



## The Problem With Price

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## INTRODUCTION

In the ever-changing business world of today, with increased globalization and low-cost manufacturing from Asia, competitive advantage is key. Competitive jostling is a never ending battle as continuous product innovations result in shifts in competitive advantage. Consequently the question most companies ask themselves is 'How do we get more?' This is one of the hardest questions to answer.

The strategy of cost cutting, whilst intuitively making sense, is usually a road to ruin as some smarter competitor, often working from a new geography with a lower cost base, undercuts you. Very few companies can sustain the cost advantage for long. Equally, attempts to increase sales by any means such as ramping up the promotions (or cutting costs) or increasing the value added, takes considerable time. In fact, raising prices has to be seen as the easiest option to give more profit.

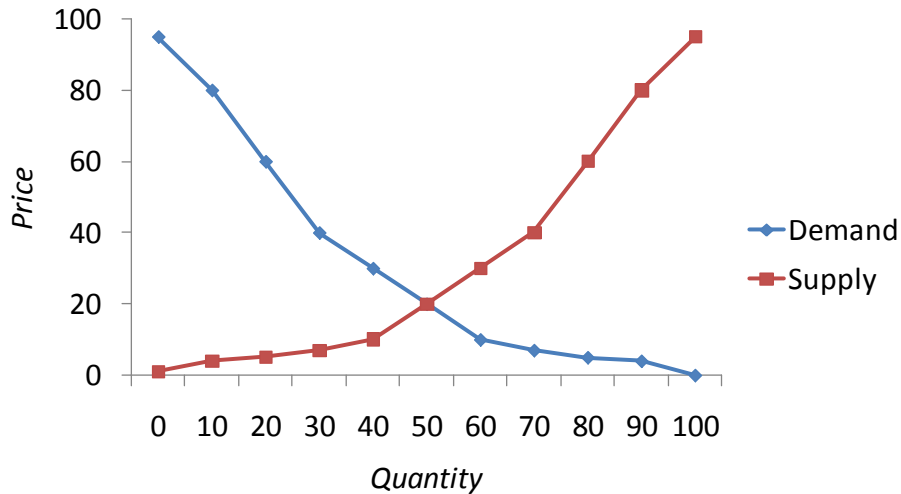
Therefore the big question that needs answering is this: "if the price is increased, will sales volume decline and if it does, will it be more or less proportionately to the rise in price?". No company wants to leave money on the table and so obtaining the optimum price has always been a key issue to marketers. However, asking customers to quantify the price they would be willing to pay for a product or service is one of the hardest questions for any researcher as the customer may not feel that they can answer such a question or if they can it may not represent their true actions if such a price was introduced to the market.

This paper explores these quandaries and lays out some principles of pricing research.

## THE BASICS OF PRICING

Testing the price acceptability of a product or service in comparison to the competition is the main principle of any pricing research. The basic law of demand is the relationship between the price people or companies want to pay and the amount they want to buy. However, the relationship needs to be carefully considered in business to business markets because the rules differ considerably according to whether the product is a commodity (grains, minerals, metals, etc.) or manufactured. We can recognize a simple supply and demand curve that illustrates output will settle at an optimum price.

**Figure 1 - Simple Supply & Demand Equilibrium**

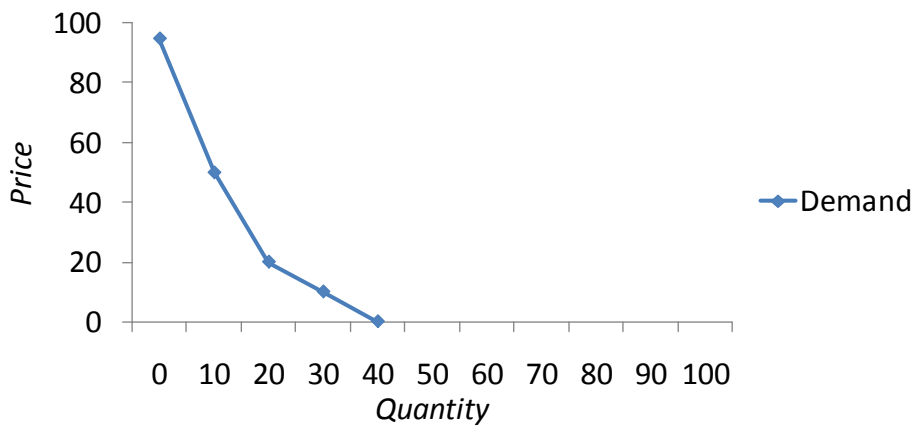


## PRICING IN INDUSTRIAL MARKETS

Commodities within any one group are totally undifferentiated; they are classified according to a standard such that their price depends upon supply and demand. Speculation about a shortage of the commodity or the belief that it is an investment hedge will have short term and maybe dramatic effects on the price. As the commodity becomes processed into cement or steel, it gains value, and the sophistication of the processing method enables a premium price to be charged. As the design element of a product increases and the value of the raw material becomes less important, so pricing becomes more complex. The price for design skills is more difficult to pitch.

A product with a considerable element of design becomes "differentiated" from those with which it competes, and buyers are faced with the problems of placing a value on the various benefits on offer. Normally a differentiated product allows the seller to take advantage of the multiplicity of features and charge a higher price. This is not to say that the customer is insensitive to price – rather that he perceives differences in the choice of products available and selects one which best meets his needs. However, the price elasticity, or the level to which demand changes with a price change, may be quite low with differentiated products. This may be because of the uniqueness of the offering but it could also be because of difficulties of switching industrial products. Getting a new product specified, changing the inventory and persuading the users in the company that the new product is just as good may introduce a serious level of inelasticity.

**Figure 2 - A Product With An Inelastic Demand**



Of course, design is only one factor which buyers evaluate when considering the price of a product. They will also attribute a value to after sales service, reliable delivery, speedy delivery, quality, longevity as well as the brand. A strong brand gives the buyer confidence and enables companies to command a premium price even if the products are similar to the competition. Any pricing research needs to take these factors into consideration.

## HOW CAN RESEARCH HELP?

The link between prices charged and volumes sold is not a hard one to grasp; the difficulty arises when the question is asked – With an X% price increase, how much will it affect our sales? A price increase may result in a customer's reduced consumption, switching to a substitute product or stop buying your product altogether. On the other side of the coin, your company may be missing the chance to gain additional profit through charging more – it is all down to customers' value perceptions and what they will pay.

When looking at pricing strategies, information on customer value, the market competition and costs are all paramount to the customer value created and whether the given price can be sustained. However, taking all this into consideration still doesn't help us place a value on customer inertia and product or company brand. Therefore, pricing research should be seen more as a tool to confirm assumptions rather than scientifically pinpoint exact market dynamics.

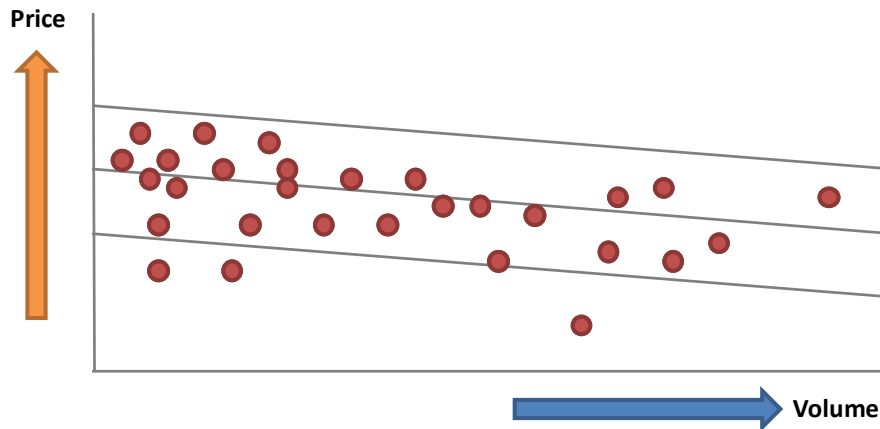
## FIRST STEPS IN PRICING RESEARCH – DESK RESEARCH

The first question that needs to be asked before commissioning any piece of pricing research is; are there any past indicators of what has happened to sales figures when prices have changed in the past? Historical data can give useful clues but needs to be handled carefully, especially if a price change resulted in negligible volume effect because competitors' prices may have moved in line at the same time. It is therefore vital when looking at past price data that awareness and knowledge of the competition's past pricing strategies is available. Another problem with historical data is that it is just that, past data. We are interested in predicting future trends and changes and the relationship between price and volume



established in the past may not hold true with different market forces. However, a scatter graph of prices paid for customers buying different volumes has to be a starting point in gauging the slope of the demand curve.

**Figure 3 - Dispersion Graph Of Customers**



## PRIMARY RESEARCH – DIFFERENT PRICING TECHNIQUES USED

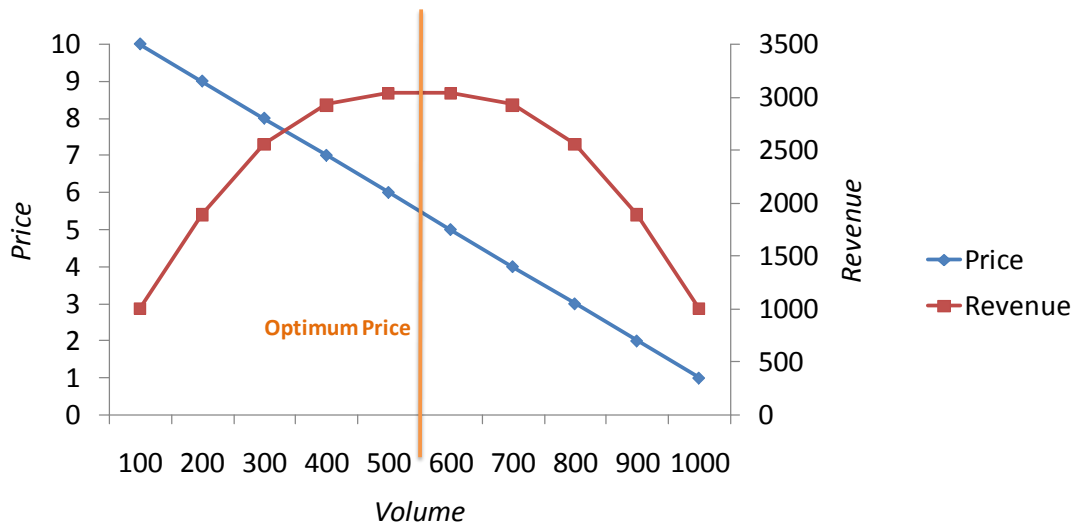
Primary research is based on customers' predictions of what their possible actions would be if a price increase/decrease was to take place. It is one thing asking the customer how much extra he or she will pay for a new and improved product/service but in the cold light of day, will that person put their money where their mouth is?

Due to the hypothetical nature of such questioning caution needs to be taken with any research conclusions.

Various research techniques have been developed to overcome nuances in the data collected and so giving more robustness to research recommendations.

The only sure way of obtaining accurate price elasticity information is to carry out a test market – in other words to create a situation where customers are exposed to real price changes with real demand pressures. This is almost impossible to engineer and so we use the best alternative that was developed by two economists (Gabor Granger) in the 1960s. Customers are asked to say if they would buy a product at a particular price. The price is changed and respondents again say if they would buy or not. From the results we can work out what the optimum price is for each individual and by taking a sample of customers we can work out what levels of demand would be expected at each price point across the market as a whole (the demand curve in the following diagram). Using this estimate of demand, the price elasticity (or expected revenue) can be calculated and so the optimum price-point in the market established.

**Figure 4 - Gabor-Granger Price Volume Curve From Market Research**



A more sophisticated variation of the Gabor Granger technique is called **Van Westendorp** pricing. Price Sensitivity Meter (PSM) was devised, in the 1970s, by a Dutch psychologist, Peter van Westendorp. This technique uses four questions about a product or service and requires the respondent to rate each price on a scale from too cheap to too expensive.

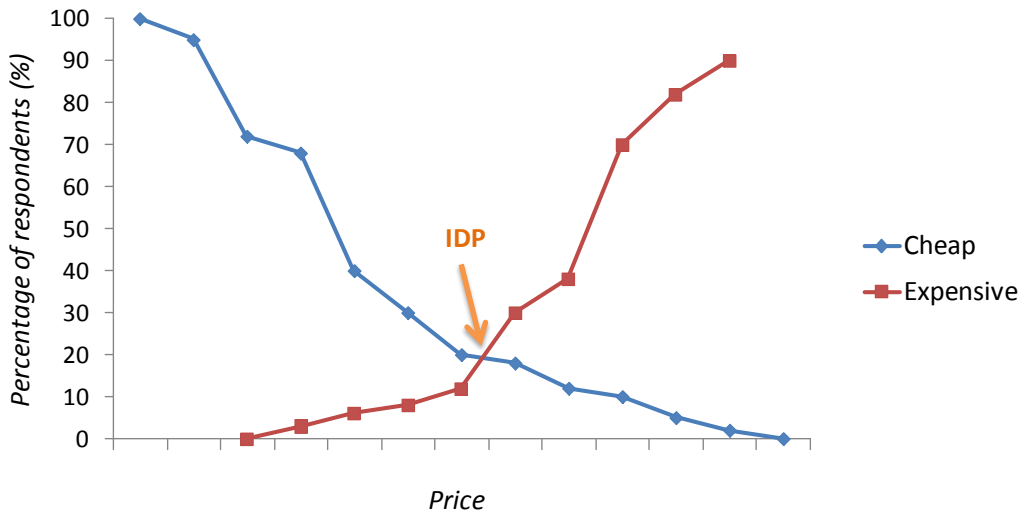
The respondent is asked the following four questions concerning a product or service they could receive at various different price rotations:

1. At what price would you consider this product/service to be cheap?
2. At what price would you consider this product/service to be too expensive?
3. At what price on the scale would you consider this product/service to be priced so cheaply that you would worry about its quality?
4. At what price would you consider this product/service to be too expensive to consider buying it?

Analysis of the data yields several distributions shown in the following diagrams. Various intersections on the curves yield inputs for pricing decisions and the resultant price difference helps to determine the pricing options that can be used.

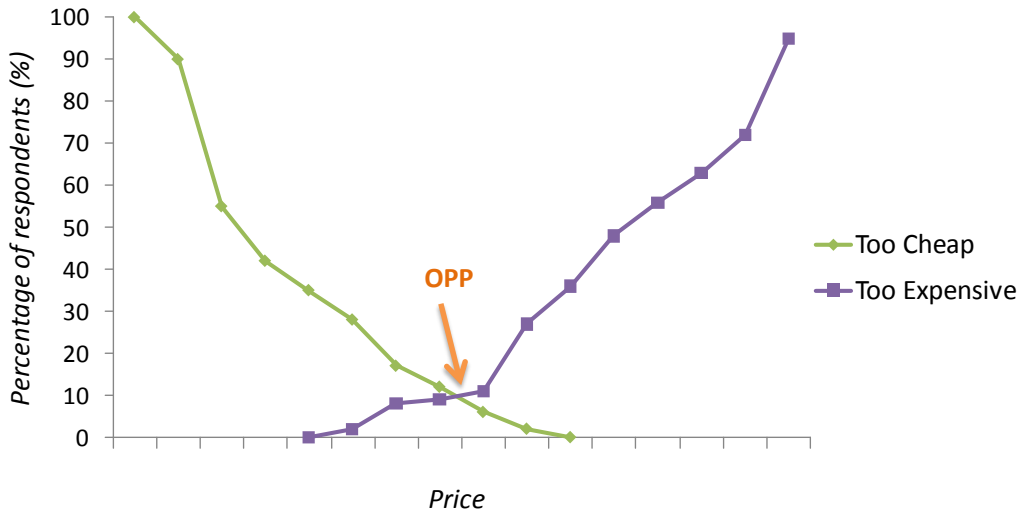
The Indifference Price Point (IDP) is where the number of respondents who regard the price as cheap is equal to the number of respondents who regard the price as expensive (see Figure 5 below). According to Van Westendorp, this generally represents either the median price actually paid by consumers or the price of the product of an important market leader. IDP is based on customers' experiences with price levels in the market and will change with market conditions.

Figure 5 - Indifference Price Point



The Optimum Pricing Point (OPP) is the price at which the number of customers who see the product as **too** cheap is equal to the number who see the product as **too** expensive. This is typically the recommended price.

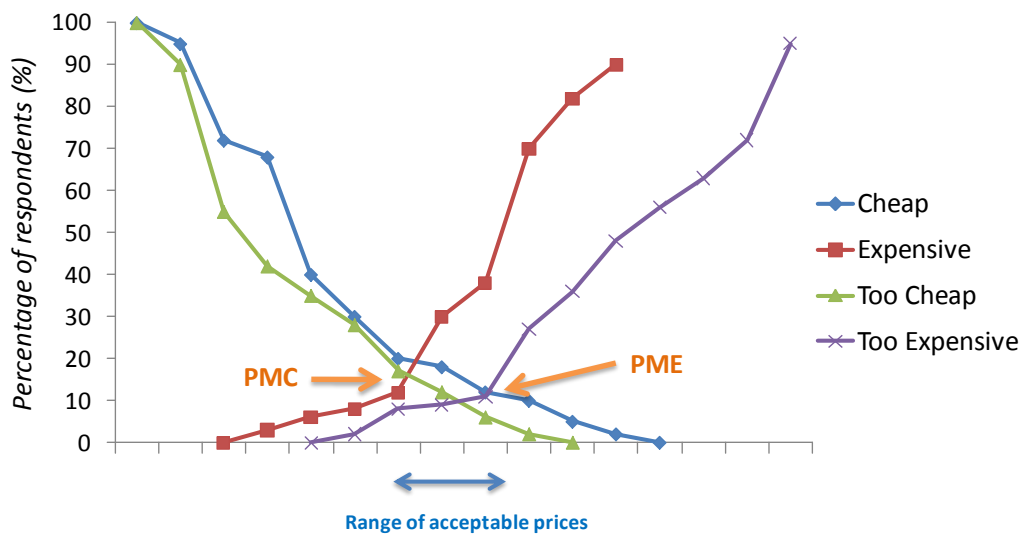
Figure 6 - Optimum Pricing Point





The range of prices between the Point of Marginal Cheapness (PMC) and the Point of Marginal Expensiveness (PME) is the Range of Acceptable Prices for a product. According to Van Westendorp, in established markets, few competitive products are priced outside this range – see Figure 7.

**Figure 7 - Range Of Acceptable Pricing**



Pricing a product is one of the most challenging decisions marketers have to make. The problem is even larger when a price is needed for a product that is conceptually new. Because customers are not familiar with it, benchmarks for price are not available and the purchasing decision is an unknown quantity. A price too high would scare would be customers off while underestimating a product's value can be a costly mistake, since the introductory price often fixes its worth in the buyer's mind. It is therefore crucial that a larger than normal sample size is used so that all findings are statistically robust. For many companies, this can make pricing research expensive, unless combined with a range of other measurements that can establish where customers would welcome an improvement in either products or services and what premium they would pay for those improvements. This type of research looks at what the opportunities are for up-selling (obtaining more value for the products and services) and where there are unmet needs that a company could exploit by making a more attractive offer.

## CONJOINT ANALYSIS – TRADE-OFF RESEARCH

In the 1960s and 70s, academics were looking to understand how people made decisions. If you just asked people, they tended to say what was top-of-mind, or what they thought the interviewers wanted to hear and so what people said didn't necessarily reflect what they actually did.

However, the academics noticed that almost all choices involve compromises and trade-offs as the ideal is rarely attainable (we might want a Rolex watch, but we typically have to compromise to something a little less expensive for example).



In their studies, the academics found that by looking at how people made selections between a limited number of products involving different trade-offs, they were able to accurately predict which choices would be made between previously untested products. Conjoint Analysis was born and is based on the understanding of how people make choices between products or services, so that businesses can design new products or services that better meet customers' underlying needs.

To understand how conjoint analysis works, we need to be able to describe the products or services consistently in terms of **attributes** and **levels** in order to see what is being traded off.

An **attribute** is a general feature of a product or service – say size, colour, speed, delivery time. Each attribute is then made up of specific **levels**. So for the attribute colour, levels might be red, green, blue and so on.

For example, we might describe a mobile telephone in general terms using the attributes, weight, battery life and price. A specific mobile phone would be described just by levels say as 80 grams, 8 hour battery costing £150.

Conjoint analysis takes these attribute and level descriptions of product/services and uses them in interviews by asking people to make a number of choices between different products.

For instance would you choose phone A or phone B?

	Phone A	Phone B
<b>Weight</b>	200g	120g
<b>Battery life</b>	21 hours	10 hours
<b>Price</b>	£70	£90

In practice you can see how difficult some of the choices can be. The thought process might be:

*"Phone A is bulkier, but has the battery life and lower cost, but Phone B is smaller and neater yet more expensive and with lower battery life. Lighter weight is worth more than the loss of battery life, and it's probably worth the extra £20, so I'd choose B in this instance."*

By asking for enough choices (and with good design to minimise the number of choices you need to ask), the researcher can work out numerically how valuable each of the levels is relative to the others around it – this value is known as the **utility** of the level.

The problem for business researchers until now has been the cost of carrying out conjoint analysis. In order to arrive at reliable results it is necessary to carry out at least 100 interviews and we feel more comfortable with 200 or more. These interviews have to be face to face so that respondents can view the concept cards and make their choices (in practice the choices are usually presented on a laptop computer screen). Think 200 face to face interviews scattered across Europe and you are thinking €300,000+ survey cost. For many companies this will break the market research budget. However, the same project



carried out on line could be carried out for a fifth of the price. The conjoint on-line interview would use the telephone to recruit and qualify the respondent and collect base data while the conjoint choices are made by the respondent in a self-completion interview that is e-mailed back to the research company.

## **SIMALTO – SIMULATED MULTI-ATTRIBUTE LEVEL TRADE-OFF**

Trade-off grids are an approach to collecting information from respondents that recognises that an individual customer cannot have everything. He or she has to make trade-offs to get the best product they can buy. The classic trade-off is between price and quality, but in practice when considering most purchases we make trade-offs between different features and service levels and even emotional risk.

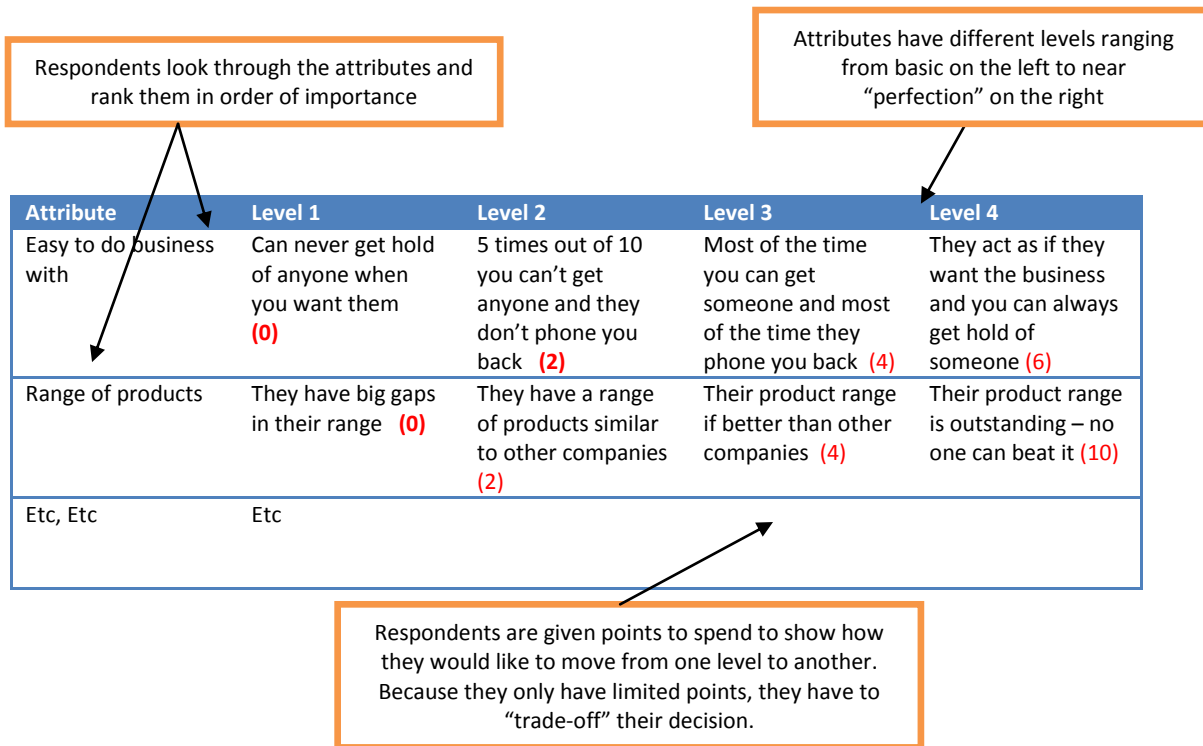
A trade-off grid is a method of getting underneath a customer's general wish list to really understand what they must have and what are the nice-to-haves. This means we can see what is really valuable to a customer and, with a few further questions, we can also understand what their priorities would be for trading up or improving the current system.

The factors that a customer may be interested in (also called attributes) are laid out on a grid showing different levels (see figure 8 below) – low levels of the attribute at the left rising to higher levels towards the right hand side of the grid. With the grid, we can then ask the respondent to complete a number of tasks. Typically the first task is to find out where he or she would want a “first class supplier” to perform – this sets the ideal standard. Next we can ask where your company is currently performing. We can then ask them to do a number of different things – for instance to prioritise improvements in your company's performance one square at a time, or to ask questions such as if you had more of x, what would you be prepared to sacrifice from y.

Each level of attribute has a number which is used by the respondent in a “points spend” question where they are asked to show how they would spend 30 points (by way of example) to improve the offer they receive at present. The way that the points are spent indicates the trade-off that each respondent is prepared to make to move from one level of delivery that they receive at the present to one that could be offered (but at a higher price). This trade-off enables us to see specifically what a supplier could do to win more business and at what price. The outcome is thus a detailed understanding of where the customer would like improvements and what those improvements should be.



Figure 8 - SIMALTO Grid



SIMALTO grids have the advantage over conjoint in being easier to apply in business to business situations. For example, we often have to test many attributes in business to business customer value propositions and this creates a complex task for the development of the conjoint choices. Respondents get tired in conjoint interviews which require them to make dozens and dozens of choices between attributes or to consider concepts, which, after the 30<sup>th</sup> one has been shown, begin to look the same. Also, the output from a SIMALTO survey makes complete sense to a manager in business who wants to know what proposition should I go for and how much should I charge. They are saved from the black box mystery of the conjoint utility values.

## THE GUIDING HAND OF THE AGENCY

With product life cycles shrinking, customers becoming more sophisticated and demanding, and tougher local and even global competitors emerging in most markets, markets are shifting at faster rates than ever. The payoff for getting your company's pricing strategy right has never been more important.

Pricing research usually concentrates on customers' sensitivity to pricing. This price sensitivity is driven by the nature of the market, the competitive environment, the target within that market, the differentiation level of the product or service, and the value of the brand.

The responsibility of any research agency is that of the being a realist. The subject of pricing research is an emotionally charged area and who can really say what a customer will do until



it comes to them actually putting their hand in their pocket. We need therefore to have the confidence to say that a specific price is the one that respondents have *stated* they would buy at – but we know that it is all hypothetical and that sometimes a ballpark is needed to enable a test market experience so to gather buying patterns on how buyers/users will react.

Pricing research can be used to obtain an understanding of the pricing levels for specific product service offerings. It can also be used to attain an understanding of the additional services customers subscribe to and what additional price they would pay, to identify the elasticity of demand for a product or service and to establish where customers would welcome an improvement in either products or services offered and what premium they would pay for those improvements.

*Nick Hague is a Director of B2B International. He is the author of other white papers and co-author of the recently published book: Market Research In Practice – A Guide To The Basics; Kogan Page*



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