## Price Bundling:

# A Technique To Simultaneously Increase Profitability And Enhance Consumer Value Perceptions. Case - The Tourism Industry 

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## DECLARATION

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of Master of Business Studies is entirely my own work and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

Signed:

Date: $1^{\text {st }}$ October 1999

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#### Abstract

Price Bundling, which is the practice of marketing two or more products or services in a single 'package' for a single price, has been described as a potent method of maximising the profit potential of an organisation. It is a form of price discrimination which essentially enables the marketer to charge prices which are as close as possible to the maximum amount that consumers are willing to pay. It stimulates demand for the weaker components of the bundle and so provides access to economies of scope while simultaneously enhancing consumer value perceptions through increased savings and convenience elements.

To implement a price bundling strategy, specific knowledge of the reservation prices of the various market segments for each element of a potential bundle is required. A reservation price is the maximum amount of money that a consumer is willing to pay for a certain product or service. Reservation price information can often be difficult to obtain as respondents themselves are not always able to accurately declare how much they are willing to pay. Conjoint analysis has been identified as a statistical technique which can overcome this problem. The choice based variant of conjoint analysis, used in this study, provides a means by which to simulate the choices in a market place. A relative value for each product attribute is determined from the respondents choice information. This study explored the application of price bundling in the context of a tourism product. The product chosen for the purposes of the study was weekend breaks. The questionnaire was administered to 268 respondents at a consumer holiday fair. Respondents were required to choose preferred bundles from arrays of tourism bundles. Analysis of the data identified a distinct order of preference for the attributes under investigation. Choices seem to have been dominated by a very strong preference for lower priced bundles, with affordable grade three star accommodation in central city locations. The strong influence of accommodation grade is understandable considering the large price differentials incurred by higher graded hotels. The most and least preferred bundles were identified alongside the dominant tradeoffs which occurred between these two extremes.


## Chapter 1

## Introduction

Consumers perceive price as the sacrifice or cost they must bear for the benefits of a product or service. Consequently, it is essential when pricing a product or service, to understand which aspects of the product consumers particularly value, and how much value they place on these benefits. The marketing oriented view of pricing attempts to relate the price of the product to the value that the consumers believe they will derive from its purchase. The non-price variables of the marketing mix are employed to augment perceived value in the buyer's minds, and prices are set accordingly to reflect this perceived value. It is the buyer's perception of value, and not the sellers costs, that is deemed the key to profitable pricing. This approach to pricing views costs as a constraint which determine a lower price limit, and price ceilings are set by charging what the target consumers would consider value for money.

Price Bundling has been described as a potent method of maximising the profit potential of an organisation as it essentially offers organisations a means by which to price discriminate among consumers by grouping them according to willingness to pay. A generally accepted definition of bundling is the practice of marketing two or more products and/or services in a single 'package' for a single price.

Bundling provides benefits for both the consumer and producer. Consumers' gains are enhanced by providing increased savings and convenience elements. From the producers point of view it stimulates demand for the weaker components of the bundle and so provides access to economies of scope.

The bundle is usually offered at a lower price than the sum of the two individual items. However, bundling products does not necessarily require that the bundle price is lower than the sum of the individual products. Indeed, if the individual products offer little benefit on their own, and their value greatly increases when consumed with complementary products, then the bundle price can be higher than the sum of the individual components.

The success of price bundling is dependent on setting the optimal prices in order to maximise profits. This optimal price is primarily based on the reservation prices of consumer segments and the size of these various segments. A reservation price is the
maximum amount of money that a consumer is willing to pay for a certain product or service.

Well-founded price bundling requires the knowledge of customer specific reservation prices both for the individual products and services, and for the bundle. The most effective method of collecting this information is through conjoint analysis. Conjoint analysis is a technique which can help provide information on which product attributes are most important to consumers and the trade-offs they are willing to make between attributes. This is done by estimating the value attached to each attribute on the basis of respondents' choices of varied product bundles.

Tourism is a growing industry world-wide, and it is only in the last decade or two that Ireland has really begun to reap the benefits of this. However, Ireland must be careful to avoid the mass tourism approach which has become an affliction in many popular tourist resorts. This is particularly evident in the Mediterranean regions, where price concentrated competition has resulted in their tourism products becoming more and more alike in quality and promotional approach, which results in consumers having less and less scope to use discrimination. Eventually the whole category becomes a lowmargin commodity market. While this policy has been successful in increasing market share for certain operators, it has also led to price wars resulting in very low industry margins for many of these markets.

Tourism policy makers have learned from these mistakes and a move away from the mass tourism where quality took a back seat to quantity is apparent. This can be seen here in Ireland where Bord Failte have recently changed their marketing strategy to focus their efforts on the attracting the right type of tourists rather than increasing visitor numbers. To succeed at this, emphasis needs to be placed on value rather than on price.

This research intends to explore the application of price bundling to an Irish tourism product and examine the potential of this technique for simultaneously increasing profits and enhancing consumer value perceptions. The first step is to determine the specific elements of a particular package which consumers value most, and what they are willing to pay for these benefits. Ideally this information would then be linked with data on the cost of providing each element of the bundle. The cost data will provide information on the financial feasibility of including certain elements in bundles. For example, there
may be a product or service that the consumer values highly and may not cost much to provide. On the other hand, there may be certain products traditionally included in a bundle that incur greater costs than the consumer feels they are worth. From this information, optimum packages should become apparent by identifying the particular market segments which place a high value on the most lucrative packages.

### 1.2 Chapter Outlines

The second chapter introduces and defines pricing. It then approaches pricing from the point of view of economic theory and briefly introduces the economic theories underlying price bundling.

Chapter three takes a look at pricing from a behavioural point of view and explores the various factors that mediate between an actual monetary price and how the consumer encodes and perceives price.

Chapter four introduces the concept of price bundling and examines the three main strategies. It goes on to address issues relating to the implementation of price bundling strategies.

Chapter five takes a brief look at services and the tourism industry and their idiosyncratic characteristics that distinguish them from goods by requiring special marketing treatment. The changing face of the tourism industry is discussed alongside the opportunities that need to be handled carefully.

Chapter six looks at the specific research question in hand and outlines in detail the methodology employed by this investigation. Also covered in this chapter are the instances where certain methodologies had to be abandoned in favour of more practical solutions.

Chapter seven analyses and comments on the data collected through primary research using various statistical analytical techniques. Two different software packages, SPSS (Statistical Package for Social Sciences) and CBC (Choice Based Conjoint), were employed in the data analysis. CBC was used to analyse the conjoint results while SPSS was used to determine some of the sample's demographic and behavioural characteristics from questionnaire responses.

Chapter eight sums up the conclusions of the research alongside some of the limitations of the study. Recommendations are made based on the conclusions of the study

## Chapter 2

## Pricing From an Economic Perspective

## 2. 1 Introduction

Understanding the economic environment in which pricing decisions are made is the first step towards ensuring their effectiveness. In the economist's view of the world, price is regarded as the chief determinant of the level of sales and profit generated by a product or service. While the economic models describing economic relationships are weak in providing prescriptions for individual action, they are strong in useful heuristics for understanding the mechanics of price, supply, and demand, and how they operate in the marketplace.

This chapter introduces and defines price in terms of its importance and role, from the position of various interest groups. It also presents the rudiments of economic theory behind consumer choice along with corresponding criticisms regarding it's bearing in today's markets. Finally in contrast to traditional pricing principles, the concept of market oriented pricing is introduced.

The purpose of this chapter is not to exhaustively explain the economic theories behind price and consumer behaviour but to briefly and selectively introduce some of the main elements that would impact on the application of price bundling. Each issue is only concerned to the extent and manner in which it is required to assist in the understanding of price bundling mechanics.

### 2.2 Defining Price

Superficially price is easily defined as 'the amount of money one pays for a good', but price is a more complex phenomenon than it would appear initially. It can be defined in many ways and take on many forms. The definition of price varies with point of view. Its function and importance are viewed differently by various interest groups, mainly buyers and sellers.
To sellers, price is the only element of the marketing mix which directly generates revenue, and so it plays a crucial role in determining turnover and profitability. Its impact will usually be reflected in the quantity of the product sold, the contribution to profits that the product will make, and even more crucially, the strategic position of the product in the marketplace (Christopher, 1988).
For the marketer of a product, price is viewed as a product attribute, employed to give the impression of value which will attract customers and differentiate the products from those of competitors in the eyes of the consumer. To consumers price is what they must exchange or sacrifice for some or all of a product's utilities and values. However, price
is not just viewed by consumers as a sacrifice, it is also employed in making judgements about the relative value of a product or service (Monroe 1993). Price impacts both economically and psychologically on the consumer. In the monetary sense the price paid for a product or service represents a sacrifice of purchasing power, in that money spent on an item is not available for spending on another item. The psychological impact is derived from perceptions of receiving a bargain, value for money, or by owning a prestige product with a premium price tag.

Consumers may be prepared to pay more than is necessary for a functional 'core' product, or the basic need which the product satisfies (Cowell 1984). In light of rational economic theory this may appear to be an untenable observation but the extra they pay is for the 'augmented' product whose additional benefits infer prestige or quality to them and hence greater value for money. A less expensive item may perform the same functions but consumers will pay much more for the associated intangibles. For example, a digital watch costing $£ 10$ will perform the same basic function as a Rolex, yet many are willing to pay the price for a genuine Rolex watch as it implies prestige. However it must be noted that such judgements and behaviours are subjective and very product specific.

Price is not just measured in monetary terms; it includes all sacrifices that are made by the consumer to acquire the benefits of a product or service, such as time and effort spent in obtaining it. A general definition for price which best encompasses all these aspects is as follows: the amount of money charged for a product or service or the summation of all sacrifices made by a consumer in order to experience the benefits of a product or service.

## 2. 3 The Importance Of Price To Business Organisations

Price is a crucial factor for a business in determining its long run survival and profitability. In a free market economy the price charged for a product or service affects the quantity demanded, which in turn affects each company's competitive position, market share, and net profit.

The importance of price to the company is further accentuated by the fact that price is the only element of the marketing mix which generates revenue. All the other variables incur expenses, i.e. promotion, product development, distribution.
Price, as an element of the marketing mix, is also instrumental in determining a product's market position, and so it is essential that the pricing decision is consistent with this desired product position. Price cannot be considered in isolation from the
other marketing mix variables which also significantly influence the price a consumer is willing to pay for the product.

Price is also the most flexible element of the marketing mix in that it can be changed easily at short notice. This is a characteristic which does not apply to the other elements of the marketing mix. As a result of this a suitable price can 'produce the sale' where other alternatives are unfeasible or have not been successful (Tellis, 1989).

The actual importance of price is not reflected in the time and effort spent on making such decisions. Many organisations calculate their product costs and simply add on a percentage profit margin rather than considering what price the consumer is willing to pay for the offerings (Monroe, 1990).

## 2. 4 Economic Pricing Theory

The role of economics in pricing is not to price products and services, but to aid the understanding of the consequences of pricing actions. With the rational economic model of buyer behaviour the view of price stems from the theory of supply and demand. In essence this theory is based on the belief that demand will fall as price increases, and supply will rise as price increases. This is a logical argument in the sense that 'all things being equal' the rise in price of a product will cause fewer people to buy it. It is equally obvious that if manufacturers are supplying a limited quantity of goods at a given price, then the unsatisfied demand will tend to force up the price. And as the price increases, more manufacturers will be inclined to produce similar goods, causing supply to increase. When demand is high and supplies are low manufacturers may be in a position to raise their prices or 'charge what the market will bear' until demand and supply are in equilibrium (Lipsey, 1989). These economic relations can be indicated graphically, as in Figure 1.


Figure 1 Demand and Supply Curves

### 2.5 Price Elasticity

Another economic theory pertinent to pricing is the concept of elasticity of demand. Elasticity is the economists' measure of the sensitivity of a market to price (Monroe, 1993). While the basic principles of demand apply to products as a whole, the demand for some products is more flexible than for others. Demand for a product is deemed to be price elastic when a small price change produces a relatively large change in consumer demand. Conversely the demand for a product is said to be price inelastic when it is comparatively insensitive to changes in price (Lipsey, 1989). It must be kept in mind that price elasticity is relative and product specific. As a generalisation, the demand for necessities (i.e. salt, sugar, petrol) tends to be inelastic, in that if the price increases, demand will not fluctuate a lot. The demand for products purchased with discretionary income (i.e. luxury items, cars) typically displays greater elasticity. Moreover, the demand for individual brands is much more elastic than is the demand for the broader product category. As a holiday would be considered a luxury rather than a necessity, and has close substitutes, as well as being a relatively large expense, it could be suggested that its demand would be elastic.

## 2. 6 Substitutes and Complements

A substitute is a product that serves the same purpose as another product. If the price of a substitute decreases people economise on it and demand for that product increases.

Inversely if the price of a substitute increases its demand will decrease as consumer's switch to a cheaper priced alternative.

A complement is a product consumed in conjunction with another product. If the price of one complement increases demand for the other product and related complementary products will decrease. Conversely if the price of one complement decreases, demand for other complementary product will increase.

## 2. $7 \quad$ Utility and Consumer Choice

In explaining consumer behaviour, economics relies on the fundamental premise that people tend to choose those goods and services they value most highly. To describe the way consumers choose between different consumption alternatives the concept of utility was formed. Demand theory states that people maximise their utility, which means that they choose the bundle of consumption goods that they most prefer, or that provides them with the most value. In sum, utility is the term that economists use to represent "the satisfaction which consumers receive from items they acquire, activities they engage in, or services they use" (Samuelson and Nordhaus, 1995, p74). More precisely it refers to the extent to which goods and services are preferred by consumers (Harrison Smith and Davies, 1992, p51). When a consumer expresses a preference for good A over good B, it can be said that they have a higher utility for good A.
Total utility is merely an extension of the utility concept which introduces quantity and often a time constraint into the equation. It is defined as "the total benefit or satisfaction that a person enjoys from consuming any given quantity over a certain period of time" (Parkin and King, 1992, p147). The total utility that a person receives depends on their level of consumption in that, the greater the level of consumption the greater the total utility, up to the point of satiation.

## 2. 8 Marginal Utility

Marginal utility is the amount by which total utility increases or decreases when consumption of a product or service changes by one unit (Parkin and King, 1992, p147). For example the total utility of taking three holidays a year is the total satisfaction provided by those three holidays. The marginal utility of consuming the third holiday is the extra satisfaction that consumption of that extra holiday provides over and above the total utility of the first two holidays. Therefore the marginal utility of the third holiday is the difference in total utility gained by consuming the third holiday.

## 2. 8.1 Assumption of Diminishing Marginal Utility

The law of diminishing marginal utility states that, the marginal utility of any item tends to decline as more is consumed over any given period (Hyman, 1992, p177). For example, two holidays per year are better than one in terms of total satisfaction but not twice as good. Three is better than two but not $50 \%$ as good and so on. (Harrison, Smith, and Davies, 1992).

Let us assume that a person has the time and financial means to take five holidays a year. Table 1 shows the marginal and total utility curves and Figure 2 depicts the relationship in graphical form

| Quantity <br> Consumed | Total <br> Utility (TU) | Marginal <br> Utility (MU) |
| :--- | :--- | :--- |
| Holidayl | 70 | 70 |
| Holiday2 | 135 | 65 |
| Holiday3 | 190 | 55 |
| Holiday4 | 230 | 40 |
| Holiday5 | 253 | 23 |

Table 1 Total and Marginal Utility


Figure 2 Total and Marginal Utility Curve

Marginal utility is not always positive. At the point of satiation, the marginal utility of a good would be 0 . Marginal utility declines beyond the point of satiation resulting in a negative marginal utility. However it is assumed that rational consumers never choose to consume a good in amounts for which marginal utility is negative because they would decease total utility by doing so (Hyman, 1992).
The economic principles stated above all adhere to the Ceteris Paribus assumption that consumption of all other products remain constant. In reality however, this is not the case. As a result the utility derived from a certain good will change each time the consumer's consumption of other goods changes, be they substitutes of complements (Sloman, 1991, p104).

## 2. $9 \quad$ Consumer Surplus

Consumer surplus is defined as the difference between the total benefit of a given quantity purchased by a consumer and the expenditure necessary to purchase that quantity (Hyman, 1992, p185) or in other words the difference between the amount of money that a consumer is willing to pay for a product and the amount they actually have to pay. The surplus arises because consumers receive more than they pay for as a result of the law of diminishing marginal utility. Consumer surplus exists because individuals pay the same amount for each unit of a commodity purchased from the first to the last. Thus the amount paid for each unit is what the last unit is worth. But the fundamental law of diminishing marginal utility maintains that the earlier units are worth more than the last purchased and so a surplus of utility is achieved on each of these earlier units

## 2. 10 Marginal Rate of Substitution

Marginal rate of substitution refers to the amount of one good which a consumer is willing to sacrifice in order to obtain one extra unit of another good (Sloman, 1991, p120). The law of diminishing marginal utility is used to explain the downward slope of an individuals demand curve from left to right. The satisfaction gained is closely linked to the sacrifices that the consumer is willing to make in order to obtain an extra unit. The problem with this is that it assumes that utility of consumers can be measured. In addition it is difficult to understand the effects of income constraints on consumer spending. Indifference analysis is a method by which to overcome this problem (Harrison, Smith, and Davies, 1992).

## 2. 11

Utility theory, while useful in explaining the underlying logic of consumer choice, does have its shortcomings. Its prime criticism is rooted in the fact that, as a subjective concept, it does not lend itself to direct measurement, at least in an absolute sense (Hyman, 1992). However, certain predictions regarding consumer choice can be made given the assumptions that people derive utility or satisfaction from their consumption, and that higher consumption results in higher total utility. The following are the three principal ways in which utility theory can be adapted and developed to provide meaningful information about consumer choice

### 2.11.1 Arbitrary Measurement Units

While it can be argued that utility cannot be accurately measured, it is known that a person who likes a particular good will derive utility from its consumption, and additional utility for consuming another unit. Under this method it is assumed that utility can be measured in units of satisfaction often called utils. The measurement scale is chosen arbitrarily. If a consumer received two thirds as much utility on consumption of a second unit, it can be said that they received 3 units of satisfaction from the consumption of the first good and two from the second. Numbers can be chosen arbitrarily to represent this relationship such as 120 and 80 for the first and second good respectively (Parkin and King, 1992, p147). The magnitude of the measurement units is irrelevant. The significance lies in the ratio of utility from each product to its price (Sloman, 1991, p118).

### 2.11.2 Placing Monetary Values on Utility

The problems of measuring utility in absolute units can be circumvented by requiring consumers to place an appropriate monetary value on the goods and services they consume. This value would represent the maximum sum of money that a consumer would be willing to sacrifice in order to obtain a certain quantity of a good and so provides a measure of the total benefit the consumer receives from that quantity. Using monetary values instead of utility units also allows for comparison with other purchase alternatives.

### 2.11.3 Indifference Preference Theory

In utility theory, the consumer is assumed not only to be able to say that they are better or worse off when the consumption bundle changes, but also to be able to compare the magnitude of these changes. Indifference theory uses a much weaker assumption. The consumer is only assumed to be able to order various consumption bundles according to preference, but not to express the extent to which each bundle is preferred over the other. With regard to marginal utility a consumer under the assumptions of indifference theory is only able to say that they prefer three goods over two of the same goods, but not by how much. While this is a much weaker assumption, it is all that is needed to develop demand theory (Lipsey and Chrystal, 1995, p140). In utility theory, the consumer's tastes or preferences are shown by the total and marginal utility curves. In indifference preference theory they are shown by indifference curves (Lipsey and Chrystal, 1995, p140).

The aim of indifference analysis is to investigate, without having to measure utility, how a rational consumer chooses between two alternatives. The analysis can show how consumers choose one combination of goods and services, called a market basket, over another available for consumption over a given period (Hyman, 1992, p202). Under indifference theory consumers are assumed to prefer more to less of a good, and their preferences do not depend on income or price, (Parkin and King, 1992, p166).

An indifference curve (Fig. 3) is a graph which illustrates the various combinations or bundles of two goods which provide the consumer with equal utility (Sloman, 1991, p118). The curve represents the trade-offs that the consumers make between the two goods while maintaining the same level of satisfaction or utility. In other words the consumer is indifferent to which bundle they purchase as they each provide the same utility or amount of satisfaction. Table 2 shows six 'market baskets' or 'bundles' of two goods X and Y among which a consumer is indifferent. For example, bundle 1 with 30 units of good X and 5 units of good Y delivers the same utility as bundle 2 with 18 units of good X and 10 units of good Y .

| Bundle | Good X | Good Y |
| :--- | :--- | :--- |
| 1 | 30 | 5 |
| 2 | 18 | 10 |
| 3 | 13 | 15 |
| 4 | 10 | 20 |
| 5 | 8 | 25 |
| 6 | 7 | 30 |

## Table 2 Indifference Bundles



Figure 3 Indifference Curve

An indifference curve is negatively sloped because of the assumption that the consumer prefers more to less. For example, if a consumer is presented with two different market baskets of good X and Y they will always prefer the basket with more of good X provided that each basket has the same quantity of good Y. So the consumer is assumed to prefer any consumption point to the right of the curve.

The marginal rate of substitution refers to the quantity of one good that a consumer is willing to sacrifice in order to obtain an extra unit of the other good (Hyman, 1992, p203). The law of diminishing marginal substitution states that the less of one product that is present in a bundle, the smaller the amount of the other product that a consumer
will be willing to forego in order to increase their consumption of the other product by one unit, while holding utility constant. This explains why indifference curves are convex to the origin and become flatter as they approach the X axis, as the scarcer a good the greater its relative substitution value (Samuelson and Nordhaus, 1995, p88). If however the two goods were perfect substitutes for each other, the consumer would be indifferent as to how much of each they had in the bundle and the indifference curve would be a straight line, ${ }^{1}$ (Wonnacott and Wonnacott, 1979, p148).

Any one indifference curve only represents a specific level or utility or satisfaction achieved by various combinations of two goods. An individual's preferences are represented by various levels of utility and a corresponding number of indifference curves for the same two products.

An indifference map consists of a set of indifference curves, with each successive indifference curve showing a different market basket, each at a different utility level (see figure 4). Each indifference curve corresponds to a given level of utility. The further the curve is from the origin, the higher the level of satisfaction given by the consumption bundles that it represents, (Lipsey and Chrystal, 1995, p153).


Figure 4 Indifference Map

Indifference curves cannot intersect. By definition a consumer is indifferent between all points on an indifference curve and any market basket providing a different utility must

[^0]be on a different curve. If two curves were to intersect it would imply that the consumer would be indifferent between all points on both curves. Since you cannot simultaneously prefer and be indifferent to two curves, the intersection of the two indifference curves implies a contradiction (Hyman, 1992, p206).

## 2. 11. 3.1 Budget Constraint

While indifference maps illustrate peoples preferences, the actual choices they make will depend on their income. The budget constraint is defined by a consumer's income and its purchasing power (Hyman, 1992, p207). It shows all those combinations of goods and services that are just obtainable given the consumers income and prices of the required products (Sloman, 1991, p122).
Suppose a consumer spends their entire income on two goods X and Y . We construct a budget line which gives us all the combinations that a consumer can afford given their income and prices. This line is superimposed on the consumers' indifference map in Figure 5. A consumer is assumed to choose the quantities of X and Y that maximise their utility given their budget constraint. This is the point where the budget line is just tangent to an indifference curve. A consumer can afford all combinations that are to the left of the budget line. However the point where the budget line is tangent to an indifference curve is where utility is maximised, given income and price constraints.


Figure 5 Consumer Equilibrium

## 2. 12 Price Discrimination

Price discrimination is the practice of charging some customers a higher price than others for an identical product where costs do not change. Marginal utility curves slope downward because the value that an individual places on a product falls as the quantity consumed of that product rises. When all the units consumed can be bought for the same price, consumers make a surplus (consumer surplus). The goal of price discrimination is to attempt to capture as much of the surplus as possible, that would otherwise go to the consumers or other producers (Lipsey and Chrystal, 1995, p247; Parkin and King, 1992, p305). Price discrimination is not always achieved by charging different prices to different markets. Different markets may be charged the same price even though the costs of serving these markets are different. So essentially price discrimination is about extracting different profits from different markets.

Price discrimination can also be represented in quantity discounting when an individual consumer is charged a higher price on a small purchase than on a large one. However if the manufacturer achieves economies of scale by selling in bulk then price discrimination does not exist as the cost savings are passed on to the buyer (Parkin and King, 1992, p305). If these cost savings are not entirely passed on to the consumer or reflected in the price, then an element of price discrimination does exist (Harrison, Smith, and Davies, 1992, p107).

There are three levels of price discrimination: (i) First degree price discrimination is where the firm charges each consumer the maximum price that they are willing to pay for each unit. (ii) Second degree price discrimination is where different prices are charged according to how much is purchased. Different prices may be charged for the first few units than for subsequent purchases. (iii) Third degree price discrimination is where consumers are grouped into two or more independent markets and a separate price is charged in each market. This is the most common form of price discrimination and is particularly prevalent in service industries, (Sloman, 1991, p239). A prime example of this is the practice of yield management concepts in the airline and hospitality industries. (See section 5.2.3)

## 2. 13 Conditions Necessary for Price Discrimination

To engage in price discrimination the seller must meet certain conditions. Firstly they must be able to set and control the price of its product. This implies at least some degree of monopoly power in the market with the supplier having some ability to make
rather than take prices. The greater the degree of competition to supply the good or service, the less likely is the existence of price discrimination (Harrison, Smith, and Davies, 1992, p102). Price discrimination would be impossible under perfect competition where firms are price takers (Sloman, 1991, p239).
Secondly, markets must be separate so as to prevent arbitrage, or the resale of products in markets where prices are currently higher. As a result of this some of the best examples of price discrimination refer to services which must be consumed on the spot rather than to goods which can be resold, (Begg, Fischer, and Darnbusch, 1991, p153).
Separation of markets can be achieved in one of three ways. Separation by distance ensuring that consumers are geographically separate. Separation by time keeping customers apart by serving them at different times. Separation by type of customer using some identifiable feature of the consumer. No matter what method is used to separate the markets, it is absolutely essential to the success of price discrimination that there be no resale between markets. Any seepage between markets would cause this price discrimination to collapse, (Harrison, Smith, and Davies, 1992, p103).
Finally, demand elasticity must differ in each market. The seller must be able to determine how willingness and ability to pay vary among prospective buyers. The seller must be able to distinguish among buyers in a way that allows it to charge higher prices only to buyers whose marginal benefit for the good would exceed the single price, (Hyman, 1992, p340). If the elasticity of demand in each market was identical at each and every price, then a monopolist would simply charge a common price in both markets, (Harrison, Smith, and Davies, 1992, p103).

## 2. 14 Criticisms Of Rational Economic Theory

The logic of economic pricing theory in its theoretical form is indisputable; however, as a practical pricing tool its usefulness is somewhat limited. While it is true that in some markets there will be a tendency for supply and demand to reach equilibrium through the aforementioned mechanisms, the majority of markets do not conform completely to these principles. The relevance of rational economic theory hinges on the phrase 'all things being equal'. In today's markets such a situation rarely exists, although it may be observed in certain markets such as primary commodities, currencies, stocks, and shares, (Samuelson and Nordhaus, 1995).

Conventional economic theories endow the consumer with a vast amount of information and assume a state of perfect competition. That is, a market in which buyers and sellers are fully aware of the price at which goods and services are available, and where
offerings of each good or service on a market are homogenous. The consumer is held knowledgeable of all attributes that comprise a product or service. Furthermore, one is deemed to be aware of all product-price alternatives available, to have well defined tastes and product preferences, and the ability to determine the personal utility to be derived from each possible alternative. However, in most markets goods are certainly not homogenous but widely differing in performance, quality and many other respects. Indeed, in a competitive economy, the sellers aim will normally be to bring about a situation where his product or service is clearly different from competitors in order to establish a competitive differential advantage. The real world consumer makes purchase decisions with only limited information concerning some of the options available and a considerable amount of uncertainty about the attributes of the products and services of which he is aware. In addition, due to the proliferation of both goods and services in most markets, search costs of this information are frequently such as to make it impossible or at best uneconomic to obtain (Wilmshurst, 1984).

## 2. 15 Market Oriented Pricing

In light of the increasing strategic importance of price, it is surprising that the pricing decisions in most organisations still tend to be based upon traditional methods, utilising some rudimentary formula or rule of thumb. This usually involves calculating costs and adding on a fixed percentage for required return. The increasing importance of price means that these cost oriented methods are no longer suitable. The pricing decision, like the other marketing mix decision, must be market oriented (Nagle, 1987). Price is only one element of the marketing mix tools that a company uses to achieve its marketing objectives. It both affects and is affected by the other elements of the mix when developing a market oriented approach to setting prices as price is used to place a value on an overall combination of marketing variables. Because of this, pricing decisions must be co-ordinated with product design, distribution, and promotion decisions to form a consistent and effective marketing programme, (Monroe and Zoltners, 1979).
The crucial point of market oriented pricing is the heavy emphasis that is placed on how the end consumers will perceive the price (Cowell, 1984). Consumers perceive price as the sacrifice or cost they must bear for the benefits such as performance, image, and service, personified as a product rather than purchasing a group of separate benefits (Eckles, 1990). It is essential when pricing a product or service to understand which aspects of the product consumers particularly value and how much value they place on
these benefits. The product attributes that consumers regard as important are often far from obvious and can only be reliably uncovered through detailed market research. The non-price variables of the marketing mix are employed to augment perceived value in the buyer's minds and prices are set accordingly to reflect this perceived value (Kotler, 1992). The marketing oriented view of pricing attempts to relate the price of the product to the value that the consumers believe they will derive from its purchase. The buyer's perceptions of value, not the seller's costs, are deemed the key to profitable pricing. This approach to pricing views costs as a constraint which determine a lower limit to the organisation's pricing discretion rather than as a basis on which price is determined. Price ceilings are set by charging what the target consumers would consider value for money. The emphasis is placed on principles such as what the market will bear, competitive activity, and price quality perceptions, as well as the overall strategic marketing goals (Wills et al, 1983).

## 2. 16 Conclusion

Classical economic theory has regarded the price variable as being the most important factor in determining the level of demand. While economic theories do not describe the way the real world of business always works, they nevertheless suggest general tendencies that are relevant in developing an ideal marketing mix for a product. This strong, almost exclusive, emphasis on price has led to the economist neglecting the power of the other elements of the marketing mix. The economist's understanding of price is somewhat modified by non-price competition such as promotion or product differentiation that makes sales less responsive to price increases. Marketers make determined efforts to differentiate their products or build an extended or augmented product, and in doing so they reduce the applicability of rational economic theory. To successfully differentiate products requires an understanding of consumers' perceptions, and the processes by which they both consciously or unconsciously, evaluate a firm's offerings. Special emphasis should be placed on how price enters into this evaluation process and its subsequent impact on value perceptions and purchase behaviour.

## Chapter 3

## Pricing From a Marketing Perspective

## $3.1 \quad$ Introduction

The influence of price on a consumer's behaviour is variable and often erratic. The economic view of the consumer as rational would suggest that purchase patterns are predictable and consistent. Evidently this is not the case and consumers' responses to price are influenced by numerous mediating factors. These factors need to be taken into account when choosing a pricing strategy and when setting a specific price.

Consumers selectively perceive and encode the informational stimuli available to them in a purchase situation. It is important for the marketer to remember that it is this internal representation of the information, and not the information in itself, that influences the purchase decision. In order to ensure the successful marketing of a product or service it is useful to be aware of some of the possible distortions between the objective information and consumers' subjective evaluations of this information. Of more benefit is knowledge regarding some of the possible causes of these idiosyncratic interpretations. This information, if correctly utilised, will improve the chances of a marketing strategy having the desired effect.

This chapter begins by introducing consumer behaviour and perception and describing the role they play in consumer's evaluation processes. It goes on to explain the various issues relating to the perception of price in purchase situations and discusses the factors which moderate these perceptions and resulting behaviours.

## $3.2 \quad$ Consumer Behaviour

Marketers are managers of demand, and demand is a form of behaviour. Marketers study consumer behaviour in order to be able to understand and if possible predict and control that demand (Buttle, 1986).

Consumer behaviour is an interdisciplinary science that investigates the decision making activities of individuals in their consumption roles. The term consumer behaviour can be defined as: "the behaviour that consumers display in searching for, purchasing, using, evaluating, and disposing of products and services that they expect will satisfy their needs" (Shiffmann and Kanuk, 1991, p7).

Successful pricing, as with all other elements of the marketing mix, requires creative judgement and a keen awareness of consumers' behaviour and motivations (Nagle, 1983). An understanding of consumer behaviour, and of what they value in a product or service is of great importance in successful product differentiation by ensuring that the benefits provided by a product or service is of high value to the consumer. This market
information can also be used to provide a segmentation base and facilitate the successful matching of a product or service to segments where the offerings attributes are highly valued. This should result in either the ability to command a premium price or an improved market share in that part of the market where the attributes are appreciated.

### 3.3 Perception

Central to the theories surrounding consumer behaviour is the concept of perception. Perception is defined as the process by which an individual selects, organises, and interprets stimuli into a meaningful and coherent picture of the world (Mouthino, 1987). Thus the study of perception is one aspect of the largely unconscious processes through which information in the external environment is obtained and transferred into beliefs, stored in memory and acted upon by consumers (Peter and Olson, 1987)

Consumers' individual idiosyncrasies and varied perceptions of products can account for different attitudes and behaviours relating to a product or service. Their perceptions stem principally from the information they receive and so it is essential to understand the nature of the perceptions consumers have of themselves, their social world, and the products available to them. It is also necessary to remember that to the consumer, their perceptions represent reality as they see it. Because motives manifest themselves in a wide variety of ways, among different consumers, perceptions of reality differ from individual to individual, and how each person interprets physical and social stimuli is a highly idiosyncratic process, based on each individual's own needs, values, and expectations. The consumer deals with this by individually reconstructing what is perceived so that it does not conflict with their basic attitudes, personality, motives, or aspirations, or perhaps by modifying these slightly to avoid dissonance and allow the overall impression to be harmonious. The basic principles at work here are that consumers pay attention to stimuli deemed relevant to their existing needs, wants, beliefs and attitudes. Once attended to, the information derived from the stimuli is interpreted and stored in memory so as to reinforce and enhance existing attitudes and behaviours, (Shiffman and Kanuk, 1991).

Perception of goods and services depends in part on the stimuli to which consumers are exposed, and in part on the way these stimuli are perceptually encoded or given meaning by consumers. Not only is information distorted due to individual idiosyncrasies but it is also perceived in a selective manner. This means that consumers pay attention to and interpret stimuli that reinforce and enhance their views of their world, of themselves, and of the goods and services they purchase. In addition it would
require too much time and effort for a consumer to evaluate all stimuli that are presented to them, and so sub-consciously much of the information stimuli are unconsciously disregarded by the consumer (Peter and Olson, 1987, Shiffman and Kanuk, 1991).

### 3.4 Perception and the Cue Utilisation Process

Perception essentially involves the process of categorisation. People attempt to deal with new experiences by matching them with their existing classifications of familiar experiences. In this classification process, heavy use is made of cues or clues (Buell, 1986).

The cue utilisation process refers to the steps the consumer goes through when processing the cues or informational stimuli which are available in a given purchase situation. This process is hypothesised to have at least two identifiable and distinct stages that operate in a sequential fashion (Jacoby and Olson, 1972).

Firstly upon presentation of a complex stimulus array, such as a set of brands, about which judgements are to be made, the consumer must first choose and encode, specific stimulus attributes of the array. These specific informational stimuli are termed 'cues'. This cue acquisition process constitutes the first stage of the cue utilisation process. The second stage involves a cue's effect or impact on product evaluation. Here the consumer utilises these selected cues to reach a judgement about the product.

It is useful to be able to identify the factors that determine which cues feature and are dominant in different purchase situations, as well as the effect of that cue on buyer evaluations and subsequent behaviour (Olson, 1977). There are three factors to be considered in this illustration.

1) The attributes of the product category.

Each product category will have different cues which the consumer utilises in his evaluation. Certain cues will take precedence over others depending on the product category in question.
2) The characteristics of the consumer and purchase situation will impact on the salience of each cue and the extent and manner in which it is utilised in product evaluation. This issue is addressed in more detail in the price reliance section (3.11).
3) Specific nature or dimensions of the information cues.

### 3.4.1 Nature and Dimensions of Informational Cues

Olson (1977) suggested that it is useful to identify the factors which influence whether a cue will be of use in the judgement process, and if so, the magnitude of its impact on the final judgement. Cox (1962) proposed that any informational cue, including price, may be described in terms of two factors: predictive value and confidence value.

Cue predictive value is the extent to which an individual consumer considers a cue to be an accurate source of information. Simply, cue predictive value, in this context, is the extent to which the consumer perceives or believes that the cue is related to, or is indicative of, product quality.

Confidence value is defined as the degree to which a consumer is confident in his ability to accurately perceive and judge that cue. Predictive value and confidence value of a cue are rated relative to a specific product by an individual consumer. For instance one consumer may perceive a high confidence value for the cue 'taste' relative to wine, but a low confidence value for the taste cue relative to beer and another consumer the converse.

Cue predictive value and confidence value are independent dimensions, with predictive value having the dominant effect on cue impact, and confidence value having a moderating effect. This results in consumers being reluctant to use a low predictive value cue no matter what its level of confidence value.

### 3.4.2 Intrinsic Versus Extrinsic Cue Dimensions

Jacoby and Olson (1972) identified a third (dichotomous) cue characteristic that is perhaps useful in explaining cue utilisation. They proposed that any information stimulus or cue may be considered to be derived either from the actual physical product composition, intrinsic (i.e. texture, taste), or from product related attributes not actually a part of the physical product, extrinsic (i.e. price, brand image).

Intrinsic attributes involve the physical composition of the product such as colour, and texture and cannot be changed without altering the nature of the product itself. Intrinsic product attributes are product specific.
Extrinsic cues are product related but not part of the physical product itself. They are by definition, outside the product. Price, brand name, and level of advertising are examples of extrinsic cues to quality. Extrinsic attributes are not product specific and can serve as general indicators of quality across all types of products.

The question of which type of cue dominates, depends on several key contingencies. The salience of intrinsic attributes at the point of purchase depends on whether they can be sensed and evaluated at that time. In their absence research suggests that consumers depend on extrinsic cues (Zeithaml, 1988). Given the availability of both intrinsic and extrinsic cues of equivalent confidence value, intrinsic cues are more likely to be acquired by consumers, and if chosen, to have a greater impact on product evaluations. The logic here is that intrinsic cues tend to have a higher predictive value than do extrinsic cues. Extrinsic cues will dominate in an initial purchase situation where consumers have no previous experience with the product, when intrinsic cues are not available, and when the evaluation of intrinsic cues requires more effort and time than the consumer perceives is worthwhile (Zeithaml, 1988).
The nature of the benefits sought by consumers when purchasing a holiday are largely experiential. As such it could be suggested that in the pre-purchase evaluation of a holiday destination or holiday package, that intrinsic cues would not be available to consumers to evaluate. In this case extrinsic cues would probably carry greater weight. So it would appear that in the case of tourism products, extrinsic cues such as price would be used more frequently, in pre-purchase evaluation. This could imply that the price level associated with a tourism destination, or the price charged by a tour operator, could substantially impact on the decision making process. With regard to pre-purchase evaluation of a tourism product, no intrinsic cues are available to the consumer and so they can only rely on the extrinsic cues available to them unless they have prior experience with the destination or have word of mouth information relating to the intrinsic attributes.

### 3.5 Pricing And Perception

Price perception is concerned with how price information is comprehended by consumers and made meaningful to them. One approach to understanding price perceptions is information processing which has been advocated by Jacoby and Olson (1977). This conceptual model dealing with the cognitive processing of price information, illustrates an approach to describing price effects for a high involvement product in a purchase situation. (Appendix A)

The model suggests that price information is received through the senses of sight and hearing. The information is then comprehended, which means it is interpreted and encoded in a manner that makes it meaningful to the individual consumer. Consumers understand the meaning of price symbols through previous learning and experience.

The stated price for a product may be considered a product attribute. This knowledge may then be compared with the monetary prices of other brands in a product class, other attributes of the brand, other brands, and additional consumer costs. Finally an attitude is formed towards the various brand alternatives.

### 3.5.1 Objective And Perceived Price

In discussing price perception it is necessary to draw the distinction between objective price and perceived price. Objective price is the actual monetary price of the product whereas perceived price is the price or sacrifice to obtain a product, as encoded by the consumer (See Also Section 2.2).

Monetary price is not the only sacrifice perceived by consumers. Time costs, search costs, and psychic costs all enter either explicitly or implicitly into the consumers perception of the price or sacrifice necessary to obtain a product, (Cronin et al 1997). As with any form of perception, price perception is very subjective and varies greatly from one consumer to the next. It is especially critical within some product categories to gauge consumer price perceptions as research on price elasticity has discovered that different consumers react differently to the price cue within different product categories. Price is also perceived differently by different types of buyers. For loyal customers the value they perceive is probably more than the price they pay to acquire the product or service while consumers who switch brands frequently would appear to be dissatisfied with the value they are receiving. (Monroe 1993)

An additional factor contributing to the gap between actual and perceived price is price dispersion, and the tendency for the same brands to be priced differently across retail outlets, and for products of the same type and quality to have a wide variance. All of these factors may interfere with accurate knowledge of prices (Maynes and Assum, 1982).

### 3.6 Involvement and Price Perception

The extent to which monetary price impacts on consumers' cognition's or behaviours, is also dependent on the level of involvement in the purchase. Jacoby and Olson's model (Appendix A) assumes that the consumer is highly involved in the purchase. However, not all purchase situations and products are of equal importance to the consumer. Some have higher personal significance than others. A variety of factors appear to influence the level of involvement, such as the cost of the product; the degree to which the
product and its uses are socially visible; the internal interest the product holds for the consumer; and a wide variety of situational factors such as urgency of purchase, differences between alternatives of product, and convenience factors (Runyon and Stewart, 1987). In sum, involvement is best conceived as a function of person, object, and situation, and consumers are more active in high involvement purchase and more passive when involvement is low. For a low involvement product or purchase situation, monetary price may have little or no impact on consumer cognition's or behaviours. For many products consumers may have an implicit price range, and as long as prices fall within it, price is not even evaluated as a purchase criterion. However, price can act as a stimulus to consumers to choose between brands of a product class, where involvement is low, (Buttle 1986).

The extent to which a holiday is high or low involvement depends on many factors. In terms of the financial risk involved, if the cost is considered to be a sizeable portion of the purchasers disposable income then the level of involvement is likely to be higher. A holiday is a publicly consumed product and so the increased social risk will increase the level of involvement. The length of the planning period and extent of information search involved - the further in advance that the holiday has been booked and the greater the amount of effort expended in the decision and hence a higher the level of involvement. If the tourist has previous experience with the holiday destination and tourism products of the destination the level of risk will be lessened.

## $3.7 \quad$ Perceived Value

What constitutes value appears to be highly personal and idiosyncratic. The diversity of meanings were broadly categorised into four groups. In a study by Zeithaml (1988), respondents were asked what value meant to them. Some respondents equated value with low price, indicating that what they had to give up was most salient in their perceptions of value. The second definition is very similar to the economist's definition of utility (See section 2.7); that is, a subjective measure of usefulness or want satisfaction that results from consumption. In this sense value is defined as whatever it is that the customer seeks in making decisions as to where to shop or which product to buy. Thirdly, value can be conceptualised as a trade-off between one 'give' component (price), and one 'get' component (quality/benefit). In this sense value is viewed as the quality or benefit the consumer receives for the price they pay, or affordable quality. The management of this trade-off between price and benefits/quality is a critical component of the marketing mix, (Leszinski and Marn 1997).

Consumers do not always want to buy the highest quality item in each category. A given product may be of high quality, but if the consumer does not have enough money to buy it, or does not want to spend the amount required, its value will not be perceived as being as high as that of the product with the lower quality but a more affordable price. Consumers in this situation will obtain more value for money because the low costs compensate for reduction of quality, (Cronin et al 1997).
Finally the definition of value for some consumers can encompass all relevant 'give' and 'get' components. This definition considers value as a weighted and evaluated measure of all the salient attributes which enter into the consumer decision making process. The benefit components of value include salient intrinsic attributes, extrinsic attributes, and perceived quality. The sacrifice components are monetary and non-monetary prices such as time and effort. Anything that reduces the sacrifice will increase the perceived value of the purchase. Less price conscious consumers will find value in store proximity or convenience foods for example, even at the expense of higher monetary costs as they may perceive time and efficiency as more costly. Another question posed regards how carefully consumers evaluate the attributes of a product and its purchase situation. Zeithaml (1988) found that rather than carefully considering prices and benefits, most respondents depended on extrinsic cues in forming impressions of value as they were more readily available in many cases. However the degree of information processing and product evaluation would be expected to fluctuate according to factors such as varying degrees of monetary outlay, information available, processing ability and time availability.

Studies reveal that a wide variety of factors are at play in consumers value evaluations. Rangaswamy et al (1993) found that style, reputation, durability and quality promotions positively affected value perceptions while Ostrom and Iacobucci (1995), suggest that a significant influence was exerted by service friendliness and customisation as well as price and quality.

The perception of value also depends on the frame of reference in which the consumer is making the evaluation. Value perceptions are situational and hinge on the context in which an evaluative judgement occurs. Kerin et al (1992), found that the whole shopping experience and perceptions of the retail outlet significantly impacted on value perceptions. Value will hold different meanings for the consumer at different points such as point of purchase and consumption.
In sum, value encompasses all relevant choice criteria, both quantitative and qualitative factors, subjective and objective, that make up the complete purchasing experience.

Perceived value is the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given.

Price and value are very closely related but not the same thing. Price will only represent value if the price is exactly the maximum amount that the consumer is willing to pay. (Monroe 1993). Value is created when the benefits provided by a product or service match the benefits that the customer wants. In order to provide benefits a product or service needs to be able to carry out certain tasks or functions, deliver solutions to specified problems, or have an aesthetically pleasing affect. A product is not purchased for its constituent elements but for the needs that the package of components satisfies. When people purchase a holiday they purchase relaxation, enjoyment, and entertainment, not just a flight and few nights' accommodation. These are just the intrinsic elements of the product which interact to provide the benefit. These intrinsic product attributes are only relevant in so far as they provide certain benefits to the consumer, (Monroe 1993).

### 3.8 Reference Prices

Another aspect of price perception is that of reference prices. Varying definitions of references prices have been offered by academics, however, no one definition in isolation is sufficient.

Monroe and Petroshius (1981), suggested that reference prices form an internal standard against which consumers make judgements and product choices based on the comparison of these internally held reference prices to external price stimuli (Kalyanaram and Winer, 1995). Reference price has been defined as the price an individual considers to be fairest (Kamen and Toman, 1970), the price last paid or the price normally paid (Gabor and Granger, 1969a), the price most frequently charged (Olander, 1969), and more recently as the expected price (Zeithaml and Graham, 1983). It has been proposed by Jacoby and Olson (1977) that reference prices are more often operationalised as an internally held standard that consumers use to evaluate new price information, and that the perception of prices is dependent upon the relationship between the actual objective price stimulus and some internally held reference price. If an actual price is lower than the reference price held by a consumer, the product may be considered a bargain or the quality of the offering may be suspect. Conversely if the objective price is higher than the reference price, the price is more likely to be considered unfair and unreasonable. When actual price levels change, the reference
price is likely to play a critical role in an individual's degree of acceptance of the new price because of its mediating effects on a consumers judgement and decision making process.

Kalyanaram and Winer (1995) also propose that consumers will react differently to price increases and decreases depending on their reference prices and that in general consumers will react more strongly to price increases that they will to price decreases.

Consumers will often have a reference price in that they will expect a holiday package to range in price from say $£ 300$ to $£ 450$, however, they would not have a specific reference price for a nights accommodation in that destination. Tour operators have a relatively large scope for product differentiation through service quality, package components etc. and hence can charge prices that are widely varied. It is only through experience that the consumers will formulate a reference price for different types and classes of tourism destinations

The level of a reference price can also be influenced by contextual stimuli, and so an actual price may compare more favourably with an expected price in one context, but unfavourably in another. As a result, the same price may be considered unreasonable in one setting and acceptable in another (McCorville, Crompton, and Sell, 1993). For example, a night's accommodation in a 4 star grade hotel costing $£ 200$ might be acceptable on the night of a rugby international. However if the same hotel were to charge this price in off-peak season it would be unacceptable.

From a managerial perspective consistent price promotions can have the undesirable effect of reducing consumers reference prices. Expectations of future prices are also an element of reference prices. Consumers may wait to purchase a good until some stage in the future when they expect the price to be reduced. This is frequently observed in the tourism industry where late-saver holiday packages are offered late in season. Many consumers aware of this practice will wait until the last minute to purchase their holiday package. This raises questions for the traditional economic view of purchase behaviour. The classical economic consumer makes purchase decisions based on actual and current prices and income, the economic models do not allow for perceived and future expectations of prices, (Kalyanaram and Winer, 1995).

## $3.9 \quad$ Price Consciousness

Price consciousness deals with the extent to which the consumer is aware of the price of the goods and services they purchase and consume. Studies (Conover, 1985; Dickson and Sawyer, 1986; Gabor and Granger, 1969a) have shown that consumers' awareness
of many prices is surprisingly low. It would seem that consumers do not always know or remember actual prices of products. Instead, consumers encode prices in ways that are meaningful to themselves. 'expensive' or 'cheap'. Others may not encode price at all. Studies have also indicated that awareness differs among demographic groups, the greatest levels of awareness being in consumers who are female, married, older, and do not work outside the home (Dickson and Sawyer, 1990; Gabor and Granger, 1969a).

Another suggestion is that consumers when confronted with price information will not actively process the information if it falls within their range of acceptance and it is only when the price falls outside this latitude of acceptance that it becomes noticeable and hence more predisposed to recall. (Kalyanaram and Winer, 1995).

Dickson and Sawyer (1990) also found a relationship between social class and price consciousness. Housewives in higher social classes were found to be less accurate when recalling prices paid. In the same study, the age, sex, and income of respondents appeared to make little difference. It was discovered that attention to prices is likely to be greater for higher priced packaged goods, durable goods, and services than for low priced goods (Gabor and Granger, 1969b). However a study by Grewal and Marmorstein (1994), found that most consumers undertake relatively little pre-purchase search for durable goods and carry out even less price comparison shopping. A survey of tourists' awareness of prices for attractions and activities (Lawson, et al, 1995) showed they had low levels of knowledge about the actual prices charged. Prior experience did not impact on price knowledge, and no difference in price awareness was found between individual travellers and package tourists. Price awareness was discovered to be affected by nationality, size of group, and gender with males and those travelling in large groups exhibiting more price knowledge than females and those travelling in small groups. This is suggesting that the price of amenities and activities at the tourists' destination is relatively unimportant. This would tie in with findings by Morley, (1994) that airfare price has more impact on destination choice than hotel and amenity tariffs. This is probably because airfare is a relatively large proportion of the holiday package and so consumers are more sensitive to its price.

## $3.10 \quad$ Price as an Indicator of Quality

The issue of price as an indicator of quality has received much attention in marketing literature. However, findings remain inconclusive due to flawed methodologies and criticisms relating to the product and situational specific nature of the relationship.

Accordingly a definitive and generalised hypothesis relating to the price/quality relationship remains unformulated.
However, the general consensus is that price can have a diagnostic value when consumers are attempting to judge the quality of a product but the strength of this relationship between price and quality is very product specific and depends heavily on individual consumer perceptions.
Originally, price-quality studies considered situations where the only' differential information available to respondents was price (Leavitt, 1969; Tull, Boring, and Gonsoir, 1964; McConnell 1968). These single cue studies generally found a statistically significant relationship between price and perceived quality. Initially these studies, Leavitt (1969) found that consumers tended to be less satisfied with the lower priced brands and tended to choose the higher priced alternative when price was the only differential information; when the products were perceived to be heterogeneous in quality, (Tull, Boring, and Gonsoir, 1964) or when the price differential was large.

These single cue studies all investigated the effect in consumer product evaluations of the price cue in isolation. Providing a subject with a single informational cue on which to base a judgement is bound to obtain a significant cue effect (Olson, 1977; Olson and Jacoby, 1972). Thus generalisations of the price cue results to a real world multi-cue setting are tenuous at best and the results deemed too artificial to hold any external validity. Overall the results of single cue studies are product specific and interpretations should be generalised only to other brands of the same product class (Olson, 1977).

To overcome the limitations of single cue studies, the multi-cue studies have manipulated other cues such as brand name, and store image in addition to price. The results were conflicting but typically found a positive relationship between price and perceived quality, although they were rarely statistically significant. The studies implied that even where a positive relationship was discovered, price may not have been the dominant cue in quality perception. Monroe and Krishnan (1984) found that when subjects reported prior product experience, brand overcame price influence implying that price is certainly not the preferred decision cue. This may be partly due to the nature of branding as a brand name is a bundle of information relating to many aspects of the product including price. In the presence of a brand name, the consumer might find it unnecessary to seek and actively encode price information as the brand name might, in itself, suggest a certain price range which the consumer would find sufficient Saliency of the price cue was found to decrease as the number of other cues increased. It was also hypothesised that when price was presented in combination with five to
seven other informational cues, it was not among the four most important quality cues suggested by subjects (Olson, 1977).
Some research has been conducted into the difference in the function of intrinsic and extrinsic cues in quality evaluations. A product's quality is evaluated as high or low depending on its relative excellence or superiority among products or services that are viewed subjectively by the consumer. Consumers are often unable to make accurate and informed quality comparisons among brands (Zeithaml, 1988). Quality is seldom detectable at a glance and so consumers often follow market signals as surrogate signals of quality

The intrinsic product attributes that signal quality are product specific, but as dimensions of quality, they can be generalised to product classes (Zeithaml, 1988). Specific or concrete intrinsic attributes differ widely across products, as do the attributes consumers use to infer quality. Higher level abstract dimensions of quality can be generalised to categories of products. As attributes become more abstract they become common to more product alternatives (Zeithaml, 1988).
Extrinsic cues are not product specific and serve as generalised quality indicators across brands, products, and classes. Price, brand name, and level of advertising are three extrinsic cues frequently associated with quality in research (Gerstner, 1985), yet many other extrinsic cues are frequently used by consumers. Price appears to function as a surrogate for quality when the consumer has inadequate information about intrinsic attributes. Similarly, brand name serves as a signal for quality by providing consumers with a bundle of information about the product. Level of advertising has been related to product quality by economists. The basic argument holds that for goods whose attributes are determined largely during use, higher levels of advertising are relied on more as signals of quality (e.g. banking, insurance). It is also suggested that the level of advertising, rather than the actual claims made, informs consumers that the goods are worth advertising (Milogram and Roberts, 1986).
Price is not only utilised by the consumer as a cue to product quality but also carries connotations of prestige. When consumers are presented with a choice between two similar versions of the same product, differing only in price, some consumers choose the more expensive item. Such behaviour may be irrational in terms of economics, but is easily explicable in the context of an affluent society in which discretionary income runs at high levels and social status is judged by levels of expenditure and conspicuous consumption.

### 3.11

 Price RelianceConsumers interpret and respond to price information differently. It has been suggested that variation in consumer response to price information, results from, or is related to, differences in perceptual factors influencing the interpretation of price information and the use of the price cue in quality judgements (Lambert, 1970, 1972; Shapiro, 1973). These studies have suggested that consumer price perceptions may be affected by preconceived beliefs and perceptions of specific factors pertaining to self and the nature of the product. These are general and not necessarily stemming from attributes of particular brands. It has been suggested that perhaps consumer response to price information results from or is related to differences in perceptual factors influencing the interpretation of price information (Lambert, 1972).
Price reliance refers to the tendency of some consumers in certain purchase situations to rely on the price cue as a reliable source of product information. Reliance on price appears to be a generalised mental attitude or trait. That is that some people seem price reliant regardless of the product under consideration, and some not price reliant. The product being judged has a large influence, but only emphasises or de-emphasises the general trait which exists across all products (Shapiro, 1973).
The following is a summary of the main buyer behaviour related variables which help explain dissimilar choices among differently priced brands or items of the same product class, (Appendix B).

### 3.11.1 Trust

If price is to be looked at as a communicator from price maker to consumer, it seems appropriate to consider the consumer's point of view of the price makers credibility. Lambert (1970) viewed trust or credibility as having two dimensions. One is concerned with the honesty of the information source and the other with the competence of the source to convey accurate information. Trust in the competence and honesty of price makers was correlated with generalised price levels at a significant level. This relationship between trust and price reliance makes a great deal of intuitive sense. The consumer is more likely to rely on a piece of information when they believe the information provider to be credible and trustworthy. In sum, price will be viewed with confidence only if the source has the correct image.

### 3.11.2 Risk

It is hypothesised that perceived risk is an important moderator of price reliance (Shapiro, 1973; Sweeney et al, 1999). The prospective buyer balances the pounds and pence amount of the extra cost of the higher priced product against the possibility of losing out because of the assumed lower quality of the lower priced product. Peterson and Wilson (1984) suggest that when consumers make a choice between two products or brands in the same class, they must evaluate two types of risk. A Type I risk is that the product they select will not meet with the minimum standard that is expected of it. In such situations price is thought to have diagnostic value with regard to quality, and risk can be minimised by selecting the higher priced product. A Type II risk is that products differ only in price and not in quality. In such cases, selection of a higher priced product would incur a monetary loss equal to the price difference between the high and low priced alternatives. It is assumed that consumers consider and balance both types of risk, when making purchase decisions.

Trust and risk have previously been shown to be related to self-confidence. It is hypothesised that both generalised self confidence as a personality trait, and specific self confidence relating to judging quality of a specific product, lead to less use of price as a communicator of quality, implying that the consumer would have the confidence to judge the product on its own merits.

### 3.11.3 Social Significance

Lambert (1972 \& 1970) also suggests that the social significance attached to the product or brand will also influence the purchase decision through the input of price. The basis for such price discrimination is the premium some people put on certain goods and services merely for the sake of their expensiveness. A consumer may be aware of the fact that the more expensive product or service is not necessarily better than the cheaper one and yet prefer it for the mere fact that it is more expensive (Shapiro, 1968). If a consumer believes that his brand choice affects how others view him, he may purchase a higher priced item in order to enhance or maintain that social image. This is associated with Veblen's theory of conspicuous consumption. This refers to the tendency of those above the subsistence level, i.e. the leisure class, to be concerned mainly with impressing others through standards of living, taste, and dress. To the extent to which this is true, people may therefore reject strict economic rationality in living their lives (Beardshaw, 1992). Some consumers choose higher prices more frequently because
they are more concerned with doing the socially correct thing that will guarantee acceptance by peers.

### 3.11.4 Perceived Quality Differences and Difficulty Judging Quality

Lambert (1970 and 1972) suggested that consumers who believe it difficult to judge the quality of a certain product, and/or feel they do not possess the ability or knowledge to make accurate quality judgements, are more likely to rely on price as an indicator of quality. A consumer interprets price as a surrogate to quality and tends to choose a high priced brand when he experiences difficulty in judging the quality of complex products. It would appear that products which are difficult to judge, on any basis other than price, would be most likely to have positively sloped demand curves. The difficulty in judging quality can either stem from technical complexity or from the difficulty in judging future performance by observable aspects of the product.
Leavitt (1969) reasoned that this is because the psychological conflict increases with the subject's belief in quality difference and that subjects tended to have more doubts when they chose the lower priced brands than when they chose the higher priced brands. Further the greater the perceived quality difference the greater the uncertainty about a choice. Consumers may feel that within certain product classes, offerings are alike from brand to brand, while within other product classes, a large quality variance is perceived (Leavitt, 1969). This hypothesis is supported by Tull, Boring and Gonsoir (1964) and Lambert (1972) who all suggest that consumers rely heavily upon price as an indicator to quality when there is a large quality difference perceived within a product class. In these situations consumers tend to choose the higher priced alternatives.

### 3.11.5 Speed and Convenience of the Shopping Experience

In a purchase situation consumers who have not much time or do not want to expend the effort in a full information search, will simply evaluate the quality of alternatives on a cue that is readily available and simple to evaluate. Since price is a relatively quick and easy (albeit not always reliable) way of judging quality, it is hypothesised that consumers who like or need their shopping experience to be as expedient as possible, would be highly price reliant.
The above mentioned factors also apply to brand and store reliance as information sources. However price is a somewhat unique informational cue since the higher priced item (and to the price reliant consumer, higher quality) will always costs more. A well
known brand or store on the other hand, may not cost as much as a less well known brand or store. Because something extra is always paid for the product in price reliance situations, as opposed to brand or store reliance situations, added risk is present. Thus, most of the above variables are more important sources of price reliance than of store or brand reliance, (Dodds et al, 1991).

In general it has been found that specific price reliance is weaker than that of generalised price reliance. This is to be expected since each purchase situation is judged upon its own merits, and other factors pertaining to the specific product, purchase situation, tangibility and visibility of information, will moderate the existence of price reliance in specific purchase situations.

The buying situation itself is also a factor as many consumers for example will view the purchase of a gift differently from the purchase of an item to be used by themselves. They often choose the gift more carefully and spend more time to ensure that it will be appropriate and acceptable. In a sense this explanation is similar to the social significance concept previously discussed. In both cases the buyers attitude is influenced by the possibility of public display or exposure. The concept of apparent justification is related to risk. If a product is offered at a relatively low price, it is common practice for the retailer to give a reason such as end-of-season sale or seconds. It also seems appropriate for higher than normal prices to be accompanied by better packaging, advertising, prestige branding, and so forth, which reduce the customers perceived risk by bringing the product image and the price into congruence (Lambert 1970 and 1972).

## $3.12 \quad$ Price Sensitivity

The concept of price sensitivity is akin to the economic theory of elasticity. In short it examines consumers responsiveness to changes in price and the mediating factors which affect the extent of sensitivity. Information about the price sensitivity of consumers is of vital importance to marketers in making both strategic and tactical decisions about a products price, positioning, target marketing, etc. Nagle and Holden (1995) suggest some of the most common effects influencing consumer price sensitivity:

### 3.12.1 Comparability of Substitute Quality

Traditional economic theories assumes that consumers are capable of comparing all available alternatives. In reality it is often quite difficult if not impossible. Because of
difficulty of comparison in some cases a consumer will often pay a higher price for their regular brand for the assurance that they will work.
Even the objective or actual price is often difficult to compare due to different price techniques. For example, price bundling techniques and various packaging weights and sizes, make it difficult for consumers to compare like with like. The difficult comparison effect often results in value being associated with brand names. However this ability to disguise price usually only last for a limited period until consumers become more informed. This is particularly applicable to the tourism product due to its high level of experiential qualities as opposed to search qualities.

### 3.12.2 Level of Uniqueness

When a product has some unique feature, consumers will be less sensitive to price increases. The differentiating feature will promote brand loyalty among existing consumers and provide justification for a price differential. Customers must first recognise the differentiation and then be convinced of its value in relation to the price charged.

### 3.12.3 Awareness of Alternatives and Substitutes

The higher a product's price relative to the buyers perceived substitutes, the more price sensitive the consumer (Nagle and Holden 1995). It is unlikely that a buyer will be aware of all alternatives available, particularly if they are new customers to the market they will have no prior experience of the product. In such situations consumers tend to pay relatively high prices and buy from the most visible suppliers

A prime example of this is restaurants in holiday resort areas. While there are many competitors, they tend not to compete on a price basis. This is because the rapid turnover of the customer base usually means that they are unaware of any alternatives. These resort areas are known as 'tourist traps' by the locals because they are able to charge higher prices than less visible restaurants which are cheaper and probably attract a more informed clientele. This effect was also observed by Godbey and Graefe (1991). A strong negative association was found between repeat attendance at football games and per game expenditure. This was attributed to the likelihood that tourists became more familiar with the locality on each occasion and in turn the alternatives to the products which they consumed. The findings were found to be representative of broader tourist behaviour.

### 3.12.4 Connotations of Quality and Prestige

Price often provides more information than just regarding monetary sacrifice. It is also a signal of value that a buyer can expect to receive in return. Price sensitivity is affected by the degree to which the consumer values the prestige element in the product. From the price chargers' point of view it can help them segment their clientele if they charge high prices. This is a common practice in the case of professionals' services: doctor, solicitor etc.

### 3.12.5 Proportion of Expenditure to Income

This refers to the size of the expenditure relative to the available spending power. The higher the expenditure relative to income, the more price sensitive the consumer. The monetary risk is much higher and the consumer will exhibit more caution in the decision making process.

### 3.12.6 Shared Cost Effect

There are many situations where cost is shared with other parties. For example many tax systems allow deductions for travel expenses and conference fees; in other cases the company reimburses the employee. The smaller the portion of the purchase price that buyers pay themselves, the less price sensitive they are. Those setting prices deal with this effect by offering non-price inducements to the purchasers. Airlines and hotels offer frequent customer benefits which a customer would value more highly than a price cut which they will be reimbursed for anyway.

### 3.12.7 Relative Cost

In some situations a series of purchases are required in order to achieve a single effect or end product. The smaller the cost of an item in relation to the overall cost of the end product, the less price sensitive the consumer. Marketers need to emphasise the relative insignificance of the cost when compared to the total cost

### 3.12.8 Inventory Effect

If a buyer can hold a product for use in the future they will be far more sensitive to price reductions. This effect is most apparent in non-durable frequently purchased goods with a long shelf life.

### 3.12.9 Fairness Effect

Buyers are more sensitive to a price when it is outside the range they perceive as fair. Three things determine peoples perception of fairness

1) How current prices compare to those previously encountered.
2) Price paid for similar products in similar situations.
3) Perception of fairness is also related to whether the product is necessary to maintain a previously enjoyed standard of living (i.e. avoid a loss) or to get something more out of life. If the product is viewed as a necessity then prices outside the range tend to be perceived as unfair, (Nagle and Holden 1995).

### 3.13 Influencing Price Perception

Marketers try to present a product or service in such a manner that the consumer will perceive the offering as value for money. This impression is created by manipulating all the marketing mix variables. For example advertising has been shown to reduce price sensitivity by focusing on the non-price features of a product (Kaul and Wittink, 1995). However, the price variable on its own can be presented in such a manner as to assist the seller in enhancing perception. For example, consumers' reference prices can be influenced by suggesting frames of reference for the consumer to use by prompting the consumer to compare the current price with previous higher prices or competitors prices (Urbane et al 1988)
Mode of payment also influences consumers' price perception. People have a tendency to pay more easily for something on credit card or by cheque than with cash. The 'buy now, pay later' idea would appear to be conducive to increasing sales.
There are also many well known tactics for dealing with price changes. An awareness of price decreases is beneficial whereas awareness of price increases may be detrimental. A company generally wants its consumers to be aware of its price decreases but not its price increases. This explains why the former is publicised and the latter usually concealed. The negative implications of a price increase can be counteracted by using promotional tools to emphasise superior quality. Reminding consumers of what they get for their money can strengthen consumer preferences. Changing package sizes is another tactic used to implement a price increase. This can be particularly useful if the producer is anxious not to cross a particular price threshold.

Another method of influencing price perception involves manipulating price structures. For many products and services the price has several components. For example, telephone services are usually priced using a base rate and a variable rate. The service provider has the option of charging a high base rate and a low 'per unit' variable rate, or vice versa. While the different price structures may produce different price perceptions the overall monthly bill will be the same, (Simon, 1989).

Price bundling is another method of affecting price perception by altering price structure. Bundling involves offering an entire product plus its sub components or complementary products for an 'all in' price. The alternative is unbundling where a single price is charged for the main product and each additional component or 'add-on' is priced separately. Mixed bundling is where the consumer is offered the option of both bundled and unbundled products with the bundled products usually being offered at a discount from their unbundled or component prices (Guiltinan, 1987).

### 3.14 Conclusion

The purpose of this chapter has been to organise extant literature on buyers' subjective perceptions of price. Because of the seemingly heavy reliance on the inverse pricedemand function by price setters, it should be realised that a number of psychological and other contextual factors may lead to the perception of price by the buyer that is different from the perception assumed by the price setter The idiosyncratic nature of consumers needs will impact on the benefits they seek and how the products and services will satisfy theses wants depending on the usage occasion or situation of the product. Consumers' willingness to pay different prices for products which provide the benefits in a similar manner will vary.

Chapter 4

## Price Bundling

## $4.1 \quad$ Introduction

Bundling has been described as a potent method of maximising the profit potential of an organisation (Simon and Fassnacht 1993). Price bundling essentially offers organisations a means by which to price discriminate among consumers by grouping them according to willingness to pay (Cready 1991; Anderson and Leruth 1993). This has the effect of homogenising markets into manageable segments and maximising the profit potential in these markets. Nagle (1984) suggests that bundling is perhaps the most widely used tactic to achieve segmented pricing and is frequently applied in both consumer and industrial marketing.
This chapter presents price bundling from a marketing perspective and illustrates the underlying principles of the various methods of price bundling along with the circumstances in which each strategy is most suitable.

### 4.2 Nature of Bundling Literature

There are two main streams of research in bundling literature. Initially the bulk of investigations were to be found in economic literature. These economic oriented analyses sought to understand bundling through mathematical proofs. The emphasis was placed on consumer welfare issues and the implications of price bundling for competition law. It is only in the last decade that research from the marketing perspective has emerged (Yadav 1995, Guiltinan 1987). These examinations focus on the consumer behaviour and marketing issues in bundling, with particular reference to optimum bundle pricing and consumers' evaluations of bundle offers. While the focus and objectives of these two branches of bundling research is quite different, they are both grounded in the market characteristic of heterogeneity of buyers preferences which is found in most bundling analyses, (Yadav 1995).

### 4.3 Price Bundling Definition

A generally accepted definition of bundling proposed by Guiltinan (1987 p74), is "the practice of marketing two or more products and/or services in a single 'package' for a single price". The overall aim of a bundling strategy is to promote multi-item purchase in consumer groups that would normally purchase one good or the other but not both, (Yadav 1995).

Price Bundling is a form of price discrimination (see Section 2.12). Applications of this form of price discrimination are quite prevalent in today's marketplace. Common
examples include airlines that often bundle flights packages with car rental and accommodation; health clubs that offer separate tariffs for access to each facility, and also market packages combining two or more of these activities for a single price; restaurants that offer a table d'hôte menu for an inclusive price as well as an itemised á la carte menu.

Bundles often include goods that cannot be sold separately in the marketplace (Adams and Yellen 1976), the best example being shoes that are sold in pairs as a market for shoes sold separately would not be feasible.

Bundling should not be confused with quantity discounts. Similarities do exist, but a quantity discount is a price reduction given for purchasing a large quantity of the same good. Bundling on the other hand involves an assortment of goods and services. The incentive for bulk discounting arises form scale economies as opposed to the scope economies that are achieved by bundling (Venkatesh and Mahajan 1993). In addition, while the bundle is often offered at a lower price than the sum of the individual products, this price reduction is not a necessary precondition. Indeed if the individual products offer little benefit on their own and need to consumed together in order to provide any value, then the bundle price can be higher than the sum of the individual components (See section 4.12). Additionally, if customers are not well informed about a product they may be more inclined to pay more for the entire bundle (See Section 3.11.4) so as to ensure that all the elements will interact correctly rather than to self bundle from different manufacturers. This is a phenomenon that has been widely observed in the personal computer industry (Simon, Fassnacht, and Wübker 1995). It is worth nothing however, that this phenomenon is not observed in all industries. Indeed, within the Irish weekend package industry, it is becoming increasingly more attractive an option to self-bundle. This is due to the many low fare airfares available from various airlines such as RyanAir and the increasing availability of electronic reservations facilities available to all consumers on the Internet.

### 4.4 Advantages of Price Bundling

Bundling provides benefits for both the consumer and producer (Schlissel and Chasin 1991). Consumers gains are enhanced through increased savings and convenience elements. Monroe (1990) suggested that having the opportunity to purchase products in a bundle may enhance value perceptions by reducing search and acquisition costs, as well as possibly installation costs (See section3.7).

From the marketer's point of view, bundling stimulates demand for the weaker components of the bundle, and so provides access to economies of scope. Economies of scope are especially pertinent to service industries which are typified by a high ratio of fixed costs relative to variable costs and a high degree of cost sharing (Guiltinan 1987). Scale economies and improved capacity utilisation are also achieved through increased sales and improved co-ordination which results from the execution of a suitable bundling strategy.

The primary advantage of bundling is that it has the effect of reducing the heterogeneity of demand and allows customers willingness to pay to be used to the company's advantage. This results in increased profits as more consumer surplus is extracted from the consumer and cost advantages are achieved through the homogenisation of market segments (Simon and Fassnacht 1993).

### 4.5 Forms Of Price Bundling

There are two distinct bundling strategies, pure bundling and mixed bundling.
Pure Bundling is the practice of offering two or more goods in bundled form only (Cready 1991).

Mixed Bundling, on the other hand, allows the consumer to either purchase the products separately or in bundled form. Within mixed bundling there are two types of bundling; mixed joint bundling and mixed leader bundling. Mixed joint bundling is where an overall discount is offered if the two products are purchased together. Mixed leader bundling is when the price of one product, usually the leader product, is offered at a discount if the other product is purchased at full price (Guiltinan 1987). Often the leader product is innovative and carries a high price tag, whereas the second product is in the mature stage of the product life cycle and low priced (Simon, Fassnacht, and Wübker 1995). This variant of mixed bundling is more akin to cross selling as prices are not presented in an inclusive form but in an itemised form for each bundle element. The alternative to these forms of bundling is unbundling also known as pure component pricing where the products are only sold separately.

### 4.6 Other Forms of Price Bundling

The practice of price bundling is often not immediately evident. Other marketing techniques also represent more subtle forms of price bundling.

### 4.6.1 Sales Bonuses

Companies offer their customers year end bonuses on total annual sales. This is aimed at increasing customer loyalty. This is a mixture of bundling and non-linear pricing as it does not matter whether the total sales value is sourced from one or from several products (Simon and Fassnacht 1993). Frequent flyer programmes offered by airlines are a good example of this.

### 4.6.2 Cross-Couponing

This is a tactic applied by US consumer goods manufacturers closely resembles price bundling. Purchase of Good A will include a coupon which can be redeemed on the purchase of good B. The objective here is to promote cross selling of more mature brands or induce trial of new products (Simon and Fassnacht 1993).

### 4.6.3 Tie-in Sales

This is where the buyer of the main product (tying good) agrees to buy one or several complementary goods (tied good) - which are necessary to use the tying good exclusively from the same supplier. Often the tying good is a durable while the tied good are non-durables. A frequently cited example of this comes from IBM who sold their tabulating machines on which they had a monopoly, and required buyers to purchase the punch cards for the machines from them also. This extended their monopoly on the machines to punch cards. This practice had to be abandoned on 1936 due to legal restrictions (Simon and Fassnacht 1993).

Xerox until 1962 only rented their photocopiers and based their prices on the number of copies per month. 2,000 copies per month cost $\$ 1,140$ per year 4.75 c per copy. 20,000 copies per month cost $\$ 8,700$ per year, 3.62c per copy. Assuming a five year life, the small customer pays $\$ 5,700$ and the large customer pays $\$ 43,500$. This is very strong price discrimination. Without the tie-in approach Xerox would have had to sell the machine on its own at $\$ 5,700$ to sell two copiers and sacrifice $\$ 37000$ from the large customer or price it at $\$ 43,500$ and sacrifice the $\$ 5,700$ revenue from the small customer, (Simon, Fassnacht and Wübker 1995).

### 4.6.4 Premium Bundling

In premium bundling as in mixed bundling, sellers price discriminate by offering products both separately and as bundles. Bundles however are sold at a premium,
rather than a discount, relative to the prices charged for the individual components. This strategy requires that the seller is able to prevent arbitrage. This ability to exclude purchasers is clearly product or market specific. Due to the interactive nature of the service industry, companies usually hold relatively detailed information on their customers. This information could be used to facilitate the successful implementation of a premium bundling strategy. Such information is not as accessible to those selling products to vast numbers of unknown customers and so may find it more difficult to implement such strategies (Cready 1991).

### 4.7 Underlying Principles of Bundling

The success of price bundling is based on its ability to exploit the consumer surplus of heterogencous consumers. The consumer surplus is the difference between the consumers' reservation price and the amount they actually pay for the good (See Section 2.9). The reservation price is the maximum price that a consumer is willing to pay for this item and it reflects the value or utility the consumer places on each item. Needless to say if the consumers' reservation price was less that the selling price, the good would not be purchased and no consumer surplus would exist. It is the objective of price bundling to keep the consumer surplus as small as possible by ensuring that prices are set as close to the consumer reservation price as market conditions will allow (Simon and Fassnacht 1993). Price bundling relies on the assumption that the consumer surplus realised on the purchase of the most valued good will automatically transfer onto the less preferred good in a bundle. While individually the consumer would only purchase one good, both goods will be purchased when they are bundled together at the optimal price.

Price bundling also enables sellers to effectively direct a segmented pricing strategy at this heterogeneous market, and has most potential where customers are heterogeneous with regard to the value they get from the product (Yadav 1995).

The following is a simple example illustrating the above principles: If consumer 1 has the reservation prices of $£ 5$ for good X and $£ 3$ for good Y , and consumer 2 had the opposite reservation prices, $£ 3$ and $£ 5$ for good X and Y respectively, and both goods were sold at $£ 4$, the company would only sell one of each product (good $X$ to consumer 1 and good $Y$ to consumer 2). Each consumer would buy one product and achieve $£ 1$ surplus as they bought it for $£ 4$ but were willing to pay $£ 5$. In addition they would both decline to purchase the other product as it was only worth $£ 3$ to them and the selling price was $£ 4$.

If the company offered both products together in a bundle at $£ 7.50$ both consumers would buy the bundle as the sum of their reservation prices $(£ 5+£ 3=£ 8)$ would be greater than the selling price. So now instead of having two separate markets, one for good X and one for good Y , the market has been homogenised into one market segment for the bundle comprising of X and Y .

### 4.8 Mechanics of Price Bundling

While the above example conveys the essence of bundling, it is too elementary to address all aspects of the various bundling strategies. This section will provide more detail on the applicability of different bundling strategies to different situations.

One set of market characteristics (reservation prices) are taken and examined under each bundling strategy. Both tabular and graphical explanations are provided in an effort to clearly depict each purchase situation

The product will be purchased if the consumers' reservation price is greater than or equal to the selling price. If the consumers' reservation price is less than the price charged then no purchase will take place. The surplus /deficit columns in the tables (tables 5 through 7) show how much the consumers' reservation price was greater or less than the price charged.

In the graphical depictions (figures 6 through 8), the points on the graphs represent where each consumer segment lies in terms of their reservation prices for both products. Any consumer falling above or to the right of the price line purchases the product.

### 4.8.1 Assumptions

The following assumptions will hold for the following examples of price bundling strategies.

1. Demand for the goods is independent. It follows from this that reservation prices are additive in that the reservation price for the bundle is equal to the sum of the reservation prices for the products sold individually
2. Consumers have a zero utility for a second unit of any of the goods
3. Consumers are described completely by their reservation prices.
4. Transfer of consumer surplus ( see section 2.9 and 4.13) is assumed. It is assumed that the consumer surplus realised on one good will transfer onto the less valued product in the bundle and so prompting purchase.
5. In order to address the profitability aspects of bundling it is assumed for the sake of simplicity that there are no costs involved.
(Salinger 1995, Cready 1991, Venkatash and Mahajan 1993)
Consider a leisure club that has both gymnasium (Product A) and tennis facilities (Product B). Do they offer only a bundled package with access to both gym and tennis facilities (pure bundling) or do they price them separately (unbundling) or do they offer both bundled and separate pricing options to consumers (mixed bundling)?
Let us assume that research results have indicated that there are five consumer segments, as defined by their reservation prices for good A and good B. Table 3 shows the reservation prices of these five consumer groups for each of the facilities separately and then jointly. The joint reservation prices are derived simply by adding the separate reservation prices. The optimal prices for each bundling strategy, which are based on the reservation prices, are given in Table 4. An optimal price is one which is as close to the maximum reservation price of as many consumers as is possible and so keeping consumer surplus to a minimum while simultaneously maximising the companies profit. It is assumed that for the sake of the sample that the magnitude of each of these segments is equal. Obviously the proportion of each segment to each other will play a large part in setting optimal prices and choosing a suitable strategy.

| Market <br> Segment | Reservation Prices <br> Product A + | Joint <br> Product B | Reservation Price | Two Products: A and B |
| :---: | :---: | :---: | :---: | :--- |
| 1 | 210 | 40 | 250 | Five Market Segments: |
| 2 | 80 | 200 | 280 | Each with different |
| 3 | 200 | 160 | 360 | reservation prices |
| 4 | 120 | 100 | 220 | for the two products |
| 5 | 150 | 60 | 210 |  |

Table 3 Reservation Prices

| Prices $\rightarrow$ | Product A | Product B | Bundle |
| :---: | :---: | :---: | :---: |
| Strategy |  |  |  |
| UnBundling | £200 | £160 | N/A |
| Pure Bundling | N/A | N/A | £220 |
| Mixed Bundling | $£ 150$ | £160 | £220 |

Table 4 Optimal Selling Prices

## 4.9

 Unbundling StrategyHere product A is sold at $£ 200$ and product B is sold at $£ 160$. No bundled form exists. As can be seen in both table 5 and figure 6, market segment one purchases good A, segment two purchases good B and segment three purchases both goods. No sale is realised from either segment four or five. Assuming, as stated above, that there are no costs involved the total profit on this unbundled strategy is $£ 720$.

| Market <br> Segment |  |  |  |  |  |  |  |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Outcome | Res. <br> Price | Selling <br> Price | Surplus/ <br> (Deficit) | Res. <br> Price | Selling <br> Price | Surplus/ <br> (Deficit) |  |
| 1 | Buys A | 210 | 200 | $\mathbf{1 0}$ | 40 | 160 | $(120)$ |
| 2 | Buys B | 80 | 200 | $(120)$ | 200 | 160 | 40 |
| 3 | Buys A \& B | 200 | 200 | $\mathbf{0}$ | 160 | 160 | $\mathbf{0}$ |
| 4 | No Sale | 120 | 200 | $(80)$ | 100 | 160 | $(60)$ |
| 5 | No Sale | 150 | 200 | $(50)$ | 60 | 160 | $(100)$ |

## Table 5 Unbundling Purchase Situation

Price of $\mathrm{A} £$


Figure 6 Unbundling Purchase Situation

Unbundling allows the seller to charge a high price for each product (Cready 1991) and so allows higher margins to be achieved. It can also create new markets that were not being served under a bundling strategy. As a result companies in a mature market will be seen to convert from a bundling to an unbundling strategy (Paun 1993).

### 4.10

Pure Bundling Strategy
Table 6 and figure 7 show that the purchase outcome of the bundle is higher under a pure bundling strategy than in the unbundled example, yielding a profit of $£ 880$ as opposed to the $£ 720$ generated under the unbundling strategy. The bundle price was set at $£ 220$ so as to capture as many market segments as possible. Market segments one, two, three, and four all purchased the bundle as opposed to the equivalent of two bundles that was purchased under the previous unbundling strategy. Segments one and two who would buy only one product if they were separately priced will now buy both products. In addition segment four who purchased neither product A or B when offered in their unbundled form now purchase the bundle. Their reservation prices for both good A and B were slightly lower in both cases than the selling price however the reduced bundle price now captures the reservation prices of the segment.

It can be seen here how the transfer of consumer surplus works to the advantage of the marketer. Segment one who previously only purchased good A with a $£ 10$ surplus ${ }^{2}$ now purchases both products. The reason for this is that the value placed on product A is higher than its price and so consumers' aggregate value of the two products exceeds or is equal to the bundled price. In economic terms the consumer surplus form the highly valued product is transferred onto the less valued product (Guiltinan 1987). The other factor at play here is the price reduction for the bundle which results in creating more consumer surplus. These factors combined to bring the selling price within the range of the consumers' reservation price and resulted in the bundle being purchased.

| Market <br> Segment | Outcome | Joint <br> Reservation <br> Price | Price | Surplus/ (Deficit) |
| :---: | :--- | :---: | :---: | :---: |
| 1 | Buys Bundle | 250 | 220 | $\mathbf{3 0}$ |
| 2 | Buys Bundle | 280 | 220 | $\mathbf{6 0}$ |
| 3 | Buys Bundle | 360 | 220 | $\mathbf{1 4 0}$ |
| 4 | Buys Bundle | 220 | 220 | $\mathbf{0}$ |
| 5 | No Sale | 210 | 220 | $\mathbf{( 1 0 )}$ |

## Table 6 Pure Bundling Purchase Situation

[^1]Price of A $£$


Figure 7 Pure Bundling Purchase Situation

Pure bundling has its advantage in its ability to reduce buyer heterogeneity, (Cready 1991) and is probable most effective when the company has monopoly power over at least one of the elements of the bundle (Guiltinan 1987). It is also preferable if maximum prices are relatively high for both products (Simon and Fassnacht 1993).

### 4.11 Mixed Bundling Strategy

It has been suggested by many researchers and practitioners that a mixed bundling strategy is more profitable than unbundling or pure bundling strategies. Table 7 and figure 8 display the purchase outcomes of this strategy.

| Market <br> Segment | Res. Price <br> A | Res. <br> Price B | Joint <br> Res. <br> Price | Bundle <br> Surplus/(Deficit) | Purchase <br> of A | Purchase <br> of B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 210 | 40 | 250 | Buys -30 | --- | --- |
| 2 | 80 | 200 | 280 | Buys -60 | --- | --- |
| 3 | 200 | 160 | 360 | Buys - 140 | --- | --- |
| 4 | 120 | 100 | 220 | Buys -0 | --- | --- |
| 5 | 150 | 60 | 210 | No Sale -(10) | Buys - 0 | No Sale-(100) |

## Table 7 Mixed Bundling Purchase Situation



Figure 8 Mixed Bundling Purchase Situation

The purchase outcome is similar to the pure bundling strategy except segment five is now purchasing good A at $£ 150$ increasing the total profit to $£ 1030$. The sum of the component prices is high enough, so that if purchased separately, it will amount to greater than the bundle. This is an essential condition unless the manufacturer had the power to prevent arbitrage.
Consumers who fall into the area of X in figure eight will purchase good A but not the bundle. Likewise those who fall into Y will purchase good B. The prices are low enough to catch segments who are on the margins, but not so low as to make the bundling strategy redundant. These consumers really only want one of the goods. To lower prices further to capture their reservation prices would not be feasible. Their reservation price is so low for the good B that to reduce its component price to a level where it would capture this segment, would result in the other consumers being better off purchasing the goods separately. The other alternative would to be to lower the bundle price to capture this market but since the aim of bundling is to leave the consumers with as little surplus as possible this strategy would not be feasible. Mixed bundling manages to reduce buyer heterogeneity while at the same time charging high prices to those consumers who only have an interest in one good (Schmalansee 1984).
A mixed bundling strategy is probably most effective if there is a combination of consumer groups in that some have extreme preferences and the others balanced preferences. In such a situation a mixed bundling strategy is particularly suitable (Simon and Fassnacht 1993). Mixed bundling will reduce consumer heterogeneity
within certain market segments while obtaining high margins in markets with extreme preferences for only one of the two goods, (Guiltinan 1987).

### 4.12 Effect of Substitutes and Complements

The above examples of the three various bundling strategies assume that the two products are independent in demand. (For economic definitions see Section 2.6) However, if demand for the two products was not independent, then the sum of the reservation prices would not be equal to the total value of the bundle. There are two forms of this, sub-additivity and super-additivity.
Sub-additivity is when the value of the bundle is less than the sum of the individual reservation prices. This can occur if the bundle contains an unwanted unit or the bundle elements are substitutes. Where sub-additivity exists, a bundling strategy is not suitable. Super-additivity is where value is added during the bundling process and the value of the bundle is higher when the items are sold together than if offered in pure component form. This is often the case the complementarity exists between the two goods. Here the reservation price of one good given the other good will increase (Guiltinan 1987). Here the bundle can be offered at a higher price than the sum of the components but the producer must be able to isolate markets so as to prevent arbitrage if a mixed bundling strategy is in place. Alternatively the goods could be offered in pure bundle form only. The issues of complementarity and substitution are not dealt with satisfactorily in the economic literature. Indeed most models make the assumption of additivity of reservation prices.
Complementarity between bundle goods is of most interest in terms of adding value and providing the opportunity to charge premium prices. The sources of complementary demand can be categorised into three groups (Oxenfeldt 1966, Guiltinan 1987):

1. Search economies. A consumer might be willing to pay a little bit more to purchase an entire weekend holiday package from a travel agent as opposed to booking the cheapest accommodation and flight through different travel agents. The search costs of 'bargain hunting', in terms of time and effort, may not be worth it to the consumer. In short, the 'real cost' to the consumer is lower.
2. Enhanced customer satisfaction. This applies primarily to mixed leader bundling where the product that is tied to the main product will enhance customer satisfaction. For example, including a guided tour of the city in a 'city break'
package. This perhaps would be particularly enticing to first time visitors to the city.
3. Improved total image. This is where the total image of the company is enhanced by virtue of the various products and services they offer. The customer may not necessarily wish to purchase all these products or services but the fact that they are available enhances the image and credibility of the producer as a specialist in the field. For example, a travel agent that offers foreign exchange and holiday insurance services on top of providing the normal services that would be expected.

## $4.13 \quad$ Bundle Evaluation and Transfer of Consumer Surplus

Heterogeneity of buyers' preferences has played a significant role in economic, marketing and consumer behaviour related investigations of bundling. Related to this is the notion of the transfer of consumer surplus (see section 2.9) between bundled goods which results in homogenising the market to some extent. Although researchers have effectively used these assumptions to account for the success and prevalence of various types of bundling practices, there is very little research to support the assumption that the perceived savings on one item in a bundle transfers readily to other items in the bundle (Yadav 1995). Guiltinan (1987) even goes as far as to suggest that the surplus may be transferred just as readily (if at all) onto an entirely different product.

Heterogeneity of consumer demand is one of the principal conditions required for bundling, yet little research has been carried out to investigate the impact of this condition on the various buyer groups' evaluation of bundle offerings. Yadav (1995) conducted some research into the perception of savings under a mixed leader bundling strategy. He proposes that if bundle evaluation depends only on the amount of discount, then buyers should be indifferent to how the discount is presented to them in the bundle offer. However, he found that under mixed leader bundling, equivalent bundles featuring identical monetary savings, could result in significantly different evaluations. When a bundle of two products was evaluated, savings offered on the buyers preferred product, enhanced bundle evaluation more than savings of equal magnitude offered on the less preferred item. In sum, a buyers response to a bundling strategy may depend upon the sellers choice of the leader product and the market segments toward which the bundle is directed.

This finding raises questions about an assumption of much significance in the bundling literature: whether buyers' perceived savings on one item transfer readily to other items during bundle evaluations? Resulting from this, bundling strategies may not have the same homogenising effect on markets as economic analyses have purported. However it remains unclear how large the preference difference has to be before the transfer of perceived savings between the items is affected. In addition, Thaler's (1985) transaction utility theory suggests that consumers will try to frame outcomes in whatever way provides them with the most satisfaction. To apply this principle to a mixed joint bundling situation, assume a consumer has reservation prices of $£ 15$ and $£ 25$ for goods A and B respectively. If both goods are sold separately at $£ 20$ each, the consumer would only purchase good $B$ and perceive a $£ 5$ saving. If these goods were sold in a bundle for $£ 30$ (joint reservation price is $£ 40$ ) they could perceive this as getting a $£ 10$ discount. They can perceive this discount to be on either good A or good B , whichever provides them with the most perceived value.

Yadav's(1995) research was conducted on mixed leader bundling and subjects were not shown a total bundle price but instead the price of A given the purchase of $B$. The results suggested that consumers prefer the discount on the leader product as this will provide them with the most satisfaction.

### 4.14 Bundling Suitability

The rationale and appropriateness of a bundling strategy centres on whether it can increase company performance by creating a competitive advantage. Bundling strategies must be deliberate and should not just result from habit or industry tradition. In addition the bundling decision is not irreversible and must be reviewed frequently as unstable internal and external factors will impact on the strategies suitability. Paun (1993) has suggested that strategies should be reviewed under the following headings: customer factors, environmental factors, firm factors, and product factors.

### 4.14.1 Customer factors

Non-monetary costs such as time and effort are becoming increasingly important to consumers in modern markets. It may take much time and effort, which certain consumers are not willing to expend, to self bundle. This is particularly the case if the product category is new to the market and consumers feel they are not sufficiently
informed to make judgements between the various alternatives and their compatibility with each other. As the product moves through the life cycle consumers have more confidence in judging the quality of products and will find it easier and less time consuming to self bundle. They also become increasingly price sensitive as the product moves through its life cycle and less willing to purchase products they do not really want. Customers also become more heterogeneous as an industry evolves, sometimes too much so to support the continuance of a bundling strategy.

### 4.14.2 Environmental factors

First and foremost bundling practices must not be in contravention with government regulations. Certain countries and industries are more heavily controlled than others.

If industry competition is fierce, many firms may find themselves competing on price and may be forced to unbundle to stay competitive. This can be seen particularly in a recession where industry rivalry will intensify competitive activities. In other cases all industry players may be engaging in bundling. Continuing this strategy on an industry wide basis his can help to raise entry barriers, particularly to firms wishing to specialise in certain components.

### 4.14.3 Company Factors

If the company had some proprietary control over the good there will be an element of monopoly power which enhances the application and profitability of a bundling strategy. However they must also be aware that this will not last indefinitely and must adapt their bundling strategy accordingly.
Bundling can provide a certain element of standardisation which can result in economies being achieved particularly as all elements of the bundle are guaranteed equal production. However like proprietary advantages, cost advantages erode as the industry matures and specialist producers who focus on specific elements achieve cost advantages through volume. Unbundling may be required to restore these cost advantages.

### 4.14.4 Product factors

As discussed above, complementarity promotes bundling practice and substitutes makes bundling more difficult. Product complementarity can assume many different forms. Solomon \& Englis (1994), suggests that complementarity can be functional, aesthetic,
or cultural. Functional complementarity exists when products are consumed together to ensure proper operation. Aesthetic complementarity is where two products have an aesthetically pleasing outcome when consumed together. An example of this would be home furnishing producers who provide full colour schemes for room from wall paper and paint, to furnishings and fabrics. Cultural complementarity is when the joint consumption of two or more products conveys some underlying meaning about the consumer. If any of the above conditions exist between a companies products then product performance may be optimised by bundling them together.

### 4.15 Implementation of bundling

The success of price bundling is dependent on setting the optimal prices in order to maximise profits. This optimal price will be primarily based on customer specific reservation prices for the individual products and the bundle, and the size of the various segments identified, (Tung et al 1997).
Obtaining accurate information on reservation prices is probably the most difficult stage. The simplest method is to directly ask consumers what their maximum price is for a product. The validity of this method is questionable however, as consumers attention is directly aimed towards price. In addition it is possible that consumers may name a certain price in order to influence the supplier.

Conjoint measurement (See section 6.5.1) is another technique often applied to price bundling problems (Kucher and Hilleke 1993). Conjoint analysis is a decompositional technique which indirectly imputes reservation prices for each bundle element based on respondents reported choices between entire bundles. It will facilitate an accurate quantification of the trade off between perceived benefits and perceived price, (Leszinski and Marn 1997). This is the approach most frequently applied in modern price bundling studies. Most conjoint simulators assume additivity of reservation prices however, some can be programmed to test for interaction effects. This would highlight any opportunities that exist in terms of perceived complementarity between products.

A final possibility is to use expert judgement. This may prove quite difficult and open to inaccuracies considering the specific nature of the information required.

At this point information relating to the reservation prices of consumer segments along with the size of these segments is combined with the cost information on supplying each segment with a particular bundle. This information is considered in light of the internal and external factors discussed above and the appropriate bundling strategy should become apparent (Simon, Fassnacht and Wübker 1995).

### 4.16 Conclusion

The profitability of price bundling stems from its ability to sort customers into groups with different reservation price characteristics, and hence extract the consumer surplus. Not every situation would yield increased profits under bundling but the above examples show how potent price bundling can be under the right conditions. Bundling when approached strategically is not about deceptive pricing tactics. Nor is it about forcing consumers to purchase products or services they do not want by selling them with more desirable products. Profitable bundling strategies result from adding real value to the goods and services being offered to consumers, in a manner that both producers and consumer benefit from, (Yadav 1995).

## Chapter 5

## Services and Tourism

### 5.1 Introduction

It has long been accepted that the consumer evaluation processes involved in services are different from those of goods. While the marketers of services have the same principal objectives as the marketers of tangible goods, it is important to acknowledge that the differences in how consumers evaluate these offerings will require specialised marketing approaches.

The following explains some of the characteristics of service industries which differentiate them from consumer goods as well as some of the problems they raise for marketers. The chapter then proceeds to briefly introduce the tourism industry and discuss the distinctive aspects of tourism as a service industry along with pricing considerations.

### 5.2 Services

It is hypothesised that it is more difficult for consumers to evaluate services than goods, as services are characterised by being intangible, non-standardised, perishable, and because consumption is so closely intertwined with production. Furthermore services may be distinguished from tangible products by the degree to which they possess search, experience, and credence qualities.

### 5.2.1 Tangibility

Services are intangible and so cannot be seen, touched, or tasted before purchase. As a result consumers have difficulty evaluating exactly what is being offered. This can be explained to a certain extent by search, experience (Nelson 1970) and credence qualities (Darby and Karni 1973).

Search qualities refer to attributes that a consumer can accurately determine prior to purchase such as colour, style, or price.

Experience qualities refer to attributes which can be assessed only after purchase or during use, such as taste and purchase satisfaction.

Credence qualities refer to attributes which may be impossible for consumers to determine even after purchase and consumption as they may not possess sufficient expertise in the area to accurately judge whether these services are necessary or performed properly. Medical diagnosis and car repair are typical examples of services that are high in credence qualities.

Products are generally high in search qualities, whereas services, due to their distinguishing features, possess a relative lack of search qualities, and a higher proportion of experience and credence qualities. This results in fewer available cues on which consumers can base their pre-purchase judgements and so a stronger reliance on price as an informational cue is evident (Zeithaml 1981).

### 5.2.2 Simultaneous Production and Consumption

The production and consumption of tangible goods are two discrete events, whereas services are typically produced and consumed simultaneously (Kotler 1994). As a result of this, the consumer usually participates in producing the service and this interaction between the client and producer is very important in ensuring satisfactory outcome. The quality of most services, as defined by their ability to satisfy the consumer, depend as much on the consumers input as it does an the service providers contribution.

### 5.2.3 Perishability

The perishability of services (i.e. cannot be stored and sold tomorrow) raises the difficulty of synchronising supply and demand. Pricing strategies can overcome this. A prime example of this can be seen in airlines and more recently in hotels, with the concept of yield management. Yield management is a pricing and profit maximisation technique where different prices are charged for essentially the same service (Desiraju and Shugan 1999). It allows airlines to sell their fixed capacity to a variety of markets at the most profitable manner possible. All customers purchase the same flight from destination A to destination B but the product differs in terms of when it was booked, how long the stay-over was, day of flight, and time of flight (Coulter 1999). Airlines identified market segments based on price sensitive aspects of product and then reflected these differences in their product/price offerings. This allowed them to capitalise on the relative price insensitivity of certain markets such as business travellers (Kimes 1989).

### 5.2.4 Non-standardisation

Non-standardisation is another aspect of services which causes problems for pricing. Due to the high proportion of a service which is performed by people, it is only to be expected that the quality will vary from one service to another and so perceived value will also be variable.

The pre-purchase evaluation involved in choosing a holiday destination or specific package would seem to be exemplified by the above characteristics, suggesting that, in theory at least, price would be a dominant cue in the evaluation of the products and services offered in a tourism package.

### 5.3 Service Evaluation Processes

Zeithaml (1981) has suggested seven areas where the unique characteristics of services may lead to differences in evaluation processes and hence marketing approach.

### 5.3.1 Information Search

Consumers are more likely to rely more on personal sources of information when choosing services as traditional media tools are not good at relaying experience and credence qualities. As a result word of mouth is very important in overcoming the higher perceived risk in purchasing a service.

There is also greater post-purchase search and evaluation with services and so marketers need to concentrate on stimulating word mouth and reducing post-purchase dissonance.

### 5.3.2 Criteria for Evaluating Quality

Consumers use price and physical facilities as major cues to service quality.
Fewer cues are available in service purchase situations than goods purchase situations. In the absence of other cues price is used as a cue to product quality. Due to the intangible nature of services, consumers rely on tangible surroundings as only available tangible cue. Marketers should manipulate these cues to create the desired impression and position vis-à-vis their competitors

### 5.3.3 Evoked Set

Evoked set is the number of alternatives that a consumer will evaluate in their purchase decision. The evoked set is smaller for services than for goods. This is due to the fact that the service provider often only offers one 'brand' as opposed to the proliferation of brands that are often available when choosing a product. Also, few alternatives to a service tend to be available within a geographic area.
For many non-professional services the evoked set could include doing it themselves. If this is the case then consumers may have more exacting standards and expectations of higher levels of personalised service.

### 5.3.4 Innovation Diffusion

Innovations in services are adopted far slower than innovations in goods. Services are less communicable due to their intangibility and so cannot be tried and tested before purchase to the same extent as physical goods.

### 5.3.5 Perceived Risk

Consumers perceive a higher risk when buying a service than they do when they buy a good. This is due to lack of accurate information, non-standardisation of services, absence of guarantees and warranties, and difficulty in evaluating the service even after consumption. In response to this higher perceived risk consumers partake in a more extensive information search from as many sources as possible. A preference for personal information sources such as word-of-mouth is evident for all service categories (Mitra et al 1999).
Marketers need to place a greater emphasis on staff training in an effort to guarantee standards so consumers will learn what to expect. They must also be prepared to provide consumers with much in-depth information (Mitra et al 1999).

Both the availability of alternative cues and the presence of perceived risk have been found to moderate the strength of belief in a positive price/quality relationship (Johnson \& Kellaris 1988), (Also see Section 3.11.2).

### 5.3.6 Brand Loyalty

Brand switching is less apparent in services than goods due to the lack of available substitutes and perceived risk in changing service 'brands'. There may also be more monetary fees involved in changing brands. Consumers often feel that repeated patronage of a service provider results in special treatment and hence greater customer satisfaction. A greater emphasis needs to be placed on the relationship between the consumer and seller. Marketers should emphasise their differential competitive advantage in order to encourage switching. This should also improve the ability to maintain customer loyalty within the target market.

### 5.3.7 Attribution of Dissatisfaction

Consumers complain less frequently if they experience dissatisfaction with a service than with a product as they partly blame their dissatisfaction on their inability to
accurately specify their requirements. This is rooted in the fact that consumers participate to a greater extent in the specification and production of a service than in products and so feel partly responsible for their dissatisfaction.

## $5.4 \quad$ The Tourism Product

The tourism product is also characterised by many of the features of services but in addition to these it has other distinguishing qualities which render the tourism product unique. The core product of tourism can be viewed as being the destination in question. This can't be modified, or at least to the same extent as a manufacturer can alter a physical product. The marketer of the tourism product then has the task of fitting the core product to the markets which are available. As a result marketers of tourism have to rely on modification of the augmented product such as enhancing facilities or transportation modes and packaging them in an attractive bundle (Smith 1994, Chew 1987).

New markets are not always near at hand. This creates problems when developing new markets which in the case of the Irish tourism product would only be available outside Europe and North America. There is also the problem of fitting the core product to a wide range of tourism needs in a wide variety of countries and cultures. In addition many of these new markets are both politically and economically volatile with unsophisticated media for advertising. The tourism industry is highly fragmented with a wide variety of different organisations involved in providing the entire tourist 'package'. As a result the marketing of tourism is carried out at a variety of different levels from individual hotel companies to regional and national tourist boards. This causes confusion and conflicts of interest between parties (Smith 1994, Trippier 1987).

### 5.5 The Tourism Industry

Today more than ever before the travel and tourism industry is a global one as international travel boundaries continue to shrink. As a world-wide industry, tourism has undergone phenomenal global growth since WWII. In 1948 international tourist arrivals were 14 million. This figure exceeded 400 million in the early 1990s. It should also be noted that the international tourist arrivals figure accounts for only 10 per cent of all tourism movements world-wide.

Irelands tourism figures have mirrored international statistics with all available statistics indicating that it has become the most important sector in the Irish economy (Anon 1998a). Indeed tourism industry growth in Ireland is running at seven times the European average as well as generating 30\% of all new jobs since 1988 (McNally 1996). Foreign exchange earnings from tourism in 1998 reached $£ 2.3$ billion while the number of tourists exceeded five and a half million. The industry also provides employment for 124,000 people (Anon 1998b). These figures show a phenomenal increase from 1996 figures of $£ 1.45$ billion earnings, 4.6 million visitors and 110,000 jobs respectively, (Anon 1997a; Anon 1997b).

However, growth in the Irish tourism industry can only be sustained if we adopt a more assertive, targeted and integrated approach. It is feared that a continuing increase in visitor numbers would have a detrimental effect on the attractiveness of Ireland as a tourist destination. As a result the Irish tourist board, Bord Failte, are changing their approach by measuring success in terms of tourist yield or spend per head rather than volume of visitors (Anon 1996b). In 1996 Bord Failte launched a new marketing strategy with 'Tourism Brand Ireland' which focuses its efforts on attracting the right type of tourists rather than increasing visitor numbers. The campaign is aimed at promoting Ireland as a single destination for high-spending tourists, (McNally 1996. Anon 1996a).

This shifting in focus from quantity to quality is what is required to ensure that Ireland avoids the mass tourism approach which has become an affliction in many popular tourist resorts. This is particularly evident in the Mediterranean regions, where price concentrated competition has resulted in their tourism products becoming more and more alike in quality and promotional approach, which results in consumers having less and less scope to use discrimination. Eventually the whole category becomes a lowmargin commodity market. While this policy has been successful in increasing market share for certain operators, it has also led to price wars resulting in very low industry margins for many of these markets.

Tourism policy makers have learned from these mistakes and a move away from the mass tourism where quality took a back seat to quantity is apparent. To succeed at this, emphasis needs to be placed on value rather than on price.

### 5.6 The New Tourist

Not only is there a move away by countries from the mass tourism approach but also by the tourists themselves who are changing and becoming more diverse in their needs and
wants. In recent years there has been strong growth in alternative holidays as opposed to the mass marketed package tours. More and more tourists are no longer interested in being ferried around a country in a tour bus or 'environmental bubble' with rigidly set itineraries. They are becoming more interested in exploring the country themselves and coming in direct contact with the native people and culture.
This is attributed to the fact that tourists these days are often experienced travellers due to increased transport options, greater affordability of holidays and more available leisure time. In addition, higher education levels and increased access to information is another contributing factor. Tourists are far more discerning than the used to be with higher standards and expectations (Shackleford 1987).
There are a growing number of independent travellers who are packaging their own holidays because of the lack of variety and alternative holidays available in package form. This can be a long and costly process for the tourist involving many long distance phone calls. Language barriers and limited or inadequate information are only some of the problems they will come up against (Martin and Mason 1987).

Specialised and individually tailored holiday packages are also a market that tour operators can make higher margins on. Currently demand for these packages are relatively low and a travel agent putting such a holiday together they would have to individually source each element of the package separately. Administration and labour costs are increased as a result of this. But normally the consumers demanding such a holiday have a higher disposable income, higher educational level, and a lifestyle that would prompt the demand for such a holiday (Potier and Cockerell 1995).

### 5.7 Tourism Pricing

Up to recent years, the guiding principle within the travel industry has been that price is the sole criterion of importance to the consumer, or that other elements are relatively insignificant. While brand images have not played a big role in tourism marketing up until the present, this does not mean that symbolic values in travel products are any less important than in other industries. It should also be noted that 'futures' forecasters such as the Henley centre are suggesting that as discretionary income rises, the symbolic and emotional values attached to brand names will increase (Javalgi et al 1992). All too often, however, tourism organisations have chosen to ignore the creation of added value in their marketing plans, and have concentrated exclusively on the promotion of price. However with the constant emphasis on low prices, it is not surprising that much of travel and tourism has become a weakly branded commodity market (Hodgson 1991).

Consumers have been led to expect low prices and book later to avail of 'late saver' fares. This policy has been successful in increasing market share for certain tour operators but it has also led to price wars resulting in diminished industry margins. While these pricing policies have helped to increase the sales of package holidays it is almost certain that a steady expansion of the market would have taken place even without the price wars (Holloway and Plant 1988). The constant price cutting in order to hold on to market share has led to almost impossibly low margins on which much of the travel industry has to survive. The concentration on a selling orientation, as opposed to a marketing one, has been blamed for much of this. The price of a product should not only be viewed as the outcome of market forces. A marketing manager will be aware that price says something to the consumer about the nature of the product. By manipulating prices in combination with product quality and promotional messages, sales can be oriented to a new market, or market share can be increased at the expense of competitors.

To gain competitive advantage, it is becoming increasingly important for travel marketers to discern how travellers perceive a competing set of choice alternatives (destinations) and their offerings of travel and tourism activities, attractions, and amenities. Owing to differences in experiences, beliefs, and expectations, travellers tend to differ in terms of the overall perceptions they hold regarding a set of competitive alternatives (i.e. destinations). Therefore it is useful, if not essential, to identify the perceptual criteria or factors that differentiate among competing options.

Competitiveness is the ability of a business to attract its share of the market. It is an all encompassing concept whose bottom line indicator is 'value for money' (Stevens 1992). The notion of value for money refers primarily to the relationship between price, quality, and quantity. There are of course many factors which affect price, quality and quantity but the salient relationship between price and value exists in the perception of the consumer. Accordingly the psychological aspects of price are of primary interest in determining a consumers' price/value relationship, (Witt \& Moutinho 1989).
In order to understand and fully capitalise on price as a marketing tool, we need to have a clear picture of how customers interpret product prices. Tourism consumers rate the product at a price and without price there is no indication of value. However, all consumers do not share the same view about what represents value for money, because, even assuming that we have the same disposable income, we establish different priorities for what we purchase, and attach different values to the benefits that product offer.

The application of bundling (See Section 4.3) is particularly appropriate in the case of tourism. This is primarily because the cost structure in many tourism and hospitality establishments is typified by high fixed costs and relatively low variable costs. In addition, services offered by service firms are often interdependent in terms of demand (Guiltinan 1987). For example increasing occupancy in a hotel will have spin-off effects in the restaurant and bar. In each case the products bundled together have a particular relationship to one another in their value to different buyer segments. Price bundling increases the opportunities for differentiation.
Because of the relatively large geographic distance that often exists between the holiday destination and source markets, arbitrage can be prevented quite easily (See section 2.13). Comparison of alternative accommodation and transport arrangements are not easily made due to lack of current information and currency exchange rates. This however also causes problems in terms of dissemination of information to prospective market segments.
The tourism product is more often than not presented to the consumer in a bundled fashion. What is being offered, particularly in terms of inclusive holidays, is a 'package' of services (Bojamic, and Canaltone 1990). For example, accommodation, food, entertainment, leisure activities etc. are frequently offered together for a preferential price. Quantas operate a value added bundling approach where for only $£ 1$ extra their customers can avail of sightseeing packages, free camper hire for five days and two nights' accommodation in tourist class hotels. Rather than cutting prices for price sensitive buyers, the value added bundling instead offers them an additional value that less price sensitive buyers may not want. These options would be unattractive to the business traveller but would make travelling with Quantas more attractive to a pleasure traveller who might normally travel on a charter flight or cheaper transportation mode.

## 5.9 Conclusion

Services and tourism both have distinguishing characteristics which offer additional challenges to the marketer. The phenomenal rate at which the tourism industry is changing and growing offers business opportunities which require careful approach and strategy if the industry is to reach its full potential in the long term. These factors need to be considered carefully alongside the changing nature of the modern day tourist when developing successful pricing strategies.

## Chapter 6

## Research Methodology

## 6.1

## Introduction

This research is primarily concerned with investigating the application of price bundling to tourism packages/bundles. The first step in implementing a price bundling strategy is to determine the specific elements of a particular bundle which a consumer values most. This information can then be used to formulate the bundle combination that is optimal for both the marketer and the consumer.
This chapter will document the stages in the process of obtaining information relating to the identification of an optimal bundle for a pure bundling strategy.

### 6.2 Secondary Research

Secondary data is all research already extant, having been produced for some purpose other than helping to solve the problem at hand (Tull \& Hawkins, 1990). Secondary research is extremely useful as a familiarisation process and for generating ideas which will help to formulate and refine any subsequent collation of primary data. The secondary research in this study involved a thorough review of all published material relevant to the area of price bundling as well as literature relating to pricing theories, conjoint analysis, and tourism. The published material was sourced from all relevant and available books, journals, periodicals, conference papers, and reports. The reviewed literature provided an understanding, and reduction of complexity, of the phenomenon in question, sufficient to clearly identify the parameters for primary research.

### 6.3 Initial Approach to Data Collection

This research was carried out using the example of weekend break packages to Paris. However the initial intention was to investigate in-bound tourism through the cooperation of a tour operator. Involvement of an industry partner would have resulted in the availability of accurate pricing information on the bundles under study and access to a sample population in the form of the tour operators clients. In addition it would have added to the realism of the study with the implications being of a more practical nature rather than entirely theoretical. However, one of the main reasons for seeking industry co-operation was access to cost information on the various bundle elements. From a practical point of view, information about the most appealing bundle to the consumer is of little use without considering the cost implications of supplying this particular combination of attributes.

### 6.3.1 Initial Approach To Potential Industry Partners

Eighteen Irish based, incoming tour operators were approached to participate in the study. A copy of the research proposal and a covering letter (Appendix C) was sent out to these companies. These letters prompted only four replies, one positive and three negative. The one company who expressed interest was willing to co-operate but turned out to be unsuitable for the following reasons.

1. These tourists were all independent travellers and the only point of contact was Dublin Airport. They were arriving in groups of two to five spread out over five months and there was no way of identifying them from other travellers while in Dublin Airport.
2. They all purchased the flight through the company, while some also purchased car hire and/or vouchers for accommodation. This did not provide enough bundle elements to fulfil the requirements of the study.
3. They dealt solely with the Italian market, a language of which the researcher has no knowledge

### 6.3.2 Follow Up Contact With Potential Industry Partners

The correspondence to the remaining fourteen companies who did not reply was followed up with a telephone call. In six cases it was possible to secure an interview with a view to discussing the matter further; however, in most cases it would seem that this was just a token gesture on their part. Interestingly enough the smaller companies that were approached were far more open to the research proposal and more willing to give out sensitive information than were the larger companies.
While some of the meetings seemed to be fruitful initially, all companies eventually declined to partake in the study for one, some, or all of the following reasons.

1. Many operators expressed concern at their clients being asked to participate in a study while on holiday. While they were assured that participation would be completely voluntary on the client's behalf they were still concerned. Many of them had encountered situations before where clients in this situation had complied with the request to partake in a study in an amicable manner, but on returning to their home country wrote letters of complaint to the company.
2. As expected, many companies did not want to give out cost and/or price information despite assurances of confidentiality
3. The companies were approached in the run up to the summer season which is the busiest time of year for them and some suggested that they did not have the time to meet with the researcher, let alone partake in a study.
4. In cases where companies arranged all inclusive tours of Ireland, they felt that the tourists itinerary was too full for them to answer a questionnaire.
5. In some cases the person with whom initial contact was made showed interest but they were unsuccessful in securing the approval at a higher management level.

### 6.3.3 Change of Approach

Due to the lack of co-operation from tour operators, and as the tourism season was nearing a close, it was decided that the research would have to continue without the cooperation of an industry partner. In addition it was decided that the study would be based on out-bound tourism as bundle prices could be more easily approximated from publicly available market prices. Weekend break packages to Paris were then chosen as the object of the study with the sample population consisting of Irish consumers.

### 6.4 Weekend Break Market

The weekend break market was chosen as it has been a relatively steady growth area in Europe since the 1980s. There are many factors and trends which suggest that this trend will continue to grow in the short term at least.
Socio-demographic trends have contributed to this growth in popularity. Double income families have made weekend breaks more affordable as well as more convenient in terms of partners co-ordinating their holiday time. Consumers are also opting for shorter and more frequent breaks over the more traditional main family holiday. (Martin and Mason 1987; Potier and Cockrell 1995; Shackleford 1987)

The actual amount of leisure time afforded to consumers has also increased with longer holiday entitlements and an increasing number of public and national holidays (Potier and Cockrell 1995). Other industry and technological developments have also contributed to the growth in this market such as an increased variety of transport options and more affordable air fares. (Martin and Mason 1987). These trends all suggest that the growth prospects for the weekend break market are good with an increasing variety of products being offered all the time.

In addition to these elements the weekend break market was chosen due to the ease with which information regarding packages and their individual components could be gathered from publicly available sources such as travel agents.
A foreign location was chosen rather than looking at weekend breaks in Ireland. This is because travel agents reported that, when travelling domestically, Irish consumers will frequently go 'on spec' and quite often will stay with friends and relatives rather than purchasing accommodation. In addition, many tourists will self bundle rather than purchase readymade packages, as they are more familiar with the product offerings.

### 6.5 Research Method

The most effective method of collecting information relating to the value of bundle components is through conjoint analysis (Kucher and Hilleke 1993; Simon and Fassnacht 1993). A choice based conjoint model was deemed most suitable as it goes beyond most other conjoint models by also testing for interaction effects. This characteristic will facilitate the identification of complementarity between attribute levels. The existence of such a relationship enhances the capability of price bundling by identifying the specific combinations of attribute levels that consumers are willing to pay premium prices for.

### 6.5.1 Conjoint Analysis

In a real life purchase environment, consumers do not make purchase decisions based on the evaluation of a single attribute. Instead they evaluate a range of product attributes on which they make judgements and trade-offs (Rice 1998). They implicitly sum up the value or utility (See section 2.7) of each of the products component parts and proceed to choose the alternative with the greatest net utility (Claxton 1987). Knowledge relating to the value of each product feature/element would result in the creation of optimum products or bundles that satisfy both the customer and the supplier. However, these value judgements are implicit in that they are made at a subconscious level and so asking consumers to verbalise the values they are placing on product components would be ineffective. (Johnson 1974; Simon and Fassnacht 1993).

Conjoint analysis is a decompositional statistical technique which can quantify the relative value of the attributes in a product concept from simple ranking and preference information (Fenwick 1975). Conjoint analysis allows consumer preferences for a
multi-attribute item to be broken down its individual attributes, without separating those attributes from the context in which overall judgements are made.

The conjoint results go beyond attribute importance and provide quantitative measures of the relative appeal of specific levels of the attributes. The output attempts to assign utilities to the various attribute levels under consideration. In addition, as all the attribute levels are translated into a common utility scale it is possible to equate differences between levels of one attribute with differences on a different attribute (Malhotra 1993).

### 6.6 Choice Based Conjoint

Conjoint analysis is a term that covers a variety of procedures. The model of conjoint analysis chosen for this study is choice based conjoint analysis which has its roots in discrete choice modelling. Most other types of conjoint analysis require that respondents rank and rate sets of product concepts. The main distinguishing feature of choice-based conjoint is that respondent preferences are expressed by choosing product concepts from sets of concepts as opposed to rating or ranking them. This is a very simple and natural task for respondents as it closely approximates what buyers actually do in the marketplace (Sawtooth Software 1995).

The main problem with choice tasks is that they are inefficient in that each concept is described on all the attributes being tested and each choice task contains several concepts. In this study each product concept is described on five attribute levels, and each choice set includes three full product concepts. The respondent has to study each concept presented in a choice set before making their choice which requires the respondent to read and process a substantial amount of information before answering. Such conditions make it impractical to obtain enough information from each respondent to carry out analysis on an individual basis and so data is analysed on an aggregate basis. Analysis can however be carried out on sub-sets of respondents who fulfil certain specified criteria (Sawtooth Software 1995).
This characteristic of choice based conjoint does however have its advantages. Most conjoint methods only deal with main effects. Unlike other conjoint models however, choice based conjoint also has the ability to deal with interaction effects. Interaction effects would show where the utility of a certain combination of attributes would have a value greater of less than the sum of the parts (See section 6.6). This would highlight any opportunities or pitfalls that exist by bundling certain items together. Such analysis
is only possible because choice based conjoint methods analyse data on an aggregate level rather than on an individual respondent basis (Sawtooth Software 1995).

### 6.7 Defining Relevant Product Features and Benefits

Once the weekend break market had been chosen the following details had to be decided on. What destination to choose; What attributes to include; How many and which levels to describe each attribute on; and What prices to charge for various product combinations.

To assist in making these decisions information was gathered by telephoning a random sample of twenty-five Dublin based travel agents. The purpose was to get a picture of the short break market from the consumer's point of view and find out what was typically on offer and prices at which bundles were being offered. The contact was made under the guise of a prospective customer due to the lack of co-operation the researcher previously met with when trying to gather information in the name of research. In addition it was explained that the purchase of this short break package was a gift for a third party. This gave the researcher more scope when asking questions.

In each case the following question were asked.
-What is the most popular short break destination?
-How many nights stayover are normally included?
-What basic features do packages/bundles usually include?
-What optional extras are most frequently requested?
The following is a summation of the responses to the above questions:

### 6.7.1 Short Break Destination

London, Paris and Amsterdam respectively were reported to be the most popular destinations requested for weekend breaks. London however was usually purchased on a flight only basis as accommodation was frequently supplied by friends or relatives. Paris was the most popular weekend break destination that involved the purchase an actual weekend break package in that the purpose of the trip was more that of a leisure break than visiting friends or relatives.

### 6.7.2 Duration of Weekend Break

The travel agents usually made the distinction between short breaks and weekend breaks when asked this question. Short breaks varied between one and five nights but usually
included an average of four nights stayover. Weekend breaks on the other hand were usually two nights but on occasion stretching to three.

### 6.7.3 Bundle Components

Weekend packages typically included flight and hotel accommodation in a grade three star hotel ${ }^{3}$. Breakfast was nearly always included while evening meals were never included in foreign city break packages. The inclusion of evening meals in weekend bundles seems to be limited to the domestic market where many hotels offer weekend packages including evening meal for one night of a two or three night stay. Travel agent representatives indicated that this trend was not evident in European cities.

### 6.7.4 Optional Extras

Accommodation in close proximity to the city centre was a frequent concern in the case of city breaks. Consumers would appear to be unwilling to spend a lot of time travelling especially as their stay would be so short.
Airport transfers were included in some cases but more often than not they were an additional cost.

Sometimes a four or five star hotel was requested, particularly if the holiday was purchased as a present or was for a special occasion. Most travel agents did not book hotels of one or two star grading. Grade three and four star were the most popular with grade five star being asked for only occasionally. Consumers who frequented grade one or two star were usually familiar with the destination and more often than not the actual premises itself. Usually they would not even book through a travel agent preferring to deal direct with the premises.
It was noted that in the domestic market, on site leisure facilities were usually advertised as a bundle component but this was not the case with foreign hotels. Several travel agents suggested that while leisure facilities might enhance the attractiveness of a bundle, they were more appropriate to holidays of a longer duration, and to accommodation in remote locations rather than in cities.

Car hire was often arranged through the travel agent also but this would not usually occur in the case of city breaks.

[^2]
## 6.8

The most important stage of a conjoint study is choosing the attributes that are going to be studied (Leszinski and Marn 1997; Kucher and Hilleke 1993; Tumbusch 1987). This is a critical phase of the methodology that will impact heavily on the outcome of the study. It is important that attributes chosen are important to customers and relevant to the purchase situation. Using the above information collected from the travel agents, the following attributes were chosen.

In choosing the number of attributes and levels there is a trade-off to be made between information overload and oversimplification, (Green and Shrinivasan 1978). Research carried out by Sawtooth Software (1995) suggests that individuals have difficulty evaluating more than six attributes at a time because of information overload.
For the purposes of this study it was decided to define the products on five attributes with up to three attribute levels per attribute. To reduce the number of attributes any further would lead to poor product description.

A weekend break of two nights duration was chosen over a short break as the duration was predominantly two nights as opposed to the more broadly defined 'short break' whose time span could vary from one to five nights. Paris was chosen as the destination because of its reported popularity. The five attributes that the product were described on were:

1. Proximity of hotel to city centre
2. Grade of hotel

3 Evening meal
4. Leisure facilities
5. Price

### 6.9 Attribute Levels Chosen

### 6.9.1 Proximity of Hotel to City Centre

As the weekend break on offer is only two nights in duration, it would be expected that time would be too valuable to spend travelling to central locations. This would suggest that there may be a willingness to pay more for central locations. The attribute levels chosen were as follows:
a. City centre
b. 20 minutes from city centre using public transport (bus, metro, or taxi)
c. 40 minutes from city centre using public transport (bus, metro, or taxi)

### 6.9.2. Grade of Hotel

Travel agents reported that three and four star were the usual hotel grades used with five star being occasionally requested, with one and two star hotels not being booked through travel agents. As a result this study included only three, four, and five star hotels

### 6.9.3. Evening Meals

Evening meals are not offered in any Paris weekend packages currently offered by travel agents. It would be expected that consumers would prefer to make their own meal arrangements rather than tying themselves to eating in the hotel they were residing in. However, it was decided to include it as an attribute here on the basis that many Irish hotels include evening meals in their weekend packages and perhaps it was a missed opportunity.

### 6.9.4. Leisure Facilities

Leisure facilities were included as it is hypothesised that these would not be complementary within a weekend package for most people. However, leisure facilities may make the bundle sound more attractive despite the fact that the consumer may never use them. As a result of this, their inclusion may reduce the consumers price sensitivity.

### 6.9.5. Price

Once the attributes and attribute levels were decided the same twenty-five travel agents were again telephoned under the guise of a prospective customer to enquire about prices for weekend packages in Paris. Three different weekend dates were checked; 21st 23rd 1997 February; 7th-9th March 1997 and 21st-23rd March 1997. It was intentional that none of these dates were bank holiday weekends or special events in Paris as such occurrences would affect the prices being quoted

Prices presented in the study are based on a 'per person sharing' rate, including return flight priced at $£ 140$. Prices are exclusive of tax ( $£ 13$ - compulsory) and insurance ( $£ 16$ - optional) as this is the manner in which they were quoted by travel agents. Attributes, attribute levels, and their corresponding price differentials were as follows:

## Location

City Centre
15 Minutes From City Centre
30 Minutes From City Centre

Hotel Grade
5* Hotel
4* Hotel
3* Hotel

Meal Arrangements
Full Dinner on Evening of Choice in Hotel Restaurant
Make all own Evening Meal Arrangements

Leisure Facilities
Leisure Facilities in Hotel
No Leisure Facilities in Hotel

## Price Effect

No price change
No price change
No price change

## Price Effect

$£ 240$ for two nights
$£ 150$ for two nights
$£ 70$ for two nights

## Price Effect

£20
No price change

## Price Effect

No price change
No price change

## Price

For every combination of attribute levels, there was a high price and a low price with a view to testing the price sensitivities of the various bundles. The low price was based on the sum of the components and a $£ 25$ premium was added for the 'high price' attribute level. It is important to note that respondents will not be aware of this $£ 25$ price differential and so their reaction to this attribute will be of an implicit nature.
The above pricing structure resulted in the following 12 different prices ranging between $£ 210$ and $£ 425$ as follows:

## Low Price

High Price

|  | $\mathbf{3}^{*}$ | $\mathbf{4 *}^{*}$ | $\mathbf{5}^{*}$ | $\mathbf{3}^{*}$ | $\mathbf{4 *}^{*}$ | $\mathbf{5 *}^{*}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| No Meal | 210 | 290 | 380 | 235 | 315 | 405 |
| Meal | 230 | 310 | 400 | 255 | 335 | 425 |

## Table 8 Product Pricing Structure

### 6.10 Sawtooth Software's CBC System

While conjoint analysis can be a very powerful analytical technique, it can also be quite difficult to implement. In order to reduce the likelihood of errors and somewhat simplify the data collection and analysis process, a specialised conjoint analysis software package was used; Sawtooth Software's Choice Based Conjoint (CBC) System. As the name would suggest, the CBC System is software specifically designed for investigations using choice-based conjoint analysis.
This section will review the most relevant features of the CBC system and the parameters specified for this study.

### 6.10.1 Computer Aided Interviewing

CBC was designed primarily for computer aided interviewing. However due to resource limitations, computer aided interviewing was not an option in this particular situation. However CBC was used to generate the choice tasks which were then presented to the respondent in 'pen and paper' format. The software was then used to analyse the data collected. Conversion of the choice tasks into pen and paper format was a complex task using a combination of CBC, MS Access, MS Word, and MS Excel.

### 6.10.2 'None' Option

Respondents were presented with a choice task it included three product concepts and a none option. This allowed respondents to decline to choose any of the concepts presented in a particular set if they do not find any of them suitable. This feature of CBC further extended the realism of the choice tasks.

### 6.10.3 Number of Attributes and Attribute Levels

Because respondents are presented with full product concepts each time, CBC limits the number of attributes to six as more than this is likely to confuse the respondent and cause them to mentally simplify the tasks by ignoring some of the attributes. The number of attribute levels per attribute is restricted to nine. This study involved five attributes with a maximum of three levels per attribute.

### 6.10.4 Choice Task Design

CBC can support two choice task designs: randomly constructed designs and fixed orthogonal designs. Fixed Orthogonal designs use a single version of the questionnaire (or very limited number of versions). Such designs will achieve maximum efficiency in measuring main effects and the relevant interaction effects that it was designed for. Randomly constructed designs are approximately orthogonal designs where each respondent sees a different questionnaire. Efficiency is only slightly compromised by not having a truly orthogonal design but all interaction effects can be measured. A randomly constructed design was chosen with a view to investigating the existence of any interaction effects.

Within randomly constructed designs there is the option for 'complete enumeration' or a 'shortcut' strategy. Complete enumeration is preferred as it considers all possible concepts before it selects each concept. This allows CBC to come as close as possible to an orthogonal design for each respondent while keeping concepts within each task as different as possible. However this could be up to 2125764 if the maximum number of attributes and levels were chosen which would be too great a burden for today's typical computer. In this study there were only 729 ( 3 concepts; up to 3 levels per attribute; 5 attributes $=3 \times \quad 3^{5}$ ) possible concepts to be evaluated before choosing each task making complete enumeration a viable option (Sawtooth Software 1995).

Another major limitation of the questionnaire method is the effect of the questioning process on the results obtained. The situation in which a person is questioned about routine actions is an artificial one at best. As a result, respondents may furnish reports quite different from the facts. If the true answer to a question would be damaging to the ego, some respondents will manufacture or modify an answer.

## $6.12 \quad$ Questionnaire

Because intercept interviewing was chosen as the method of data collection, the questionnaire had to be as short and easy to complete as possible. Intercept interviewing relies on the good nature of the consumers approached to expend the time and effort to complete the questionnaire. If this show of goodwill is abused by requiring them to complete a long and/or difficult questionnaire there is the risk that willing respondents may abandon the task half way through. Mail questionnaires might have overcome this by allowing respondents to consider their choices at their leisure. This option however was not feasible due to the cost involved and the low response rate associated with mail questionnaires especially considering the high sample size required.
The questionnaire consisted of two main sections. The first section asked the respondent for some general personal and demographic details as well as information relating to their behaviour in relation to weekend breaks (Appendix D). The second part of the questionnaire consisted of six choice tasks (Appendix E). Table 9 is an example of a typical choice task. Each choice task presented the respondent with three product concepts from which they had to choose their preferred alternative, Respondents also had the option of not choosing any of the concepts presented in a choice task if they deemed them all to be unsuitable.

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :---: | :---: | :---: | :---: |
| 15 Minutes from City Centre | 30 Minutes from City Centre | City Centre | I would |
| $3^{*}$ Hotel | $5^{*}$ Hotel | $4^{*}$ Hotel | choose |
| Evening Meal Included | Evening Meal Included | No Evening Meal Included | none of <br> Leisure Facilities <br> $£ 230$ |
| No Leisure Facilities | No Leisure Facilities | these |  |
|  | $£ 400$ | $£ 315$ |  |
|  |  |  |  |

Table 9 Sample Choice Task

### 6.12.1 Multiple Choice Questions

Most of the questions in the first part of the questionnaire (Appendix D) were in a multiple choice format. The essential feature of a multiple choice question is that it presents, either in the question itself or immediately following the question, the list of possible alternatives from which the respondents must choose (Malhotra 1993). Multiple Choice questions are easier for the respondent to answer and are considered almost essential for securing co-operation in self-administered questionnaires. They tend to reduce interviewer bias, and bias caused by varying levels of respondent articulation. Multiple choice questions also speed up the interviewing process not, to mention simplifying coding and analysis (Malhotra 1993). However showing the respondents the list of potential answers can cause several types of distortion in the resulting data. If all possible alternatives are not listed, no information can be gained on the omitted alternatives. Even if an 'other' category is included there is a strong tendency for respondents to choose from among these alternatives listed. This may occur simply because one of the alternatives sounds familiar or logical, and not because it is the correct answer to the question (Tull \& Hawkins 1990). These problems are unlikely to be an issue in this case as questions in section one were quite straight forward and were well suited to multiple choice questions in that it was possible to enumerate all possible answers quite easily.

### 6.12.2 Demographic Profile Questions

Information such as general demographic details is usually easy to source in that the respondent usually has this information ready at hand. However, while they may be able to furnish the researcher with the required details, they are not always willing to. This may be due to the sensitivity and personal nature of certain information. With factors like age and income it is perhaps better to use a series of age and income bands to elicit the information unless more exact information is necessary (Fife-Schaw 1995)
Question 1 Age: As a respondents exact age can often be a sensitive subject, age groupings, spanning ten years each were used.
Question 2 Gender. This was a simple tick box offering options of male and female Question 3 Marital status. As well as the married and single options, an 'other' option was included here with a request to specify the nature of 'other' status i.e. separated, divorced, widowed.

Question 4 Income. Income is often a sensitive question and so as to minimise the risk of people refusing to declare their income, categories spanning $£ 10,000$ were used.

## Questions 5 and 6 Occupational Category

This question was asked with a view to classifying respondents into socio-economic categories. The Joint Industry Committee for National Readership Surveys (JCNARS) Appendix L classification of social grading was used. This uses occupation as the basis for categorising the population into six broad groups (A,B,C1,C2,D,E). The descriptions of each occupational grouping were given to respondents and they were asked to tick the appropriate categorisation. Respondents were also asked to state their occupation here especially if they were not sure what occupational grouping to put themselves in.

### 6.12.3 Weekend Break Behaviour

The following questions all relate specifically to weekend breaks. The objective was to get a brief overview of respondents behaviour in relation to the weekend break market. Question 7 asked respondents if they had ever taken a weekend break in Ireland. They were given Yes and No tick boxes to express their answer.

Here respondents who answered 'yes' to question 7 were instructed to proceed to question 8. Anyone who answered 'no' was told to skip ahead to question 9.
Question 8 asked respondents to state how many times in the last two years they had taken a weekend break in Ireland

Question 9 asked respondents if they had ever taken a weekend break outside Ireland. They were given Yes and No tick boxes to express their answer.

Here respondents who answered 'yes' to question 9 were instructed to proceed to answer 10. Anyone who answered 'no' was told to skip ahead to question 11.

Question 10 enquired as to the number of times respondents had taken a weekend break abroad in the last two years.

Question 11 asked respondents if they were planning to take a weekend break within the next 6 months. A simple yes/no answer was presented in tick boxes.
Question 12 was employed to get a picture of consumers reference prices for weekend breaks. Respondents were asked to indicate how much they would be willing to pay for a weekend break in Paris. Their reported price was to be per person and to cover flight and accommodation - including breakfast. They were given seven price categories to choose from starting at $£ 150$ and increasing by amounts of $£ 50$.

## $6.13 \quad$ Sample Selection

Sampling involves choosing individuals from the population of interest, as the subjects in the experiment, or respondents of a survey. This section will set out the sampling process involved in this study.

### 6.14.1 Population

The first step in sampling is to define a target population. The target population is 'the collection of elements or objects that possess the information sought. A properly designated population must be defined in terms of 1) element, 2) sampling units, 3) extent, and 4) time. (Kinnear \& Taylor 1983).

For the purpose of this study the population can be defined as :
All Irish (extent) consumers (units) who may be in a decision making capacity in relation to purchasing a weekend break in Paris (element).

### 6.14.2 Sampling Frame

A sampling frame is a means of representing the elements of the population (Tull \& Hawkins, 1990). It is a list or a set of instructions for identifying the sample population (Malhotra, 1993)

The sampling frame used was all adults attending the holiday fair exhibitions in the RDS (23rd-26th Jan 1997) and the Silver Springs Hotel Cork (1st-2nd Feb 1997). The holiday fair was chosen as it was deemed a likely source of individuals who would have the characteristics of the above defined population. Both of the events are consumer fairs at which a very wide variety of holiday destinations are marketed as well as all the various elements that could comprise a holiday package. Consumers attend these events with a view to gathering information to assist them in making their holiday decisions. In these surroundings, respondents may be more tolerant of a short questionnaire relating to something they are currently interested in.

### 6.14.3 Sampling Method

The sampling method is the manner in which the sampling units are selected (Tull \& Hawkins, 1990). A systematic sampling approach was taken. Every fifth person who passed the interviewer was asked to partake in the study. This approach was taken so as to prevent interviewer bias, which can result from the manner in which the interviewer
selects respondents. On average there was a $25 \%$ response rate with three out of every four consumers approached declining to participate in the study.

### 6.14.4 Desired Sample Size

The sample size needs to achieve as accurate results as possible without incurring excessive time and monetary costs in collecting or analysing data and without overly taxing the respondent.
To obtain statistically meaningful results with CBC, the relevant question is not how many respondents but how many product concepts and choice tasks have been presented. Getting ten respondents to answer six choice tasks will yield the same volume of responses as getting twenty respondents to evaluate three choice tasks. This is because the data analysis in CBC is conducted on an aggregate, rather than individual, basis.

Research conducted by Sawtooth Software has shown that presenting too many choice tasks to respondents causes them to tire and their answers do vary as the interview progresses in a manner which causes degradation of the data. Respondents become more focused on price in later choice tasks and are also more likely to choose the 'none' option. They go on to suggest that no more than 6 choice tasks are presented to each respondent. These suggestions were particularly relevant in the case of intercept interviewing where respondents may stop to participate in the study but yet are anxious to go about their business. Many potential respondents may refuse to co-operate if a long questionnaire is presented and they are time constrained (Johnson and Orme 1996). CBC is concerned with estimating proportions and so the standard error of proportions is a relevant statistic. For main effects, the relevant information is the proportion of times when a particular attribute level is offered that it is chosen. For interaction effects we are concerned with how often out of the number of times a particular combination of attribute levels is offered that it is chosen. This means that the greater the number of attributes within a level the greater the sample size is required. This study had up to three levels per attribute.

It was decided, based on the above factors, that a sample size of 250-300 answering 6 choice tasks with 3 concepts per task would be suitable. This sample size was both achievable and adequate for estimating main effects. The precision of estimation for interaction effects will not be as accurate, but analysis will made with this in mind.

### 6.15

The primary research was self-administered over six days at two holiday fairs in the RDS (23rd-26th Jan) and the Silver Springs Hotel Cork (1st-2nd Feb). A total of 268 valid responses were achieved.

The questionnaire was introduced to respondents as a study of weekend break packages. Respondents were informed that the questionnaire would take less than five minutes to complete. Subjects were not told that the specific element of interest was price so as not to overly focus their attention on the price variable in their choice tasks. They were requested to very carefully consider all the alternatives before choosing a preferred product and the option of choosing 'none' of the product concepts was pointed out.

### 6.16 Measurement Instrument Pre-Test

Before a questionnaire is ready for field operations it needs to be pre-tested and revised. Pre-testing refers to the initial testing of one or more aspects of the research design (Kinnear \& Taylor, 1983). The pre-test is designed to discover whether the questionnaire in its present form will generate the data required by the researches (Brown 1980).

The first evening administering the primary research was designated as the pre-test. 27 responses were collected. After consumers had completed their questionnaire critical feedback was sought. In a conjoint study you want to be sure that respondents are correctly interpreting your attributes and levels (Curry 1998). After the pre-test respondents had completed the interview they were questioned about what each attribute meant to them. There were no misinterpretations discovered.

Respondents were then asked how important leisure facilities, provision of meals in the hotel, and location were to them.

Regarding leisure facilities, 25 respondents said they were not important as the would not expect to have the time to use them. The remaining two both said that while they probably would not use them it was nice to know they had the option.

When questioned about the meal arrangements in the hotel, all 27 said they would prefer to eat out; even the suggestion that they might like to eat in the hotel on the evening of arrival was rejected.

All but three expressed a very strong preference for city centre locations of hotel. Again they said that for a weekend break time was of the essence. Unnecessary travel, even on Paris's reliable metro, was undesirable.
The above confirmed the researcher's rationale for choosing the above attributes.

Six choice tasks were enough for this method of interviewing. Each questionnaire took about 3-4 minutes for the respondent to complete

Some minor modifications in the layout of the questionnaire were made as a result of the pre-test.

### 6.17 Interviewers' Observations

The following is a list of observations made by the interviewer. These are not intended to be definitive conclusions. They are merely the interviewers' subjective impressions of the most prominent attitudes and behaviours of the respondents. These are based on comments and questions of respondents during the interviewing process.

- Respondents were asked to consider each choice task separately, however, it became obvious that this instruction was not always followed. In quite a few cases it became obvious that if very favourable bundles encountered early in the exercise they were being factored into subsequent decisions. This is a limitation of the study in that in the real world all choices will be made in context and asking respondents to evaluate each choice task separately may have been unrealistic.
- Respondents were becoming more skilled in evaluating the choice tasks as the exercise progressed. For example, respondents were approaching choice tasks differently at the beginning of the questionnaire than at the end. Initially, they seemed to be taking more time to choose and evaluate all the attributes. However, by the end of the six choice tasks, when they had become more familiar with the various attribute levels, they seemed to be looking at two or three attributes that were important to them. Location and the bottom line price appeared to be the two attributes that respondents were concentrating on to simplify their choice tasks.
- The realism of the exercise must be questioned. Respondents were being asked to make choices very quickly. Choosing a weekend break package would be more high involvement than low involvement and would normally be given more consideration than fifteen seconds. It is possible that there are other extraneous variables that respondents would have factored into their decision had they a longer and more normal time period to consider the tasks
- In some cases, where respondents were verbalising their thought processes, it was possible to see the trade-offs taking place. For example, a preference would be stated for a concept that was 15 minutes from the city centre over a city centre location because there was $£ 100$ in the difference.
- Respondents were not at all interested in the inclusion of an evening meal in their weekend packages. In quite a few cases respondents were noted to have expressed a disinterest in having meals included and proceeded to have chosen an alternative option without dinner, which was often inferior on all other attributes, including price. This would suggest that they were against the idea of paying for something that they did not value or intent to avail of. Perhaps if they had more time to consider the alternatives they would realise that the first option, that they discarded because it included something they did not want, was actually better value.
- This in part contradicts what appears to have been the reaction to leisure facilities. Many people expressed interest in the leisure facilities, and on occasion their inclusion in a concept would appear to have 'swung the decision'. However it would be interesting to see how many of these would actually use the leisure facilities on a city break.


### 6.18 Conclusion

In brief, the methodology firstly involved selecting a general weekend break package and describing it on five attributes with up to three levels per attribute. These attribute levels were systematically varied to create product concepts which were presented in groups of three to respondents as choice tasks. The respondents were asked to choose their preferred product concept. These reported choices were then analysed in a manner which resulted in a 'utility value' for each attribute level. This information can then used to draw inferences about which combinations of attributes are most desirable.

Chapter 7

## Data Analysis

### 7.1 Introduction

This chapter sets out to draw inferences from the data collected through primary research. Various statistical measures are utilised in an effort to draw conclusions from the data. The principal part of the analysis centres on the choice task data from section two of the questionnaire. This data was analysed using a statistical package called CBC (Choice Based Conjoint) which is specifically designed for choice based conjoint analysis. The two main techniques used in the analysis are choice count analysis and logit analysis.

Other methods of analysis were also involved such as simple frequency and crosstabulation analysis of section one of the questionnaire. This analysis was assisted by the use of SPSS (Statistical Package for Social Sciences).

This chapter will focus on interpreting the results produced by these statistical packages. Each commentary will be preceded by an explanation of how to decipher the results and the relevant significance tests for each statistical procedure.

### 7.2 Concept of Statistical Significance

An extremely important statistical concept is that of significance. In the English language the term significance implies something of consequence or with deep meaning. In the statistical sense, the concept of significance is based on whether or not an event could reasonably be expected to occur strictly as a result of chance. If it is decided that chance can be excluded as an explanation it can be said that the event is significant. If it is decided that the event is the result only of chance, it is considered not to be significant.

Significant differences are not always meaningful even though the probability is small that they could have occurred by chance (Sprinthall 1987). All that a significant result implies is that, one has observed something relatively unlikely given the hypothetical situation, but relatively more unlikely given some alternative situation. Statistical significance in short is a statement about the likelihood of the observed result (Hays 1988).

When the result proves to be significant, the null hypothesis is rejected and the alternative hypothesis is accepted. The null hypothesis ( H 0 ) is an assertion relating to the experimental variable which states that there is no relationship between the variables in question. The acceptance of the null hypothesis would suggest that any observed disparity is not strong enough to be indicative of extraneous variable influence and so it
is concluded that the difference observed was due to chance. Conversely the alternative hypothesis (H1) is a statement suggesting a relationship between the variables being examined.

Significance tests involve testing at certain levels of significance which usually vary between $0.1 \%$ and $5 \%$. If a result is deemed to be statistically significant beyond the $5 \%$ level, this simply means that there is a $5 \%$ chance of this significance result being wrong, or in other words a $5 \%$ chance of the result not being statistically significant when the test suggests that the result is statistically significant.

### 7.3 Demographic Profile of Sample

In the first section of the questionnaire (Appendix D) respondents were asked to provide information on five main demographic categories, age, income, gender, marital status, and socio-economic group. A detailed breakdown of the sample profile is to be found in Appendix F

In summary, $40 \%$ of the sample were under 35 years of age and $63 \%$ under 45 years of age. In terms of gender, the sample was quite evenly distributed between male and female. The majority of the sample were married leaving $40 \%$ of the sample single. $70 \%$ of the sample were in the ABCl socio-economic groupings with only four respondents declining to answer the income and occupation questions used to determine these groupings.

### 7.4 Weekend Break Behaviour of Sample

Questions seven to twelve requested information regarding the respondent's behaviour in relation to weekend breaks. While a detailed breakdown of the responses are to be seen in Appendix F the main points are briefly summed up here.

The majority of the sample ( $89.2 \%$ ) had taken a weekend break before. As would be expected a greater proportion of respondents had taken a weekend break in Ireland ( $81 \%$ ) than had taken a weekend break abroad ( $65 \%$ ). Weekend breaks in Ireland were taken much more frequently than weekend breaks abroad, with 2.2 being the average number of weekend breaks taken in Ireland in the previous two years as opposed to 1.3 abroad. $35.4 \%$ of respondents had taken three or more weekend breaks in Ireland where as only half that amount ( $17 \%$ ) had taken three or more breaks abroad. Interestingly enough $78 \%$ of respondents said that they were planing on taking a weekend break within the next 6 months.

Only $16 \%$ said that they would not be willing to pay more than $£ 150$ for a weekend break. $66 \%$ of the sample were prepared to pay between $£ 150$ and $£ 250$ leaving only $18 \%$ willing to pay more than $£ 250$.

### 7.5 Cross Tabulation

When two or more traits are observed for each sample element, the data can be simultaneously classified with respect to the levels of occurrence of each of these traits. Frequency data arising from the simultaneous classification of more than one characteristic are called contingency tables or cross tabulated data. Cross tabulation involves constructing a table so that one can see how many respondents with a given value on a certain variable respond to one or more other variables.
A typical inferential aspect of the cross tabulation is the study of whether particular characteristics appear to be manifested independently or whether certain levels of one characteristic tend to be associated or contingent with some levels of another. At this stage it is necessary to ascertain whether the values represent something significant. The chi-square test is a statistical test which determines whether an observed pattern of results differs significantly from that which would be expected to occur merely by chance. The chi-square test rests upon comparing the 'observed frequencies' with the 'expected frequencies' which would have been obtained if there were no relationship between the two variables in question.
The chi-square test is only valid if the following three conditions are met.

1) Data must be independent. No subject can appear in more than one cell on a table.
2) No more than $30 \%$ of the expected frequencies in the table can be less than five
3) No cell should have an expected frequency of less than one. (Tull and Hawkins, 1990; Malhotra, 1993)

### 7.5.1 Cross-tabulation Commentary on Weekend Break Behaviour

For the purposes of cross-tabulation in this study, certain categories were broadened and amalgamated so as to produce more meaningful results. The six income categories were narrowed down to two categories, less than $£ 20,000$ and greater than or equal to $£ 20,000$, through an SPSS recoding facility. The six socio-economic categories were grouped into the two traditional groupings of $\mathrm{ABC}_{1} \mathrm{~s}$ and $\mathrm{C}_{2}, \mathrm{DEs}$. In relation to the two questions asking respondents how often they had taken a weekend break here in Ireland or abroad, the response varied from 0 to 9 . These were grouped into (a) zero times, (b)

1-2 times and (c) $3+$ times. Reservation prices were also regrouped into (a) less than $£ 150$, (b) $£ 150-£ 200$ and (c) greater than $£ 200$. All relevant cross tabulation tables can be seen in Appendix G. A Pearson chi square statistic is calculated for each table, and all cross tabulation results except tables G1,G2,G3,G4, G12, and G15 were observed to be significant beyond the $5 \%$ level.

G1 (Appendix G) indicates that there was no relationship between marital status and the likelihood that the respondent had taken a weekend break before. However, single people were slightly more likely to be planning to take a weekend beak in the next six months than married people (G2). Single respondents were also slightly more likely to have taken more weekend breaks abroad than their married counter parts (G3 \& G4). However neither of these results were observed at a significant level and the Chi square test for G3 \& G4 were invalid due to small cells.

The propensity to take a weekend break (G5 \& G6) as well as the number of times one has gone on a weekend break in Ireland (G8) or abroad (G7) is positively related to income. Those earning more than $£ 20,000$ per annum reported taking weekend breaks with greater frequency than respondents earning less than $£ 20,000$ per annum.

The very same patterns of behaviour were observed for respondents in terms of socioeconomic groupings. Those in $\mathrm{ABC}_{1}$ Groupings exhibited the same characteristics as those who earn more than $£ 20,000$ and those in $\mathrm{C}_{2} \mathrm{DE}$ groupings exhibited similar behavioural patterns to those whose income was below $£ 20,000(G 9,10,11 \& 12)$. This however is not surprising considering the relationship between the socio-economic grouping data and the income data which shows that $87 \%$ of those earning over $£ 20,000$ were in the $\mathrm{ABC}_{1}$ socio-economic grouping (G19).

Those with higher reservation prices were not only more likely to, have taken (G13), and be planning (G14), a weekend break in the next 6 months. They are also more likely to have taken more numerous weekend breaks in the last two years both in Ireland (G16) and abroad (G15). As would be expected, respondents earning more than $£ 20,000$ and respondents in the $\mathrm{ABC}_{1}$ socio-economic group had higher reservation prices than those in $\mathrm{C}_{2} \mathrm{DE}$ groupings and earning less than 20,000 .

### 7.6 Choice Count Analysis

CBC's 'Analyse By Counting Choices' is a very straightforward and uncomplicated analytical procedure. This choice counting technique provides an estimation of main and joint effects by calculating a proportion for each attribute level. This proportion for main effects is based on the number of times a concept containing a particular level is
chosen, divided by the number of times a concept containing that level appeared. The joint effects results provide the same information but for pairs of attributes rather than single attributes in isolation.

### 7.7 Chi-Square Statistic

A Chi Square statistic for each main effect and joint effect is automatically calculated. The Chi Square indicates whether the proportions differ significantly from each other. Each effect is classified as 'not significant', 'significant with $\mathrm{p}<.05$ ' or 'significant with $\mathrm{p}<.01^{\prime}$. In the case of joint effects, the Chi Square is based on the difference beyond main effects. Any differences that are due to main effects will not be included in the Chi Square statistics reported for joint effects. The greater the Chi square value, the smaller the probability of getting it, and the greater the probability that there is a relationship between the given attributes (Thirkettle 1981). CBC also provides the degrees of freedom (df) which is based on the number of levels per attribute. For main effects, three level attributes have two degrees of freedom and two level attributes have one degree of freedom. Joint effects multiply these figures so a joint effect involving a three level attribute ( 2 df ) and a two level attribute ( 1 df ) would have a two degrees of freedom. The model's null hypothesis ( H 0 ) for main effects is that each attribute level within an attribute is equally acceptable and so all possible product concepts are equally attractive to the respondent. The alternative hypothesis (H1) is that each attribute level holds a distinct and discrete degree of attractiveness for the respondent. In relation to joint effects, the null hypothesis is that the attractiveness of each attribute is independent of the other attributes, with no interaction occurring between attributes. The alternative hypothesis will be accepted here if interaction effects are found between attributes. This would be the case if two attributes together were found to exert a greater effect on choice behaviour of respondents than the sum of their separate effects (See section 4.12).

### 7.8 Reading Choice Count Results

Appendix H details the main and joint effects returned from processing the responses of the 268 respondents. The first two attributes, location and hotel grade, each had three levels, and since there were three concepts shown per task, each level appeared exactly once in each task. The sum of the proportions returned in this analysis for the first
attribute add up to 0.887 . The balance, 0.113 , is the proportion of tasks where the respondent chose 'None'.
With attribute 3,4 , and 5 (dinner, leisure, and price) there were only two attribute levels so a level could appear twice in a task. This means that if a level appears twice in the same task, and if one of the concepts including it is selected, then the other concept is rejected. This will result in lowering the sum of the proportions, which makes it difficult to make comparisons across attributes. As a result, it is necessary to convert all proportions into common units. This is achieved by expressing them all as percentages. Appendix H shows output expressed in proportions and percentages. The proportions reported by CBC are on the left hand side with the corresponding percentages on the right .

## 7.9 <br> Commentary on Main Effects

### 7.9.1 $\quad$ Attribute 1 Location

As expected, the location was very important to respondents, with the two most central locations accounting for $88.5 \%$ of the choices between them. A city centre location was chosen $49 \%$ of the time it was offered with the next nearest location, ( 15 minutes from the centre) being chosen $39.5 \%$ of the times it appeared. Only $11.5 \%$ of product choices included accommodation located thirty minutes from the city centre suggesting that it was largely unacceptable in this context.

| Proportion | Attribute Level | Percentage |
| :--- | :--- | :--- |
| 0.435 | City Centre | $49.0 \%$ |
| 0.35 | 15 minutes from city centre | $39.5 \%$ |
| 0.102 | 30 minutes from city centre | $11.5 \%$ |

Chi Square $=325.33 \quad \mathrm{df}=2 \mathrm{p}<.01$

## Table 10 Main Effect Choice Count Results - Attribute 1

This result was anticipated under the supposition that time would be a valuable commodity on a weekend break. European cities tend to be organised in such a way that most of the main attractions and nightlife are centrally located. With this in mind, one would expect that the time cost involved in travelling, not to mention the additional monetary costs of transport, would be deemed unacceptable.

This effect was observed at a .01 significance level. The Chi square figure itself was very high ( 325.33 with 2 df ). With this high figure the alternative hypothesis is well within the region of acceptance. To put this in context, for an effect to be significant beyond the .01 level with 2 degrees of freedom, the Chi Square would have to have a value of 13.81 or above.

### 7.9.2 Attribute 2 Accommodation Grade

This was statistically the strongest main effect reported with a chi square of 629.93 . $61.7 \%$ of the product concepts chosen included $3^{*}$ accommodation with $30.7 \%$ of choices carrying 4* accommodation. Only $7.7 \%$ of choices included accommodation of 5* standard. Again this effect was significant. The Chi square of 629.93 with 2 df put the null hypothesis undoubtedly in the region of rejection.

| Proportion | Attribute Level | Percentage |
| :--- | :--- | :--- |
| 0.068 | $5^{*}$ | $7.7 \%$ |
| 0.272 | $4^{*}$ | $30.7 \%$ |
| 0.547 | $3^{*}$ | $61.7 \%$ |

Chi Square $=629.93 \quad \mathrm{df}=2 \mathrm{p}<.01$

## Table 11 Main Effect Choice Count Results - Attribute 2

What is being reported here is not a simple preference for the lower grade accommodation but an unwillingness to pay the additional price charged for higher grade accommodation. This unwillingness to pay extra is probably related to the relative magnitude of the price differential. Unlike location, the grade of hotel was linked to price. The different attribute levels impacted heavily on the total price with $3^{*}, 4^{*}$, and $5^{*}$ accommodation costing $£ 70, £ 150$, and $£ 240$ respectively for two nights (see section 4.9.5)

These results should be considered in light of the fact that most $3^{*}$ accommodation in continental Europe is of a very high standard which would more than cater for average needs. The additional services provided in 4* and 5* accommodation may be considered to be unnecessary luxuries, especially considering that very little time would probably be spent in the hotel during a weekend break but rather out seeing the sights of the locale. Quite simply respondents do not consider it good value for money.

If we examine these results along with the responses to question twelve in section one of the questionnaire, this pattern of choices is corroborated. There were four prices associated with each grade, depending on the inclusion of dinner in the package, and if a high or low price option was being shown, resulting in the three price ranges in the second column of table 12. Question twelve asked respondents to indicate the price they would be willing to pay for a weekend break in Paris. They had to choose between seven price levels separated by $£ 50$ intervals. These seven categories can be grouped to broadly tally with the price ranges at which concepts including the various accommodation grades were presented. While these price groupings are not an exact match they are a very close approximation. (See table 12.)

| Grade | Price range of various <br> bundles at each grade | Percentage of Choices <br> received by each grade | Price thresholds included <br> in question 13 | Percentage of <br> sample |
| :--- | :--- | :--- | :--- | :--- |
| $3^{*}$ | $£ 210-£ 255$ | $61.7 \%$ | up to $£ 250$ | $82.1 \%$ |
| $4^{*}$ | $£ 290-£ 335$ | $30.7 \%$ | $£ 250-£ 350$ | $15.6 \%$ |
| $5^{*}$ | $£ 380-£ 425$. | $6.7 \%$ | $£ 350+$ | $2.2 \%$ |

## Table 12 Price Thresholds and Accommodation Grade Choice

When we look at respondents' choices alongside their reported price thresholds we get a very similar picture. In fact respondents product choices would imply that they were actually willing to pay more than they originally stated suggesting that their reported price thresholds are not completely inflexible.

### 7.9.3 Attribute 3 Evening Meal

Here a slight preference is shown for weekend bundles which include an evening meal. This effect is reported at a .01 significance level. $54 \%$ chose bundles with dinner as opposed to $46 \%$ who chose product concepts without dinner. As with accommodation grade there was a price differential attached to the attribute. £20 was added to the price of product concepts which included an evening meal. It would appear that this did not impact on the choice. This must be considered in light of the fact that $£ 20$ was a relatively small sum in comparison to the total price of the bundles and also that respondents were not made aware of it.

| Proportion | Attribute Level | Percentage |
| :--- | :--- | :--- |
| 0.319 | Evening Meal Included | $54.0 \%$ |
| 0.272 | No Evening Meal included | $46.0 \%$ |
| $\mathrm{df}=1 \mathrm{p}<.01$ |  |  |

## Table 13 Main Effect Choice Count Results - Attribute 3

It was expected at the outset of this study that most people would not be interested in having meals included in weekend packages. Despite it being quite popular in domestic packages. It would appear that this attribute was considered secondary to location and price with respondents only expressing a preference for the inclusion of an evening meal when they were satisfied with the more important bundle components.

### 7.9.4 $\quad$ Attribute $4 \quad$ Leisure Facilities

The inclusion of leisure facilities was slightly more preferable to their absence with $56.6 \%$ of respondents opting for bundles with leisure facilities. While respondents preferred there to be leisure facilities it was in no means a deciding factor, rather an added bonus.

| Proportion | Attribute Level | Percentage |
| :--- | :--- | :--- |
| 0.335 | Leisure facilities | $56.6 \%$ |
| 0.257 | No leisure facilities | $43.4 \%$ |

Chi Square $=24.79$

$$
\mathrm{df}=1 \mathrm{p}<.01
$$

## Table 14 Main Effect Choice Count Results - Attribute 4

It was expected from the outset of the study that leisure facilities would not be important for a weekend break, as time would be at a premium. This result is probably reflecting respondents' primary concern with having a suitable location and accommodation/price. The inclusion of leisure facilities was not going to impact heavily on respondents' choices especially as leisure facilities were not linked to price and so their inclusion in a bundle did not effect its price. This effect was reported as significant at the .01 level with the chi-square of 24.79 and 1 degree of freedom

### 7.9.5 Attribute 5 Price

The price effect here is measuring the effect of a $£ 25$ price differential. The bundles with a high price (plus $£ 25$ ) were chosen only slightly less frequently ( $47.4 \%$ ) than bundles without the price differential (52.6\%). It would appear that the $£ 25$ price differential was inadequate to induce a change in choice behaviour.

| Proportion | Attribute Level | Percentage |
| :--- | :--- | :--- |
| 0.311 | Low price | $52.6 \%$ |
| 0.281 | High price | $47.4 \%$ |

Chi Square $=7.05 \quad \mathrm{df}=1 \mathrm{p}<$ not sig.

## Table 15 Main Effect Choice Count Results - Attribute 5

It is also interesting to note that this is the only main effect that was not observed at a significant level. Its should not be concluded from this that price was not a primary concern. On the contrary, price was the guiding force behind most decisions but this information is to be seen in the data for accommodation grade due to the large price differential attached to its attribute levels.

### 7.10 Joint Effects

Out of the ten joint effects only one was observed at a statistically significant level; however some are worth commenting on despite this as the information is interesting even if it cannot be backed up by significance tests. A larger sample might have provided more statistically significant results. The chi square significance tests only reports on any effects that exist beyond main effects and so the joint effect chi square statistic is based purely on the interaction between the two attributes in question. While only a few of the joint effects will be discussed here they can be all seen in Appendix H. The proportions as reported by CBC are in the cells on the left and the cells on the right contain the percentages that represent these proportions and standardise them across all effects to allow for comparison.

### 7.10.1 Attribute 1 \& $2 \quad$ Location \& Accommodation Grade

Regarding the joint effects between the two strongest main effects, location and accommodation grade, it is still evident here how important it was to be close to the city
centre and to have a three star accommodation over four star or five star accommodation.

Row $=$ Location $\quad$ Column $=$ Accommodation Grade

|  | $5^{*}$ | $4^{*}$ | $3^{*}$ |
| :--- | :--- | :--- | :--- |
| City Centre | 0.093 | 0.437 | 0.783 |
| 15 mins from centre | 0.082 | 0.299 | 0.661 |
| 30 mins from centre | 0.030 | 0.074 | 0.202 |


|  | $5^{*}$ | $4^{*}$ | $3^{*}$ |
| :--- | :--- | :--- | :--- |
| City Centre | $3.5 \%$ | $16.4 \%$ | $29.4 \%$ |
| 15 mins from centre | $3.1 \%$ | $11.2 \%$ | $24.8 \%$ |
| 30 mins from centre | $1.1 \%$ | $2.8 \%$ | $7.6 \%$ |

Chi Square $=7.05 \quad \mathrm{df}=4$ not significant

## Table 16 Joint Effect Choice Count Results - Location and Accommodation Grade

For each grade of hotel there is not much difference between preference for city centre and 15 minutes from city centre. However where a 30 minute location was chosen it was very important to have $3^{*}$ hotel. This would signify that anyone who was willing to take a 30 minutes location were doing so in order to get three star accommodation. This is supported by the data where the combination of a location 30 minutes from the city centre and $3^{*}$ accommodation were chosen 7 times more frequently than a location 30 minutes from the city centre with 5* accommodation ( $7.6 \% \mathrm{Vs} 1.1 \%$ ).
Respondents preferred to upgrade (in that they were willing to pay the price differential) to 4* accommodation over 3* rather than be 30 minutes from the city centre. They were not however willing to accept $5^{*}$ accommodation in order to get city centre location and showed a preference for move out of city centre rather than paying for $5^{*}$ accommodation. Only $1.1 \%$ of respondents wanted $5^{*}$ bad enough to be 30 minutes from the city centre.

### 7.10.2 Attribute 2 \& $3 \quad$ Accommodation Grade \& Dinner

This is the only joint effect that was reported at a significant level. It would appear as if the significance reported here is based entirely on the $5^{*}$ effects. Dinner does not seem to have been an issue for those choosing $3^{*}$ or $4^{*}$. The preference for $3^{*}$ accommodation dominated the decision.
Row $=$ Accommodation Grade
Column $=$ Dinner

|  | Dinner | No Dinner |
| :--- | :--- | :--- |
| $5^{*}$ | 0.098 | 0.037 |
| $4^{*}$ | 0.303 | 0.241 |
| $3^{*}$ | 0.555 | 0.540 |


|  | Dinner | No Dimner |
| :--- | :--- | :--- |
| $5^{*}$ | $5.5 \%$ | $2.1 \%$ |
| $4^{*}$ | $17.1 \%$ | $13.6 \%$ |
| $3^{*}$ | $31.3 \%$ | $30.4 \%$ |

Chi Square $=19.42 \quad \mathrm{df}=2 \mathrm{p}<.01$
Table 17 Joint Effect Choice Count Results - Evening Meal and
Accommodation Grade

Respondents largely wanted 3* accommodation and whether dinner was included or not was irrelevant. There was also very little difference between $4^{*}$ preferences. Indeed the main effect showed very little difference with a $54 \% / 46 \%$ division on the no dinner/dinner debate (table 13). However, of those who chose $5^{*}$, more than twice as many wanted the evening meal included. Perhaps the inclusion of dinner reduced price sensitivities and induced people to choose $5^{*}$ rather than when no dinner was included.

### 7.10.3 Attribute 2 \& $4 \quad$ Accommodation Grade \& Leisure

A similar effect can be seen here in that there is little difference between sub samples. Within the $7.7 \%$ who chose five star accommodation there was $4.7 \%$ who also opted for leisure facilities as opposed to $2.9 \%$ who didn't.

Row $=$ Accommodation Grade

|  | Leisure <br> Facilities | No Leisure <br> Facilitites |
| :--- | :--- | :--- |
| $5^{*}$ | .084 | .052 |
| $4^{*}$ | .322 | .221 |
| $3^{*}$ | .597 | .498 |

Column $=$ Leisure Facilities

|  | Leisure <br> Facilities | No Leisure <br> Facilities |
| :--- | :--- | :--- |
| $5^{*}$ | $4.7 \%$ | $2.9 \%$ |
| $4^{*}$ | $18.2 \%$ | $12.5 \%$ |
| $3^{*}$ | $33.6 \%$ | $28.1 \%$ |

Chi Square $=3.95 \quad \mathrm{df}=2$ not significant

## Table 18 Joint Effect Choice Count Results - Leisure Facilities and Accommodation Grade

While both these percentages are small, the relative difference between them is perhaps of more interest. It would appear as if respondents were willing to pay the price for $5^{*}$ accommodation when evening meal and leisure facilities were also included in the
bundle. This may suggest that perhaps bundling reduced respondent's price sensitivity. They perceived that they were getting more for their money and so were willing to increase their price thresholds to allow for this.

### 7.11 Main Effects Within Sub-Samples

CBC incorporates a function which facilitates analysis on sub sets of respondents. While CBC does not analyse the data from the questions on section one of the questionnaire, it can divide the choice task data into subsets based on the responses to these questions. The results of this are available in Appendix I.

Examining these two sets of data together should highlight the existence of any particular respondent conditions which impact on choice behaviour.

As can be seen from a cursory glance of the data, the majority of results relating to the various sub sets of the sample were in agreement with the main effects for the entire sample. A significance test was carried out on all the proportions of the sample sub-sets to see if there was a marked difference between the sub set and the entire sample. The only results that showed a significant difference were relating to hotel grade (Attribute 2) and reported willingness to pay (question twelve).

The Z statistic is the result of a significance test which examines the difference between two proportions. In each case here the z statistic is commenting on the significance of the difference between the proportion for each sub sample and the entire sample. Any value over 1.96 is significant at the .05 level and any value greater than 2.58 is significant at the .01 level. The significant results (beyond $5 \%$ level) are indicated by cell shading in table 19.

|  | Percentages |  |  | Z statistic Between each subsample and entire sample |  | Z statistic <br> Between the 2 <br> sub-samples |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \begin{array}{l} \text { entire sample } n \\ =258 \end{array} \\ & \hline \end{aligned}$ | not willing to pay more than £299 n=138 | willing to pay more than $£ 299$ $\mathrm{n}=130$ | not willing to pay more than £299 n=138 | willing to pay more than $£ 299$ $\mathrm{n}=130$ |  |
| 5* | 7.7\% | 6.4\% | 8.9\% | -0.575 | 0.531 | 0.910 |
| 4* | 30.7\% | 21.1\% | 40.0\% | -2.139 | -2.084 | 3.530 |
| 3* | 61.7\% | 72.6\% | 51.1\% | -1.317 | -1.367 | -2.334 |
| City Centre | 49.0\% | 44.0\% | 53.8\% | -1.182 | 1.202 | 2.077 |
| 15 mins | 39.5\% | 40.3\% | 38.7\% | -0.010 | 0.011 | 0.292 |
| 30 mins | 11.5\% | 15.7\% | 7.4\% | 0.832 | -0.930 | -2.136 |

Table 19 Price Thresholds Vs Accommodation Grade and Location Choices

The results clearly indicate that those willing to pay over $£ 299$ were much more likely to choose $4^{*}$ accommodation than those who reported that the maximum they were willing to pay was less than $£ 299$. While both sub samples showed a preference for $3^{*}$ accommodation some were willing to upgrade to 4*. This was probably to upgrade location to city centre. When we look at the results for location they are not significant but the z statistic is much closer to the critical value of Z ( 1.96 for . 05 level of significance) than any of the other results in appendix I. A Z statistic was also carried out on the differences between the proportions of sub samples (last column). In this case significance levels were found at the $5 \%$ level

This is suggesting that respondents willing to pay more than $£ 299$ were more likely to be pushed up to $4^{*}$ if location suited. Those not willing to pay more than $£ 299$ were far less likely to be induced to pay more. Here we can see the influence of reference prices on choice behaviour.

### 7.12 Choice Count Summary

It would appear that the ambivalence expressed on attributes dinner, leisure, and price, was related to the very strong effect reported for grade. People were so unwilling to choose $5^{*}$ because of the associated high price that they were not greatly affected by the other attributes even if they did add $£ 20$ or $£ 25$ to the price.
Respondents prefer dinner, leisure facilities and prices without the experimental $£ 25$ differential but all those will and can be compromised on depending on the combinations of attributes hotel grade and location with preference being given to hotel grade. This is not because of a preference for $3^{*}$ but an unwillingness to pay $5^{*}$ prices. Preferences for dinner and leisure facilities are only secondary to location and accommodation grade being satisfactory and so will only enter into the decision when accommodation grade and location were presented at an acceptable level.

### 7.13 Multinomial Logit

Multinomial logit is an analytical technique which facilitates modelling of brand choice from a set of competing alternatives. Multinomial Logit calculates a weight or utility for each attribute level as well as combinations of attribute levels where interaction effects are of interest. These 'utilities' are called 'effects' in CBC and reflect the probability of this attribute level being chosen. They are computed in such a way that when the weights corresponding to the attribute levels in each concept are summed up,
the totals for each concept are representative of respondent choices among concepts. (Sawtooth Software $1995 \mathrm{pC}-3$ )

### 7.14 Reading Logit results

As with the choice count analysis, both main and interaction effects are estimated. A value is produced for each attribute level and can be interpreted as an average 'utility'. If an effect was calculated as 0 it would be deemed not to have any effect on respondent choices. The further the value of the effect from zero, the greater its effect on choices. Negative figures denote that this attribute or combination of attributes had a negative effect on choice behaviour in that it was a disincentive to choice. Correspondingly, positive figures denote that this attribute or combination of attributes were more favourably disposed to being chosen.

A standard error and t -ratio is also provided for each attribute level main effect as well as for combinations of attributes in the case of interaction effects. Consulting a $t$ distribution table will indicate if the $t$-ratio is significant. For three level attribute the df $=2(3$ levels -1$)$ and for two level attributes the $\mathrm{df}=1$ (2 levels-1). While these figures can provide a general guideline in indicating the significance of an individual effect, the overall chi square test is a preferable measure (Sawtooth Software 1995 pC-7)

### 7.15 Significance Test for Main Effects

CBC's logit model has two types of significance tests: a t-ratio for individual effects and an overall Chi Square for the model. The Chi Square test is based on the difference between the log likelihood for the survey data and the log likelihood that would have been obtained had there been no effects.

The number of parameters estimated here for main effects is seven. This figure is obtained by adding the total number of attribute levels $(3+3+2+2+2=12)$ and subtracting the number of attributes (5). This give us the degrees of freedom to use (7). With seven degrees of freedom a chi square value of 18 would be significant at the .01 level. The obtained value of 1411.3 is safely larger than this, so it can be concluded that respondents' choices are significantly affected by the attribute composition of the concepts.

The results of the logit analysis (Appendix J) reiterate the conclusions of the choice count analysis. However through logit analysis we are able to see how each attribute is regarded in relation to all the other attributes. Table 20 shows each attribute ordered from the strongest positive effect to the strongest negative effect.

In terms of location and grade of hotel, it would appear as if $3^{*}$ accommodation was the most preferred attribute level with $5^{*}$ accommodation (or its corresponding high price) having a strong negative effect on choice behaviour.
Respondents were willing to trade off city centre locations and 15 minutes from centre locations for 3* accommodation, but preferred to pay a higher price and trade up to 4* than to accept a location 30 minutes outside the city centre. At the same time respondents were slightly more willing to accept a suburban location than they were willing to pay $5^{*}$ prices. We can also see that leisure facilities are slightly more preferable to the inclusion of an evening meal. Respondents also exhibited a very distinct preference for city locations with strong positive and negative effects attached to city centre and 30 minutes from city centre respectively.

A location 30 minutes from the city centre and $5^{*}$ hotel were equally disliked attributes.
As can be seen from table 20 only five of the 12 main effects were strong enough to be statistically significant. All of the attributes that were found to be statistically significant were levels within location or accommodation attributes.

| Attribute Level | Efiect | Stud Err | t-Ratio | df | Significance <br> Level |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3* Hotel | 1.12768 | 0.04949 | 22.78701 | 2 | 0.01 |
| City Centre | 0.74862 | 0.04795 | 15.6117 | 2 | 0.01 |
| 15 Minutes From City Centre | 0.38587 | 0.04682 | 8.24102 | 2 | 0.05 |
| 4* Hotel | 0.20413 | 0.03505 | 5.82471 | 1 | not |
| Leisure Facilities | 0.16513 | 0.04976 | 3.31888 | 1 | not |
| Evening Meal Included | 0.13805 | 0.03487 | 3.95874 | 1 | not |
| Low Price | 0.09874 | 0.03487 | 2.83124 | 1 | not |
| High Price | -0.09874 | 0.03487 | -2.83124 | 1 | not |
| No Evening Meal | -0.13805 | 0.03487 | -3.95874 | 1 | not |
| No Leisure Facilities in | -0.20413 | 0.03505 | -5.82471 | 1 | not |
| 30 Minutes from City Centre | -1.13448 | 0.06319 | -17.95297 | 2 | 0.01 |
| 5* Hotel | -1.29281 | 0.06951 | -18.59934 | 2 | 0.01 |

Table 20 Multinomial Logit Utilities

### 7.17 Significance Test for Interaction Effects

When conducting analysis for interaction effects, all two way interaction effects were calculated amounting to 57 in total. To assess the statistical significance of the interaction effects we need to take the difference between the log-likelihood for the models run with and without interaction effects and test the difference.

The relevant chi square for interaction effects is 64 . This is obtained by taking the difference in the chi square for the model run for main effects only (1411.273) and the model for main and interaction effects (1475.753). (Appendix J)

With a Chi square of 64 and 57 degrees of freedom (number of extra variable run in interaction effects) the value is within the acceptance region and so the null hypothesis is accepted. This means that the interaction effects did not occur at a significant level. This is corroborated by the results in the choice count analysis where only one joint effect was deemed significant. In addition, if we look at the t-ratios for all the interaction effects none of them are significant. As a result it is concluded that there are little or no interaction effects to be observed between attributes. Any interaction that occurred was not strong enough to be observed at a statistically significant level and so the null hypothesis is accepted in relation to the interaction effects.

However if we look at the interaction effects between evening meal and accommodation grade as it is the only joint effect that proved significant in the choice count analysis. The interaction effect between dinner and 5* accommodation is high relative to the other effects with a value of .28

### 7.18 Concept Utilities

The 'effect' statistic that is returned by logit analysis is analogous to a 'utility' (See section 7.18). The main effects can be interpreted as the 'utility' for each attribute level. However it is also possible to sum these up to see the utility of any particular product concept.
The main effects were taken and summed up for each possible product concept. The totals were normalised by exponentiating the total figure for each product concept total. This was to facilitate ease of comparison as product attributes that were not desirable carried negative utility figures

This procedure allows us to see the order of preference of each of the 72 possible product concepts. See Appendix K

The most and least favourite concepts are as expected. Regarding the five most favoured concepts; the first thing to be traded off is the $£ 25$ price differential, then
dinner, then location, then leisure. Every attribute level except a 30 minute location was accepted before 4* accommodation, or more accurately its corresponding price jump. Interestingly enough, the fourth and fifth concept show us that a 15 minutes from city centre location with leisure facilities was preferred to a city centre location without leisure facilities. Respondents were willing to trade down to a location 15 minutes from the city centre from a city centre location before they were willing to trade off leisure facilities.

Both the logit analysis and choice count indicate that a city centre location and 15 minutes from city centre location have higher utilities and hence preference, than leisure facilities. The extra information that is provided here is that a city centre location or a 15 minutes from centre location were both deemed suitable if leisure facilities were available.

### 7.19 Conclusion

This chapter draws on various statistical techniques to draw inferences from the data collected. The CBC results proved difficult to decipher and interpreting of the results was not as straight forward as it initially appeared. This was partly due to the research design which required that price be linked to certain attributes. This made it difficult to ascertain which effects were due to differences in the attribute levels themselves, and which effects were due to the corresponding price differences incurred by these different attribute levels.
A definite order of importance of attributes and attribute levels was determined as follows:

1. Grade $3^{*}, 4^{*}, 5^{*}$
2. Location city centre, 15 minutes from city centre, 30 minutes from city centre
3. Leisure leisure, no leisure
4. Dinner dinner, no dinner
5. Price low price, high price

No significant interaction effects were observed.

## Chapter 8

## Conclusions and Recommendations

### 8.0 Introduction

This research used conjoint analysis techniques to facilitate the identification of an optimal bundle from competing alternatives. The specific subject of the study was a weekend break package to Paris. The results of the primary research led to the following conclusions:

### 8.1 Conclusions

Both of the main statistical techniques on the choice data agreed on the order of importance that respondents attached to attributes. The results indicated that the attribute which impacted most heavily on choice behaviour was accommodation grade, followed closely by location. These were followed by leisure facilities, evening meal, and price (in the form of a $£ 25$ differential) respectively.

Within each attribute, order of preference from most to least preferred ran in the following order

1. Grade $3^{*}, 4^{*}, 5^{*}$
2. Location City centre, 15 minutes from city centre, 30 minutes from city centre
3. Leisure leisure, no leisure
4. Dinner dinner, no dinner
5. Price low price, high price.

The optimal bundle for respondents was a weekend break at a city centre location in a 3* hotel, which had leisure facilities and dinner included in the bundle, at the lowest possible price. The least preferred bundle was a weekend break in an expensive grade 5* hotel located thirty minutes from the city centre with no leisure facilities in the hotel and no evening meal included.

The strong influence of accommodation grade on choices is in fact reflecting respondents' reaction to the price difference incurred by the various accommodation levels. A consistent preference was expressed for grade 3* accommodation. Choosing a grade 4* hotel over a grade 3* increased price by $£ 80$ while a grade $5^{*}$ hotel raised price by $£ 170$. These price differentials for grade $4^{*}$ accommodation, and in particular grade 5* accommodation, were deemed unacceptable by respondents. They expressed a very strong preference for grade $3^{*}$ accommodation and it was only to avoid a location thirty minutes from the city centre that grade 4* accommodation was considered.

A location close to the centre of the city is important for city breaks. Location had a very strong impact on respondent's choice behaviour with a very definite preference being expressed for locations close to the city centre. A location which was 30 minutes from the city centre was deemed unsuitable in a lot of cases. This is understandable on short breaks where time is a precious commodity. City locations are most suitable for short breaks as there is a lot to see within a small geographic area and so little time is wasted on travelling.

Leisure facilities surprisingly enough were quite popular despite the fact that this was a weekend break. It is suspected, that perhaps what was attractive to respondents was the option, and in reality many respondents would not avail of the facilities. The fact that there was no supplement charged for leisure facilities possibly added to their attractiveness

The results also suggested that the inclusion of leisure facilities and meals in a bundle may help reduce price sensitivity. Respondent's were more likely to accept accommodation other than grade $3^{*}$ if leisure facilities were included. This also applied to the inclusion of dinner in bundles. Respondents who did choose grade 5* accommodation largely did so only when both dinner and leisure facilities were included.

The inclusion of evening meals in the bundle was only marginally preferred. There was a $£ 20$ supplement incurred by their inclusion but respondents were not informed of this. It would appear that it was too small to have any impact on choice behaviour.

The results of the 'price' attribute refer to the impact of an experimental $£ 25$ differential. This price differential had little to no impact on respondents' choices. It is suspected that a price differential of $£ 25$ was too small, relative to the total prices, to incur a strong reaction. In addition, the respondent was not actually aware of this price differential being added on to some bundles, they only saw a total price.

Analysis was also carried out on sub samples of the data. These sub samples were chosen based on some of the demographic and behavioural data. On the whole, there was no notable difference in choice behaviour within sub samples. However, as would
be expected, there was some evidence to indicate that those with low reported price thresholds were more price sensitive than those who had higher price thresholds

There were no significant interaction effects observed between any of the attributes under consideration. It is possible that any interaction effects that may exist were overshadowed by the imbalance between attributes. Choices seem to have been dominated by a very strong preference for lower priced bundles with affordable accommodation. This is understandable considering the large price differentials incurred by higher hotel grades. An interaction between attributes would have to be very strong for it to have come to the fore in circumstances of this study.

### 8.2 Limitations and Recommendations

In this study certain attributes impacted on price, which in turn was reflected in the price at which bundles were offered at. Because of the large price differentials involved in variations of hotel grade, respondents were forced to concentrate primarily on price in their decisions. This may have resulted in some of the less important attributes being overshadowed and may also have obscured any interaction effects that may have occurred.

An interesting extension if this research would be to fix the two strong attributes at their most preferred level, (i.e. have all packages include $3^{*}$ accommodation in a location very close to the city centre) and vary the packages on other more equally balanced attributes that could be used to enhance an ideal core product. The problem with this study is that location, price and accommodation were core elements of a package whereas leisure facilities and dinner were not. As a result respondents were concentrating on getting the core elements right.

The complexity of this study was increased further including attributes that impacted on price. While this is one of the uses of conjoint analysis, it can add further complications to an already complex analysis process. Price could be included in the study without these complications by having just a few price points at which all bundles could be offered. This approach would of course require that none of the attributes in question unduly affect costs.

It is unfortunate that cost constraints could not be incorporated into the study as originally intended. Information about the most appealing bundle to the consumer is of little use without considering the cost implications of supplying this particular combination of attributes.

This study did not specifically address the supply side issues involved in price bundling. The size of a market segment is a very important variable in determining the feasibility of market. Other issues such as scope economies and capacity constraints will also impact on bundling strategies. Future research could address these issues alongside the demand side constraints.

While choice tasks in this conjoint study have the benefit of mirroring certain aspects of the purchase situation quite closely, there are many aspects of the actual purchase environment that are absent. These elements add to the artificiality of the research. Respondents were put in a position where they had to make their choices very quickly without giving them the consideration that would usually go into a high involvement decision. In addition they were given no supplemental information on the bundles that would usually be presented alongside the bundles in a promotional brochure.

The high degree of experiential qualities involved in purchasing a holiday package increases the risk involved for the consumer. In the absence of tangible cues, preferences may be somewhat influenced by a wide variety of cues that a consumer may use as surrogate indicators of the quality of the bundle on offer. These cues may vary from the quality of the paper used in promotional material to the friendliness of staff in the travel agents selling the packages. It is difficult to include these perceptual dimensions in a conjoint study as they are difficult to relate to physical attributes.

Situational factors can also impact consumers choice causing deviations from predicted patterns. For example a consumers choice grade of hotel on a weekend break could be entirely different depending upon whether or not they were purchasing the bundle as a gift or for themselves.

A larger sample would have been preferable and may have improved the reliability of the data, however, this option may not always be available due to cost and time
constraints. As a result it is recommended that perhaps conjoint analysis is more suitable to commercial studies where large sample sizes would be more achievable.

Conjoint analysis is a unique method for predicting consumers' choice among multiattribute product alternatives, however, it proved to be a very difficult statistical technique to use. Using the CBC software did make the administration of the study much easier; however interpreting the output was troublesome and analysis of the conjoint output was not always as straight forward as the CBC promotional material initially implied. A strong statistical background would be very advantageous when undertaking a study using conjoint analysis. The researcher would even go as far as to advise against using conjoint analysis in small academic research studies unless the researcher was well versed in conjoint techniques.

CBC was designed to be used in conjunction with computer aided interviewing. However for various practical reasons a pen and paper format was used in this study. The conversion to pen and paper was very complex and time consuming as was the conversion back for analysis. It would have been preferable to administer the questionnaire through computer aided interviewing. In addition, this relatively unusual method of administration may have generated more interest among respondents due to its novelty factor.

It needs to be kept in mind when using conjoint analysis that the consumer decision making process is very complex and it may be difficult if not impossible to identify and measure all the factors that come into play when making a product decision. Conjoint analysis can only predict consumers choices based upon the attributes included in the study. It will not detect any missing attributes that have not been included in the study or are unknown to the researcher but which may influence choices. In this research, travel agents were relied upon as sources of expert opinion on consumer preferences. In order to avoid the omission of an important attribute it would be advisable to precede such a study with a more detailed investigation of which attributes are most important. This exercise in itself can be very informative, as it forces the marketer to examine attributes and attributes levels in detailed manner that may produce findings, which a cursory examination may have overlooked.

The price of tourism is multi-dimensional with tourists spending on a wide variety of products and services including transportation, accommodation, food and drink, and entertainment. The conjoint methodology gives the power to investigate the effects of each variable at a variety of levels.

Research using conjoint analysis techniques for the travel industry can be very useful in providing information not only on things that can be done to enhance preferences of a holiday packages but also on how to overcome consumers preferences for competing destinations.

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## Appendix A

## Cognitive Processing of Price Information Model

## Environment



#  

## Behaviour

Cognitive Processing Of Price Information Model
Source: Jacoby and Olson 1977

## Appendix B

## Price Reliance Model



## Appendix C

Research Proposal

> Research Postgraduate, Dublin City University Business School, Glasnevin, Dublin 9.

Dear,
I am currently conducting some research in the area of the bencfits of price bundling techniques to tourism, and the co-operation of a tour operator is required in order to complete the study. I am enclosing a copy of my research proposal which very briefly outlines the concept and benefits of price bundling and what information is needed to complete the research.
In short the study attempts to discover what consumers want most in their package holiday and more importantly how much they are willing to pay for these benefits. Such information could be very valuable to a tour operator when compiling tourism packages. I would be very gratcful if you would give this proposal some consideration.

Yours sincerely

Margaret Morrissey

# 'Price Bundling' as a technique to simultaneously increase profitability and enhance consumer value perceptions - Pricing in the Tourism Industry 

## Pricing and The Tourism Industry

Tourism is a growing industry world-wide, and it is only in the last decade or two that Ireland has really begun to reap the benefits of this. However, Ireland must be careful to avoid the mass tourism approach which has become an affliction in many popular tourist resorts. This is particularly evident in the Mediterranean regions, where price concentrated competition has resulted in their tourism products becoming more and more alike in quality and promotional approach, and consequently, consumers having less and less scope to use discrimination. Eventually the whole category becomes a low-margin commodity market. While this policy has been successful in increasing market share for certain operators, it has also led to price wars resulting in very low industry margins for many of these markets.
The Irish tourism industry needs to improve the quality rather than the quantity of tourists. To succeed at this, emphasis needs to be placed on value rather than on price. Consumers perceive price as the sacrifice or cost they must bear for the benefits of a product or service. Consequently, it is essential when pricing a product or service, to understand which aspects of the product consumers particularly value, and how much they are willing to pay for these benefits. The non-price variables of the marketing mix are employed to augment perceived value in the buyers minds, and prices are set accordingly to reflect this perceived value. The marketing oriented view of pricing attempts to relate the price of the product to the value that the consumers believe they will derive from its purchase. The buyer's perception of value, not the seller's costs, is deemed the key to profitable pricing. This approach to pricing views costs as a constraint which determine a lower price limit, and price ceilings are set by charging what the target consumers would consider value for money.

## Price Bundling

Bundling has been described as a potent method of maximising the profit potential of an organisation as it essentially offers organisations with a means by which to price discriminate among consumers by grouping them according to willingness to pay. A generally accepted definition of bundling is the practice of marketing two or more products and/or services in a single 'package' for a single price.
Bundling provides benefits for both the consumer and producer. Consumers' gains are enhanced by providing increased savings and convenience elements. From the producers point of view it stimulates demand for the weaker components of the bundle and so provides access to economies of scope. Economies of scope are especially pertinent to service industries which are typified by a high ratio of fixed costs relative to variable costs and a high degree of cost sharing.

There are three distinct bundling strategies, pure bundling, mixed bundling and unbundling. Pure Bundling is the practice of offering two or more goods in bundled form only. Mixed Bundling allows the consumer to either purchase the products separately or in bundled form. The alternative to these forms of bundling is unbundling also known as pure components pricing where the products are only sold separately. The strategy used depends on various customer, market, and industry factors.

The bundle is usually offered at a lower price than the sum of the two individual items. However, bundling products does not necessarily require that the bundle price is lower than the sum of the individual products. Indeed, if the individual products offer little benefit on their own, and their value greatly increases when consumed with complementary products, then the bundle price can be higher than the sum of the individual components.
The success of price bundling is dependent on setting the optimal prices in order to maximise profits. This optimal price will be primarily based on the reservation prices of consumers segments and the size of these various segments and so it is necessary to measure these. Reservation prices are the maximum amount of money that a consumer is willing to pay for a certain product/service.
Well-founded price bundling requires the knowledge of customer specific reservation prices both for the individual products/services, and for the bundle. The most effective method of collecting this information is through conjoint analysis. Conjoint analysis is a technique which can help provide information on which product attributes are most important to consumers and more importantly how much they are willing to pay for
them. It estimates the value attached to each attribute on the basis of respondents choices of varied product bundles.

## Price Bundling Example

Lets assume a consumer was willing to pay $£ 7$ for good A and $£ 3$ for good B. If good A and Good B were offered separately at $£ 5$ each only good A would be purchased. If they are offered together at $£ 10$, the bundle of the two will be purchased. The concept of price bundling relies on the transfer of consumer surplus from one good to another. Consumer surplus quite simply is the difference between what the consumer is willing to pay for a good, and what they are actually charged. In this example the consumer was willing to pay $£ 7$ for good A. If the goods are offered at a price of $£ 5$ then we could say that there was $£ 2$ consumer surplus. In our above example there was a consumer deficit on good B because the consumer was not willing to pay the selling price for the good. When they were bundled together, the two goods together were worth $£ 10$ to the consumer. The consumer surplus on good A was transferred onto good B and both products were purchased.
Let us assume that there was a second consumer type who had reverse reservation prices for good A and good B (i.e. £3-Good A; £7-Good B). This consumer would only have purchased good B if they were offered separately but when priced together, the bundle is purchased. In this way bundling demonstrates its ability to reduce buyer heterogeneity.

## Research Focus

This research intends to explore the application of price bundling holiday packages in Ireland, and its potential for simultaneously increasing profits and enhancing consumer value perceptions. The first step is to determine the specific elements of the package which a consumer values most, and what they are willing to pay for these benefits. This information will be linked with data on the cost of providing each element of the bundle. The cost data will provide information on the financial feasibility of including certain elements in bundles. For example, there may be an product or service that the consumer values highly and may not cost much to provide. On the other hand, there may be certain products traditionally included in a bundle that incur greater costs than the consumer feels they are worth. From this information, optimum packages should become apparent by identifying the particular market segments which place a high value on the most lucrative packages.

## PROPOSAL

To carry out this research, co-operation from a test-site is required. Only one premises will be involved in the primary research due to the idiosyncratic nature of costs, prices, and market segments between operators. The findings of this study will provide valuable information to the test-site and will assist in:

- increasing profitability through more efficient bundling and pricing.
- increasing customer satisfaction through needs being more precisely fulfilled.
- more precise market targeting.

In order to enhance decision making in the above areas the following informational inputs are required:

- Details on the products and services that are currently included in bundles, and the prices at which these bundles are offered.
- Cost data on each possible bundle element would be required. This sensitive data would of course be treated with the strictest confidentiality. The name of the premises shall not be mentioned, figures can be disguised, and if required, access to the finished dissertation can be restricted for a fixed number of years.
- Access to guests for interviewing would also be required. Each interview would only take 5-10 minutes. Computer aided interviewing will be used in order to speed up the process. A sample size of 150-200 would be required and this can be spread out over a certain period of time.


## Appendix D

## Questionnaire Section 1

## Ouestionnaire

1．Age：

| 24 years and under | $\square$ |
| :--- | :--- |
| $25-34$ years | $\square$ |
| $35-44$ years | $\square$ |
| 45－54 years | $\square$ |
| 55－64 years | $\square$ |
| $65+$ years | $\square$ |

2．Gender：
Male
Female
$\square$
$\square$

3．Marital Status：Single
Married


Other（please specify） $\qquad$

4．Income：＜£9，999
£10，000－£19，999

£20，000－£29，999
£30，000－£39，999
£40，000－£49，999 $\square$
£50，000＋ $\square$

5．Occupation：

6．Occupational Category：
Higher managerial，administrative or professional
Intermediate managerial，administrative or professional
Supervisory，clerical and junior management，admin．or professional
Skilled manual worker
Semi and unskilled manual worker
Unemployed，state pensioner，student
7. Have you ever taken a weekend break in Ireland

| Yes |  |
| :--- | :--- |
| No | $\square$ |

8. If yes, how many times in the last two years did you go on a weekend break in Ireland
9. Have you ever taken a weekend break outside Ireland

10. If yes, how many times in the last two years did you go on a weekend break outside Ireland
11. Are you planning on taking a weekend break within the next 6 months?


12 How much would you be willing to pay per person if you were going on a weekend break to Paris for two nights.

This price should include flights and hotel accommodation (including breakfast)

| $<£ 150$ | $\square$ |
| :--- | :--- |
| $£ 150-£ 199$ | $\square$ |
| $£ 200-£ 249$ | $\square$ |
| $£ 250-£ 299$ | $\square$ |
| $£ 300-£ 349$ | $\square$ |
| $£ 350-£ 399$ | $\square$ |
| $£ 400+$ | $\square$ |

## Appendix E

## Questionnaire Section 2

## Section 2

In the next part of the questionnaire you will be shown six groups of weekend break packages. You will be asked to examine the packages and indicate which one you would be most likely to buy in each of the six groups.

The weekend packages will differ in the following ways:

- Proximity of hotel to city centre
- Grade of hotel
- Evening meal
- Availability of leisure facilities
- Price

To indicate your preference please tick the box underneath your choice. You may also indicate if you would not purchase any of the packages shown.

## All packages are for a weekend in Paris.

All prices are per person sharing and include flights and two nights hotel accommodation. Breakfast and hotel transfers are included in the price.

## Example

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :---: | :---: | :---: | :---: |
| 15 Minutes from City Centre | City Centre | 30 Minutes from City Centre | I would |
| 4* Hotel | $3^{*}$ Hotel | $5^{*}$ Hotel | choose |
| Evening Meal Included | No Evening Meal Included | No Evening Meal Included | none of |
| No Leisure Facilities | Leisure Facilities | Leisure Facilities | these |
| $£ 335$ | $£ 255$ | $£ 380$ |  |
|  |  |  |  |


| 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: |
| 15 Minutes from City Centre 4* Hotel <br> No Evening Meal Included Leisure Facilities $£ 290$ | City Centre 5* Hotel Evening Meal Included No Leisure Facilities $£ 400$ | 30 Minutes from City Centre <br> 3* Hotel <br> Evening Meal Included No Leisure Facilities £255 | I would <br> choose <br> none of <br> these |
|  |  |  |  |


| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :---: | :---: | :---: | :---: |
| 15 Minutes from City Centre | City Centre | 30 Minutes from City Centre | I would |
| 4* Hotel | $3^{*}$ Hotel | $5^{*}$ Hotel | choosя |
| Evening Meal Included | No Evening Meal Included | No Evening Meal Included | none of |
| No Leisure Facilities | Leisure Facilities | Leisure Facilities | these |
| $£ 335$ | $£ 255$ | $£ 380$ |  |
|  |  |  |  |


| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :---: | :---: | :---: | :---: |
| 15 Minutes from City Centre | 30 Minutes from City Centre | City Centre | I would |
| 3* Hotel | $4^{*}$ Hotel | $5^{*}$ Hotel | choose |
| No Evening Meal Included | Evening Meal Included | Evening Meal Included | none of |
| No Leisure Facilities | Leisure Facilities | Leisure Facilities | these |
| $£ 210$ | $£ 335$ | $£ 425$ |  |
|  |  |  |  |


| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :---: | :---: | :---: | :---: |
| 15 Minutes from City Centre | 30 Minutes from City Centre | City Centre | I would |
| 3* Hotel | $5^{*}$ Hotel | $4^{*}$ Hotel | choose |
| Evening Meal Included | No Evening Meal Included | No Evening Meal Included | none of |
| Leisure Facilities | No Leisure Facilities | No Leisure Facilities |  |
| these |  |  |  |
| $£ 230$ | $£ 405$ | $£ 290$ |  |
|  |  |  |  |


| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :---: | :---: | :---: | :---: |
| City Centre | 30 Minutes from City Centre | 15 Minutes from City Centre | I would |
| 3* Hotel | $4^{*}$ Hotel | $5^{*}$ Hotel | choose |
| Evening Meal Included | Evening Meal Included | No Evening Meal Included | none of |
| No Leisure Facilities | Leisure Facilities | Leisure Facilities | these |
| $£ 255$ | $£ 310$ | $£ 405$ |  |
|  |  |  |  |


| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :---: | :---: | :---: | :---: |
| 15 Minutes from City Centre | City Centre | 30 Minutes from City Centre | I would |
| $5^{*}$ Hotel | $4^{*}$ Hotel | $3^{*}$ Hotel | choose |
| Evening Meal Included | No Evening Meal | No Evening Meal | none of |
| No Leisure Facilities | No Leisure Facilities | Leisure Facilities | these |
| $£ 400$ | $£ 315$ | $£ 290$ |  |
|  |  |  |  |

## Appendix F

## Questionnaire Section 1 SPSS Frequency Results

| Variable | Data Lable Frequency |  | Percentage Cumulative \% |  |
| :---: | :---: | :---: | :---: | :---: |
| 1. Age: | 24 years and under | 24 | 9.0\% | 9.0\% |
|  | 25-34 years | 85 | 31.7\% | 40.7\% |
|  | 35-44 years | 62 | 23.1\% | 63.8\% |
|  | 45-54 years | 57 | 21.3\% | 85.1\% |
|  | 55-64 years | 30 | 11.2\% | 96.3\% |
|  | $65+$ years | 10 | 3.7\% | 100.0\% |
| 2. Gender: | Male | 132 | 49.3\% |  |
|  | Female | 136 | 50.7\% |  |
| 3. Marital Status: | Single | 109 | 40.7\% |  |
|  | Married | 146 | 54.5\% |  |
|  | Other | 13 | 4.9\% |  |
| 4. Income: | < £9,999 | 28 | 10.4\% | 10.6\% |
|  | £10,000-£19,999 | 93 | 34.7\% | 45.8\% |
|  | £20,000-£29,999 | 71 | 26.5\% | 72.7\% |
|  | £30,000-£39,999 | 54 | 20.1\% | 93.2\% |
|  | £40,000-£49,999 | 13 | 4.9\% | 98.1\% |
|  | £50,000+ | 5 | 1.9\% | 100.0\% |
|  | missing | 4 | 1.5\% |  |
| $5 \& 6$ OccupationalCategory: | A | 27 | 10.1\% |  |
|  | B | 62 | 23.1\% |  |
|  | C1 | 94 | 35.1\% |  |
|  | C2 | 50 | 18.7\% |  |
|  | D | 17 | 6.3\% |  |
|  | E | 14 | 5.2\% |  |
|  | Missing | 4 | 1.5\% |  |


|  |  | Frequency | Percentage | Valid <br> Percentage | Cumulative \% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Have you ever taken a weekend | Yes | 239 | 89.2\% |  |  |
| Break | No | 29 | 10.8\% |  |  |
| 7. Have you ever taken a weekend | Yes | 218 | 81.3\% |  |  |
| Break in Ireland | No | 50 | 18.7\% |  |  |
| 8. How many times in the last two | 0 | 54 | 20.1\% |  | 20.1\% |
| years in Ireland | 1 | 52 | 19.4\% |  | 39.6\% |
|  | 2 | 67 | 25.0\% |  | 64.6\% |
|  | 3 | 46 | 17.2\% |  | 81.7\% |
|  | 4 | 24 | 9.0\% |  | 90.7\% |
|  | 5 | 9 | 3.4\% |  | 94.0\% |
|  | 6 | 7 | 2.6\% |  | 96.6\% |
|  | 8 | 2 | 0.7\% |  | 97.4\% |
|  | 9 | 7 | 2.6\% |  | 100.0\% |
| 9. Have you ever taken a weekend | Yes | 174 | 35.1\% |  |  |
| break outside Ireland | No | 94 | 64.9\% |  |  |
| 10. How many times in the last two | 0 | 100 | 37.6\% |  | 37.6\% |
| years outside Ireland | 1 | 76 | 28.4\% |  | 65.7\% |
|  | 2 | 46 | 17.2\% |  | 82.8\% |
|  | 3 | 27 | 10.1\% |  | 92.9\% |
|  | 4 | 10 | 3.7\% |  | 96.6\% |
|  | 5 | 5 | 1.9\% |  | 98.5\% |
|  | 6 | 1 | 0.4\% |  | 98.9\% |
|  | 8 | 1 | 0.4\% |  | 99.3\% |
|  | 9 | 2 | 0.7\% |  | 100.0\% |
| 11. Planning on taking a weekend | Yes | 209 | 78.0\% |  | 78.0\% |
| break within the next 6 months? | No | 59 | 22.0\% |  | 100.0\% |
| 12. How much would you be | <£150 | 44 | 16.4\% |  | 16.4\% |
| willing to pay | £150-£199 | 94 | 35.1\% |  | 51.5\% |
|  | £200-£249 | 82 | 30.6\% |  | 82.1\% |
|  | £250-£299 | 32 | 11.9\% |  | 94.0\% |
|  | £300-£349 | 10 | 3.7\% |  | 97.8\% |
|  | £350-£399 | 3 | 1.1\% |  | 98.9\% |
|  | £400+ | 3 | 1.1\% |  | 100.0\% |

## Appendix G

## Questionnaire Section 1 SPSS Contingency Tables

# Marital Status by Weekend Break Taken Previously? 



## G2

Marital Status by Taking Weekend Break In Next 6 Months?


Number of Missing Observations: 0

# G3 <br> Marital Status by Number Of Breaks Taken Abroad In Previous Two Years 



G4

## Marital Status by Number Of Breaks Taken In Ireland In Previous Two Years

Count NUMBER OF BREAKS TAKEN IN IRELAND IN PREVIOUS TWO
YEARS Exp Val


Number of Missing Observations: 0

## G5 <br> Income by Weekend Break Taken Previously?

| Count WEEKEND BREAK TAKEN PREVIOUSLY? |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | Exp Val | yes | no |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | 1.00 | 2.00 |  |  |  |  |
| INCOME |  |  |  |  |  |  |  |
|  | 1.00 | 100 | 21 |  |  |  |  |
| < £20,000 |  | 107.7 | 13.3 |  |  |  |  |
|  | 2.00 | 135 | 8 |  |  |  |  |
| > $£ 20,000$ |  | 127.3 | 15.7 |  |  |  |  |
|  | Column | 235 | 29 |  |  |  |  |
|  | Total | 89.0\% | $11.0 \%$ | 100 |  |  |  |
| Chi-Square |  |  | value |  | DF |  | Significance |
| Pearson |  |  | 9.271 |  |  | 1 | . 00233 |
| Continuity Correction |  |  | 8.107 |  |  | 1 | . 00441 |
| Likelihood Ratio |  |  | 9.437 |  |  | 1 | . 00213 |
| Mantel-Haenszel test for <br> linear association |  |  | 9.236 |  |  | 1 | . 00237 |
| Minimum Expected Frequency - |  |  | 13.292 |  |  |  |  |

[^3]
## G6

Income by Taking Weekend Break In Next 6 Months?


[^4]
## G7

## Income by Number Of Breaks Taken Abroad In Previous Two Years



# Income by Number Of Breaks Taken In Ireland In Previous Two Years 



[^5]
## Socio-Economic Group by Weekend Break Taken Previously?

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Count WEEKEND BREAK TAKEN PREVIOUSLY? |  |  |  |  |  |  |
| Exp Val | yes | no |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 1.00 | 2.00 |  |  |  |  |
| SOCIO-ECONOMIC GROUP |  |  |  |  |  |  |
| 1.00 | 170 | 13 |  |  |  |  |
| ABCI'S | 162.9 | 20.1 |  |  |  |  |
| C2DE's 2.00 | 65 | 16 |  |  |  |  |
|  | 72.1 | 8.9 |  |  |  |  |
| Column | 235 | 29 |  |  |  |  |
| Total | $89.0 \%$ | 11.0\% | 100 |  |  |  |
| Chi-Square |  | Value |  | DF |  | Significance |
| Pearson |  | 9.18765 |  |  | 1 | . 00244 |
| Continuity Correction |  | 7.93 |  |  | 1 | . 00484 |
| Likelihood Ratio |  | 8.47342 |  |  | 1 | . 00360 |
| Mantel-Haenszel test for linear association |  | 9.15285 |  |  | 1 | . 00248 |
| Minimum Expected Freq | quency - | 8.898 |  |  |  |  |

Number of Missing Observations: 4

G10
Socio-Economic Group by Taking Weekend Break In Next 6 Months?


[^6]
# G11 <br> Socio-Economic Group by Number Of Breaks Taken Abroad In Previous Two Years 



[^7]
# G12 <br> Socio-Economic Group by Number Of Breaks Taken In Ireland In Previous Two Years 



## G13

## Price Willing To Pay by Weekend Break Taken Previously?



Number of Missing Observations: 0

## G14

## Price Willing To Pay by Taking Weekend Break In Next 6 Months?



Minimum Expected Frequency - 9.687

Number of Missing Observations: 0

## G15

Price Willing To Pay by Number Of Breaks Taken Abroad In Previous Two Years


Number of Missing Observations: 0

## G16

Price Willing To Pay by Number Of Breaks Taken In Ireland In

## Previous Two Years

Count NUMBER OF BREAKS TAKEN IN IRELAND IN PREVIOUS TWO
YEARS
Exp Val


Chi-Square
Value DF
DF
Significance
$\begin{array}{llll}\text { Pearson } & 3.61580 & 4 & 46049 \\ \text { Likelihood Ratio } & 3.39832 & 4 & .49351 \\ \text { Mantel-Haenszel test for } & 2.10768 & 1 & .14656 \\ \quad \text { linear association } & & & \\ \text { Minimum Expected Frequency - } & 8.866 & \end{array}$

Number of Missing Observations: 0

## G17

Price Willing To Pay by Income


[^8]
## G18

Price Willing To Pay by Socio-Economic Group


[^9]
## G19 <br> Income by Socio-Economic Group



[^10]
## Appendix H

## CBC Choice Count Output

# CBC Output <br> Cholce Count <br> Based on 268 respondents 

## Main Effects

## CBC Proportions

Corresponding Percentages

1
Chi Square $=325.33 \quad d f=2 p<.01$
0.435

Location
$0.35 \quad 15$ minutes from city centre
$0.102 \quad 30$ minutes from clty centre
2 Altribute 2 Grade 0.068 5*

Chi Square $=629.93$
$d f=2 p<.01$
$0.2724^{*}$
0.547 3*

3 Attribute 3 Price Chi Square $=8.80 \quad$ df $=\uparrow p<.01$
0.319 Dinner included
0.272 No dinner included

4 Altribute 4 Leisure $\quad$ Chi Square $=24.79 \quad \mathrm{df}=1 \mathrm{p}<.01$
0.335 Leisure facilities
0.257 No leisure facilities

5 Attribute 5 Price $\quad$ Chi Square $=7.05 \quad d f=1$ not sig 0.311 price low 0.28 prlce high
49.04\%
$39.46 \%$
$11.50 \%$
$7.67 \%$
$30.67 \%$
61.67\%
53.98\%
46.02\%
$56.59 \%$
43.41\%
$52.62 \%$
47.38\%

# CBC Output <br> Choice Count <br> Based on 268 respondents 

## Interaction Effects

CBC Proportions

1

| Attributes: | Row $=$ location | Column = Grade |  |
| :--- | :--- | :--- | :--- |
|  | $5^{*}$ | $4^{*}$ | $3^{*}$ |
| CC | 0.093 | 0.437 | 0.783 |
| 15 mins | 0.082 | 0.299 | 0.661 |
| 30 mins | 0.03 | 0.074 | 0.202 |

Corresponding Percentages

| Chi Square $=7.05 \mathrm{df}=4$ not $\operatorname{sig}$ |  |  |  |
| :--- | :--- | :--- | :--- |
|  | $5^{*}$ | $4^{*}$ | $3^{ \pm}$ |
| CC | $3.49 \%$ | $16.42 \%$ | $29.43 \%$ |
| 15 mins | $3.08 \%$ | $11.24 \%$ | $24.84 \%$ |
| 30 mins | $1.13 \%$ | $2.78 \%$ | $7.59 \%$ |

2

| Attributes: | Row $=$ location | Column $=$ Dinner |
| :--- | :--- | :--- |
|  | Dinner | No Dinner |
| CC | 0.459 | 0.411 |
| 15 mins | 0.379 | 0.32 |
| 30 mins | 0.118 | 0.086 |


|  | Chi Square $=1.53 \mathrm{df}=2$ not sig |  |
| :--- | :--- | :--- |
|  | Dinner | No Dinner |
| CC | $25.89 \%$ | $23.18 \%$ |
| 15 mins | $21.38 \%$ | $18.05 \%$ |
| 30 mins | $6.66 \%$ | $4.85 \%$ |

3

| Attributes: | Row $=$ location | Column $=$ Leisur |
| :--- | :--- | :--- |
|  | Lels | No Leis |
| CC | 0.448 | 0.383 |
| 15 mins | 0.386 | 0.314 |
| 30 mins | 0.133 | 0.07 |


| Chi Square $=5.85$ df $=2$ not sig |  |
| :--- | :---: |
|  Leis NoLeis <br> CC $25.84 \%$ $22.09 \%$ <br> 15 mins $22.26 \%$ $18.11 \%$ <br> 30 mins $7.67 \%$ $4.04 \%$ |  |

4

| Attributes: |
| :--- |
|  Row $=$ location Column $=$ Price <br> CC p-low p high <br> 15 mins 0.455 0.414 <br> 30 mins 0.37 0.33 <br> 30.11 0.094  |


|  | Chi Square $=0.16 \mathrm{df}=2$ not sig |  |
| :--- | :--- | :--- |
|  | p-low | p high |
| CC | $25.66 \%$ | $23.35 \%$ |
| 15 mins | $20.87 \%$ | $18.61 \%$ |
| 30 mins | $6.20 \%$ | $5.30 \%$ |

5

| Attributes: |
| :--- |
| Row $=$ Grade |
|  Dinner No Dinner <br> $5^{*}$ 0.098 0.037 <br> $4^{*}$ 0.303 0.241 <br> $3^{*}$ 0.555 0.54 |


|  | Chi Square $=19.42 \mathrm{df}=2$ |  |
| :--- | :--- | :--- |
|  | Dinner | No Dinner |
|  | 5.01 |  |
| $5^{*}$ | $5.52 \%$ | $2.09 \%$ |
| $4^{*}$ | $17.08 \%$ | $13.59 \%$ |
| $3^{*}$ | $31.29 \%$ | $30.44 \%$ |

6

| Attributes: | Row = Grade |  | Column = Leisure |  | Chi Square $=3.95 \mathrm{df}=2$ not sig |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Leis | No Leis |  |  | Leis | No Leis |
| 5* | 0.084 | 0.052 |  | 5* | 4.74\% | 2.93\% |
| 4* | 0.322 | 0.221 |  | 4* | 18.15\% | 12.46\% |
| 3* | 0.597 | 0.498 |  | 3* | 33.65\% | 28.07\% |

7
Attributes:

|  | Row $=$ grade |  |
| :--- | :--- | :--- |
|  | p-low | p high |
| $5^{*}$ | 0.068 | 0.058 |
| $4^{*}$ | 0.303 | 0.24 |
| $3^{*}$ | 0.56 | 0.534 |


|  |  |  |  | Chi Square $=2.68 \mathrm{df}=2$ not sig |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
|  | p-low | p high |  |  |  |
| $5^{*}$ | $3.84 \%$ | $3.84 \%$ |  |  |  |
| $4^{*}$ | $17.09 \%$ | $13.54 \%$ |  |  |  |
| $3^{*}$ | $31.58 \%$ | $30.12 \%$ |  |  |  |

8

| Attributes: | Row $=$ Dinner |  |
| :--- | :--- | :--- |
|  | Leis | No Leis |
| Din | 0.372 | 0.264 |
| No Din | 0.296 | 0.25 |

Column = Leisure

|  | Chi Square $=2.70 \mathrm{df}=1$ not sig |  |
| :--- | :--- | :--- |
|  | Leis | No Leis |
| Din | $31.47 \%$ | $22.34 \%$ |
| No Din | $25.04 \%$ | $21.15 \%$ |

9

| Attributes: |
| :--- |
| Row $=$ Dinner |
|  p-low P high <br> Column $=$ Price   <br> Din 0.345 0.293 <br> No Din 0.278 0.267 |


| Chi Square $=1.40$ df $=1$ not sig |  |  |
| :--- | :--- | :--- |
|  | p-low | p high |
| Din | $29.16 \%$ | $24.77 \%$ |
| No Din | $23.50 \%$ | $22.57 \%$ |

10

| Attributes: | Row $=$ Leisure | Column $=$ Price |
| :--- | :--- | ---: |
|  | p-low | p high |
| Leisure | 0.35 | 0.319 |
| No Leisure | 0.272 | 0.241 |


|  | Chi Square $=0.06 \mathrm{df}=1$ |  |
| :--- | :--- | :--- |
|  | not sig |  |
| Leisure | $29.61 \%$ | p high |
| No Leisure | $23.01 \%$ | $26.99 \%$ |

## Appendix I

CBC Sub-Sample Choice Count Output

| sample şize | origonal <br> 268 | never taken <br> weekend <br> break <br> 94 | have taken weekend break 174 | $\begin{aligned} & \text { age } 34 \text { and } \\ & \text { under } \\ & 109 \end{aligned}$ | $\begin{aligned} & \text { ages } 35 \text { to } \\ & 54 \\ & 119 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { age } 55+ \\ & 40 \end{aligned}$ | book 1 week before 105 | book more than one week in advance 135 | $\begin{array}{\|l\|l} \text { male } \\ 132 \\ \hline \end{array}$ | $\begin{aligned} & \text { female } \\ & 136 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { wiling to pay } \\ & \text { less than } 299 \\ & 138 \end{aligned}$ | willing to pay <br> more t̂́an <br> 299 <br> 130 | $\left\lvert\, \begin{aligned} & \text { income less } \\ & \text { than } 20,000 \\ & 121 \end{aligned}\right.$ | income greater than 20,000 143 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| City Centre | 0.435 | 0.406 | 0.45 | 0.417 | 0.454 | 0.425 | 0.417 | 0.453 | 0.457 | 0.413 | 0.374 | 0.499 | 0.397 | 0.469 |
| 15 mins | 0.35 | 0.349 | 0.351 | 0.356 | 0.352 | 0.329 | 0.362 | 0.34 | 0.34 | 0.36 | 0.342 | 0.359 | 0.36 | 0.345 |
| 30 mins | 0.102 | 0.131 | 0.086 | 0.11 | 0.091 | 0.113 | 0.11 | 0.088 | 0.107 | 0.097 | 0.133 | 0.069 | 0.12 | 0.083 |
| $5{ }^{*}$ | 0.068 | 0.076 | 0.063 | 0.052 | 0.077 | 0.083 | 0.083 | 0.054 | 0.074 | 0.061 | 0.054 | 0.082 | 0.061 | 0.073 |
| 4* | 0.272 | 0.245 | 0.286 | 0.237 | 0.307 | 0.263 | 0.281 | 0.263 | 0.289 | 0.255 | 0.179 | 0.371 | 0.242 | 0.297 |
| 3. | 0.547 | 0.566 | 0.537 | 0.595 | 0.513 | 0.521 | 0.525 | 0.563 | 0.54 | 0.554 | 0.616 | 0.474 | 0.573 | 0.526 |
| Dinner | 0.319 | 0.346 | 0.304 | 0.317 | 0.321 | 0.317 | 0.313 | 0.312 | 0.306 | 0.331 | 0.303 | 0.363 | 0.335 | 0.303 |
| No dinner | 0.272 | 0.245 | 0.287 | 0.272 | 0.276 | 0.261 | 0.279 | 0.275 | 0.296 | 0.249 | 0.263 | 0.282 | 0.249 | 0.294 |
| Leísure | 0.335 | 0.332 | 0.336 | 0.335 | 0.349 | 0.289 | 0.334 | 0.325 | 0.343 | 0.327 | 0.312 | 0.358 | 0.338 | 0.331 |
| No leisure | 0.257 | 0.259 | 0.255 | 0.254 | 0.248 | 0.289 | 0.258 | 0.262 | 0.26 | 0.253 | 0.254 | 0.26 | 0.246 | 0.267 |
| low price | 0.311 | 0.313 | 0.31 | 0.305 | 0.32 | 0.303 | 0.31 | 0.311 | 0.324 | 0.299 | 0.296 | 0.327 | 0.296 | 0.332 |
| high price | 0.28 | 0.278 | 0.281 | 0.284 | 0.277 | 0.275 | 0.283 | 0.276 | 0.279 | 0.281 | 0.27 | 0.291 | 0.288 | 0.275 |
| City Centre | 49.04\% | 45.82\% | 50.73\% | 47.23\% | 50.61\% | 49.02\% | 46.91\% | 51.42\% | 50.55\% | 47.47\% | 44.05\% | 53.83\% | 45.27\% | 52.29\% |
| 15 mins | 39.46\% | 39.39\% | 39.57\% | 40.32\% | 39.24\% | 37.95\% | 40.72\% | 38.59\% | 37.61\% | 41.38\% | 40.28\% | 38.73\% | 41.05\% | 38.46\% |
| 30 mins | 11.50\% | 14.79\% | 9.70\% | 12.46\% | 10.14\% | 13.03\% | 12.37\% | 9.99\% | 11.84\% | 11.15\% | 15.67\% | 7.44\% | 13.68\% | 9.25\% |
| 5 | 7.67\% | 8.57\% | 7.11\% | 5.88\% | 8.58\% | 9.57\% | 9.34\% | 6.14\% | 8.19\% | 7.01\% | 6.36\% | 8.85\% | 6.96\% | 8.15\% |
| $4 *$ | 30.67\% | 27.62\% | 32.28\% | 26.81\% | 34.23\% | 30.33\% | 31.61\% | 29.89\% | 32.00\% | 29.31\% | 21.08\% | 40.02\% | 27.63\% | 33.15\% |
| 3 | 61.67\% | 63.81\% | 60.61\% | 67.31\% | 57.19\% | 60.09\% | 59.06\% | 63.98\% | 59.80\% | 63.68\% | 72.56\% | 51.13\% | 65.41\% | 58.71\% |
| Dinner | 53.98\% | 58.54\% | 51.44\% | 53.82\% | 53.77\% | 54.84\% | 52.87\% | 53.15\% | 50.83\% | 57.07\% | 53.53\% | 56.28\% | 57.36\% | 50.75\% |
| No dinner | 46:02\% | 41.46\% | 48.56\% | 46.18\% | 44.16\% | 45.16\% | 47.13\% | 46.85\% | 49.17\% | 42.93\% | 46.47\% | 43.72\% | 42.64\% | 49.25\% |
| Leisure | 56.59\% | 56.18\% | 56.85\% | 56.88\% | 46.23\% | 50.00\% | 56.42\% | 55.37\% | 56.88\% | 56.38\% | 55.12\% | 57.93\% | 57.88\% | 55.35\% |
| No leisure | 43.41\% | 43.82\% | 43.15\% | 43.12\% | 41.54\% | 50.00\% | 43.58\% | 44.63\% | 43.12\% | 43.62\% | 44.88\% | 42.07\% | 42.12\% | 44.65\% |
| low price | 52.62\% | 52.96\% | 52.45\% | 51.78\% | 53.60\% | 52.42\% | 52.28\% | 52.98\% | 53.73\% | 51.55\% | 52.30\% | 52.91\% | 50.68\% | 54.70\% |
| high price | 47.38\% | 47.04\% | 47.55\% | 48.22\% | 46.40\% | 47.58\% | 47.72\% | 47.02\% | 46.27\% | 48.45\% | 47.70\% | 47.09\% | 49.32\% | 45.30\% |

## LEGEND

| Not Significant |
| :--- |
| Significant at. 05 level |
| Significant at .01 level |


| sample size | origonal $268$ | $\begin{array}{\|l} \text { single } \\ 109 \end{array}$ | married $146$ | other <br> 13 | planning a weekend break in next 6 months 209 | NOT <br> planning w/e <br> break in next <br> 6 months <br> 57 | $\left\{\begin{array}{l} \text { social group } \\ \text { A } \\ 27 \end{array}\right.$ | social group <br> B <br> 62 | social group <br> C1 <br> 94 | social group <br> C2 <br> 50 | social group <br> D <br> 17 | social group <br> E <br> 14 | $\begin{aligned} & \text { social group } \\ & \text { ABC1 } \\ & 183 \end{aligned}$ | social group <br> C2DE <br> 81 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| City Centre | 0.435 | 0.443 | 0.427 | 0.449 | 0.453 | 0.368 | 0.568 | 0.47 | 0.41 | 0.403 | 0.373 | 0.393 | 0.454 | 0.395 |
| 15 mins | 0.35 | 0.359 | 0.345 | 0.333 | 0.356 | 0.333 | 0.265 | 0.358 | 0.367 | 0.363 | 0.343 | 0.357 | 0.349 | 0.358 |
| 30 mins | 0.102 | 0.092 | 0.11 | 0.103 | 0.098 | 0.117 | 0.056 | 0.097 | 0.094 | 0.097 | 0.167 | 0.167 | 0.089 | 0.123 |
| $5^{*}$ | 0.068 | 0.055 | 0.074 | 0.103 | 0.072 | 0.05 | 0.117 | 0.075 | 0.055 | 0.057 | 0.069 | 0.06 | 0.071 | 0.06 |
| 4* | 0.272 | 0.255 | 0.287 | 0.244 | 0.279 | 0.237 | 0.395 | 0.312 | 0.23 | 0.257 | 0.196 | 0.286 | 0.282 | 0.249 |
| 3. | 0.547 | 0.584 | 0.521 | 0.538 | 0.556 | 0.532 | 0.377 | 0.538 | 0.585 | 0.55 | 0.618 | 0.571 | 0.538 | 0.568 |
| Dinner | 0.319 | 0.317 | 0.317 | 0.35 | 0.32 | 0.318 | 0.259 | 0.324 | 0.306 | 0.331 | 0.373 | 0.365 | 0.305 | 0.346 |
| No dinner | 0.272 | 0.279 | 0.27 | 0.239 | 0.285 | 0.228 | 0.333 | 0.292 | 0.274 | 0.244 | 0.216 | 0.246 | 0.289 | 0.239 |
| Leisure | 0.335 | 0.343 | 0.326 | 0.359 | 0.343 | 0.306 | 0.337 | 0.355 | 0.333 | 0.316 | 0.32 | 0.325 | 0.341 | 0.318 |
| No leisure | 0.257 | 0.254 | 0.261 | 0.231 | 0.262 | 0.24 | 0.255 | 0.262 | 0.247 | 0.26 | 0.268 | 0.286 | 0.253 | 0.266 |
| low price | 0.311 | 0.316 | 0.306 | 0.333 | 0.322 | 0.277 | 0.342 | 0.321 | 0.307 | 0.302 | 0.275 | 0.394 | 0.317 | 0.295 |
| high price | 0.28 | 0.28 | 0.282 | 0.256 | 0.283 | 0.269 | 0.251 | 0.296 | 0.273 | 0.273 | 0.314 | 0.317 | 0.277 | 0.289 |
| City Centre | 49.04\% | 49.55\% | 48.41\% | 50.73\% | 49.94\% | 44.99\% | 63.89\% | 50.81\% | 47.07\% | 46.70\% | 42.24\% | 42.86\% | 50.90\% | 45.09\% |
| 45 mins | 39.46\% | 40.16\% | 39.12\% | 37.63\% | 39.25\% | 40.71\% | 29.81\% | 38.70\% | 42.14\% | 42.06\% | 38.84\% | 38.93\% | 39.13\% | 40.87\% |
| 30 mins | 11,50\% | 10.29\% | 12.47\% | 11.64\% | 10.80\% | 14.30\% | 6.30\% | 10.49\% | 10.79\% | 11.24\% | 18.91\% | 18.21\% | 9.98\% | 14.04\% |
| 5. | 767\% | 6.15\% | 8.39\% | 11.64\% | 7.94\% | 6.11\% | 13.16\% | 8.11\% | 6.32\% | 6.60\% | 7.81\% | 6.54\% | 7.97\% | 6.84\% |
| $4^{*}$ | 30.67\% | 28.52\% | 32.54\% | 27.57\% | 30.76\% | 28.94\% | 44.43\% | 33.73\% | 26.44\% | 29.75\% | 22.20\% | 31.19\% | 31.65\% | 28.39\% |
| 3. | 61.67\% | 65.32\% | 59.07\% | 60.79\% | 61.30\% | 64.96\% | 42.41\% | 58.16\% | 67.24\% | 63.66\% | 69.99\% | 62.27\% | 60.38\% | 64.77\% |
| Ditiner | 53.98\% | 53.19\% | 54.00\% | 59.42\% | 52.89\% | 58.24\% | 43.75\% | 52.60\% | 52.76\% | 57.57\% | 63.33\% | 59.74\% | 51.35\% | 59.15\% |
| No dinner | 46.02\% | 46.81\% | 46.00\% | 40.58\% | 47.11\% | 41.76\% | 56.25\% | 47.40\% | 47.24\% | 42.43\% | 36.67\% | 40.26\% | 48.65\% | 40.85\% |
| Leísure | 56.59\% | 57.45\% | 55.54\% | 60.85\% | 56.69\% | 56.04\% | 56.93\% | 57.54\% | 57.41\% | 54.86\% | 54.42\% | 53.19\% | 57.41\% | 54.45\% |
| No leisure | 43.41\% | 42.55\% | 44.46\% | 39.15\% | 43.31\% | 43.96\% | 43.07\% | 42.46\% | 42.59\% | 45.14\% | 45.58\% | 46.81\% | 42.59\% | 45.55\% |
| low price | 52:62\% | 53.02\% | 52.04\% | 56.54\% | 53.22\% | 50.73\% | 57.67\% | 52.03\% | 52.93\% | 52.52\% | 46.69\% | 55.41\% | 53.37\% | 50.51\% |
| high price | 47.38\% | 46.98\% | 47.96\% | 43.46\% | 46.78\% | 49.27\% | 42.33\% | 47.97\% | 47.07\% | 47.48\% | 53.31\% | 44.59\% | 46.63\% | 49.49\% |

## LEGEND

## Not Significant

Significant at .05 level
Significant at .01 level

| sample size | $\begin{aligned} & \text { orgonal } \\ & 268 \end{aligned}$ | not been abroad on Wie break in 2 years 100 | been abroad $1-3$ time is last 2 years on weekend break 122 | been abroad $3+$ time in the last 2 years 46 | not been on wle break in ireland in last two years 54 | been on w/e break in ire 1 2 times in last 2 years 119 | been on w/e - break in ireland 3+ times in $2 y r s$ 95 | has taken weekend break before 239 | has never taken a weekend break before 28 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| City Centre | 0.435 | 0.408 | 0.418 | 0.536 | 0.42 | 0.43 | 0.449 | 0.438 | 0.405 |
| 15 mins | 0.35 | 0.353 | 0.347 | 0.351 | 0.333 | 0.37 | 0.333 | 0.349 | 0.357 |
| 30 mins | 0.102 | 0.13 | 0.096 | 0.058 | 0.13 | 0.088 | 0.104 | 0.098 | 0.137 |
| 5 | 0.068 | 0.08 | 0.059 | 0.065 | 0.071 | 0.046 | 0.093 | 0.067 | 0.065 |
| $4^{*}$ | 0.272 | 0.25 | 0.265 | 0.337 | 0.265 | 0.272 | 0.275 | 0.272 | 0.256 |
| 3* | 0.547 | 0.562 | 0.537 | 0.543 | 0.546 | 0.571 | 0.518 | 0.546 | 0.577 |
| Dinner | 0.319 | 0.352 | 0.292 | 0.316 | 0.333 | 0.302 | 0.332 | 0.313 | 0.365 |
| No dinner | 0.272 | 0.242 | 0.281 | 0.314 | 0.255 | 0.291 | 0.258 | 0.277 | 0.234 |
| Leisure | 0.335 | 0.338 | 0.327 | 0.348 | 0.344 | 0.324 | 0.343 | 0.329 | 0.385 |
| No leisure | 0.257 | 0.257 | 0.247 | 0.283 | 0.245 | 0.269 | 0.248 | 0.261 | 0.214 |
| low price | 0.311 | 0.311 | 0.301 | 0.338 | 0.315 | 0.316 | 0.304 | 0.311 | 0.313 |
| high price | 0.28 | 0.283 | 0.272 | 0.292 | 0.274 | 0.277 | 0.287 | 0.279 | 0.286 |
| City Centre | 4904\% | 45.79\% | 48.55\% | 56.72\% | 47.57\% | 48.42\% | 50.68\% | 49.49\% | 45.05\% |
| 15 mins | 39.46\% | 39.62\% | 40.30\% | 37.14\% | 37.71\% | 41.67\% | 37.58\% | 39.44\% | 39.71\% |
| 30 mins | 11.50\% | 14.59\% | 11.15\% | 6.14\% | 14.72\% | 9.91\% | 11.74\% | 11.07\% | 15.24\% |
| 5 | 7.67\% | 8.97\% | 6.85\% | 6.88\% | 8.05\% | 5.17\% | 10.50\% | 7.57\% | 7.24\% |
| 4*: | 3067\% | 28.03\% | 30.78\% | 35.66\% | 30.05\% | 30.60\% | 31.04\% | 30.73\% | 28.51\% |
| 3. | 61.67\% | 63.00\% | 62.37\% | 57.46\% | 61.90\% | 64.23\% | 58.47\% | 61.69\% | 64.25\% |
| Dinier | 53.98\% | 59.26\% | 50.96\% | 50.16\% | 56.63\% | 50.93\% | 56.27\% | 53.05\% | 60.93\% |
| No dinner: | 46.02\% | 40.74\% | 49.04\% | 49.84\% | 43.37\% | 49.07\% | 43.73\% | 46.95\% | 39.07\% |
| Leisure | 56.59\% | 56.81\% | 56.97\% | 55.15\% | 58.40\% | 54.64\% | 58.04\% | 55.76\% | 64.27\% |
| No leisure | $43.41 \%$ | 43.19\% | 43.03\% | 44.85\% | 41.60\% | 45.36\% | 41.96\% | 44.24\% | 35.73\% |
| low price | 52.62\% | $52.36 \%$ | 52.53\% | 53.65\% | 53.48\% | 53.29\% | 51.44\% | 52.71\% | 52.25\% |
| high price | 47.38\% | 47.64\% | 47.47\% | 46.35\% | 46.52\% | 46.71\% | 48.56\% | 47.29\% | 47.75\% |

## LEGEND

Not Significant
Significant at .05 level
Significant at .01 level

## Appendix J

## CBC Multinomial Logit output

# CBC Output <br> Multinomial Logit Estimation <br> Based on 268 respondents 

## Main Effects Only



# CBC Output Multinomial Logit Estimation Based on 268 respondents 

## Main and Interaction Effects

```
Iter 1 log-likelihood = -1519.96560 rlh = 0.38858
Iter 2 log-likelihood = -1492.55552 rlh = 0.39526
Iter 3 log-likelihood = -1491.28757 rlh = 0.39557
Iter 4 log-likelihood = -1491.28477 rlh = 0.39557
Iter 5 log-likelihood = -1491.28477 rlh = 0.39557
Iter 6 log-likelihood = -1491.28477 rlh = 0.39557
Converged.
Log-likelihood for this model = -1491.28477
Log-likelihood for null model = -2229.16133
Difference = 737.87657 Chi Square = 1475.753
```

| Effect | Std Err |  | t Ratio | Attribute level |
| :--- | ---: | :--- | ---: | :--- | :--- |
| 0.59747 | 0.05729 | 10.42844 | 11 | City Centre |
| 0.2916 | 0.0593 | 4.91712 | 12 | 15 Minutes From City Centre |
| -0.88907 | 0.07922 | 11.22279 | 13 | 30 Minutes From City Centre |
|  |  |  |  |  |
| -1.19754 | 0.08589 | 13.94265 | 21 | $5^{*}$ Hotel |
| 0.14883 | 0.06174 | 2.41075 | 22 | $4^{*}$ Hotel |
| 1.04871 | 0.05438 | 19.28544 | 23 | 3 $^{*}$ Hotel |


| 0.21886 | 0.04659 | 4.69757 | 31 | Evening Meal |
| ---: | ---: | ---: | ---: | :--- |
| -0.21886 | 0.04659 | -4.69757 | 32 | No Evening Meal Included |
|  |  |  |  |  |
| 0.23338 | 0.04525 | 5.15763 | 41 | Leisure Facilities in Hotel |
| -0.23338 | 0.04525 | -5.15763 | 42 | No Leisure Facilities in Hotel |


| 0.0454 | 0.04427 | 1.02541 | 51 | Low Price |
| ---: | ---: | ---: | ---: | ---: |
| -0.0454 | 0.04427 | -1.02541 | 52 | High Price |


| -0.45351 | 0.11319 | -4.00656 | 11-21 | City Centre | 5* |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0.14949 | 0.09388 | 1.59237 | 11-22 | City Centre | 4* |
| 0.30402 | **** | *** | 11-23 | City Centre | 3* |
| -0.03846 | 0.11246 | -0.34202 | 12-21 | 15 mins | 5* |
| -0.17146 | 0.09611 | -1.78404 | 12-22 | 15 mins | 4* |
| 0.20992 | 0.09308 | 2.2552 | 12-23 | 15 mins | 3* |
| 0.49197 | **** | ** | 13-21 | 30 mins | 5* |
| 0.02197 | 0.11176 | 0.1966 | 13-22 | 30 mins | 4* |
| -0.51395 | 0.10756 | -4.77809 | 13-23 | 30 mins | 3* |
| -0.03435 | 0.06109 | -0.5623 | 11-31 | City Centre | Dinner |
| 0.03435 | **** | **** | 11-32 | City Centre | No Dinner |
| 0.05739 | 0.06161 | 0.93149 | 12-31 | 15 mins | Dinner |
| -0.05739 | 0.06161 | -0.93149 | 12-32 | 15 mins | No Dinner |
| -0.02304 | ***** | ***** | 13-31 | 30 mins | Dinner |
| 0.02304 | 0.07023 | 0.32807 | 13-32 | 30 mins | No Dinner |
| -0.06609 | 0.06136 | -1.07707 | 11-41 | City Centre | Leisure |
| 0.06609 | ***** | ***** | 11-42 | City Centre | No Leisur |
| -0.04117 | 0.06109 | -0.67388 | 12-41 | 15 mins | Leisure |

CBC Output
Multinomial Logit Estimation
Based on 268 respondents

Main and Interaction Effects contd'

| Effect | Std Err | $t$ Ratio | Attribut | e level |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0.04117 | 0.06109 | 0.67388 | 12-42 | 15 mins | No Leisure |
| 0.10726 |  | ***** | 13-41 | 30 mins | Leisure |
| -0.10726 | 0.0716 | -1.49806 | 13-42 | 30 mins | No Leisure |
| 0.01743 | 0.06116 | 0.28493 | 11-51 | City Centre | Low Price |
| -0.01743 |  | ***** | 11-52 | City Centre | High Price |
| 0.04273 | 0.06004 | 0.71178 | 12-51 | 15 mins | Low Price |
| -0.04273 | 0.06004 | -0.71178 | 12-52 | 15 mins | High Price |
| -0.06016 | **** | ** | 13-51 | 30 mins | Low Price |
| 0.06016 | 0.06934 | 0.86765 | 13-52 | 30 mins | High Price |
| 0.28386 | 0.08237 | 3.44599 | 21-31 | 5* | Dinner |
| -0.28386 | ***** |  | 21-32 | 5* | No Dinner |
| -0.07531 | 0.06365 | -1.18313 | 22-31 | 4* | Dinner |
| 0.07531 | 0.06365 | 1.18313 | 22-32 | 4* | No Dinner |
| -0.20855 | ***** | ***** | 23-31 | 3* | Dinner |
| 0.20855 | 0.06574 | 3.17216 | 23-32 | $3^{*}$ | No Dinner |
| 0.01645 | 0.07773 | 0.2117 | 21-41 | 5* | Leisure |
| -0.01645 | ***** | ***** | 21-42 | 5* | No Leisure |
| 0.02325 | 0.06325 | 0.36754 | 22-41 | $4^{*}$ | Leisure |
| -0.02325 | 0.06325 | -0.36754 | 22-42 | 4* | No Leisure |
| -0.0397 | ***** | ** | 23-41 | 3* | Leisure |
| 0.0397 | 0.06427 | 0.61778 | 23-42 | $3^{*}$ | No Leisure |
| -0.15263 | 0.07768 | -1.96476 | 21-51 | $5^{*}$ | Low Price |
| 0.15263 | , | ***** | 21-52 | 5* | High Price |
| 0.13291 | 0.06199 | 2.1439 | 22-51 | 4* | Low Price |
| -0.13291 | 0.06199 | -2.1439 | 22-52 | $4^{*}$ | High Price |
| 0.01972 | ** | ***** | 23-51 | 3* | Low Price |
| -0.01972 | 0.06346 | -0.31077 | 23-52 | 3* | High Price |
| 0.10353 | 0.04634 | 2.23428 | 31-41 | Dinner | Leisure |
| -0.10353 | ** | ***** | 31-42 | Dinner | No Leisure |
| -0.10353 | **** | ***** | 32-41 | No Dinner | Leisure |
| 0.10353 | 0.04634 | 2.23428 | 32-42 | No Dinner | No Leisure |
| 0.07874 | 0.04747 | 1.65863 | 31-51 | Dinner | Low Price |
| -0.07874 | ***** | ***** | 31-52 | Dinner | High Price |
| -0.07874 | **** | ***** | 32-51 | No Dinner | Low Price |
| 0.07874 | 0.04747 | 1.65863 | 32-52 | No Dinner | High Price |
| 0.0238 | 0.04583 | 0.51918 | 41-51 | Leisure | Low Price |
| -0.0238 | **** | ***** | 41-52 | Leisure | High Price |
| -0.0238 | *** | ***** | 42-51 | No Leisure | Low Price |
| 0.0238 | 0.04583 | 0.51918 | 42-52 | No Leisure | High Price |
| -0.45068 | 0.08955 | -5.03277 | NONE |  |  |

For the purpose of analysis CBC calculated certain levels by summing them to zero.
As a result standard errors and t-ratios were not calculated for these figures.
These are represented by *****

|  | 13111 |  | 13112 |  | 13211 |  | 23111 |  | 13121 |  | 13212 |  | 23112 |  | 3122 |  | 23211 |  | 1322 |  | 23121 |  | 232 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| City Centre | . 74862 | City Cenire | 74862 | Cily Centre | . 74862 | 15 mins | . 38587 | City Centre | 74682 | City Centre | 74862 | 15 mins | 38587 | City Centre | . 74862 | 15 mins | 38587 | City Centre | 74862 | 15 mms | 38587 | 15 mins | 38597 |
| $3^{*}$ Hotel | 1.12768 | $3^{*}$ Hotel | 1.12768 | $3^{3}$ Holel | 1.12768 | $3^{*}$ Hotel | 1.1276E | $3^{\text {3 }}$ Hotel | 1.12768 | 3* Hotel | 1.12768 | 3* Hotel | 1.12768 | $3^{*}$ Hotel | 1.12768 | $3^{*}$ Hotel | 1,1276E | $3^{*}$ Hotel | 1.12768 | 3* Hotel | 1.12768 | $3^{*}$ Hotel | 1.12768 |
| Dinner | 13805 | Dinner | . 13805 | No Dinner | -. 13805 | Dinner | 13805 | Dirner | 13805 | No Dinner | -. 138805 | Dinner | . 13805 | Dimner | . 13805 | No Dinmer | -. 13805 | No Dinner | -. 13805 | Dinner | . 23805 | No Dinner | -. 13805 |
| Leisure | 20413 | Leisure | 20413 | Leisure | 20413 | Leisure | 20413 | No leisure | . 20413 | Leisure | 20413 | Leisure | . 20413 | No leisure | -. 20413 | Leisure | 20413 | No leisure | -. 20413 | No leisure | -. 20413 | Leisure | . 20413 |
| Low Price | 09874 | High Price | -.09874 | Low Price | . 09874 | Low Price | . 09874 | Low Price | 09874 | High Price | -09874 | High Price | -.09874 | High Price | -. 09874 | Low Pnce | . 09874 | Low Price | . 09874 | Low Price | . 09874 | High Price | . 09874 |
|  | 2.3172 |  | 2.1197 |  | 2.0411 |  | 1.9545 |  | 1.909 C |  | 1.8438 |  | 1.7570 |  | 1.7115 |  | 1.6784 |  | 1.63 |  | 1.5462 |  | 1.480 c |
|  | 10.1474 |  | 8.3290 |  | 7.5992 |  | 7.0602 |  | 6.7461 |  | 6.3195 |  | 5.7950 |  | 5.5372 |  | 5.3568 |  | 5.118 |  | 4.6936 |  | 4.3965 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 13222 |  | 12111 |  | 23122 |  | 23221 |  | 12112 |  | 12219 |  | 23222 |  | 22111 |  | 1212 |  | 1221 |  | 22112 |  | 12122 |
| Cily Centre | 74862 | City Cenire | . 74862 | 15 mins | 3858 | 15 mins | 38587 | City Cenire | 74862 | Cily Cenire | .74862 | 15 mins | 38587 | 15 mins | 38587 | Cliy Cenire | 7465 | City Conire | 74862 | 15 mins | 38587 | City Cenire | .74852 |
| $3^{*}$ Holet | 1.12788 | 4* Hotel | . 16513 | $3^{*}$ Hotel | 1.12768 | $3^{*}$ Hotel | 1.12768 | $4^{*}$ Hotel | 16513 | $4^{*}$ Hotel | . 16513 | $3^{*}$ Hotel | 1.12766 | $4^{*}$ Hote! | . 16513 | $4^{*}$ Hotel | 16513 | 4* Hotel | . 16513 | $4 \cdot$ Hotel | 16513 | 4 - Holel | 16513 |
| No Dinner | -. 13805 | Dinner | 13805 | Dinner | 13805 | No Dinner | -. 13805 | Dinner | . 13805 | No Dinner | . 13805 | No Dinner | -13805 | Dinner | . 13805 | Dinner | . 13805 | No Dinner | -. 1380 | Dinner | . 13805 | Dinner | . 13805 |
| No leisure | -. 20413 | Leisure | . 20413 | No leisure | -. 20413 | No leisure | -. 20413 | Leisure | . 20413 | Leisure | 20413 | No leisure | - 20413 | Leisure | 20413 | No leisure | . 20813 | Leisure | . 20413 | Leisure | 2041 | No leisure | -20413 |
| High Price | -. 098874 | Low Price | 09874 | High Price | -.09874 | Low Price | . 09874 | High Price | -.05674 | Low Price | . 09874 | High Price | -.09874 | Low Price | . 09874 | Low Price | . 09874 | High Price | -.09874 | High Prise | . 098874 | High Frice | -09874 |
|  | 1.4354 |  | 1.3547 |  | 1.3487 |  | 1.2701 |  | 1.1572 |  | 1.0786 |  | 1.0726 |  | 0.9915 |  | 0.9464 |  | 0.8811 |  | 0.7944 |  | 0.748 S |
|  | 4.2012 |  | 3.8755 |  | 3.8525 |  | 3.5612 |  | 3.1816 |  | 29405 |  | 2.9231 |  | 2.6964 |  | 2.5564 |  | 2,4135 |  | 2.2132 |  | 2.1147 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 22211 |  | 12221 |  | 22121 |  | 22212 |  | 12222 |  | 33111 |  | 22122 |  | 22221 |  | 33112 |  | 33211 |  | 22222 |  | 33121 |
| 15 mins | 38587 | Cily Centre | .74862 | 15 mins | . 38587 | 15 mins | . 38587 | City Centre | 74863 | 30 mins | -1.13448 | 15 mins | . 38587 | 15 mins | 38587 | 30 mins | -1.13448 | 30 mins | -1,13448 | 15 mins | 38587 | 30 mins | -1.13448 |
| 4* Hotel | 16513 | 4* Hotel | . 16513 | $4^{*}$ Hotel | . 16513 | 4* Hotel | . 16513 | 4. Holel | 16513 | $3^{*}$ Hotel | $\underline{4.12768}$ | $4^{*}$ Hotel | .16513 | 4* Hotel | 16513 | 3. Hotel | 1.12768 | 3" Hotel | 1.12768 | 4. Hotel | 1651 | 3. Hotel | 1.12768 |
| No Dinner | -. 13800 | No Dinner | -. 13805 | Dinner | 13805 | No Dinner | - $1380{ }^{\text {c }}$ | No Dinner | -. 13805 | Dinner | . 13805 | Dinner | . 13805 | No Dinner | -1380¢ | Dinner | . 13805 | No Dinner | -. 1380 | No Dinner | -. 1380 | Dinner | 13805 |
| Leisure | . 20413 | No leisure | -. 20413 | No leisure | -. 20413 | Leisure | . 20413 | No leisure | . 20413 | Leisure | . 20413 | No leisure | -. 20413 | No letsure | -. 20413 | Leisure | 20413 | Leisure | 20413 | No leisure | -. 20413 | No leisure | -. 20413 |
| Low Price | 09874 | Low Price | 09874 | Low Price | 09887 | High P Pre | -. 09874 | High Price | -.09874 | Low Price | . 09874 | High Price | -09874 | Low Price | . 09674 | High Pnce | -.09874 | Low Price | . 09874 | High Price | -.09874 | Low Pnce | . 09878 |
|  | 0.7158 |  | 0.6703 |  | 0.5837 |  | 0.5183 |  | 0.4728 |  | 0.4341 |  | 0.3862 |  | 0.3076 |  | 0.2366 |  | 0.1580 |  | 0.1101 |  | 0.0255 |
|  | $2.045{ }^{\text {c }}$ |  | $1.954{ }^{\text {a }}$ |  | 1.7926 |  | 1.6792 |  | 1.5045 |  | 1.5436 |  | 14713 |  | 1.3601 |  | 1.2670 |  | 1.1712 |  | 1.1164 |  | 1.0262 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 33212 |  | 11111 |  | 33122 |  | 33221 |  | 11112 |  | 11211 |  | 33222 |  | 21111 |  | 11121 |  | 32111 |  | 1121 |  | 21112 |
| 30 mins | -1.13448 | City Centre | 74862 | 30 mins | -1.13448 | 30 mins | -1.13448 | City Cenire | 74862 | Cily Centre | . 74862 | 30 mins | -1.13448 | 15 mins | 38587 | City Centre | 74862 | 30 mins | - 7.13448 | City Centre | 7486 | 15 mins | 38587 |
| $3^{*}$ Hotel | 1.12768 | 5* Hotel | -1.29281 | $3^{*}$ Hotel | 7.12768 | $3^{*}$ Hotel | 1.12768 | 5 . Hole | -1.29281 | 5 . Holef | -1.29281 | 3. Hotel | 7. 12762 | 5* Hotel | -1.29281 | $5^{*}$ Hotel | -1.29281 | 4* Hotel | . 1651 | $5{ }^{*}$ Hotel | -1.29281 | $5^{*}$ Hotel | -1.29281 |
| No Dinner | -. 13805 | Dinner | . 13805 | Dinner | 13805 | No Dinner | -. 13805 | Dinner | 13805 | No Dinner | -13805 | No Dirner | -. 13805 | Dinner | 13805 | Dinner | 13805 | Dinner | 13805 | No Dinner | - 13805 | Dinner | 1380 |
| Leisure | 20413 | Leisure | 20413 | No leisure | -20413 | No leisure | -. 20413 | Leisure | 20413 | Leisure | . 20413 | No leisure | -20413 | Leisure | 20413 | No \|eisure | -20413 | Leisure | . 20413 | Leisure | . 20413 | Lelsure | 20913 |
| High Price | -.09874 | Low Price | . 09874 | High Price | -.09874 | Low Price | 09874 | High Price | -09874 | Low Price | . 09874 | High Price | -. 09887 | Low Price | 09874 | Low Price | 09874 | Low Price | . 0987 | High Pnce | -.09876 | High Price | -. 09874 |
|  | -0.0395 |  | -0.1033 |  | -0.1716 |  | -0.2502 |  | -0.3008 |  | -0.3794 |  | -0.4477 |  | -0.4660 |  | -0.5115 |  | -0.5284 |  | -0.5765 |  | -0.6635 |
|  | 0.9613 |  | 0.901 s |  | 0.8423 |  | 0.7786 |  | 0.7403 |  | 0.6843 |  | 0.6391 |  | 0.6275 |  | 0.5599 |  | 0.5895 |  | 0.561 |  | 0.5150 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 11122 |  | 32112 |  | 21211 |  | 11221 |  | 32217 |  | 21121 |  | 32121 |  | 21212 |  | 11222 |  | 32212 |  | 2112 |  | 32122 |
| City Centre | 74862 | 30 mins | -1.13448 | 15 mins | 38587 | Cily Centre | . 74862 | 30 mins | 1.13448 | 15 mins | . 38587 | 30 mins | -1.13448 | 15 mins | . 38587 | City Centre | 74862 | 30 mins | -1.13448 | 15 mins | . 3859 | 30 mins | -1.13448 |
| $5^{*}$ Hotel | -1.29281 | $4^{*}$ Hotel | . 16513 | 5* Hotel | -1.29281 | $5^{*}$ Hotel | -1.29281 | $4^{*}$ Hotel | 16513 | 5* Hote! | -1.29281 | $4^{*}$ Hotel | .16513 | $5 \times$ Hote | -1.29281 | $5 \times$ Hotel | -1.29281 | 4* Hotel | . 16513 | 5* Hotel | -1.2928 | $4^{*}$ Hotel | 16513 |
| Dinner | 13805 | Dinner | 13805 | No Dinner | -13805 | No Dinner | -. 13805 | No Dinner | -. 13805 | Dinner | . 13805 | Dinner | . 13805 | No Dinner | -. 13805 | No Dinner | . 13805 | No Dinner | . 13805 | Dinner | 1380 | Dinner | . 13805 |
| No leisure | -. 20413 | Leisure | 20413 | Leisure | . 20413 | Na leisure | -. 20413 | Lersure | 20413 | No leisure | -20413 | No leisure | -20413 | Leisure | 20415 | No leisure | 20413 | Leisure | . 20413 | No leisure | -20413 | No leisure | -20413 |
| High Price | -.09874 | High Price | -.09874 | Low Price | 09874 | Low Price | 09874 | Low Price | . 098974 | Low Price | . 09874 | Low Price | . 09874 | High Price | -.09874 | High Price | -09874 | High Price | -.09874 | High Price | -.09874 | High Price | -. 09874 |
|  | -0.7096 |  | -0.7255 |  | -0.7421 |  | -0.7876 |  | -0.8045 |  | -0.8743 |  | -0.9367 |  | -0.9396 |  | -0.9851 |  | -1.0020 |  | -1.0718 |  | -1.1342 |
|  | 0.4921 |  | 0.4835 |  | 0.4761 |  | 0.4545 |  | 0.4473 |  | 0.4172 |  | 0.3919 |  | 0.3908 |  | 0.3734 |  | 0.367 |  | 0.342 |  | 0.321 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 21221 |  | 32221 |  | 21223 |  | 32222 |  | 31111 |  | 31112 |  | 31211 |  | 31121 |  | 31212 |  | $31+22$ |  | 31221 |  | 31222 |
| 15 mins | . 38587 | 30 mins | -1.13448 | 15 mins | . 38587 | 30 mins | -1.13448 | 30 mins | -1.13448 | 30 mins | -1.13448 | 30 mins | -1.13448 | 30 mins | -1.13448 | 30 mins | -1.13448 | 30 mins | -1.13448 | 30 mins | -1.13448 | 30 mins | -1.13448 |
| 5 5-Hotel | -1.29281 | 4* Hotel | . 16513 | 5 5 Hotel | -1.29281 | 4* Hotel | 16513 | $5^{*}$ Hotel | -1.29281 | 5. Hotel | -129281 | $5^{*}$ Hotel | -1.29281 | $5^{*}$ Hole! | -1.29281 | $5{ }^{\circ}$ Hotel | -1.29291 | $5^{*}$ Hotel | -1.29281 | 5 " Hotel | -1.29281 | $5^{*}$ Hotel | -1.29281 |
| No Dinner | -.13805 | No Dimner | -. 13805 | No Dinner | - 19805 | No Dinner | -. 13805 | Dimner | 13605 | Dinner | . 13805 | No Dinner | -13805 | Dinner | . 13800 | No Dinner | -. 13805 | Dinner | . 13805 | No Dinner | -. 13805 | No Dinner | -13805 |
| No leisure | -20413 | No leisure | -. 20413 | No leisure | -. 20413 | No leisure | -. 20413 | Leisure | 20412 | Leisure | . 20413 | Leisure | 20413 | No ieisure | -20413 | Leisure | 20413 | No leisure | - 20413 | No leisure | -.20413 | No leisure | -20413 |
| Low Price | 09874 | Low Price | . 09874 | High Price | -09674 | High Price | -09874 | Low Price | . 09874 | High Price | -09874 | Low Price | . 09874 | Low Pnce | . 09874 | High Prise | -.09874 | High Price | -09874 | Low Price | . 09874 | High Price | -.09874 |
|  | -1.1504 |  | -1.2128 |  | -1.3479 |  | 4.4103 |  | -1.9864 |  | -2.1839 |  | 2.2625 |  | -2.3946 |  | -2.4600 |  | -2.5921 |  | $-2.6707$ |  | -2.8682 |
|  | 0.3165 |  | 0.2974 |  | 0.2598 |  | 0.2441 |  | 0.1372 |  | 0.1126 |  | 0.1041 |  | 0.0912 |  | 0.0854 |  | $0.074{ }^{\text {S }}$ |  | 0.0692 |  | 0.0568 |

## Appendix L

## Socio-Economic Groupings

## Socio-Economic Groupings

| Social <br> Grade | Social Status | Head of Households Occupation |
| :--- | :--- | :--- |
| A | Upper middle class | Higher manegerial, administative or professional |
| B | Middle class | Intermediate manegerial, administrative or professional |
| Cl | Lower middle class | Supervisory or clerical, and junior manegerial, <br> administrative or professional |
| C2 | Skilled working class | Skilled manual workers |
| D | Working class | Semi and unskilled nanual workers |
| E | Those at lowest levels of subsistance | State pensioners or widows (no other earner), casual or <br> lowest grade workers |

Source: JICNARS


[^0]:    ${ }^{1}$ e.g. A two car family may be indifferent between having two Ford Escorts, two Toyota Corollas, or one of each

[^1]:    ${ }^{2}$ Reservation price for product A - as per Table 3, less optimal selling price of $£ 200$ for product A - as per Table 4

[^2]:    ${ }^{3}$ Hotel accommodation is classified by star ratings between five star and one star where one star corresponds to the lowest category of hotel and five star to the bighest.

[^3]:    Number of Missing Observations: 4

[^4]:    Number of Missing Observations: 4

[^5]:    Number of Missing Observations: 4

[^6]:    Number of Missing Observations: 4

[^7]:    Number of Missing Observations: 4

[^8]:    Number of Missing Observations: 4

[^9]:    Number of Missing Observations: 4

[^10]:    Number of Missing Observations: 4

