster that rated each of these significant product elements with high importance.

High Importance of Product Elements	Cluster 1 (%)	Cluster 2 (%)	Cluster 3 (%)
Timing of outward flight	83.6	30.4	83.7
Timing of return flight	70.0	22.9	74.0
Flight frequency	43.6	7.9	43.1
Ticket price	16.4	5.4	41.1
Ticket discount	9.1	2.5	32.1
Ease of reservation	19.1	9.2	34.6
Lack of ticket restrictions	19.1	6.3	26.0
Direct route	60.0	40.8	66.3
Seat allocation at reservation	19.1	10.8	24.4
Parking assistance	2.7	6.7	17.9
Quality of ground service	10.0	9.6	24.8
Local airport	10.0	52.1	70.3
Return Boarding card	6.4	4.2	14.6
Business lounge available	20.0	5.8	13.0
City centre check-in	1.8	1.7	6.9
Exclusive business check-in	20.0	7.5	10.6
In-flight service	20.0	21.3	31.7
Seat comfort	38.2	40.0	48.0
Duty free available	1.8	2.9	6.5
Frequent flier programme	10.0	11.3	18.7
Airline punctuality	35.5	34.2	56.5
Past experience	21.7	23.3	39.4

Table 8.12: Highly important product elements by market segments

It was suggested in chapter 4 that the second stage of the research would involve investigating the benefit sought in the purchase of air travel by the most important stakeholder, and collecting information regarding the other stakeholders in the purchase so that an assessment of the extent of the consumer and industrial elements in this hybrid market may be made. Tables 8.11, and 8.12 detail the differences between the clusters for the variables listed in table 8.10, and are used to develop a profile of the membership of each cluster. Each of the market segments has been given a name by the researcher. These names are based on an analysis of each segment of the market (these analyses can be found in sections 8.3.1, 8.3.2, and 8.3.3). They are:-

- ◆ Segment 1: The schedule driven segment
- ◆ Segment 2: The corporate cog segment
- ◆ Segment 3: The informed budgeter segment

These profiles will be followed by an evaluation of the second research hypothesis H_2 (section 8.3.4).

8.3.1 PROFILE OF SEGMENT 1: THE SCHEDULE DRIVEN SEGMENT

This cluster represents 18.5% of the sample of business travellers. The membership of this cluster is predominately constructed of travellers who fall into the top social groupings. 60.6% of members fall into the A social classification. While this figure is not greatly different than that for the third cluster (59.4%), it is significantly higher than the second cluster (49.6%) (see table 8.11). A table which highlights the most distinctive elements of this segment is given below (table 8.13). Some of the data given in this table are drawn from tables 8.11, and 8.12, however, the table aims to provide the reader with an aid to comprehending the profile of the segment. It may be noted that the data provided in the section “distinguishing product elements ratings”

are the proportions of the segments that rated product elements with high importance (this is also true for tables 8.15 and 8.16).

93.6% of this cluster are male, which is the highest proportion for all the clusters. It is understandable that more men are found in this segment as there is a significantly higher proportion of segment members who fall into the A social classification. A discussion of the reasons why men populate the higher social classifications in a disproportionate level has already been made (see chapter 7).

	Cluster 1 (%)	Cluster 2 (%)	Cluster 3 (%)
Gender			
Male	93.6	90.4	84.0
Female	6.4	9.6	16.0
Residential Region			
Stansted territory	44.5	53.8	56.1
Within M25	8.2	6.3	4.1
Work Region			
Stansted territory	27.3	34.2	36.6
Within M25	30.9	20.0	15.0
Fare Type			
Full fare	30.3	23.3	21.4
Euro budget	14.7	6.4	13.2
Ticket Source			
Business travel agent	66.4	65.4	56.9
Ticket Booked by secretary	16.5	15.9	10.6
Travel Policy Decision made by Director	61.3	54.3	52.4
Distinguishing Product Elements Ratings			
Business Class Check-in	20.0	7.5	10.6
Business Class Lounge	20.0	5.8	13.0
Flight Frequency	43.6	7.9	43.1
Local Airport	10.0	52.1	70.3
Thought to be most important			
To company	Timing of Flight	Ticket Price	Ticket Price
To traveller	Timing of Flight	Local Airport	Timing of Flight

Table 8.13: Principal distinguishing characteristics of segment 1

A geographic analysis reveals that although 44.5% of this cluster live in close proximity to Stansted airport (defined as Stansted Catchment territory, for regions see Appendix I), members of this cluster are the least likely to live or work in this area than the other segments. Members of this segment are the most likely of the survey population to live within the boundary of the M25 London circular motorway. While only 8.2% live within the M25, 30.9% of members of this segment work in the London area, which is a significantly higher proportion than in other segments, and also shows a higher proportion of commuters.

Members of this cluster are more likely to purchase full fare tickets or Euro budget return tickets than those in other segments. The cost of both these tickets are fairly high compared with other tickets available, but offer more scheduling flexibility. This would seem to suggest that members of this segment are not particularly worried about the cost of a flight but that flexibility is important to them. Knowledge of the type of fare a particular market segment is likely to purchase has implications in terms of targeting a particular group of consumers, and also allows the tailoring of specific product aimed at the market segment.

The majority (64%) of this segment purchase their ticket from a business travel agent, and a significantly higher proportion of this segment than the third segment (16.5%) leaves the responsibility for booking the ticket to their secretary.

With regard to travel management, 61.3% of this segment indicated that the travel policy operated by the organisation for whom they work is set by the directors of the organisation. This figure is significantly higher than for those in other segments. A further discussion of the source of corporate travel policies is given later (see 8.3.4).

The class of travel accorded to those at different corporate levels represented a significantly different travel policy for members of this segment, than those in other segments. Table 8.14 shows that members of this segment work for companies that

are the least likely to reward those of a higher corporate status with a higher class of travel. For all three levels of management, business class travel was the most likely grade of travel to be granted to employees.

An analysis of the importance placed on the various product elements, and summarised in table 8.12, reveals that the key benefits members of this segment seek from an airline service are; flight timings, flight frequency, exclusive business class check-in, and exclusive business class lounge.

Flight Allowance	Cluster 1 (%)	Cluster 2 (%)	Cluster 3 (%)
Company Directors			
First Class	17.7	18.5	20.5
Business Class	64.3	55.5	46.3
Economy Class	18.4	26.0	33.2
Senior Management			
First Class	7.2	3.4	9.0
Business Class	66.0	58.1	46.0
Economy Class	26.8	38.4	45.0
Other Management			
First Class	2.1	0.5	1.0
Business Class	56.3	45.3	35.8
Economy Class	41.7	54.2	63.2

Table 8.14: European Flight Allowance by Managerial Hierarchy

83.6% of the membership of this cluster indicated that the timing of the outward flight was of high importance, and 43.6% rated flight frequency with high importance. Although these figures are similar to those given by members of cluster three, and consequently cannot be used to distinguish between these segments, these product elements are highly important to members of both segments. To distinguish between the two clusters the other data that is used to construct the segment profiles need to be considered.

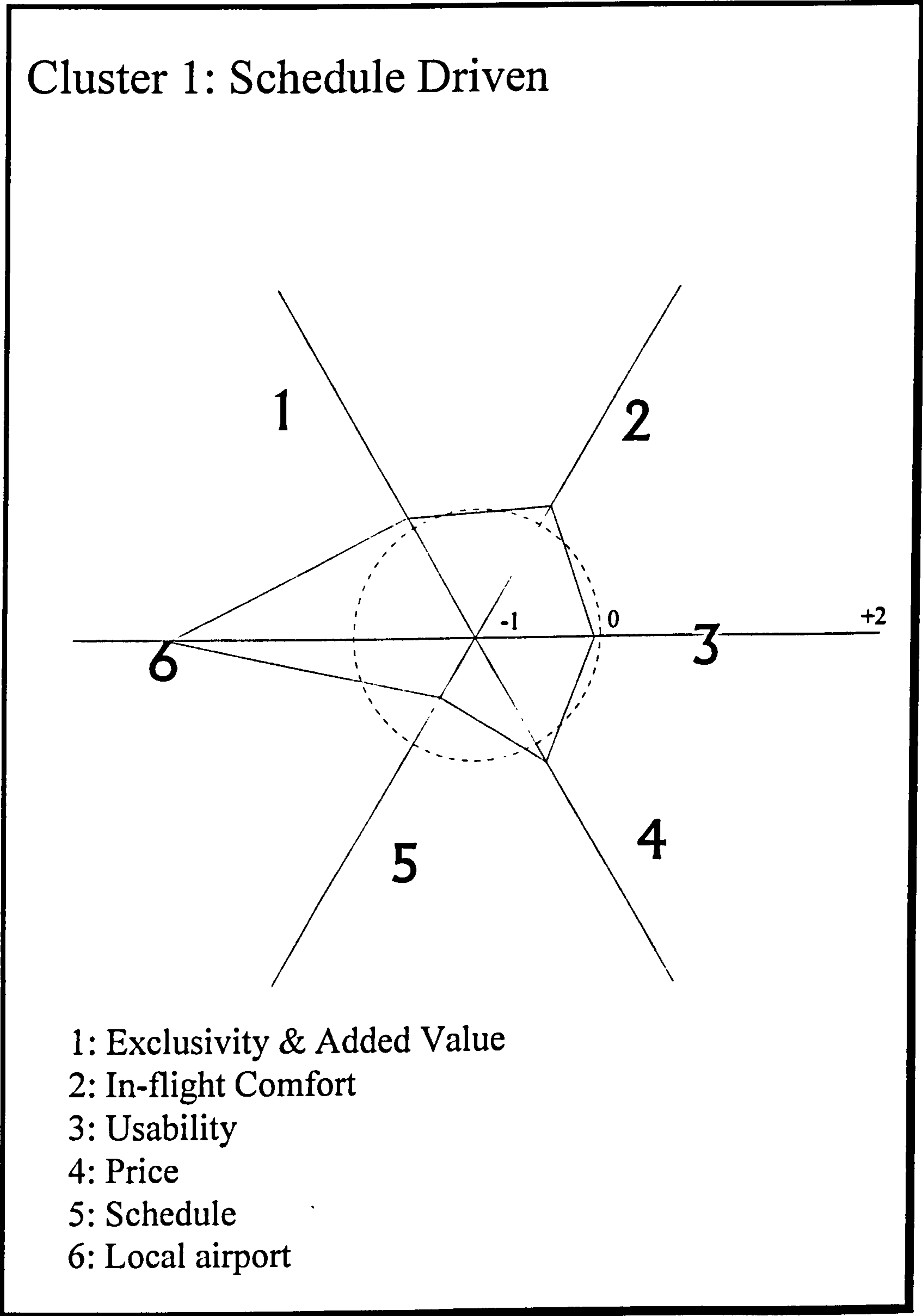
Members of this cluster valued exclusive products aimed specifically at the business traveller more highly than those in other segments. Exclusive business class check-in was rated with high importance by 20%. A similar proportion of this segment thought that the availability of a business class lounge was highly important compared to 13.0% of the third segment and only 5.8% of the second. The importance of these product elements, to members of this segment, may be interpreted in one of two ways. Firstly that members may consider that having paid for a business class ticket, they ought to be rewarded with additional value from the service they receive. Alternatively, members of this segment appreciate these facilities as they make the business trip slightly more comfortable by having a quicker check-in service and a quiet area where they can sit prior to their flight.

Fig 8.1 shows a profile of the average importance placed on the various factors by the membership of this segment. The scheduling elements are shown to fall in the central ring, while the importance placed on the use of a local airport is shown to be very low. This is supported by the figure for local airport given in table 8.13. Combining these elements it would seem that members of this segment would choose an airline on the strength of its schedule and trade this off against the possibility of having to travel from a less local airport. Considering that members of this cluster are the most likely to live within the M25, it is apparent that they should be able to gain fairly easy access to two or maybe three London airports. This may explain why these consumers place a lower value on access to a local airport.

Analysis of the product elements, members of this segment rated with lower importance, reveals that they seem to be unimpressed with many product elements that are not in the core product. Elements providing in-flight comfort such as in-flight service, seat comfort, and duty free shopping were all rated poorly. Both parking assistance and frequent flier schemes were not viewed as a worthwhile benefits to members of this segment. Finally, members of this segment were the least likely to think the past experience of an airline important. Considering the emphasis placed on the core product by this segment it is likely the travellers will select a flight based on the schedule, and therefore loyalty to any one carrier is unlikely.

In response to questions 31 and 32, the largest proportion of this segment indicated that timing of the outward flight was the most important product element to both the traveller, and the organisation. This would suggest that in this segment that the traveller and the “organisation” stakeholders seek a similar principal benefit from an air service.

Fig 8.1: Wheel profile of cluster 1



To summarise the character of this segment, it has been shown that members of this smallest segment are motivated primarily by the core product elements of an airline service; flight timing and frequency. They are the most likely group to work within the M25 motorway, which has implications for targeting. Members of this segment seem prepared to trade-off the convenience of a local airport in order to use an airline which offers a schedule which suits their business schedule. Flight flexibility is important to this segment and they are prepared to pay for a ticket which accrues this benefit. The value of this flexibility seems to be recognised by the organisation for whom members of this segment work, as these organisation set travel policies which tend not to offer additional benefits to those of a higher corporate status.

Considering the nature of this segment it seems appropriate to name it as "schedule driven".

8.3.2. PROFILE OF SEGMENT 2: THE CORPORATE COG SEGMENT

The second market segment of business travellers, identified by the salient benefits they seek, accounts for 40.5% of the sample of business travellers and as such is of obvious importance. The profile given in this section is based on distinguishing characteristics as highlighted in Table 8.15. As for table 8.13, this table is constructed mainly of details from tables 8.11, and 8.12, but they are summarised here to assist the reader.

This segment is populated with a group of consumers whose social profile is not as high as those in other segments. While 49.6% of this segment fall into the highest social classification, it is this segment that is most likely to have members who fall in to the B social grouping. Evidence from the survey suggests that the character of this segment is highly influenced by the corporate position of its members. The research demonstrates that this segment is populated by travellers who are largely uninvolved

in the purchase of their air travel, are not interested in cost of this purchase, and therefore do not value the purchase benefits prominently.

	Cluster 1 (%)	Cluster 2 (%)	Cluster 3 (%)
Corporate position			
A	60.6	49.6	59.4
B	27.5	41.7	30.3
C1	11.9	8.8	10.2
Flight Selection by Traveller	66.4	69.0	72.4
Flight Booked by			
Traveller	22.9	20.1	32.2
Travel Manager	24.8	29.3	21.2
Other(s) in Department	29.4	29.3	31.4
Fare Type Not Known	20.2	34.3	17.7
Distinguishing Product Elements Ratings			
Local Airport	10.0	52.1	70.3
Timing of Outward Flight	83.6	30.4	83.7
Flight Frequency	43.6	7.9	43.1
Ticket Price	16.4	5.4	41.1
In-flight Service	20.0	21.3	31.7
Seat Comfort	38.2	40.0	48.0
Frequent Flier Programme	10.0	11.3	18.7
Thought to be most important			
To company	Timing of Flight	Ticket Price	Ticket Price
To traveller	Timing of Flight	Local Airport	Timing of Flight

Table 8.15: Principal distinguishing characteristics of segment 2

53.8% of this segment reside in the Stansted region, while only 34.2% work in the region. This contrast may be explained by commuting behaviour, indeed while only 6.3% of this segment live within the M25, 20.0% work in this region.

With regard to the purchase of air travel, although 69% indicated that they select their air travel themselves, only 20% book their flights. The responsibility of booking air travel falls to others in the organisation, particularly a travel manager (29%) or others in the traveller's department (29%).

It is interesting that a higher proportion of the members of this segment than those in other segments did not know who decided the travel policy. Members of this segment were also the most likely not to know where their ticket had been purchased or what

type of ticket it was. 34% of this group did not know the nature of ticket they held. It would seem, therefore, that members of this segment select the flight they wish to take and then leave the details of booking, paying for, and collecting the tickets to others within the organisation. This would seem to suggest that members of this segment work for somewhat bureaucratic organisations.

Table 8.14 shows that members of this segment tend to work for companies that allocate the airline seat class based on the corporate hierarchical level of the traveller. This corporate hierarchical bias is more highly pronounced than for those in the first segment. For example, 18.5% of company directors in this segment travel first class while less than 1% of employees at a lower level than senior management are allowed to travel at this class.

An analysis of the importance placed on the various product elements reveals that members of this segment do not rate any single product element higher than either of the other segments, possibly because they are less involved in the air purchase decision. The diagram in Fig 8.2 displays the profile of this segment in relation to the salient factors. It shows that factor 6, local airport, is the most important in this segment, and that price and schedule (factors 4 & 5) are the least important. 52.1% of this segment gave a flight from a local airport with high importance, while only 5.4% placed a similar value on the price of an air ticket (see table 8.15). 44% of this segment thought price was the single most important product element for their company. It would seem, therefore, that members of this segment perceive the organisations for which they work as being cost conscious, and that the benefits the travellers seek from the purchase may be in conflict with the benefits the “organisation” stakeholder seeks. With regard to scheduling, about 84% of those in segments 1 and 3 rate the timing of the outward flight as highly important compared with only 30.4% of this segment.

Fig 8.2: Wheel profile of cluster 2

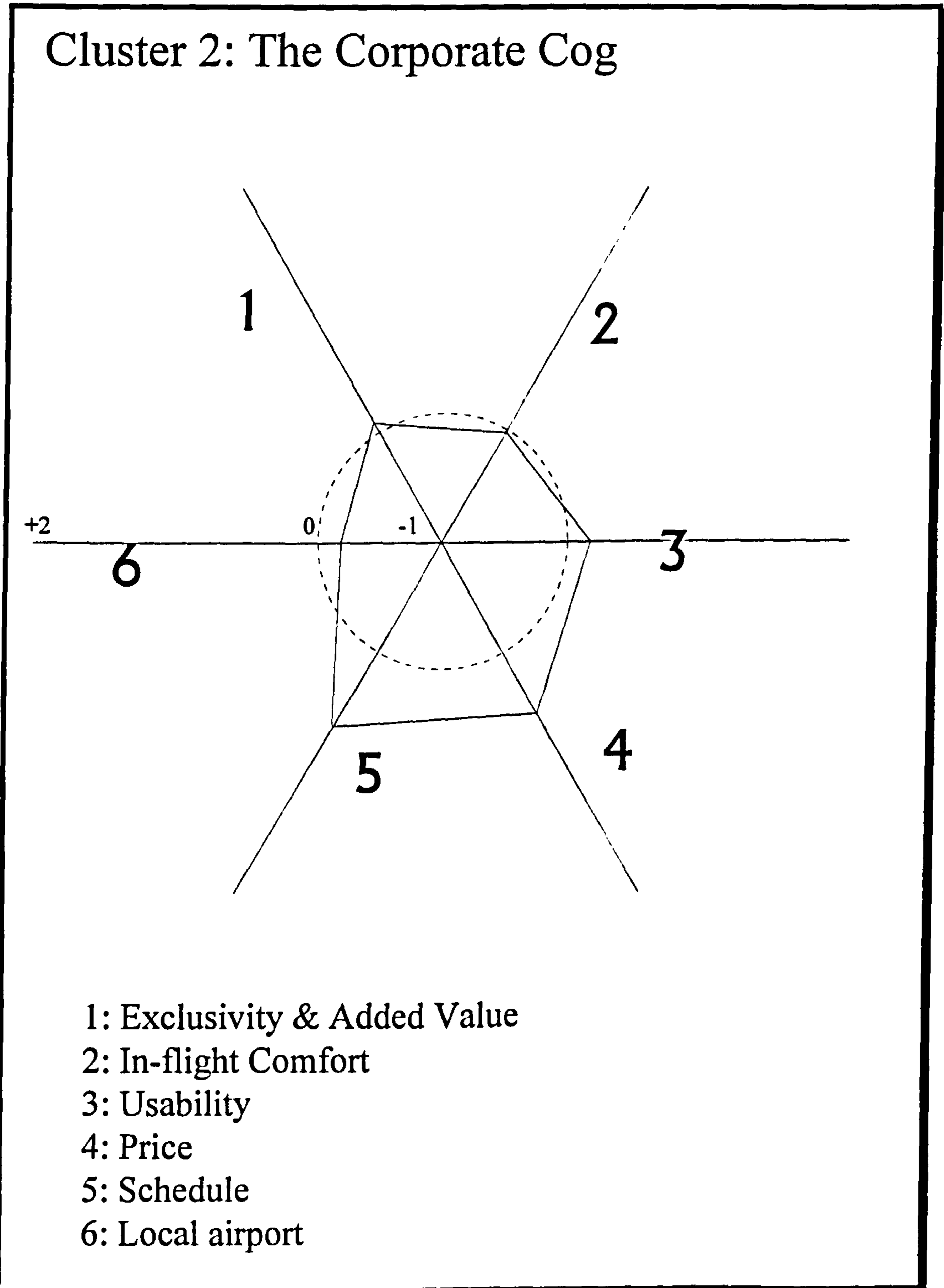


Fig 8.2 indicates that members of this segment value in-flight comfort with importance as its point falls inside the neutral dotted wheel. 48.3% of this segment rated in-flight service as being of "fairly high importance" and 40.0% though seat comfort was of "high importance". This cluster did not rate both these elements lower than the other clusters. The only other product elements that this segment does not value the lowest of the three segments were frequent flier schemes, parking assistance, duty free and past experience of an airline. It would seem, therefore, that these elements seem to be important to this cluster as for all other product elements their rating of the element was the lowest of the three clusters. Of those identified as being important to this segment in-flight service, seat comfort, and frequent flier schemes add benefit to the traveller at the cost of the organisation who pays for the air travel.

This analysis would seem to suggest that the members of this cluster display elements of self interest; the product elements they value highest benefit them as users, but not the organisation that they work for as purchasers. Indeed this segment places very little importance on the price of an air ticket and while they are travelling on company business they do not seem that concerned about what time they arrive at their destination. However they are concerned with the in-flight service and seat comfort, and wish to collect airline benefits from frequent flier loyalty schemes.

The membership of this cluster seems to be composed of less involved or less interested users of airline services. Considering the social profile of the members of this segment (50% of this segment are either Bs or C1s), it may be argued that the lack of importance placed on the various product elements is as a result of the corporate hierarchical bias. While they select their flight, their choices seem to be governed by a travel policy which favours those in the higher corporate positions. They seek benefits that accrue to themselves, and they seem to display a lack of interest in matters that affect their organisation. If, as the analysis seems to suggest, members of this segment tend to work for bureaucratic, cost conscious organisations then it would seem the result of such a corporate culture is to produce employees who look for areas

within their work regime that benefit themselves, possibly at the cost of the organisation. While members of this segment fulfil their corporate duties in such a manner to protect their corporate roles, they endeavour to gain advantage from their organisation in situations which enable them so to do.

To adopt a name for this group of consumers, the author has chosen to call them the "corporate cogs" based on an analysis that reveals their actions are determined more closely by others in the organisation than in the other two segments. Nevertheless, they try to gain personal advantage where this is possible.

This segment represents a part of the market where the influence of corporate stakeholders is important. The control of business travel expenses by organisations in this segment may increase as the liberalisation of air transport in the EU takes effect in the market. As price setting is now an easily changeable marketing variable, organisations may wish to negotiate bulk purchasing deals with airlines that may take choice from the traveller. There would seem to be an opportunity for airlines to develop corporate frequent flier schemes which reward the purchasing organisation rather than the traveller. Scheme such as these may lead to a reduction in the decision making power of the traveller.

8.3.3 PROFILE OF SEGMENT 3: INFORMED BUDGETER SEGMENT

Members of the final segment identified from the benefit market segmentation analysis have been labelled "informed budgeters" as they display a good knowledge of the airline products on offer and consequently, of the three segments, pay the least for their air travel. Again a table for the segment's most distinguishing characteristics is provided to assist the reader (Table 8.16)

This segment accounts for 41.3% of sample of business travellers, and is thereby the largest of the three identified benefit market segments. This segment has a high social profile. 59.4% fall into the A social classification with a further 30.3% in the B grouping. While this profile is fairly similar to that for segment 1, this segment can be separately identified in terms of its geographical location and purchase behaviour.

	Cluster 1 (%)	Cluster 2 (%)	Cluster 3 (%)
Corporate position			
A	60.6	49.6	59.4
B	27.5	41.7	30.3
Residential Region			
Stansted territory	44.5	53.8	56.1
Scotland	5.5	8.8	13.8
Fare Type			
Apex	7.3	8.9	18.9
Pex	16.5	18.6	20.2
Ticket Source			
Direct from Airline	12.7	9.2	20.7
Business Travel Agent	66.4	65.4	56.9
Payment Method			
Traveller	16.4	8.4	19.6
Company Account	69.1	77.7	61.6
Credit Card	11.8	8.8	13.1
Distinguishing Product Elements Ratings			
Ticket Price	16.4	5.4	41.1
Local Airport	10.0	52.1	70.3
Timing of Outward Flight	83.6	30.4	83.7
Ease of Reservation	19.1	9.2	34.6
Lack of Ticket Restrictions	19.1	6.3	26.0

Table 8.16: Principal distinguishing characteristics of segment 3

Members of this segment are most likely to reside in the Stansted catchment area or in Scotland. 56% of this group live very close to Stansted while a further 14% live in Scotland. Air UK gains a large proportion of its market from these geographic locations, and therefore, it would seem that this segment represent Air UK's traditional market.

Analysis of the most popular sales outlets to this segment reveals that these consumers are more likely to purchase their airline tickets directly from the airline, than those in other segments. 20% of this group use this channel at the expense of business travel

agents which have significantly lower penetration in this segment although this source is still important as it accounts for 57% of the business.

With regard to fare type this cluster is the most likely to use the lower classes of ticket. 20% of the respondents in this cluster were travelling on Pex tickets and a further 19% held Apex tickets. These fare types are fairly restricted (see Appendix I) in terms of the reservation flexibility and refund capability. It is this segment that is most likely to pay for the ticket out of their own money (20%) and then claim the expenditure back from their organisation, or to pay by credit card (13%). It would seem that this involvement in the purchase of the ticket, by the members of this segment, leads to a greater awareness about the price of the product, and consequently cost saving behaviour.

Analysis of travel management policies of the organisations which employ members of this segment reveals that these organisations tend to display budgeting behaviour. This behaviour is formalised in their travel policies. Table 8.14 shows that members of this cluster were the least likely to have business class tickets, irrespective of corporate status and most likely to have economy tickets. With regard to policy making, members of this group were significantly more likely to set their own travel policy than those in other segments (see table 8.11). It would seem, therefore, that the members of this segment are also more likely to be policy makers in the organisations for which they work and consequently travel policy is more likely to be based on their knowledge of the market and their own travel budgeting behaviour.

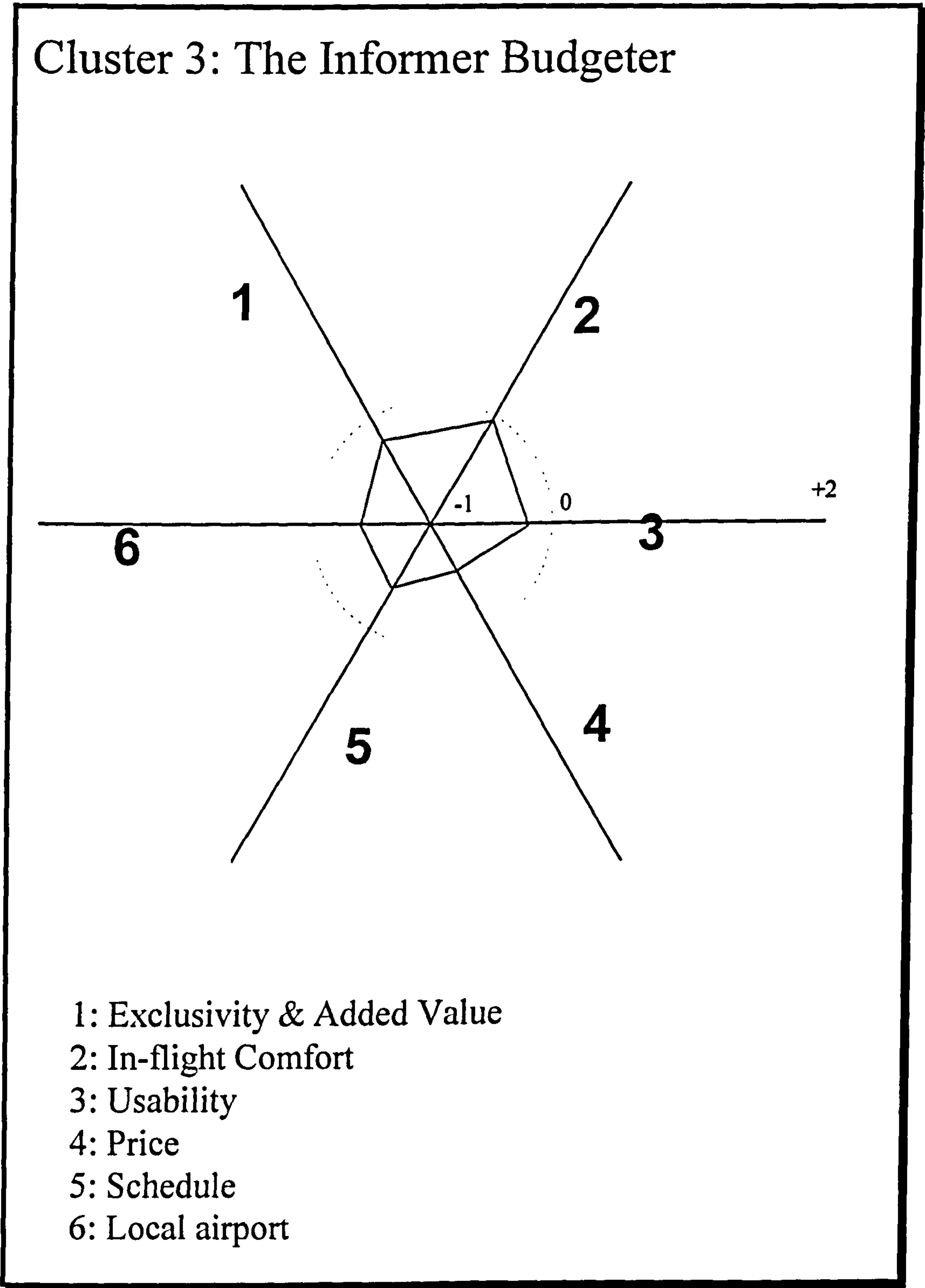
An analysis of the importance placed on the various product elements by the members of this segment indicates that these travellers consider that all the elements of the airline product are important. Fig 8.3 shows that this segment rated all the six identified purchase factors within the central ring, indicating that these respondents thought all these factors to be important. While this profile may indicate that the members of this cluster are less discriminating than those in other segments the

factors that are closest to the centre of the ring; factors 4, 5 and 6, may be identified as the most important to this segment. Factor 4 (price) and factor 6 (local airport) have already been identified as being salient benefits sought by this segment. The scheduling elements of the airline product, flight timing and frequency were both rated as highly important. 83.7% thought the timing of the outward flight to be highly important. While the timing of the return flight was viewed as slightly less important, 74% of respondents in this segment gave this element a rating of "high importance".

35% of this segment rated ease of reservation highly, compared to 19% of segment 1, and only 9% of segment 2. This is not surprising, given that the members are more highly involved in the purchase. Another product element rating that distinguishes this segment is lack of ticket restrictions. The high rating given to lack of ticket restrictions (see table 8.16) seems strange considering the cost conscious nature of the members of this segment, however, it might provide evidence of this segment's greater awareness of the fare types available.

It would seem that the members of this segment travel regularly use Air UK due to their proximity to Stansted airport. Their experience of the airline, and their greater involvement in the purchase has led to a knowledge of the product on offer, consequently the segment is more likely to book directly from the airline, and select the cheapest fare type meeting their requirements. It is this behaviour that indicates that this segment is populated with consumers who know the product well and try to spend as little as possible on their ticket.

Fig 8.3: Wheel profile of cluster 3



8.3.4 THE SECOND RESEARCH HYPOTHESIS

Throughout this thesis the nature of the business travel market has been considered. In chapter 2, it was indicated that this market has elements of both consumer and industrial markets, or in other words, it is a hybrid market. Consequently, a research method suited to this market was suggested. The first stage of the research was used to identify key stakeholders in the purchase, and the second stage involved questioning members of the most important class of stakeholder to identify benefits sought in the purchase, and collect information regarding their relationship with the other stakeholders. This enabled an assessment of the extent of the consumer and industrial elements of the market to be made. Three market segments have been identified in the market, based on the benefits sought by traveller. These segments have been profiled in the preceding sections. It is now appropriate to consider the extent to which the market segments are dependent on the industrial element of this hybrid market. To do this the second research hypothesis, developed in section 4.2.3, will be evaluated. It was:-

2H_0 = The membership of benefit segments in the business-derived short haul air travel market is determined solely by the objectives of the individual traveller.

2H_1 = The membership of a benefit market segment is influenced by people within the organisation that employs the traveller, and/or policies set down by that organisation.

To evaluate this hypothesis it is necessary to investigate the differences in membership of each market segment to discover whether these differences can be attributed to the individual travellers, or whether these differences can be attributed to differences in the organisations that employ the travellers. This can be done by

testing whether the membership of market segments is independent of the data collected about the other stakeholders in the purchase. The profiles of the segments given in sections 8.3.1, 8.3.2, and 8.3.3 undertook a process of testing the independence of the market segments with the various demographic and behavioural data collected, including the various data regarding the other stakeholder groups. Consequently, this hypothesis will be accepted or rejected based on accumulated evidence of organisational influence in the profiles of the three segments. It is, therefore, appropriate to review the findings of these profiles.

An analysis of the class of ticket allocated to each hierarchical level within each segment was given in section 8.3.1 based on the data in table 8.14. This provides strong evidence of the effect that organisational influences have on the membership of the three segments, as the policy of each segment portrayed was demonstrably different from the policies held by the other segments. For example, the companies in the first segment allocated business class tickets to most travellers irrespective of hierarchical status. Companies represented in the second segment allocated class of ticket based on hierarchical level. The companies represented in the final segment showed cost conscious behaviour being most likely to allocate economy tickets to travellers irrespective of their hierarchical level. This analysis is supported by the findings of the cross-tabulation of traveller's fare types and segment membership. Table 8.12 shows that members of the first segment were the most likely group to be travelling on full fare tickets, and those in the third cluster were the highest users of the low cost pex and apex tickets.

Table 8.17 highlights the different sources of travel policy decision making power within the three market segments, and seems to suggest that the membership of the identified segments is influenced by organisational decision making power. For all segments, corporate directors represent the largest influence in setting travel policies, however, this role is more important in the first segment than in the others. In the second segment, the finance department seems to have a much more important role in

deciding travel policy. In the third segment, the role of company directors is the lowest of the three segments, and the role of the traveller is the greatest, implying that travellers in this segment have greater decision making power than the members of other segments.

Travel policy decision making	Cluster 1 (%)	Cluster 2 (%)	Cluster 3 (%)
Director	61.3	54.3	52.4
Travel manager	13.3	13.1	12.9
Departmental manager	9.3	8.0	6.5
Finance department	1.3	9.7	7.1
Traveller	6.7	3.4	12.9
Don't know	8.0	10.9	6.5

Table 8.17: Travel policy making power by market segment

In all three segments the role of travel management seems to be similar (around 13%). However, the liberalisation of the EU air transport market may lead to a change in the relationships between the policy makers in each segment. The development of freer competition in air transport will lead to a more complex market. Prices, special deals, and promotions may change the market frequently. The potential for companies to negotiate special contracts with airlines would seem to be present. Consequently, for companies to control their expenditure on business-related air travel in the liberalised market, and gain maximum benefit from the opportunities available, they will need to draw on specialist expertise in this field.

A travel manager would be expected to have or develop this expertise. It would seem, therefore, that the role of the travel manager may become more important in the decision making process. Travel managers may utilise available technology such as computer reservation system terminals, and in-house ticketing machines to ensure efficiency. The additional importance of such travel managers will reduce the influence of others in policy decision making, as it is unlikely that others in the

organisation will have the same expert knowledge as the travel manager. Potentially the decision making power, currently held by company directors, may be delegated to travel managers. In the second segment, the role of the finance department may be reduced, and in the third segment the traveller may find a reduction in his/her decision making power.

The chi-squared test of independence indicates that segment membership is in some way dependent on the booking behaviour. The booking behaviour displayed by each segment was different between the three segments as shown in table 8.18 below. It may be noted that these percentages are slightly different than those in table 8.15. This is caused by a re-coding procedure to organise respondents into the three stakeholder groups. The responses to question 16 (including written responses in the category "Other", see Appendix III) were re-coded as:-

"Yourself"	Traveller
"Your Department"	Organisation
"Travel Manger/Department"	Travel Organiser
"Secretary"	Travel Organiser
"Other Department"	Organisation

The table provides evidence that membership of the segments is influenced by organisational stakeholders. The importance of the travel organiser stakeholder in the second segment is substantial, and it is fairly high in the first cluster. The traveller in the third segment is shown as being most likely to be involved in the actual booking of the ticket.

Booking Behaviour	Cluster 1 (%)	Cluster 2 (%)	Cluster 3(%)
Traveller	24.3	21.0	33.3
Travel Organiser	43.7	47.2	32.9
Organisation	32.0	31.9	33.8

Table 8.18: Booking behaviour by market segment

The current high involvement of the travel organiser stakeholder, combined with the potentially increased importance of travel management in the context of greater choice of flights and prices in the liberalised EU market, indicates that an airline wishing to develop its share of the business travel sector should address the industrial element of this hybrid market.

The profiles of the segments given in sections 8.3.1, 8.3.2, and 8.3.3, and the analysis above, provide evidence to show that the membership of the identified market segments is indeed influenced by other people within the employing organisation, or the policies set down by that organisation. It is on this basis, therefore, that the null hypothesis 2H_0 is rejected and the alternative hypothesis 2H_1 is accepted. However, a number of comments should be made in support of this decision:-

This thesis has employed the concept of the hybrid nature of the business travel market. It was noted in section 5.4.3 that if the two sets of alternative hypotheses were to be accepted that then the research would provide evidence of the validity of the concept. In light of this it is noted that the null hypothesis has been rejected not on the basis of one statistical test, but rather on the accumulated evidence of the profiles of the three market segments. The outcome of a number of chi-squared tests of independence (as listed in tables 8.11 and 8.12) provide evidence to suggest that the membership of the market segments is, indeed, dependent on the industrial element of the market. Practical resource constraints prevent the research from providing a complete picture of the hybrid market and the relationships between the stakeholders.

Further research in this area is, therefore necessary and encouraged, to evaluate further the construct validity of the concept of the hybrid nature of the business travel market, and also to discover the changing influence of the market's industrial element. The possibility that organisations will take greater control over business travel in the coming years, to take advantage of the opportunity of lower fares following EU liberalisation, in particular should be investigated.

8.4 SUMMARY

The results of the survey of business travellers has applied the analytical techniques selected in Part II to the data collected and has presented the findings. Chapter 7 used frequency tables and cross-tabulations to investigate the business air travel market. The business travel market was profiled in terms of its demographic characteristics, and behavioural activity. The attitudes of the market and the industrial background of the airline users were presented. Chapter 8 detailed the findings of a factor analysis and a cluster analysis. Six key purchase benefits were identified using the factor analysis. A score for each factor was calculated for each respondent. These scores were submitted to cluster analysis to identify three market segments. A profile of each these segments was given. The analytical techniques were used to evaluate the research hypotheses given in Section 4.2.3. The result of the investigation into the business air travel market is that market segments, based on the benefits sought have been identified and the membership of these segments is influenced by the organisation which employs the traveller.

CHAPTER 9: SUMMARY, IMPLICATIONS, RECOMMENDATIONS

INTRODUCTION

The final part of this thesis provides an analysis of the value of the research presented. An overview of the research, its findings, and implications are given in section 9.1. Section 9.2 provides a discussion of the limitations of the research. Finally, some recommendations for further research are made (section 9.3).

9.1 RESEARCH SUMMARY & IMPLICATIONS

In section 1.2 the following research objective was made:

To provide an analysis of the short haul business air travel market in the EU.

The research can now be evaluated against this objective. The preliminary investigation of the market has shown that the business sector of the air travel market is particularly important in terms of volume and value, and is of current interest due to the liberalisation of the air transport market in the EU which is creating a more competitive market for EU airlines. Consequently EU airlines need to maintain and develop the business travel sector to ensure survival.

An analysis of business travel indicated that this market is hybrid in nature, as it displays elements of both consumer and industrial markets. As the marketing literature provides separate treatment for consumer and industrial products, there is little guidance as to how to treat markets that have elements of both. Previous investigations of the business travel market have concentrated on the individual traveller, however, such an approach may not be suitable as it disregards the industrial element of the market.

Given the size and value of the business travel sector to short haul EU scheduled airlines a segmentation of this market was appropriate. Previous studies of the business travel sector have tended to treat it as a homogeneous market, possibly because of a focus on the traveller (i.e. nearly all travellers are male, and are in managerial positions) rather than considering both the traveller, and the employing organisation. A review of the segmentation literature for both consumer and industrial markets highlighted the inadequacy of applying many of the segmentation approaches to this hybrid market. The decision making unit model was rejected as being impractical in the context of a hybrid market, and a stakeholder approach to modelling the combined industrial and consumer elements of the market was suggested. A two stage research approach was developed. The first stage involved an in-depth survey of travel managers. The purpose of this stage of the research was to investigate the industrial characteristics of the market, and to identify key stakeholders in the purchase of business related air travel. The second stage of the research was a quantitative survey of business travellers. The purpose of this stage of the research was to investigate two research hypotheses. These were:-

- ◆ Firstly, that benefit market segments do exist in the short haul business traveller market.
- ◆ Secondly, that the membership of each segment is influenced by the industrial environment in which the segment members work.

A survey of business travellers was carried out at Stansted airport, near London, in collaboration with Air UK Ltd., with the permission of the owners of the airport, BAA Ltd. (formerly British Airports Authority). Demographic and behavioural data were collected for both the airline user and the organisation for which he/she worked. The respondents rated a number of product attributes on a scale of importance. These data were used to construct benefit market segments. Three distinct market segments were identified:-

The Schedule Driven Segment: 19% of the sample of business travellers. Members of this segment are primarily concerned with the core product elements; flight timing and frequency. Travellers are likely to choose an airline based on its schedule, even if it means that he/she has to forego the benefits of a local airport. This group is supported by the organisations for which they work as they are prepared to pay higher costs for flight flexibility. The travel policies of these organisations tend not to favour those of higher corporate status. The travellers seek benefits congruent with those sought by the organisation.

The Corporate Cog Segment: 40% of the sample of business travellers. Members of this group tend to be of a slightly lower corporate position. These airline users place less value on all product elements, than those in other segments. Their travel choices are governed by organisational travel policies which favour those in positions higher than themselves. The organisations seem to be bureaucratic and controlled by price considerations. This group places the highest value on frequent flier schemes, and in-flight comfort, but places little value on product elements that will accrue to the organisation, such as price and flight arrival time.

The Informed Budgeter Segment: Accounting for the other 41% of the sample, members of this group tend to live close to airports and are likely to be familiar with the local airline services. Members of this group work for cost conscious organisations. They tend to be in high corporate positions and thus the benefits they seek are congruent with those of the organisation. Their knowledge of the local airline services enables cost conscious product selection.

Since robust market segments were identified, which performed satisfactorily under tests of validation, the first research hypothesis was accepted. The second hypothesis was evaluated on the basis of differences between the memberships of each segment, and the investigation of the relationship between the traveller and the other stakeholder groups, within each segment. The evidence suggested that there was indeed corporate influence on the membership of each segment, and consequently the second hypothesis was accepted.

The research is original in three respects:-

- ◆ Firstly, it represents the first benefit market segmentation of the EU short haul business travel market study in the published research literature. Given the importance of the business traveller to short haul operators in the EU, particularly following the liberalisation of the air transport market, this research provides a valuable understanding of the structure of the market that can be used to develop marketing strategies.
- ◆ Secondly, it addresses the effect the industrial element of the business travel market has on the purchase of business travel for the first time in the literature. Airline marketing tends to concentrate on the individual traveller, however, this research indicates that there is scope for airlines to adopt a wider marketing strategy aimed at both the traveller and the employing organisation.
- ◆ Finally, the industrial/consumer research approach is original as it is specifically developed for a hybrid market. The recommendation section below (section 9.4) considers the applicability of this approach in other hybrid markets.

It was identified in chapter 3 that segmentation based on the benefits sought by consumers has two main advantages. These were, firstly, that it provides the marketer with a understanding as to why consumers buy a product. Secondly, analysis of identified benefit market segments provides a guide to strategy formulation in terms of product planning, positioning and advertising communication. The research has identified three market segments, based on the benefits sought by the consumers. Analysis of these segments has provided a good insight into what product factors are important to members of each segment. This analysis can be used to develop marketing strategies aimed at each segment. In the second chapter the tools available for an airline to develop a marketing strategy were identified, and classified using Booms and Bitner's 7 P services marketing mix model (1981). Using this model, a marketing mix can be suggested for each of the identified market segments. Table 9.1 provides an example of how different marketing mix variables might be constructed by an airline in order to attract the three identified market segments, and as such clearly does not purport to be a fully researched marketing plan.

While this thesis has identified a number of market segments, for which separate targeted strategies may be adopted, it is important to develop these into a complete product range that will serve all three segments. Any strategy development will require financing. Airlines will need to allocate their resources in a manner that they believe will earn them the maximum profit. A small airline may not have the required resources to target the *schedule driven* segment. Such a strategy aimed at this market would require investment in new routes, extra frequencies and thus new aircraft. The analysis shows that this group is not loyal to either a specific airport or airline. It is possibly unwise, therefore, to develop a strategy targeted specifically at this group. As an airline grows it is likely to gain a proportionately larger share of this market.

	Schedule Driven	Corporate Cogs	Informed Budgeter
Product	Extra flexibility - Additional flights. Consumer led flight timings. Exclusive check-in, lounge.	Organisation loyalty scheme, and develop user loyalty scheme.	Good quality service, delivered consistently.
Price	Premium pricing for extra flexibility.	Organisation discount scheme.	Fare schemes that do not allow tariff dilution.
Place	Better representation on computer reservation systems.	Better representation on computer reservation systems.	Develop direct bookings .
Promotion	Target at users. Below the line, promotion of flight flexibility and destinations. Distribute via business travel agents.	Target at organisations. Calling at companies, to make sales presentations.	Targeted within local area and slowly extend this catchment.
People	Treat travellers exclusively.	Cabin crew very important, as this segment seeks in-flight comfort.	Consistent quality of product delivery important.
Process	Smooth processes to minimise delays and maximise travellers free time.	Consistency between quality of marketing to organisation and product delivery.	Again consistent quality important.
Physical Evidence	Exclusive check-in and lounge.	Good quality meal service.	Consistent branding.

Table 9.1: Possible marketing strategies for identified market segments

The *corporate cog* market is attractive and may be developed through the introduction and promotion of new products. The products should offer benefits both to the user, in terms of in-flight comfort and frequent flier benefits, and the organisation. While airlines currently negotiate route deals with organisations, they seem to wish to concentrate on marketing efforts directed at the user. The research has shown that organisations are taking a more involved role in travel management, and therefore the introduction of products aimed at the organisation, such as organisation loyalty schemes, might lead to a higher volume consumption in this market.

The *informed budgeter* market represents a large proportion of the market. To increase the volume used by this market, an airline will need to extend its catchment area of this market segment. To do this an airline may concentrate sales and promotional activity in the periphery of the catchment areas. Marketing communication should concentrate on the benefits of local airport access, flight services, and price.

To develop the business travel market, airlines operating from Stansted should concentrate on the *corporate cog* and *informed budgeter* segments. Airlines could develop products that are targeted at both these segments, but are promoted using different channels. Penetration of the *corporate cog* segment may be achieved through direct mailings to senior managers in large organisations within an area that can gain road or rail access to Stansted, while media promotions may be used to address the *informed budgeter* market.

9.2 LIMITATIONS OF THE RESEARCH

Throughout this thesis the limitations of the research concept, methodology, and analysis have been considered. However, it is appropriate to summarise the main limitations on the work.

Firstly, the limitation of the research approach may be considered. The research approach developed provides an operational method for the investigation of hybrid consumer and industrial markets. The method segments the market based on the benefits sought by the key stakeholder (the traveller), and then investigates whether the membership of the segments is affected by the other stakeholders in the purchase. It thereby aims to discover whether the industrial elements have an effect in the market. A limitation of the methodology is that the degree of influence that the two organisational stakeholders have over the individual traveller is only investigated through the survey responses of the travellers. It was argued (in chapter 4) that the traveller is the key stakeholder in the purchase, and the effect of consumer based objectives was important to discover. The question that may be raised, however, is what if stakeholders, other than the traveller, have greater influence in the purchase. In such a situation it is accepted that it would be more appropriate to discover the benefits sought by that stakeholding group. Following this argument logically, it may be argued that a research methodology that questions representatives from all three stakeholder groupings to discover the benefits sought by each group, and identifies the degree of influence that each group has in the purchase decision would provide greater scope for investigation of the corporate involvement in the purchase of business travel. While this is accepted in theory, the practical problems that have been present in this research from its outset would still be present and would still need to be overcome. These practical problems (which include a large diverse base of organisational purchasers, and a frequently purchased relatively cost product) are discussed further in section 9.3 below.

Secondly, it should be recognised that for any research project both resources and time are limited. While these limitations should not provide excuse for any inadequacy of research, they do prove to be barriers to the scope of the work. The fact that many scientific methods sample, rather than investigate a whole population indicates that these limitations are real. The potential bias in the sample due to

sampling passengers from only airline, at one airport has been discussed. Given unlimited time and financial resources the sample drawn from the population of EU business traveller could have been wider. However, these limitations have been acknowledged, discussed, and in the next section a recommendation will be made in this regard.

Finally, it is recognised that as the data were collected during one time frame, changes in the business travel market over time may render the finding less accurate. This point is particularly important in the context of the changing EU air passenger market following the liberalisation discussed in chapter 3. In the next section, a recommendation is made for repetition of the research over time, to detect changes in the market.

9.3 RECOMMENDATIONS

A number of recommendations for further research may be made in light of the discussion of the research so far made in this chapter.

The section on the limitations of this study indicated that the extent or degree to which the business traveller is influenced by the other purchase stakeholders was investigated only from the perspective of the traveller. It is proposed that the behaviour and attitude of business travellers, and the organisations that employ them be tracked over time to see whether the corporate travel management does have a significant impact in this market. To undertake such a study data may be collected in a number of ways, two of which are considered here. Firstly, a panel of business travellers may be created. On a regular basis (perhaps annual) a survey of the three stakeholders in the purchase decision may be undertaken. The advantage of such an approach would be that changes in behaviour and attitude within certain companies could be identified. However, the disadvantage of such an approach would be similar

to those identified with the DMU approach, particularly in terms whether the panel would be representative of the entire population of the business travel market. An alternative research method, might be to maintain the focus of survey on the key stakeholder (i.e. the traveller) and monitor the degree of purchase freedom this stakeholder has over time. This data could be collected very regularly (bi-monthly), and cheaply, by application of in-flight questionnaires. In the case of the collaborative organisation, this approach has already been adopted, and the market have been monitored over the last two years.

With regard to the two-stage segmentation approach that has been developed for the business traveller market two recommendations can be made. Firstly, the use of a stakeholder approach, in the first stage of the research, combined with a benefit segmentation based on a quantitative survey of the key stakeholder in the second stage, overcame a number of difficulties in the application of the decision making model to this market. The reasons why the DMU model was not an appropriate unit of investigation was due to the characteristics of the business traveller market. These reasons were that:-

- ◆ There are a large number of purchasing organisations each which may have different purchasing behaviour. A research approach that draws a small sample of the purchasing organisations, and undertakes an in-depth study of this sample (a generally applied methodology for DMU studies) would, unless resources are considerable, lack a sufficiently large sample to be able to confidently infer the findings of the research on the population. The two stage approach enabled a large sample of the population of the key stakeholders in the market to be drawn.
- ◆ Business travel is purchased frequently, and, on a per item basis, does not represent a very large expenditure to many companies. In a market where the product represents a large capital expenditure, and is not purchased

frequently (e.g. machine tools), it is more appropriate to apply an approach which investigates the DMU and the decision making process in-depth for individual purchasing companies. A DMU study to gain an understanding of the market, would require the identification of the DMU in every purchase situation in every department within an organisation, which is clearly impractical. In markets such as these, the stakeholder approach identifies, in advance of a quantitative study, a number of groups that typically have a stakeholding in the purchase, at which time information regarding the general nature of such stakeholders can be collected. This information can subsequently be compared with statements of the stakeholder group(s) in a large-scale survey.

- ◆ The product has some consumer elements. Where products are purchased for business purposes, but also have a consumer market, the person that is going to use the product certainly has a stake in its purchase and may take notional “ownership” of that product. People may choose their company car, state the specification required on their personal computer, have a preference on which hotels they stay, and the restaurants they eat at when travelling. As individuals may have different preferences, and the amount of influence they have in the purchase decision may be different, it seems important that an understanding of an individual’s purchase requirements, and the degree of influence in the purchase is gained. The DMU model again is an inappropriate method of discovering this information, and focus on the individual user may be more appropriate. However, it should be a focus which is embedded in, or relates to the employing organisation, particularly other significant member groups. The stakeholder approach appears to satisfy this requirement with its explicit recognition of relevant corporate relationships.

In light of these arguments it would seem that the research approach developed in this thesis would be appropriate to investigate hybrid markets that have the following industrial characteristics:-

- ◆ Many purchasing organisations
- ◆ The product is purchased frequently
- ◆ Each purchase does not represent a particularly large expenditure for the organisation
- ◆ The product is consumed by individual members of the organisation, and
- ◆ The product is a significant activity/item for the individual user

Markets that have these characteristics include other travel and related products (e.g. inter-city business rail travel, hotels and restaurants), company cars, office furniture, business hardware and software. Investigation of this nature in markets that display such hybrid characteristics may provide marketing opportunities that have been previously overlooked.

A second recommendation can be made about the research approach. A sample of business travellers was drawn from the passengers of a single airline at a single airport. The reasons for this methodology has been considered. In chapter 5 the validity of inferring the findings of such a sample onto the population of the business travel market was considered. It was recommended that the study is repeated in other locations, on passengers from different airlines to test the findings of this study, as this was beyond the financial scope of this study. The value of such studies would twofold. Firstly, they would be able to investigate differences that might exist between regional populations of business travellers. Regional differences create both marketing opportunities, and problems. An airline might wish to adopt a strategy to exploit regional differences, however, such a strategy might negate the possibility of the airline adopting a global image, and message. Secondly such studies would be

able to test whether the findings of this study are biased due to its sample of only Air UK passengers.

The study has been undertaken at a time of great change in the EU airline industry. The way in which this market changes will provide a very interesting area for future studies. The study has revealed the emerging role of travel managers in the business travel market. Greater competition between airlines, caused by the liberalisation, will lead to a more complex market where there will be potential for organisations to lower travel expenditure. Travel management expertise will be increasingly in demand as organisations attempt to reap that potential. Future research might investigate development in two areas. Firstly, the growth of in-house travel management may lead to a decline in business for intermediaries (i.e. travel agents). How travel agents address this potential threat may lead to some interesting changes in the industry. Secondly, as travel management becomes more important, the autonomy that business travellers have enjoyed may decrease. Investigation needs to be undertaken as to whether airlines should continue to target the individual traveller, or chose to focus more on purchasing organisations (possibly in the form of corporate frequent flier bonuses).

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GLOSSARY

Aircraft utilisation

The average number of block hours that each aircraft is in use. Utilisation may be measured on a daily or annual basis

ATC

Air Traffic Control

Bilateral agreement

An agreement between two countries which determines the conditions under which the air services between them shall operate. They usually specify operations in terms of capacity, fares, and routes.

CAA

Civil Aviation Authority

Cabotage

The right to emplane passengers in a State which is not the State of Registry of the aircraft and to set them down in the former State. (E.G. S.A.S emplanes passengers at Nice and sets them down at Paris).

Chicago Convention

The Chicago Convention on International Civil Aviation of 7/12/1944.

Combination of Points

The right to make a stop in one or two (or more) States other than the State of Registry to emplane or set down passengers who are all either emplaned or set down in the State of Registry.

Computer Reservation System (CRS)

A CRS offers a distribution system for an airline's services. The owner of the CRS locates computer terminals at travel agencies throughout a vast region (e.g. Amadeus system is prevalent throughout Europe). Airlines subscribe to a system which geographically covers the region in which they want to offer their services. The airline's products are then available for purchase from travel agents that use the CRS

to which they are subscribed. Most airlines subscribe to many CRSs to ensure a wide distribution of their services.

Double Governmental Disapproval

A requirement, in the Second liberalisation package, that governments of Member States at either end of an EC route must both disapprove of a tariff change before the tariff change may be stopped. This measure has the effect of disabling governments who wish to veto tariff changes. This veto had often been applied in order to protect the market share of flag carriers.

ECAC

European Civil Aviation Conference

GATT

The General Agreement on Tariffs and Trade.

Freedom of the Sky: First

The right to overfly the territory of a State.

Freedom of the Sky: Second

The right to make technical (non-traffic) stops.

Freedom of the Sky: Third

The right to set down in a State passengers emplaned in the in the State of Registry of the aircraft. (E.G. Air UK sets down at Brussels passengers emplaned at Stansted).

Freedom of the Sky: Fourth

The right to emplane in a State passengers whose destination is in the State of Registry of the aircraft. (E.G. Air UK emplanes at Brussels passengers flying to Stansted).

Freedom of the Sky: Fifth

The right to emplane passengers in a State other than the State of Registry and to set down those passengers in a third State. (E.G. BA emplanes at Rome passengers who are set down at Athens).

Freedom of the Sky: Sixth

Familiar to fifth freedom but with transit via an airport in the State of Registry and possibly with a change of aircraft.

Frequent flier schemes

Such schemes aim to ensure customer loyalty by rewarding current purchases with future bonuses, prizes, or more often free flights.

Globalisation

The term that is used within the airline industry to refer to the process of structural consolidation that the global industry is currently experiencing.

Hub and spoke route network

The organisation of an airline's services such that a number of destinations may be served from a central "hub" airport. The "hub" airport is used to consolidate passengers bound for the various destination, thus increasing the traffic on the "spokes" of the system.

ICAO

International Civil Aviation Organisation; the United Nations' agency that promotes co-operation and safety in civil aviation.

Interline Traffic

The transfer of passengers from one airline to another as part of a single journey. (E.g. Air UK carrying passengers from Schiphol to Stansted who arrived on another carrier's long haul flight and transferred).

Load Factor

The number of passengers carried on a sector, expressed as a percentage of the seats on that aircraft available for sale. A common target for this measure is 60%.

Multiple Designation

A Member State may not object to one of its airports being served by airlines designated by another State.

Seat pitch

The distance between the back of one seat on an aircraft, and the same point on the back of the seat in front.

Slots These are the five minute allocations during which an airline's aircraft is required to either take-off or land. The method by which these slots are allocated greatly affects an airlines ability to enter a chosen market.

Treaty of Rome

The 1957 Treaty establishing the European Economic Community.

Yield Management

An operation undertaken by airlines with the aim of maximising revenue on every flight by altering, on a daily basis, the number of seats allocated to each fare type. This allocation is made in response to the number of seats currently reserved and also an analysis of historical sales data.

Appendix I

Definition of Fare Types

Fare Type Conditions

Fare Type	Availability	Cancellation, Refunds	Reservation, Ticketing, Payment
Full Economy	On all routes	No restrictions	No restrictions
Pex	On selected routes only, number of seats available may be changed.	Within UK no refund, to European destinations, upto 50% refund if cancellation prior to departure.	Full payment at time of ticket issue
Apex	On selected routes only, number of seats available may be changed.	Refund available upto 75%, prior to ticket deadline. No refund after this point.	Full payment at time of ticket issue, at least 14 days prior to departure (this is ticket deadline).
Euro budget	On selected international routes only, number of seats available may be changed.	If ticket cancelled or not used then a fee of 20% is applied, which is waived if the flight is rebooked.	Full payment at time of ticket issue
Monthly budget	On selected routes only, number of seats available may be changed. Holder is required to stay away at least one Saturday night.	This ticket is non changeable, and non-refundable.	Full payment at time of ticket issue.

Appendix II

In-Depth Study of Corporate Travel Usage and Attitude

CASE STUDY OF CORPORATE TRAVEL MANAGERS

As a first stage of a two-stage research methodology, a series of qualitative case studies were carried out with the corporate travel managers of a number of organisations. Crimp (1985) notes that qualitative studies should be undertaken to *"reveal most, if not all of the ways in which consumers behave in the market and the attitudes they hold"* (p.24). She highlights the value of qualitative studies as being able to:-

- ◆ Determine the content of questions in later quantitative studies
- ◆ Ensure that the questions are written in a linguistic style that respondents will find familiar.

The purpose of the studies therefore, as indicated in the main body of the text (section 4.2), was to collect rich qualitative data regarding the buying behaviour of organisations with regard to air travel services, and to identify key participant groupings with vested interests in the purchase of the air services. Data regarding these key participant groupings, or stakeholders are to be collected in the quantitative stage of the research project.

METHODOLOGY

The most popular methods by which qualitative research can be undertaken is either by individual "in-depth" interviews with suitable subjects or by group discussions with a collection of subjects. Studies such as these are not heavily structured in nature. Generally they involve a moderator who introduces the topic of research to the subject or subjects and invites them to talk about the topic. The moderator should be skilled at obtaining responses from the subjects (Chisnall, 1986), which may best be achieved by nurturing an informal atmosphere during the study.

The use of individual "depth" interviews was selected as a suitable method of qualitative research. As a detailed investigation of each sampled organisation's purchase behaviour was sought, it was felt that respondents would be more likely to reveal this information in a confidential interview rather than in a group.

A sample of organisations with either travel managers or travel departments was drawn from the Yearbook of the Institute of Travel Management (ITM). The ITM is an organisation that represents the interests of companies for which travel expenses represent a large outgoing. 527 organisations are affiliated to the Institute in the UK, and its membership is drawn from diverse fields of industry. Interviews were arranged by telephone. The companies were purposely selected from different industries, to see if industry type had influence over the organisation's behaviour.

A series of nine depth interviews were undertaken with organisational travel managers, or those responsible for the management of those costs (in one case the respondent was employed as the "Office Services Manager", and in another the person interviewed was the "Travel Administrator"). The organisations for whom the travel managers worked were all large, and operating in different industries.

The study was undertaken between 2/3/92 and 6/3/92. The moderator identified himself as a research student, working in association with Air UK. The moderator introduced the area of the study as being the organisation's use of air services. The respondents were asked if they could describe the method by which air services were purchased. Respondents were encouraged to talk about the areas of interest and the interviewer took notes. A structured questionnaire was designed to be used during the interviews below. Once the respondent indicated that he/she had explained the company's systems, and attitudes toward air travel, the questionnaire was completed. This methodology allowed the respondent to talk at length about the subject area, and allowed the moderator to gain a broad understanding of corporate behaviour.

SURVEY OF COMPANIES PURCHASING AIR TRAVEL

Interview Date:

Time:

Location:

Name:

ABOUT THE COMPANY

Site Address

Parent Company Address

1: Roughly how many people are employed at the place where you are employed?

0-9

10-24

25-99

100-249

250+

2: If the company that you work for employ other people at other sites, roughly how many people are employed in the company as a whole?

0-9

10-24

25-99

100-249

250+

3: In which industry would you describe the company that you work for as being in?

Your site Whole company

Farming, fishing, mining

Manufacturing

Selling, distribution, and retailing

Finance and banking

Transportation

Other service industries

Civil service and local government

Armed forces

Professions in private practise

Education

ABOUT YOUR POSITION WITHIN THE COMPANY

4: What is your job title?

5: How would you describe your position within the company that you work for?

Self-Employed
Senior Manager or Director (total responsibility)
Junior Manager (wide responsibility)
Supervisor (limited responsibility)
No responsibility for other people

5a: How many people are you responsible for?

YOUR COMPANY'S VIEW OF BUSINESS TRAVEL

6a: Does your company have a Travel manager/department?

Yes/No/NS/UK

6b: Does the company you work for have a Company Travel Policy?

Yes/No/NS/UK

If yes how would you describe the policy

Written rules always to be adhered to
Guidelines for preferred practise
Unwritten rules indicated by
i) your manager
ii) the person responsible for organising travel

6c: Who is responsible for setting any corporate travel policy?

Company Directors
Travel Manager
Departmental General Managers
Other

Please state.....

NS
UK

6d: Does your company have a preferred airline?

Yes/No/NS/UK

If yes why is it preferred?

6e: Are business travellers, within your organisation, given the choice of which airline they wish to use for a specific flight?

Yes always
Yes under certain circumstances
Not under any circumstances
NS
UK

6f: When you have to make a business trip by air who generally books the ticket?

Yourself
A secretary
A travel manager/dept
Your manager

7: In what manner is the ticket usually purchased?

Direct from the airline
Self-write airline ticket scheme
Preferred Business Travel Agent
Any Business Travel Agent
Preferred General Travel Agent
Any Non-specialist Travel Agent

9: How is the ticket generally paid for?

Company Cheque
Company Account
Company Credit Card
By person taking flight (claimed back through expenses)

10: Does the company receive any discount from any of the following:-

Airline	Yes/no/ns/uk
Travel agent	Yes/no/ns/uk

11: Do all travellers within your company receive the same class of ticket irrespective of corporate status?

Yes/No/NS/UK

12: For people of the following corporate status (where appropriate) please signify the class of air travel that they generally travel.

Status	Within UK	Within EC	Elsewhere
Self-Employed	Standard	Economy Business First	Economy Business First
Senior Manager or Director	Standard	Economy Business First	Economy Business First
Junior Manager	Standard	Economy Business First	Economy Business First
Supervisor	Standard	Economy Business First	Economy Business First
No responsibility for other people	Standard	Economy Business First	Economy Business First

12a: Are there any exceptions to the above, what are they?

13: How many air trips does your company make, on average, per annum?

14: Who usually chooses the flight that a employee will take?

The employee him/herself
Set by corporate travel policy
Selected by Travel Department

BUSINESS TRAVELLER OPINION

19: Do you have a:-

Please Tick

Company credit card
Company cheque book

19a: Would you use any of the above for air travel?

Please Tick

Company credit card
Company cheque book

20: And finally about yourself, in what age group are you?

16-24
25-34
35-44
45-54
55-64
65+

21: Male/female

RESULTS

Company size

Table II.1, below, lists the industry in which the corporate respondents undertake their activities, their corporate size (i.e. number of employees), and the job title of the person interviewed.

Industrial Focus	Title of Interviewee	Corporate Size
Retailing	Travel Manager	40,000
Financial Consultancy	Office Services Manager	52,000
Governmental	Travel Manager	4,000
Textiles	Corporate Travel Manager	22,600
Music Retailing	Travel Manager	3,000 (U.K. only)
Mining	Travel Manager	12,000
New Agency	Travel Arranger	10,000
Television Production	Travel Administrator	7000
Computer Systems	Corporate Travel Manager	60,000

Table II.1: Corporate Details of Depth Interview Respondents

General role, style and objectives of Travel Manager/Dept.

A Large Retailer. The small travel department is situated at the Head Office. The department is responsible to the Merchandising Director, and its main "customers" are the corporate buyers who source the company's merchandise. This accounts for a large proportion of the company's consumption of air travel, which is mainly long haul travel. The travel department acts in a service role to its internal customers, who

may themselves select airline and flight. It has some specific policy rules and some "rules of thumb" by which it operates. All travellers within the organisation have the same class of ticket purchased for them. This may be explained by a corporate philosophy that every employee is a "partner" in the organisation which operates as a "pseudo-democracy". This organisation has recently changed its travel policy. Until 18 months ago, where available, all travelled first class. This policy changed when the travel department indicated to board level, the saving that could be made by travelling at the lower business class fare. This policy change indicates the department's change in orientation. Previously, the travel department operated only in a service role. The company now seeks to monitor its Travel and Entertainment (T & E) expenses. At the time of interview the company had just started receiving computer produced management information reports from its travel agent, providing a break-down of travel patterns and costs.

A Partnership of Financial Consultants. The Office Services Manager was interviewed at this company. He is responsible for some 25 staff and, under his wider remit of purchasing office services, is responsible for the purchase of air travel. The company employees spend some £6m p.a. in air travel which is accounted for by approximately 15,000 flights. The business is generally divided into two sectors. The first sector represents the organisation's employees travelling to meet with clients and the expense is charged against a project budget. Client based travel such as this had not been previously addressed in the research and would need to be accounted for in the quantitative study. The second sector is represented by group bookings for staff being sent on training courses and travelling to exhibitions to gain new accounts. Travel in the first sector is selected by the traveller in line with the travel policy, and booked by the traveller's secretary through the preferred travel agent. The travel manager is responsible for organising preferential group bookings directly with airlines for the second sector business. The travel policy reflects the split in reasons for travel. Within the EC senior and middle management travel business class while

junior managers and new employees travel economy class. Outside the EC all employees travel economy class indicating a price related policy. The only exception to this policy is that partners within the firm generally travel first class. However due to their position as part owners of the company the Travel Manager indicated that these people think of themselves as above the policy designed for employees. Finally the Travel Manager noted that his preferred airport was London Heathrow and indicated that he thought business travellers preferred this airport for reasons of image. By using Heathrow, the travel manager thought the seasoned traveller gained a certain "macho" image.

A Government Body. The organisation accounts for some £14m of air travel through its London office. The vast majority of this business is non-business travel. This organisation purchases air travel for overseas students studying in the UK, although a significant amount is spent in the business sector. It has a very rigid policy document which is circulated to all employees listing a traveller's entitlements in all circumstances. This seems indicative of the manner in which the civil service operates. All travellers within the organisation receive the same class of travel irrespective of their corporate status. For flights under two and a half hours the traveller receives an economy ticket. Over this time boundary the traveller is entitled to a business class product. The traveller can choose which airline and flight to use, however this must be registered with the travel department significantly in advance of the flight. The travel department has three civil service employees and more than twenty Thomas Cook travel agent "implants". Implants are travel agents that are employed by a particular organisation to work in its offices, providing a service dedicated solely to that organisation. This type of arrangement has strong marketing implications, if an implanted travel agency has a preferred airline then that preferred airline can be ensured of a large source of business. An airline will try to secure such a advantageous position by paying the travel agency additional payments called "over-rides".

The department is currently introducing a computerised management information system which tracks the progress of the travel request through various stages. The department has negotiated a performance-related management fee with Thomas Cook and the system is used to monitor the performance of the agents against pre-determined criteria. This type of system is only possible due to the somewhat unusual nature of the travel lead-time provided to the department by the traveller. Management reports are produced and circulated to the departments who have used air travel. As a result of the element of public money that is being used in this organisation, price is the most important purchase factor. In general this organisation aims for a 5% discount from any airline it uses for business travel, and also from its travel agent.

A Textile Public Limited Company. The Corporate Travel Manager was interviewed who has responsibility for five employees in the organisation's travel department. The company has a travel policy, set by the Travel Manager, which is described as "guidelines for preferred practice". The Travel Department has divided its business between four preferred travel agents to ensure a competitive discounted price for all purchases. The organisation also receives discounts from airlines, though the details of these arrangements were not revealed. The company's travellers are not given the choice of what airline or what flight they will take. These decisions are selected by the Travel Department, based on the criteria that, firstly, the traveller's schedule must be suitable so that he/she may meet his/her appointment, followed by the traveller's comfort, and then price. Within the EC all travellers are booked on business class with the exception of those with no management position, who travel on an economy class. For flights outside the EC senior managers travel first class whereas lower levels of management travel business class. Again, those not in a management position travelled at economy level.

A Japanese Music Entertainment Consortium. The Travel Department, in London, purchases some 1,200 flights a year. The Travel Manager is responsible for setting a written travel policy which is circulated to all staff. The policy was described as being a set of rules that are always adhered to. This rigid policy may be indicative of the nature of this organisation and the influence that the Japanese parent company has over its subsidiaries. Requests for tickets are made to the department which selects the airline and the flight schedule. The small department has in-house use of a Galileo computer reservation system, but purchases its tickets through a preferred travel agent. The fact that the department has a CRS terminal in-house is indicative of its desire to find the best price. The travel manager indicated that the company receives discounts from both airlines and travel agents. Within the EC all travellers are issued business class tickets, whereas outside the EC only senior managers and directors are entitled to business class travel with all others issued economy tickets. The exception to these rules are made for the organisation's recording artistes. This organisation manages numerous music artists and the class of travel they receive depends upon their status in the market. Other employees travelling with the artistes would travel on the same class of ticket as the artists.

A Mining Company. This organisation purchases some 500 air trips a year. The Travel Department operates as a service to the company employees. The airline users are given the choice of airline they wish to use and the flight is selected by the employee in discussion with the Travel Department. The department has a CRS console and also has facilities to print its own tickets. In effect the department operates as an in-house travel agency, but the department has a special management agreement with a travel agent. The department also produces its own statistics from a stand-alone PC which is used to keep a record of all transactions. It then circulates management reports to the various departments within the organisation. Generally, travel within the EC is at economy level. Only senior managers are entitled to travel

on business class and only then under certain circumstances. Outside the EC all levels travel business class, with the exception of the directors who may travel first class. Scheduling considerations were paramount to the company, followed by ticket price.

A Global News Agency. This distributor of electronic news consumes some 4,300 air trips a year. The agency is divided into three main sectors; journalists, sales staff and technical staff. The company has a written travel policy document, issued to all staff, which is always to be adhered to, although it has an element of traveller choice. The Travel Department views travellers as its "customers" and serves them in that fashion. All travellers are entitled to business class travel. Travellers, twice a year can downgrade their entitlement and thus use the extra budgeted money to take their spouses on trips, etc. There is a limit on the number of employees allowed to travel together on the same flight. Managers and their staff are not allowed to travel together so that should there be a disaster, a whole project team would not be lost. The department has two travel agent implants, and thus tickets are produced in-house. The department analyses the statistics produced for them by their implants, Diner's Club. The company has some deals directly from airlines on specific routes. In serving their "customers", the department places greater importance on scheduling factors than on price. This may be indicative of the nature of the industry in which this company operates.

A Television Production Company. This was the smallest company surveyed, with a correspondingly smaller consumption of business travel (400 trips p.a.). The person interviewed was responsible for arranging all travel and her job title was "Travel Administrator", indicating a more administrative, and somewhat less managerial position. This in turn indicates that travel may not represent a high cost to this company. Indeed, the company commissions the making of programmes and thus

travel is budgeted within this figure. The company does have a travel policy which is described as "guidelines for preferred practice". Price is the overriding consideration in purchase behaviour. Wherever possible all employees travel on economy tickets, and while the company uses a preferred travel agent, where schedules allow, discounting travel agents are used. As long as an employee choice is in line with the guidelines, he/she may choose which airline to use.

A Computer Software Solutions Provider. The company visited is a subsidiary of a global company software company which in turn is owned by a conglomerate. The software house has five travel offices; three in the USA and two in the EC. Last year its employees made 7,982 return flights from London, amounting to £2.9m. The average ticket cost £373. The office visited has a Travel Department of 10 employees. The International Travel Manager was interviewed. The department has a rented licence from a preferred travel agent to enable it to produce tickets in-house. The company has a written travel policy which is set by the Corporate Travel Manager in the company's head office in Dallas, Texas. The respondent indicated that some employees travel first class, other travel business class and the rest travel on an economy product. However, if an employee requests to use a higher class of travel and that request is approved by the company's "Leadership Council", then the request is granted. As long as selection falls with the company's guidelines then an employee can choose which airline to use.

DISCUSSION

Three main points emerge from the study. Firstly, the companies interviewed seem to indicate that each was experiencing an internal growth in awareness of the value of travel expenses. In response to this awareness, companies are introducing more thorough and complex systems to control, monitor and thus manage their air travel

expenditure. This has been made possible by the growth in use of information technologies.

Secondly, it would seem that different organisations have different attitudes to the purchase of air travel. Certainly, each of the firms studied seemed to possess a different philosophy, and attitudes which affect their behaviour in the market. In general there seemed to be two main corporate philosophies;

- i) The travel organiser acting as a service provider to the corporate traveller
- ii) The organisation with the objective of minimising spending.

While this study has not provided quantifiable evidence of these philosophies, there seems to be enough evidence to suggest that investigation into the size, type, and culture of organisations who purchase air travel may provide invaluable marketing information.

Finally, as bulk purchasers of air services, many large companies are disgruntled that the benefit of this bulk buying accrues to the users of the air services (i.e. the actual people flying) in terms of frequent flier schemes (see Glossary). The implication made by a number of respondents was that should an airline accrue such benefit to the purchaser (i.e. the company) then the company may be willing to enter an exclusivity agreement with such that airline.

CONCLUSIONS

A number of aspects about business travel and the influence that the organisation has over the traveller have been identified from this study that need to be considered in the design of the research tool.

All of the organisations had some form of travel policy. Many of the policies were flexible or provided a guideline to the traveller and/or the travel manager as to the manner in which the air ticket should be purchased. Some of the policies were rigid, and some open to interpretation. These differences are important in the design of the research tool. The mere presence of a travel policy does not indicate that an organisation takes strong control over its travel expenses, indeed it may be more an indication of the size of an organisation. The research tool should be able to quantify these elements.

A number of the organisations used the corporate status of the traveller to designate the ticket class. The grade of travel allowed to the corporate travellers of the organisations interviewed is dependent on the length of the flight. There are two variables to be considered. Firstly, comfort; most of the organisations indicated that the longer a flight the more likely the traveller would be allocated a better class of ticket. Secondly, ticket flexibility; some travellers were allocated a poorer class of ticket on transatlantic routes than they were allowed on short haul routes. This would seem to indicate that ticket flexibility is more important on short haul routes than longer haul ones.

This preliminary study has indicated the importance of discovering the manner in which airline tickets are sourced. In the quantitative study the source of ticket payment will be important as the qualitative study has revealed that some industries have their air travel paid for by clients or budgeted through a project budget.

The study revealed that organisations may have preferred carriers for a number of reasons; price, brand favouritism, and reciprocal relationships. Data should be collected to investigate further this element.

Most of the companies surveyed expressed concern about the influence that frequent flier schemes were having on their business travellers. It was felt that the scheme erodes the power of the company to make rational purchasing decisions with regard to air travel. This opinion is supported by Upton (1992). The companies on the whole felt that as bulk purchasers of air travel any discounts or benefits from such bulk purchase should accrue to them and not the users of the air travel. For example, the software company interviewed had recently reduced its consumption of BA flights by some 20%. This action was prompted by the airline's refusal to reward the company for its business since the introduction of the airline's frequent flier scheme, called Latitudes.

The objective of this first stage of the research study was to identify significant actors in the purchase decision. The research has shown that the people involved in the purchase of air travel within an organisation may be some or all of those listed below:-

- ◆ The traveller
- ◆ The person who books the flight
- ◆ The traveller's manager or travel administrator
- ◆ The travellers secretary other person/people within the traveller's department
- ◆ The person responsible for the cost of the travel.
- ◆ The company's travel agent.

This information is considered in the development of the second stage of the research found in section 4.2. to which the author now directs the reader.

Appendix III

Questionnaire for Short Haul Business Travellers



**PLYMOUTH
POLYTECHNIC SOUTH WEST**

SURVEY OF BUSINESS TRAVELLERS

Dear Sir or Madam,

This questionnaire is part of a research project currently being undertaken at Polytechnic South West in Plymouth. Its aim is to discover how business travellers, such as yourself, select and purchase air travel when they make a business trip. I would appreciate your help with this research by completing this questionnaire. Should you have any queries you may contact me at the address below. Your answers will be treated in the strictest confidence.

Thank you in advance for your cooperation.

**Dr. Richard Gray
Centre for International Shipping and Transport
Polytechnic South West,
Drake Circus,
Plymouth,
PL4 8AA
Tel: (0752) 232 434**

For office use	Ref No.
	Location
	Date 27/10/81

ABOUT COMPANY YOU WORK FOR AND YOU

Q1 What is the main activity of the organisation for which you work

- Agriculture/forestry/fishing
 - Oil/Gas exploration
 - Manufacturing industry
 - Service industry
 - Construction industry
 - Civil services
 - Armed forces
 - Retail
 - Other (please write in)
-

Q2 Roughly how many people are employed in the company that you work for?

- 0-9
- 10-24
- 25-99
- 100-249
- 250-999
- 1,000-2,499
- 2,500-10,000
- More than 10,000

Q3 Roughly how many people are employed at the site where you work?

- 0-9
- 10-24
- 25-99
- 100-249
- 250-1000
- More than 1000

Q4 In your job, how many people report to you?

Q5 How would you describe your position within your company?

- Company Director
 - Senior Manager
 - Other Management
 - Supervisor
 - Non-supervisory staff
 - Self Employed Technical
 - Self Employed Professional
 - Other (Please write in)
-

Q6 What is your job title?

Q7 Does your company have either a Travel Department or a Travel Manager?

- Yes
No
Don't know

Q8 Does the company that you work for have a Company Travel Policy?

- Yes
No Go to Q12
Don't know

Q9 Who is responsible for setting any travel policy, that your company may have?

- Company Directors
Travel Manager/Dept.
Departmental Managers
Finance Department
Yourself
Don't know

Q10 How would you describe this travel policy?

Written rules:-

- Always to be adhered to
Guidelines for preferred practice
Open to interpretation

Unwritten rules indicated by:-

- Your manager
Person who organises travel

Q11 What are your feelings about the travel policy?

- Pleased to have explicit policy
- Rules to be avoided if possible
- A sensible business decision
- A hindrance when planning a business trip
- Not bothered about policy
- An infringement of employment travel benefits
- Other (please write in)

Q12 Does your company have a preferred airline(s)?

- Yes
- No Go to Q14
- Don't know

Q13 If YES at Q12
Is the preferred airline(s) favoured:-

- Every time
- Almost always
- On specific route(s)
- In a geographical region
- Other (please write in)

Q14 For people of the following status within your company (where appropriate) please tick the class of air travel they generally take :-

I) FOR SHORT HAUL TRAVEL WITHIN EUROPE

	First Class	Business	Economy
Company Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Senior Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-supervisory staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (write in)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

II) FOR LONG HAUL TRAVEL OUTSIDE EUROPE

	First Class	Business	Economy
Company Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Senior Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-supervisory staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (write in)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please describe any exceptions to the above.

ABOUT THIS BUSINESS TRIP

Q15 How was the flight that you are about to take selected?

- By yourself
 - By your client
 - By your travel dept.
 - Set by business schedule
 - With advice from travel dept.
 - Other (please write in)
-

Q16 Who booked this flight?

- Yourself
 - Your department
 - A travel manager/dept.
 - Other (please write in)
-

Q17 Are you, generally, given the choice of which airline you wish to use for a specific flight?

- Yes always
 - Yes if within Travel Policy
 - Rarely
 - Not in any circumstances
 - Yes in some circumstances (please give details)
-

Q18 In what manner was the ticket purchased?

- Direct from airline
 - Self-write airline ticket
 - Business travel agent
 - General travel agent
 - Discount travel agent
 - Don't know
 - Other (please write in)
-

Q19 How was your airline ticket paid for?

- By yourself (claimed back as expenses)
 - Cash advance
 - Self written company cheque
 - Company account
 - Your company credit card
 - Other (please write in)
-

Q20 How is this air fare going to be budgeted for?

- Company travel budget
 - Departmental travel budget
 - Project budget
 - Client/account budget
 - Fare paid by client directly
 - Other (please write in)
-

Q21 What is the number of the flight you are about to take?

Flight No. _____
(on your ticket or boarding pass)

Q22 Where did you start your journey from, before checking in for this flight?

Home
Work

Town/City _____
County/Region _____
Country _____

Q23 Where is your final destination after this flight?

Town/City _____
County/Region _____
Country _____

Q24 Which one of the following air fares are you travelling on?

Normal Single
PEX Return
APEX Return
Monthly Return
Euro Budget
Don't know
Other (please write in)

Q25 How many total round trips, including this one, have you made, by air, in the last 12 months?

Number of trips

Q26 How long are you away on this trip?

Day return trip
One night
2-4 nights
5-10 nights
11-20 nights
More than 20 nights

Q27 What is your preferred airport for UK departures

Q28 What reasons influenced your choice of preferred airport

	Tick any
Ease of access by road	<input type="checkbox"/>
Ease of access by rail	<input type="checkbox"/>
Ease of parking	<input type="checkbox"/>
Airport not congested	<input type="checkbox"/>
Easy to find your way around	<input type="checkbox"/>
The airlines that fly from airport	<input type="checkbox"/>
Flexibility of flight schedule	<input type="checkbox"/>
Other (please write in)	<input type="checkbox"/>

Q29 Please could you evaluate your view of the **IMPORTANCE** of the factors given below. (Please tick)

		Neither				
		Fairly	High	Nor	Fairly	
	High	High	Low	Low	Low	Low
Booking						
1 Timing of the outward flight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Timing of the return flight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Flight frequency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Ticket price	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Ticket discount	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Ease of reservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Lack of ticket restrictions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Direct route	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Seat allocation at reservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Check-in						
10 Parking assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Quality of ground service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Flight from local airport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 Return boarding card on departure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 Business lounge available at airport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 City centre check-in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 Exclusive Business Class check-in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In-flight						
17 In-flight service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 Seat comfort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 Duty free available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Factors						
20 Frequent flier programme	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 Airline punctuality record	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 Past experience of an airline	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 Airline safety record	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q30 Which of the factors given in Q29 do you consider to be the most and least important?

Most important

Factor Number

Least important

Factor Number

Q31 Which of the factors given in Q29 do you perceive to be the most and least important to your company?

Most important

Factor Number

Least important

Factor Number

FINALLY: A FEW DETAILS ABOUT YOURSELF

Q32 What age group are you in?

- Under 18
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65 or over

Q33 Are you male or female?

- Male
- Female

Q34 If you are a UK resident, please would you write in the postcode of your home and also the postcode of the company that you work for.

Postcode at home

Postcode at work

Please note: Postcode data will provide vital information regarding the geographical location of your home and work. This information will be treated in strictest confidence and cannot be used to identify either your home address or your work address.

Thank you for taking time to complete this survey.
Your help is much appreciated.

Appendix IV

First Draft of Questionnaire for Business Travellers with Comments

SURVEY OF BUSINESS TRAVELLERS

Dear Sir or Madam,

This questionnaire is part of a research project currently being undertaken at Polytechnic South West in Plymouth. Its aim is to discover how business travellers, such as yourself, select and purchase air travel when they make a business trip. I would appreciate your help with this research by completing this questionnaire. Should you have any queries you may contact me at the address below. Your answers will be treated in the strictest confidence.

Thank you in advance for your cooperation.

Keith Mason
Centre for International Shipping and Transport
Polytechnic South West,
Drake Circus,
Plymouth,
PL4 8AA
Tel: (0752) 232 434

For office use	Ref No.
	Location
	Date

ABOUT THE COMPANY YOU WORK FOR AND YOU

Q1 Roughly how many people are employed at the site where you work?

- 0-9
- 10-24
- 25-99
- 100-249
- 250-1000
- More than 1000

Q2 If the company that you work for employs other people at other sites, roughly how many people are employed in the company as a whole?

- 0-9
- 10-24
- 25-99
- 100-249
- 250-999
- 1,000-2,499
- 2,500-10,000
- More than 10,000

Q3 What is the main activity of the organisation for which you work

- Agriculture/forestry/fishing
 - Oil/gas exploration
 - Manufacturing industry
 - Service industry
 - Construction industry
 - Civil services
 - Armed forces
 - Transport
 - Other (please write in)
-

Q4 What is your job title?

Q5 In your job, how many people report to you?

Q6 How would you describe your position within your company?

- Company Director
 - Senior Manager
 - Middle Manager
 - Junior Manager
 - Supervisor
 - Non-supervisory staff
 - Other (Please write in)
-

Q7 Does your company have either a Travel Department or a Travel Manager?

- Yes
- No
- Don't know

Q8 Does the company that you work for have a Company Travel Policy?

- Yes
- No
- Don't know

Q9 If Yes at Q8 How would you describe this travel policy?

- Written rules:-
- always to be adhered to
 - Open to interpretation
- Unwritten rules indicated by:-
- Your manager
 - Person who organises travel
 - Guidelines for preferred practice

Q10 If Yes at Q8 What are your feelings about the travel policy?

- Pleased to have explicit policy
 - Rules to be avoided if possible
 - A hindrance when planning a business trip
 - Not bothered about policy
 - An infringement of employment travel benefits
 - Other (please write in)
-
-

Q11 Who is responsible for setting any corporate travel policy, that your company may have?

- Company Directors
- Travel Manager/Dept.
- Departmental Managers
- Don't Know
- No such policy exists

Q12 Does your company have a preferred airline(s)?

- Yes
- No
- Don't know

Q13 If YES at Q12
Is the preferred airline(s) favoured:-

- Every time
- Almost always
- On specific route(s)
- In a geographical region
- Other (Please write in)

Q14 For people of the following status within your company (where appropriate) please tick the class of air travel they generally take :-

I) FOR TRAVEL WITHIN THE EC	First Class	Business	Economy
Company Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Senior Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Middle Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Junior Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-supervisory staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (Write in)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

II) FOR TRAVEL OUTSIDE THE EC	First Class	Business	Economy
Company Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Senior Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Middle Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Junior Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-supervisory staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (Write in)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please describe any exceptions to the above.

WHEN YOU MAKE A BUSINESS TRIP

Q15 How are your airline tickets generally paid for?

- By yourself
 - (claimed back as expenses)
 - Cash advance
 - Self written company cheque
 - Company account
 - Your company credit card
 - Other (please write in)
-

Q16 Generally, how is your air fare budgeted for?

- Company travel budget
 - Departmental travel budget
 - Project budget
 - Client/account budget
 - Fare paid by client directly
 - Other (please write in)
-

Q17 Are you given the choice of which airline you wish to use for a specific flight

- Yes always
 - Yes if within Travel Policy
 - Rarely
 - Not in any circumstances
 - Yes in some circumstances (please give details)
-

Q18 Generally, how are the specific flights that you take selected?

- By yourself
 - By your client
 - By your travel dept.
 - Set by business schedule
 - With advice from travel dept.
 - Other (please write in)
-

Q19 When you make a business trip by air, who generally books the ticket?

- Yourself
 - Your department
 - A travel manager/dept.
 - Other (please write in)
-

Q20 In what manner is the ticket usually purchased?

- Direct from airline
 - Self-write airline ticket
 - Business travel agent
 - General travel agent
 - Discount travel agent
 - Don't know
 - Other (please write in)
-

ABOUT THIS AND PREVIOUS JOURNEYS

Q21 What is the number of the flight you are about to take?

Flight No. _____
(on your ticket or boarding pass)

Q22 Where did you start your journey from, before checking in for this flight?

Town/City _____
 County/Region _____
 Country _____

Q23 By what form of transport did you arrive at this airport?

Car (parked at airport)
 Car (not parked at airport)
 Train
 Bus/Coach
 Taxi
 Air
 Other (please write in)

Q24 Where is your final destination after this flight?

Town/City _____
 County/Region _____
 Country _____

Q25 Which one of the following air fares are you travelling on?

Normal Single
 PEX Return
 APEX Return
 Monthly Return
 Euro Budget
 Don't know
 Other (please write in)

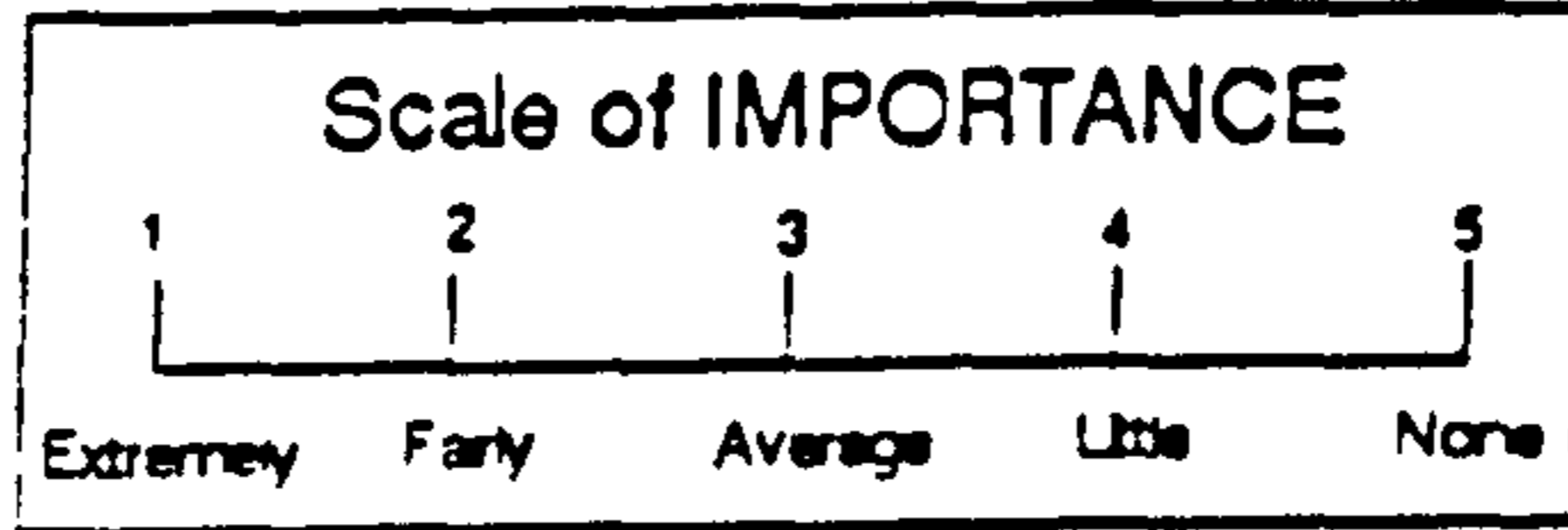
Q26 Including this trip, how many times have you travelled by air on business in the last 12 months?
(count a return trip as ONE journey)

First Trip
 2-5
 6-10
 11-20
 More than 20

Q27 How long are you away on this trip?

Day return trip
 One night
 2-4 nights
 5-10 nights
 11-20 nights
 More than 20 nights

Q28 Using the scale on the right, please could you evaluate both your own view of the **IMPORTANCE** of the factors given below, and also how you perceive your company would view these factors. (Please Circle)



	Your personal opinion		Your company's opinion	
1	1 2 3 4 5		1 2 3 4 5	
2	1 2 3 4 5		1 2 3 4 5	
3	1 2 3 4 5		1 2 3 4 5	
4	1 2 3 4 5		1 2 3 4 5	
5	1 2 3 4 5		1 2 3 4 5	
6	1 2 3 4 5		1 2 3 4 5	
7	1 2 3 4 5		1 2 3 4 5	
8	1 2 3 4 5		1 2 3 4 5	
9	1 2 3 4 5		1 2 3 4 5	
10	1 2 3 4 5		1 2 3 4 5	
11	1 2 3 4 5		1 2 3 4 5	
12	1 2 3 4 5		1 2 3 4 5	
13	1 2 3 4 5		1 2 3 4 5	
14	1 2 3 4 5		1 2 3 4 5	
15	1 2 3 4 5		1 2 3 4 5	
16	1 2 3 4 5		1 2 3 4 5	
17	1 2 3 4 5		1 2 3 4 5	
18	1 2 3 4 5		1 2 3 4 5	
19	1 2 3 4 5		1 2 3 4 5	
20	1 2 3 4 5		1 2 3 4 5	
21	1 2 3 4 5		1 2 3 4 5	
22	1 2 3 4 5		1 2 3 4 5	
23	1 2 3 4 5		1 2 3 4 5	
24	1 2 3 4 5		1 2 3 4 5	

Q29 Which of the factors given in Q29 do you personally consider to be the most important?

Factor Number

Q30 What is your preferred airport for UK departures

Q31 What reasons influenced your choice of preferred airport

Tick any

Ease of access by road

Ease of access by rail

Ease of parking

Airport not congested

Easy to find your way around

Other (please write in)

FINALLY: A FEW DETAILS ABOUT YOURSELF

Q32 What age group are you in?

Under 18

18-24

25-34

35-44

45-54

55-64

65 or over

Q33 Are you male or female?

Male

Female

Q34 If you are a UK resident, please would you write in the postcode of your home and also the postcode of the company that you work for.

Postcode at home

Postcode at work

Please note: Postcode data will provide vital information regarding the geographical location of your home and work. This information will be treated in strictest confidence and cannot be used to identify either your home address or your work address.

Thank you for taking time to complete this survey.
Your help is much appreciated.

FAX



To: Alison Bond
Company: Air UK Ltd
Fa: 0279 680012
Fnm: Jeff Deighton
Date: 6 May 1992
2
No. of Pages (Incl. cover sheet)

22 Stephenson Way
London, NW1 2HZ
Tel: 071-383 2939
Fax: 071-383 2833

JPD/477/ab/2

Dear Alison

Hope you had a good break (even if it was a free day given to us by the socialists!)

I have had the opportunity now to look over your Phd students' questionnaire and can make the following comments/suggestions as requested:-

- a) Personally I would reorder questions 1-6 so that we start with Q3; rephrase Q2 so it is specifically the company as a whole; then have Q1; Q5; Q6; and finally Q4.

On any questionnaire and in particular on a self completion questionnaire it is best to start with general questions, then more specific and personal ones - otherwise your level of return is affected as people will not answer personally specific questions prior to general ones.

- b) Q9 I would put "guidelines for preferred practise" in between "always to be adhered to"; "open to interpretation".
- c) Q10 the statements seem to be really only relevant for those who have "written rules" at Q9 so perhaps the filter should be changed.
- d) Q11 I would place after Q8.
- e) Q15-20 could also be reordered to flow better. I suggest starting with a slightly rephrased Q18 "who selects your flight" then Q19; then Q17; then Q20; then Q15; then Q16. It may also be worth including a question on "can you choose which airport to fly out from?" (see Q30 over page).
- f) Q22 could also be worth including whether "home or work".
- g) Q24 - should this be "will you be flying back to this airport?" ?
If YES Q24b "when you return here will you go straight home or to work?"
If NO Q24c "which airport will you be returning to instead"

Q26 Personally I prefer flights as one and a return as two. If you can spare the space I would put more choices in for the itemisation and you could consider instead eg. once a month, once a fortnight etc, as this is easier to answer.

Q28 The "company opinion" is conceptually very clever but unfortunately will get low levels and/or poor quality completion as there are too many statements for it to work well. People generally can only rate their company view as a personal perception on "hard" attributes eg. timing; frequency; price. Company opinion is probably only worthwhile being filled out by those who have formulated or know the policy. To aid the completion of the statements on the individual view it is worth trying to separate the attributes into clear cohesive sections using gaps eg. booking; service; in-flight to try and minimise the wear out factors from the top of the list to the bottom.

The respondent will be able to answer for himself easily enough (except for the "other" statement (24) - won't get much from this). However, it will be very difficult for him to rate how important "the company" views each statement as it depends on whether there is a clear policy or not and also the respondents level of knowledge/position. Personally I would not bother with "your companys opinion" but instead would expand Q29 so it reads:-

- a) "most important for you personally"
- b) which of the factors do you think your company views as being the most important
- c) probing on least important may also shed some light

Q30 This preference on airport may be difficult if the company books the flights so perhaps two stages again:-

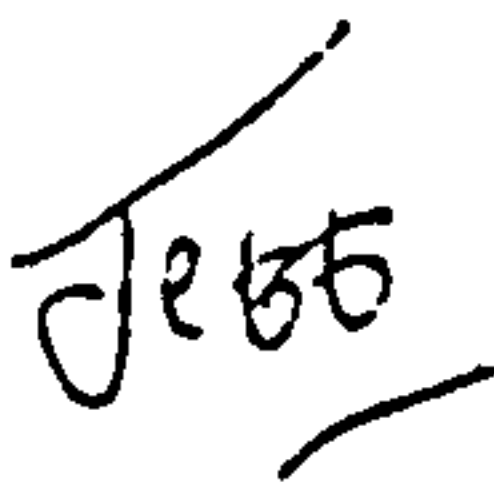
Q30 Is this the airport you would choose to fly from normally on business? IF NO Where would you prefer?

Q31 The phrasing is clumsy. "Why do you prefer this other airport?" ^{preferred}

Hope this helps - the questionnaire (despite what seems a lot of criticism) is actually quite good.

Kindest regards.

Yours sincerely
for GfK Great Britain Limited



J P Deighton
Division Manager
Advertising Research

Appendix V

Factor Analysis

GET /FILE 'UKCOM1.SYS'.
 The SPSS/PC+ system file is read from
 file UKCOM1.SYS
 The file was created on 7/21/92 at 4:48:22
 and is titled SPSS/PC+ System File Written by Data Entry II
 The SPSS/PC+ system file contains
 827 cases, each, consisting of
 102 variables (including system variables).
 102 variables will be used in this session.

 Page 2 SPSS/PC+ 2/24/9

This procedure was completed at 7:47:09

 Page 3 SPSS/PC+ 2/24/9

FACTOR /VARAIBLES I1 TO I23.

This FACTOR analysis requires 63048 (61.6K) BYTES of memory.

 Page 4 SPSS/PC+ 2/24/9

- - - - FACTOR ANALYSIS - - - -

Analysis Number 1 Listwise deletion of cases with missing values

Extraction 1 for Analysis 1, Principal-Components Analysis (PC)

Initial Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
I1	1.00000	*	1	6.58468	28.6	28.6
I2	1.00000	*	2	1.99463	8.7	37.3
I3	1.00000	*	3	1.76039	7.7	45.0
I4	1.00000	*	4	1.41765	6.2	51.1
I5	1.00000	*	5	1.14595	5.0	56.1
I6	1.00000	*	6	1.03909	4.5	60.6
I7	1.00000	*	7	.96125	4.2	64.8
I8	1.00000	*	8	.88985	3.9	68.7
I9	1.00000	*	9	.82945	3.6	72.3
I10	1.00000	*	10	.70287	3.1	75.3
I11	1.00000	*	11	.65606	2.9	78.2
I12	1.00000	*	12	.62190	2.7	80.9
I13	1.00000	*	13	.55827	2.4	83.3
I14	1.00000	*	14	.52876	2.3	85.6
I15	1.00000	*	15	.50817	2.2	87.8
I16	1.00000	*	16	.46725	2.0	89.9
I17	1.00000	*	17	.41215	1.8	91.6
I18	1.00000	*	18	.39728	1.7	93.4
I19	1.00000	*	19	.37716	1.6	95.0
I20	1.00000	*	20	.36421	1.6	96.6
I21	1.00000	*	21	.30388	1.3	97.9
I22	1.00000	*	22	.27862	1.2	99.1
I23	1.00000	*	23	.20045	.9	100.0

PC Extracted 6 factors.

 Page 6 SPSS/PC+ 2/24/9

Factor Matrix:

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR
I1	.15522	.33750	.69889	.36535	-.07033
I2	.17109	.30668	.62835	.46132	-.10689
I3	.48295	.23658	.22888	.04278	-.27811
I4	.34772	.74805	-.31962	-.10746	-.06950
I5	.34813	.71720	-.36304	-.09878	-.07519
I6	.57614	.37319	-.22399	.04896	.02825
I7	.61622	.25501	-.08718	.04781	-.01863
I8	.41986	.08438	.12974	.06822	.04020
I9	.67418	-.10438	-.01336	.05687	.04821
I10	.49112	-.02733	-.20607	.28671	.42407
I11	.66882	-.03119	-.04387	.08654	.35702
I12	.23820	-.00822	.12602	.17917	.63100
I13	.63139	-.12571	-.18012	.36059	.06550
I14	.68355	-.33535	-.02236	.08045	-.27399
I15	.64065	-.23283	-.29438	.28084	-.19808
I16	.63979	-.37391	-.02497	.12757	-.33755
I17	.61645	-.14566	.18216	-.26395	.11777
I18	.60980	-.14406	.26650	-.34118	.17917
I19	.47118	-.21907	-.26136	.15638	-.03992
I20	.59518	-.12727	-.03577	-.04800	-.22401
I21	.56596	-.01226	.33676	-.39095	.00869
I22	.57288	-.00762	.20482	-.41618	.00083
I23	.55316	.06331	.07975	-.37861	.02893

FACTOR 6

I1	.03288
I2	.12224
I3	-.11854
I4	.21886
I5	.21477
I6	-.30804
I7	-.28787
I8	-.23394
I9	-.33405
I10	-.13035
I11	-.20223
I12	.41840
I13	.11235
I14	-.00689
I15	.18196
I16	-.02201
I17	.00448
I18	-.00185
I19	.37420
I20	.26592
I21	.25054
I22	.10353
I23	-.08635

Final Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
I1	.76594	*	1	6.58468	28.6	28.6
I2	.75733	*	2	1.99463	8.7	37.3
I3	.43482	*	3	1.76039	7.7	45.0
I4	.84692	*	4	1.41765	6.2	51.1
I5	.82890	*	5	1.14595	5.0	56.1
I6	.61946	*	6	1.03909	4.5	60.6
I7	.53786	*				
I8	.26123	*				
I9	.58273	*				
I10	.56344	*				
I11	.62607	*				
I12	.67802	*				
I13	.59384	*				
I14	.66178	*				
I15	.70251	*				
I16	.68047	*				
I17	.51797	*				
I18	.61214	*				
I19	.50439	*				
I20	.49491	*				
I21	.64955	*				
I22	.55412	*				
I23	.46799	*				

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SPSS/PC+

2/24/9

- - - - FACTOR ANALYSIS - - - -

Varimax Rotation 1, Extraction 1, Analysis 1 - Kaiser Normalization.

Varimax converged in 6 iterations.

Rotated Factor Matrix:

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR
I1	-.08295	.07534	.07123	-.00101	.86331
I2	.04084	-.00073	.03329	.02353	.86321
I3	.19022	.27217	.27341	.20259	.38833
I4	.03944	.09147	.11858	.90531	.04995
I5	.06899	.07006	.12436	.89609	.01126
I6	.12404	.12054	.63291	.42670	.02945
I7	.18341	.20916	.59356	.29474	.10766
I8	.08673	.20067	.41990	.02895	.18825
I9	.30670	.29712	.62904	-.03981	.03153
I10	.23215	-.00092	.58533	.04419	-.05874
I11	.21641	.29134	.64474	.02782	-.00312
I12	.06592	.15109	.04604	.01492	.12084
I13	.60423	.05021	.38172	.08756	.07595
I14	.66931	.32332	.28104	-.09384	.05131
I15	.78971	.06705	.24098	.11023	-.02570
I16	.69861	.26214	.25551	-.13675	.06427
I17	.21650	.62310	.26782	-.03616	.01835
I18	.13341	.71144	.25782	-.06990	.03140
I19	.64117	.10884	.02517	.12239	-.09380
I20	.56877	.37846	.04724	.15128	.05476

FACTOR 6

I1	.05478
I2	.09420
I3	-.24075
I4	.02943
I5	.02562
I6	-.07762
I7	-.09843
I8	-.02911
I9	-.04607
I10	.40190
I11	.27909
I12	.79618
I13	.25899
I14	-.13729
I15	.08910
I16	-.18862
I17	.09729
I18	.12594
I19	.23881
I20	-.00767
I21	.08918
I22	.00359
I23	-.06255

- - - - FACTOR ANALYSIS - - - -

FACTOR 6

Factor Transformation Matrix:

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
FACTOR 1	.56304	.55162	.55063	.22130	.1347
FACTOR 2	-.42310	-.09460	.11692	.82062	.3519
FACTOR 3	-.28467	.40292	-.13595	-.40554	.7573
FACTOR 4	.35914	-.70990	.23618	-.12826	.4844
FACTOR 5	-.40080	.06742	.30340	-.12157	-.2036
FACTOR 6	.36511	.12616	-.71890	.28621	.0904

FACTOR 6

FACTOR 1	.09143
FACTOR 2	-.03290
FACTOR 3	.00591
FACTOR 4	.24524
FACTOR 5	.82857
FACTOR 6	.49382

Appendix VI

Postal Regions

Postcode regions

Region	Post Codes
Stansted Catchment	SG, CB, IP, CO, CM, SS, RM, IG, EN
West of Territory	MK, LU, AL, WD
Kent Corridor	BR, DA, ME, CT
Within M25	HA, UB, TW, KT, SM, CR, NW, N, E, W, SW, WC, EC
Scotland	ML, EH, KY, PH, DD, AB
Anglia and Midlands	NN, LE, PE, NR, CV