

# Development Discussion Papers

## Market Analysis and the Assessment of Competitiveness in Project Appraisal

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### Abstract

The paper highlights the need for a methodological framework on which to base projections in project appraisal applications. Following an initial definition and sizing of the relevant market of the project, the market is analysed in terms of which are the main customer groups, what their needs are, and how well existing suppliers serve these needs. The process should identify market performance gaps against which the project can position itself and develop relevant market competencies so that it can be assessed to be capable of out-performing competitors in meeting market expectations in a sustainable manner. This should be the essence of any project appraisal. The analyst should seek to find those elements of competitiveness that are likely to make the project a successful enterprise in its market. The quantification part of this exercise should lead to the modelling and compilation of the cash flow projections. The projected numbers should be a reflection of the competitive analysis.

**Keywords:** Market analysis, consumer behaviour, project competitiveness, project appraisal, market competence, market positioning, marketing orientation.

**JEL codes:** D11, D61, H43, L21, M31

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## Introduction

When a project is being appraised, a set of quantitative assumptions are compiled in the form of a cash flow model which is supposed to reflect the outcome of the proposed capital investment and the impact it is likely to have in its environment. It is quite easy to assert that the project products will sell at prices that grow at constant rates every year or that the volume of sales will be increasing at two percent a year or that operating costs will be increasing at the expected rate of inflation and so on. Who can argue with the wisdom of a simple projection and indeed what can you put in its place? The fact is that the projected cash flow model must be fed with numerical data that must be furnished one way or another. Whether one actually spends ten days or two minutes in arriving at a number to be used in the appraisal, it is still no more than just another number in the projections. It is not suggested that analysts do not take due care to gather the “correct information” but rather that there is always a high degree of residual uncertainty in any attempt to forecast the future. Indeed, the likelihood of a project unfolding in real life the way it was modelled and in the specified quantities as projected in the cost-benefit analysis evaluation are infinitely small<sup>1</sup>.

There are commonly two problems with projecting data. The first is, that no matter how much one researches and thinks through an estimate one is still forced to reduce it down to a single number. This, by itself, means that the projected number is assigned 100% probability of occurrence. When looking into the future we cannot project anything as certain. We can however assign probabilities of occurrence to various outcomes but that

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<sup>1</sup> In a post-research study of 1015 World Bank projects it was found that the projected results were grossly off-target. See Pohl Gerhard and Mihaljek Dubravko, “Project Evaluation and Uncertainty in Practice..” The World Bank Economic Review, Volume 6, Number 2, pages 255-277, May 1992).

would mean that a single cash flow projection would not suffice. Even by allowing the values of only a small number of variables to vary there are thousands of possible combinations of probabilities each generating different cash flow scenarios. To this end, risk analysis based on the Monte-Carlo simulation technique has come to the rescue and is increasingly being made use of in project appraisal applications<sup>2</sup>.

The second problem involves the actual data gathered and how it is modelled. To make an accurate projection, one must be able to understand what are the key success factors of an economic enterprise (be it in the public or private sector), employ a conceptual model or framework that takes these factors into consideration and test whether the project as designed is in a position to compete successfully in its market environment. The way project appraisal is generally been conducted suggests that project analysts are not too concerned with such questions as what makes a successful business and whether the project has what it takes to compete in its market. In the experience of the author, this attitude hides a lack of skills, which is the major cause of project evaluation failures.

Looking at the problem from a practical perspective, the question is how it would be possible to improve the analysis without having to subject the analyst to tedious business school type of training or without having to commission specific market research for each appraisal project. Indeed, would any of these options guarantee a solution to the problem? Although marketing background and professional market research can be helpful, they are neither necessary nor sufficient to ensure a thoughtful market analysis in project evaluation. In most cases it will be like crushing a walnut with a hammer. What is needed

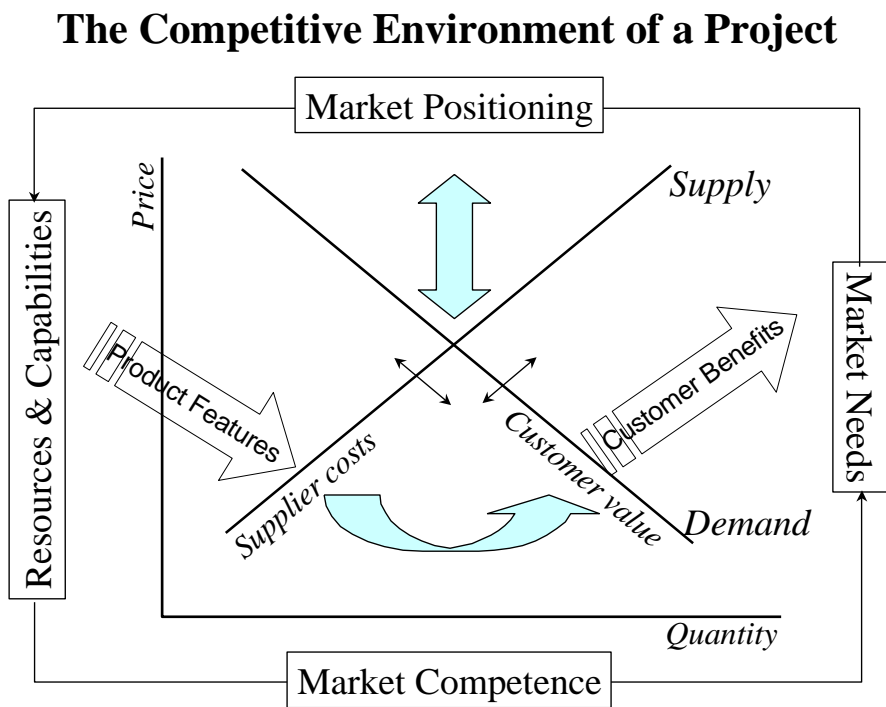
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<sup>2</sup> The author has developed "RiskMaster" a risk analysis software program that allows the application of the Monte-Carlo Simulation technique on spreadsheet models. See Savvakis C. Savvides, "Risk Analysis in Investment Appraisal", Project Appraisal Vol. 9, 1, pages 3-18, March 1994. Beech Tree Publishing.

is awareness of the market framework in which a project will operate and an ability to use common sense to gather and analyse the available market data.

**The market and competitive analysis framework**

The market and competitive analysis framework is proposed as a conceptual background by which to gather, analyse and interpret data about the project and its market. Consider the diagram below:



The core of the model is the project’s market. Competitiveness revolves around the interactions of suppliers and consumers in the market. Suppliers compete in a market by using available resources to serve market needs better than their competitors. Their offerings take the form of product features designed to generate customer benefits that meet customer needs. To the extent that existing competitors fail to meet market

expectations they leave behind market performance gaps. In order for a new project to be successful, therefore, it must identify unsatisfied market needs for which it can develop competencies and position itself so as to fill market performance gaps. Project competitiveness is assumed to be a factor of the ability of the project to develop *market competencies* and to correctly *position* itself in the market as part of a continuing self-correcting process.

### ***The project market***

Projects exist and operate within markets. In order to pose and attempt to answer the project competitiveness question it is imperative to first define the project relevant market and disaggregate both the demand and supply into its basic component parts.

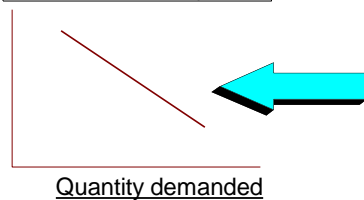
### ***What is a market?***

The essence of a market is epitomised by the act of exchange. People strive to improve their quality of life by seeking to acquire (consume) products and services that are perceived to be capable of satisfying their needs. In order to achieve this, they enter into exchange agreements with other people (suppliers) who likewise have their particular need profiles and economic assets (or capabilities) so that through the act of exchange (be it labour services in return for a wage or tomatoes for potatoes) both parties consider themselves better off. Economic value is nothing more than the net benefit (or utility) generated through exchange. An economy based on free market exchange, by and large, directs economic resources into their most productive uses as each economic unit strives to maximise its own welfare by producing those goods that it is *capable of producing efficiently* from a spectrum of products that other *people want most*.

The value at which a product is sold (or price) and the amount of it being exchanged in a market situation results from the demand and supply profiles of consumers and suppliers. Micro-economic theory is based on a conceptual model, which however, assumes the existence of a homogeneous product, perfect knowledge and perfect accessibility to the market place. Moreover, micro-economic theory identifies that demand and supply can change as a result of a number of factors, which with the exception of the price of the product, are usually assumed to remain constant during the period of analysis. A change in any of these factors represents a shift (left or right) in the position of the demand or supply curve. The demand and supply functions of a micro-economic model are illustrated in the diagram below:

### Determinants of demand and supply

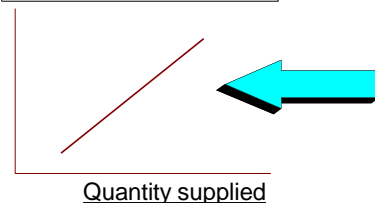
$$Q_{xd}=f(P_x, Y, T, P_y, N_d)$$



#### ▪ Demand

- Price of product ( $P_x$ )
- Real income ( $Y$ )
- Tastes and Preferences ( $T$ )
- The price of related goods ( $P_y$ )
- Population ( $N_d$ )

$$Q_{xs}=f(P_x, P_i, T_c, t_k, N_s)$$



#### ▪ Supply

- Price of product ( $P_x$ )
- Prices of inputs of production ( $P_i$ )
- Technology ( $T_c$ )
- Taxes and subsidies ( $t_k$ )
- Number/capacity of suppliers ( $N_s$ )

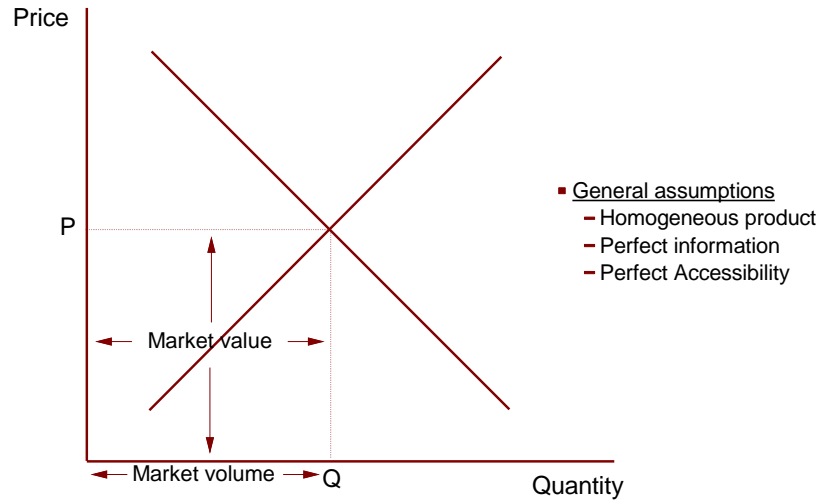
Market volume (the quantity consumed in a certain period) and market value (the money value of the transactions in a period) can be measured at the equilibrium point where “Demand” meets “Supply”<sup>3</sup>. This is illustrated in the diagram below,

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<sup>3</sup> The existence of monopolistic power or the ability of firms to differentiate their products may cause the price to be higher and quantity lower than the equilibrium point under conditions of perfect competition.

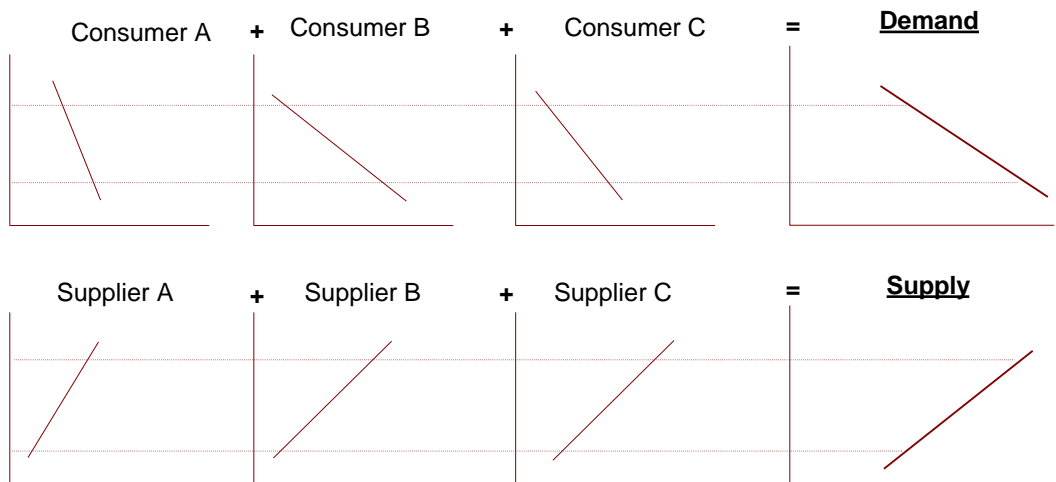


**The market demand and supply**



A market demand and supply curve is an aggregate of the individual demand and supply functions of each consumer and supplier participating in that market. As illustrated in the diagram below, the market demand and supply curve is the horizontal summation of the demand and supply curves of each consumer and supplier respectively.

**Determining market demand and supply**



A market therefore is made up of many individual consumers and suppliers where each consumer has a different demand function and each supplier has a different supply function. The search of a project’s competitiveness begins from this basic fact. Since in

reality, all consumers and suppliers are different then there must be more than one way for a project to attain and sustain a competitive position. But it would surely be a daunting task to attempt to find an optimum competitive strategy, even if it was ever possible to gather all the necessary information in order to define each individual demand and supply function. But fortunately, although everybody is different many market participants actually have typically similar demand and supply profiles. And it is not by chance that this is so. For example, two persons of the same sex, age and social background who are exposed to similar stimuli (school, family, values, etc.) are likely to want similar things and have similar market behaviour. There may of course exist differences in personalities, but there again, one can identify and categorise types of people to some basic character traits (the aggressive, the revolutionary, the conservative, the fashion follower, etc.). Hence, while everybody is different, it is usually possible with some basic market research to understand and describe the types of customer groups (market segments) that make up the market.

The determinant factors of demand and supply together with the tools of market segmentation provide the keys to finding a competitive marketing strategy for the project. To understand demand, one should define the behaviour of the typical market segments making up the demand of a product with respect to each segment's responsiveness to price movements, aspects of quality (tastes and preferences) and, where relevant, changes in income. On the supply side, competitors should be compared according to their ability to reduce costs and add features (through technology, efficient use of inputs of production and creativity) so that customer value is maximised.

Marketing is sometimes defined as the art of creating loyal customers. A new project should identify its potential customers and justify why it can win them over from the

competition. Out of the many project scenarios that are possible from varying the elements of a market offering there are a number which, given the capabilities of the project, have the potential for making the project a competitive one. But first, one should define and size-up the market that is immediately relevant to the project.

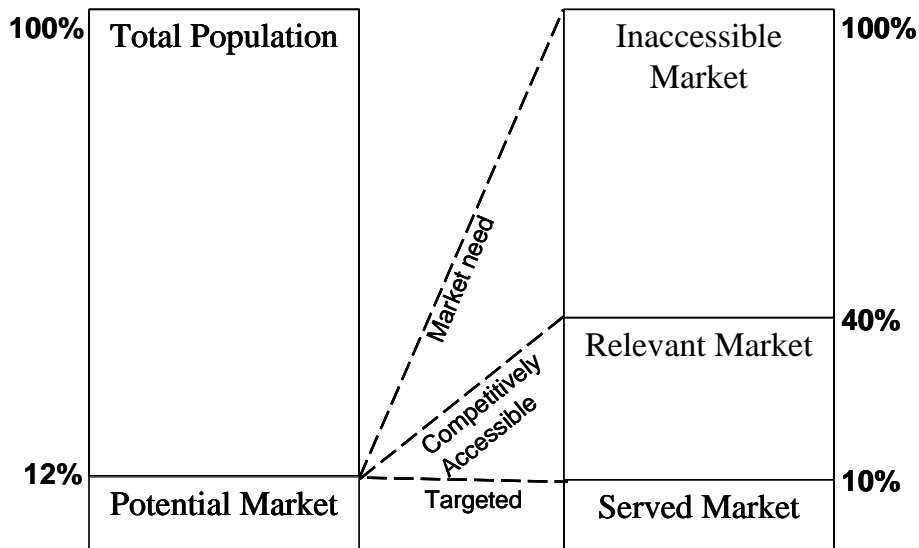
**Defining the project relevant market**

The need to define a market usually determines the type of definition selected. As Day, Shocker and Srivastava (1979) point out:

“Ultimately all product-market definitions are arbitrary. They exist because of recurring needs to comprehend market structures and impose some order on complex market environments. But this situation could not be otherwise. One reason is the wide variety of decision contexts which dictate different definitions of boundaries”.

A market, as defined in this paper, is conceptually different from the commonly used term of an industry. While an industry refers to products with similar physical and technical characteristics, a market refers to products that serve the same basic market need. The boundaries of the market within which the project is expected to operate therefore depend

**Levels of market definition**



on the degree of *substitutability* between its products and other potentially competing products. The boundaries of such definition are often difficult to establish and even harder to achieve with a high degree of consensus<sup>4</sup>. Within this framework, the “relevant market” is simply that part of the total potential market that is competitively accessible to the project. It is the sum of the served markets of the project and its competitors.

In general, the project’s market should be defined in a way that permits the inclusion of all major competitors and their customers but excludes those that are only remotely related to it. A description of the project concept around the core market need becomes the starting point for the market analysis as it facilitates the identification and selection of the likely competitors and market segments of the project. In public sector projects, the perceived social need that the project is supposed to serve and the likely demand for its products or services is the very first market aspect of the project that has to be researched clarified and agreed. As Jenkins and Harberger<sup>5</sup> point out:

“... too often in the public sector one finds that feasibility studies have been commissioned before administrators or policy makers have a clear idea of the nature of the output and the economic and social benefits that are to be expected from it. When this occurs the terms of reference given to the consultants ... are usually so general that they are left in the awkward position of having to second-guess the government in deciding what its objectives are and what components of a potential expenditure program should be included in the project.”

In defining the relevant market, the analyst should also consider whether the products of the project will be sold domestically or traded internationally. For most products sold in the international market there is usually an abundance of information from specialised

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<sup>4</sup> Moran (1973) expresses the problem as follows:

“To some degree, in some circumstances, almost anything can be a partial substitute for almost anything else. A (fifteen cent) stamp substitutes to some extent for an airline ticket.”

<sup>5</sup> Jenkins, Glenn P. and Harberger Arnold C. 1991 “Cost-Benefit Analysis of Investment Decisions” 2:4. Harvard Institute for International Development.

journals, trade organisations and international consulting firms. However, unless the product is totally homogeneous and transport is not a major cost item, one needs to define the project relevant market as consisting of only those countries and types of customers within the countries that are accessible or cost effective to target. Markets that are evidently uneconomical to aim for should be excluded. For example, in the case of a fertiliser project in Cyprus the total world consumption of compound fertilisers for 1988 was estimated (using the supply-side market size estimate formula -see market size chapter below) at 99 million tonnes.

Supply Side World Market Estimate - example  
**Supply and Demand for Compound Fertilisers**  
 (million tonnes) - 1988

	Production	Imports	Exports	Consumption
West Europe	30.5	5.8	-7.6	28.7
East Europe	16.1	0.2	-1.1	15.2
Africa	1.9	0.9	-0.2	2.6
North America	29.1	0.3	-0.4	29.0
Latin America	10.0	0.6	-0.1	10.5
Asia/Oceania	11.6	2.3	-0.9	13.0
Total world market	99.2	10.1	-10.3	99.0

*Source: Fertecon*

Was this, however, the relevant market for the project under review? After commissioning a specialised consulting organisation in London to help the team of analysts define the market for the project it was soon realised that the Cyprus project could only consider a very small part of the total international market as accessible or cost effective to aim for.

The Cyprus fertiliser plant could only sell to countries in Western Europe, which were still using a particular type of compound fertiliser that Cyprus was in a position to produce and could deliver in relatively small batches. The size and growth prospect of the sub-market that was relevant to the Cyprus project was very different, and far smaller, than the total

Relevant Market for Cyprus Project Estimate - example

**Consumption of Compound Fertilisers**  
(million tonnes) - 1988

	Consumption
France	6.80
Italy	2.40
Spain	2.40
Greece	1.20
Saudi Arabia	0.20
Libya	0.20
Local Market	0.04
Relevant market	13.24

Source: Fertecor

world fertiliser market. While the total world market for 1988 was estimated at about 99 million tonnes, the project relevant market was only 13 million tonnes. The relevant market included only the consumption of countries that were considered to be competitively accessible by the project, taking into consideration factors such as distance and the capacity of the Cyprus project to serve these markets, given its scale, production capabilities and the opportunities available to transport fertiliser shipments in the required frequency to these countries.

***Estimating market size***

Market size refers to the volume and value of the products or services consumed, or expected to be consumed, in a period. There are two ways one can go about estimating market size; supply-side and demand-side measures. In supply-side estimates, volume and value are measured from the point of view of production and trade intermediaries. In demand-side estimates, market size is derived from studying the behaviour of the consumers in the market place.

To arrive at a supply-side market size estimate<sup>6</sup> for a given period based on official published statistics for a country one should apply the following formula<sup>7</sup>:

$$M_s = P + (I - E) + (S_o - S_c)$$

Where:  $M_s$ = Market size (Supply side definition)

$P$  = Production of relevant products

$I$  = Imports of relevant products

$E$  = Exports of relevant products

$S_o$ = Opening stocks

$S_c$ = Closing stocks<sup>8</sup>

To arrive at the demand-side market size estimate one should apply the following formula:

$$M_d = n q p$$

Where:  $M_d$ = Market size (Demand side definition)

$n$  = penetration (number of customers)

$q$  = total volume purchased per customer in period<sup>9</sup>

$p$  = average price paid

The demand-side market estimate is very helpful especially in situations where information is not readily available. The formula can easily be applied with only some basic population statistics, such as the number of households, and a few survey questions to establish likely patterns of consumption among various groups of the population.

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<sup>6</sup> For an example of a supply size estimate of market size see the Compound Fertilizers calculation in the previous section.

<sup>7</sup> Value statistics are published based on ex-works, wholesale, F.O.B. or C.I.F. prices (not retail prices). To arrive at the total value of the market one has to add the profit margins of the intermediaries involved in the delivery of the product to the consumer and taxes/duties.

<sup>8</sup> ( $S_o - S_c$ ) can be assumed away if the market is stable. It can be estimated based on the percentage level of opening and closing stocks that major suppliers keep. This information is usually available from the companies' published accounts of recent years.

<sup>9</sup> Purchase quantity per customer ( $q$ ) in a period can be the product of:

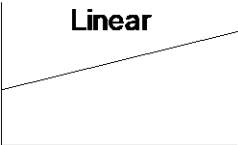

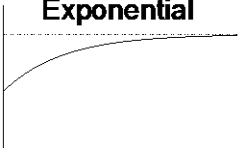

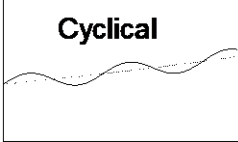

$$q = f a$$

where:  $f$  = Frequency (number of purchases in a year)

$a$  = Amount purchased (average quantity purchased)

**Projecting growth**

There are various growth trends one can use to project market size variables. By gathering enough historical data it is usually possible to fit a growth line. A linear projection, however, is not always the most suitable way to model growth patterns for market variables. For example, market share projections lend themselves to better modelling through the employment of exponential growth rates while prices of international marketed commodity goods may follow cyclical or even erratic paths. The diagram below demonstrates some growth patterns that can be used in project appraisal projections<sup>10</sup>:

<u>Growth Pattern</u>	<u>Formula</u>	<u>Input parameters</u>
 <p>Linear</p>	$y = a + bx$	 <ul style="list-style-type: none"> <li>➤ Value Year 0</li> <li>➤ Growth rate</li> </ul>
 <p>Exponential</p>	$y = a + (b-a) (1-e^{-x/\delta})$	 <ul style="list-style-type: none"> <li>➤ Starting value</li> <li>➤ Growth margin</li> <li>➤ Time scale</li> </ul>
 <p>Cyclical</p>	$y = y_0(1+r)^x + \frac{1}{2} a \sin \frac{2\delta(x+b)}{T}$	 <ul style="list-style-type: none"> <li>➤ Value Year 0</li> <li>➤ Growth rate</li> <li>➤ Amplitude</li> <li>➤ Period</li> <li>➤ Shift</li> </ul>

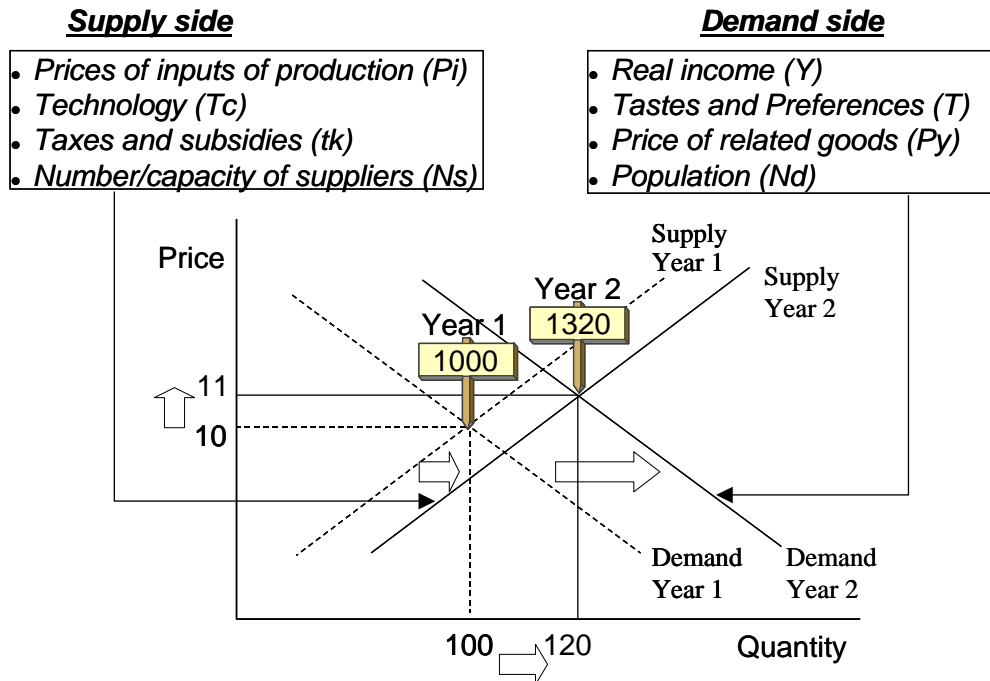
Historical data alone are, quite often, not a sufficient base for forecasting the future development of the market. The analyst must also look to the future by reviewing the current state and the expected changes in the determinant factors of demand and supply.

<sup>10</sup> The examples displayed are some of the functions included in the “Investment Analysis Toolpak” by Master Solutions. This is a software module included with “RiskMaster for Windows” version 1.0 by which a set of Microsoft Excel functions are provided to enable the projection of various growth patterns like exponential growth, smooth growth, life-cycle and cyclical which are useful in investment appraisal applications. For example, providing five parameters to the "CYCLICAL" function (base, growth rate, amplitude, period and shift) can easily plot a cyclical projection.



Market forecasts should reflect how factors like income, tastes, technology and prices of related products might affect the development of the market during the life of the project.

## What Drives Market Growth?



A change in any of the above factors causes a shift in the demand and supply curve. A shift in demand or supply initially brings the market into a transitional disequilibrium phase and, subsequently into equilibrium whereby a new price and quantity relationship is established.

Some markets may be at a stage of almost perpetual disequilibrium. For example, the market for personal computers, propelled by advances in technology and acute competition between many suppliers (who have access to the technology) as well as the ever increasing higher standard of living (and better education) of the population base, is almost constantly keeping the market equilibrium in a state of flux and this is expected to be so for some years to come. In the fertilisers market, the introduction of huge supplies from Morocco in

the late eighties was expected to have the market at disequilibrium, pushing prices down, for many years.

In assessing market growth, the analyst must consider whether the market is at an equilibrium stage and to what extent possible changes in any of the determinant factors (including the introduction of the project itself) are likely to affect the projected price and quantity through their impact on demand and supply. Sometimes, a market that is going through a long disequilibrium stage is easier to predict. The factors causing the turbulence can be identified and at least the direction of the projections in the first, but in present value terms most important years would be correct. A market, on the other hand, which is at a stage of relative equilibrium, where the many market forces affecting price and quantity cannot be easily assessed, poses a bigger problem. A growth rate error of a single percentage point can sometimes make the difference between a viable and non-viable project! So, is this the Achilles heel of project appraisal? How can anyone forecast accurately with so many uncertain variables affecting quantity and price?

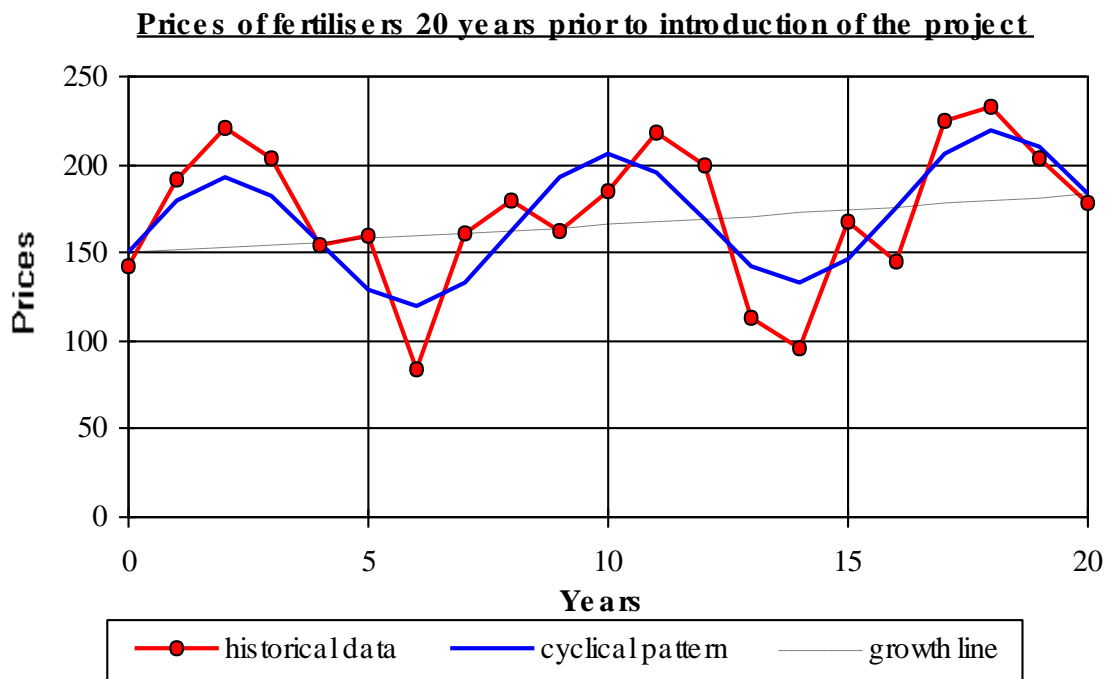
The author believes that there can be no correct answer. There are some things, however, an analyst should bear in mind. Sophistication and complexity do not always lead to better predictions. The more sophistication you put in, the better modelling you need, in order to take care of the many relationships of the variables you use and to arrive at the weights of importance to be attached to each parameter. Econometric modelling is one attempt to use economic theory to specify the relationships and arrive at a prediction based on forecasts of such variables. Even when this is possible however, econometric modelling suffers from one basic deficiency. It relies heavily on past data to forecast the future. To give an example, take the case of an econometric study that aimed at forecasting tourist arrivals in Cyprus. The historical fact that increases in the level of income in the source countries

(GDP) was a reliable predictor of tourist arrivals in the 70s and 80s, when there was a shortage of supply of beds is, according to some critics, of little relevance to the current situation. Common sense would suggest that the competitiveness of Cyprus as a Mediterranean tourist destination is being eroded because of many other rather recent, or current, factors such as the deterioration of quality of service, the strong local currency and the restrictions and constraints imposed on European tour operators through the monopolistic practices of the national airline. These factors are either qualitative in nature or not historical enough to be used in an econometric forecast.

A more sound advice for the project analyst would be to keep the prediction simple but relevant to the logical conclusion to be derived from a thoughtful assessment of both the historical facts gathered and any expected changes in the determinant factors during the life of the project. One should try not to fall into the trap of fitting lines to historical data and thinking that as a result of mathematical sophistication alone one will end up with a more accurate prediction. If it were that simple to predict the future, there would not be a need to take a risk about anything. The fact that historical data may suggest some trend or pattern does not mean that extending it into the future would predict well. Take for example the prices of internationally traded goods (e.g. mineral products and commodities) that generally exhibit cyclical fluctuations. The cycle size is never the same and the risk of ignoring the fact that there is almost equal probability for the projected prices to follow a downward rather than an upward path can be devastating to the project. To give an example, in appraising a project regarding a chemical factory producing fertilisers, after studying historical data, the analysts fitted and projected a cyclical pattern of international prices. They only got one thing wrong. Instead of the starting year of the project being on

an upturn, it was in fact on a downturn. As a result, a few years after implementation the plant ran into liquidity problems and closed down.

The problem is that any single projection has by definition only an infinitesimally small chance of being accurate, while the impact of even a very small error in the prices or quantities projected can be tremendous. The disaggregation of an identified pattern into its basic parameters can therefore be useful only within the context of risk analysis. Historical data can be analysed to determine the potential variability of the underlying parameters of a pattern to be projected. Consider the following example that illustrates how historical data may be used to derive probability distributions that can be used in a Monte-Carlo simulation type of risk analysis:



The observed data displayed in the example above show some cyclical pattern (smoothed by the continuous cyclical line in the above graph). A cyclical pattern can be defined by four basic parameters:

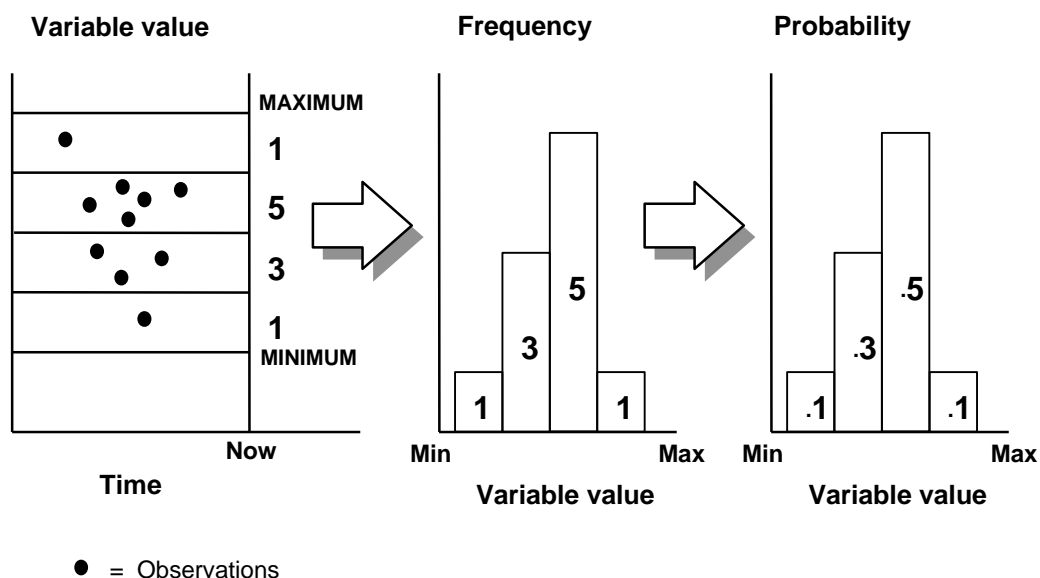
Growth rate: The growth rate of a line of best fit for the projected period (indicated by the dotted line in the graph).

Cycle Period: The time duration of a cycle.

Amplitude: The distance between the highest and lowest point of a cycle.

A shift factor: The point of the cycle period that is assigned to the first year value. This factor determines whether the first years of the project will be on an up-turn or a down-turn trend.

These four parameters and possibly an additional random error factor can define a realistic cyclical path that can be used to project fertilizer prices over the project horizon, which in this example is ten years. By plotting a regression line for all sets of consecutive ten-year periods contained in the data it is possible to derive frequency distributions of the values possible for the “growth rate” variable which can then be converted to a probability distribution to be used in a risk analysis application. Similarly, probability distributions can be derived for the other parameters in the cyclical function. For example, the possible cycle periods (e.g. 3-8 years) or the amplitude of a cycle (e.g.100-240) can be plotted in frequency distributions such as the one displayed below:



It is also possible to observe whether any correlations exist between the parameters. For example, it may be more realistic to correlate positively the “cycle period” values to the “amplitude” values generated during a simulation run. That is to say that the distance from a low to a high point in a cycle is likely to be greater if the period of the cycle is longer.<sup>11</sup>

The result of a projection that is based on probability distributions as inputs is a probability distribution of the outcome (or its expected value and standard deviation). Through this process it is therefore possible to project growth and calculate the impact of the inherent variability of the parameters of a market growth function. The steps for projecting market growth patterns, using a Monte Carlo simulation program, are as follows:

- Identify the parameters of a function that can plot the pattern in the data
- Analyse the data to set the limits of possible variability for each parameter and derive frequency distributions; convert these to probability distributions
- Set correlation conditions where necessary and
- Through a process of simulation<sup>12</sup> arrive at a probability distribution of the expected outcome.

### ***The impact of market structure***

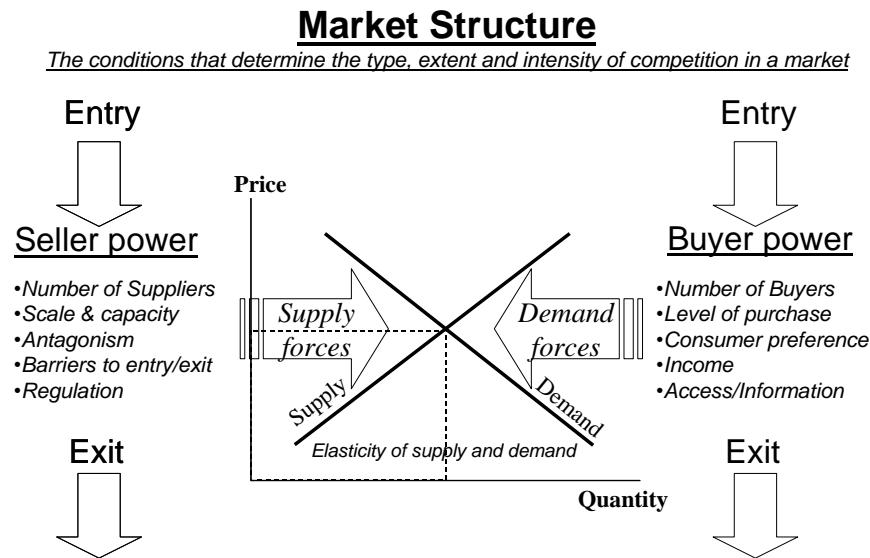
Market structure refers to the composition of the market, the relative power of suppliers in relation to customers and the intensity of competition. Is the market composed of many

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<sup>11</sup> The limits and weights of the probability distribution derived through this method should be extended somewhat to allow for the possibility of a future value being higher or lower than any historical record at hand and to take account of any expert information regarding expectations about the future.

<sup>12</sup> RiskMaster<sup>®</sup> by Master Solutions is a software package that can be used to apply risk analysis. The Windows version of RiskMaster also includes the “Investment analysis toolpak” which is a set of pre-defined

small suppliers with basically homogeneous products having little influence over price or is it composed of only a few major companies with differentiated products and a high degree of leverage in the market? Is the market regulated, subsidised, or over-taxed? What is the level of antagonism or collusion within the market? How easy and costly is it to enter or exit the market? These are the types of questions one need to answer in order to assess the impact of market structure on the project and vice-versa.

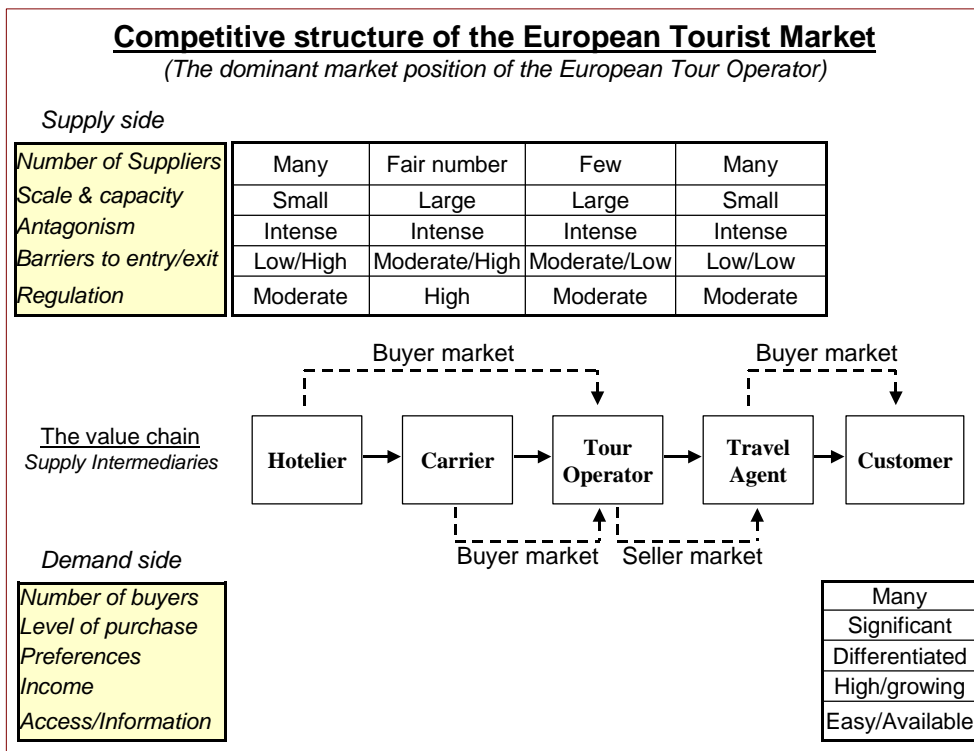


To illustrate how market structure factors affect the relationship of supply intermediaries in a market consider the following example of the market for holiday packages in Western Europe in the 1980s and early 1990s.

Big tour operators in Europe have been able to drive the market for holiday packages for more than twenty years. Following a period of mergers and take-overs in the source countries (notably Germany and the UK) a handful of tour operating companies reached a scale and level of know-how that afforded them a commanding market position. Their market dominance was driven, by the massive scale of their operations, and the bargaining

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Excel functions with which one can project growth patterns usually encountered in investment appraisal



power that this generates, coupled with their ability to apply marketing techniques to package the product so that the customer is satisfied. Moreover, major tour operating firms have been taking full advantage of the fragmented nature of the highly competitive supplier markets.

The “carrier” market, which consists of a fair number of airlines with an undifferentiated product, was hardly in a position to dictate its terms. Most airlines in Europe were national companies that were by and large shielded from competition. In the late 1980s because of the impending liberalisation of the airline market, many airlines found themselves in a survival struggle with their governments unable or unwilling to help. As the most critical factor for profitability in this market is aircraft occupancy, most of the airlines were only too happy to let go of their spare capacity to tour operators at marginal cost pricing or to charter out their aircraft to tour operating companies.

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applications.



In the “tourist accommodation” market, the tour operators were once again in a commanding position because on the customer side there was not a great demand for a differentiated product and on the suppliers’ side the product very rarely amounted to much more than having the location and the room available.

The third intermediaries, the travel agents, depended almost totally on the tour operators to provide them with competitive packages. They were simply a distribution channel, or resellers, for the tour operators to deliver their products to their customers. They added little value to the final product for the customer. The marketing mix, including the pricing, was being pretty much determined on a large scale by the tour operator companies who were creating the holiday packages offered through the travel agent. Hence, the tour operator being sufficiently big and armed with only his marketing skills has managed to become the supplier of the tourist product, relegating all the other suppliers to mere inputs.

In recent years, tour operators have been observed to invest some of their profits in gaining “shelf space” with travel agents and in acquiring equity share in strategic hotel accommodation units. Some of them, with varying success, have also invested in the airline business. This current move of the tour operators towards acquiring some of the inputs of their product is to some extent transforming the market realities. There are four market forces that seem to drive the tour operator towards a vertical integration policy and a dramatic re-examination of his role.

- The customer is increasingly becoming more demanding (quality conscious) with the tour operator seeking new ways to satisfy this need.
- The competition among tour operators, exacerbated by the very fact that “other competitors are moving in to their supplier markets” intensifies the quest for suitable acquisition targets, alliances and joint ventures.

- An over-supply of tourist beds and available air travel seats prompted hotel owners, airlines and tour operators to offer occasional special offers in the summer period. The market has reacted by learning the benefits of reserving a holiday package late. The phenomenon of late bookings is now a serious concern to the major tour operators because it allows competition from smaller tour operators and even travel agencies. The customer habit of studying the tour operator brochures and planning his vacation three to six months before is now changing.
- Buyer behaviour is expected to change even more rapidly with the introduction of information technology both at the travel agent level and in the home. By the year 2000 most homes in the developed world will be able to plan and book their holidays at home through browsing the Internet on their personal computer.

Within the above context, it becomes increasingly good business logic for tour operators to seek suitable partners in an attempt to secure the competencies that are likely to shape the successful “tourist product” supplier of the 21st century. The competitive organisation of the future will emerge as the one that can anticipate the position of the various players before the dust of the current restructuring of the market actually settles.

### ***Understanding market expectations***

“Necessity is the mother of invention”. In a modern society the maxim still holds true; only instead of inventing to satisfy one’s own needs, in the market place, suppliers invent to satisfy the needs of their customers. Those suppliers who understand the needs of their customers better than others and manage to develop appropriate skills and products are the successful ones. Hence, the first point of reference of any business should not be what the competition is doing but rather how to best serve the needs of their customers.

But needs vary by many factors; the situation of the consumer, his income and wealth, the people that influence his life, his level of education and ambitions, and so on and so forth.

Current management thinking does not pay enough attention to the importance of needs perhaps because it is very hard to understand and to draw general conclusions from, particularly because they change almost constantly. Yet, this is exactly where the key to business success lies. It is therefore imperative that in order to be competitive, one should adopt systems by which it is possible to closely monitor customer needs, learn the appropriate skills and technologies and respond accordingly in a quick and efficient manner. At any given point in time the competitive organisation should be aware of the current market expectations regarding the market needs which its business mission is to serve.

The need to go beyond the identification of customer needs and to genuinely try and understand their pulse, aspirations and the extent of their imagination cannot be overstated. Schnedler (1996), following market research by which Hewlett-Packard, using an approach, which they term “strategic market modelling” whereby they derived a customer-needs based segmentation and perceptions about competitors, concludes as follows:

“[Through] needs based segmentation and modelling [we were able to] define customer segments by “what the customer needs”. Knowing customers’ needs is [however] not enough. To have what we call a truly imaginative understanding of user needs, we must know the customers so well that we fully comprehend both their spoken and unspoken needs - now and in the future. We need to know what new products, features and services will surprise and delight them. We need to understand their world so well that we can bring new technology to problems that customers may not yet truly realise they have. Our ultimate goal is this deeper, richer level of understanding.”

The term “market expectations” refers to this deeper understanding of the customer and his expectations. It means anticipating what may make him happy even before he is able to realise it himself. “Market expectations” is therefore more than just a reference to the notional *ideal* product for a market segment. It means thinking and feeling like the consumer. The depth of market enquiry may thus be more important in understanding real

needs than the spread of market research. In other words, it may be more useful getting under the skin of a single consumer rather than asking a thousand to respond to a series of descriptive questions. Of course, once you touch upon a real customer need you may form a hypothesis and test its validity through more extensive market research. Business history has many examples of entrepreneurs who conceived great product ideas without ever conducting market research. They managed to do that just by studying people and being able to put themselves in their place in a genuine effort to truly understand their expectations, aspirations and fears.

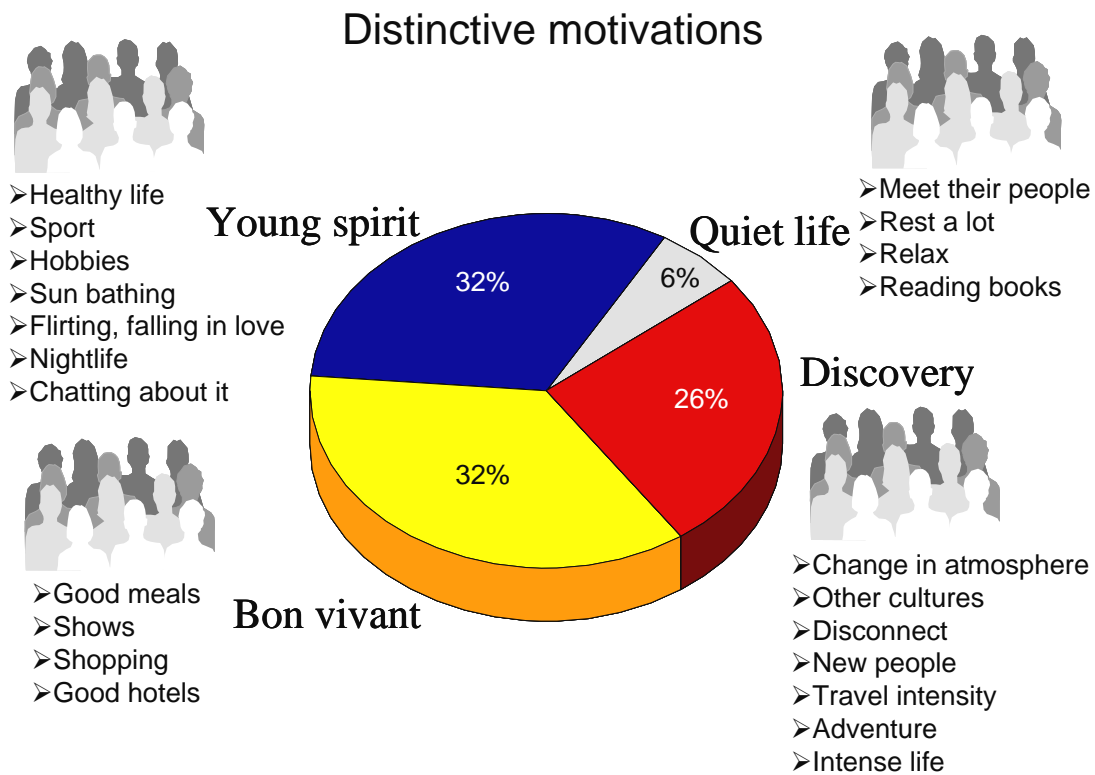
### ***Common versus distinctive needs***

Consumers do not understand technology or even products. They can only appreciate what products can do for them. As Levitt (1960) points out “people actually do not buy gasoline ... what they buy is the right to continue driving their cars.” The only thing people understand is their needs. They use their imagination and the resources available to them to find ways to best satisfy these needs.

In defining the limits of the relevant market, one seeks to identify common market needs that are shared by all consumers; these are used to identify potential customer groups and to size up the market (demand-side market definition). Common market needs may also serve as close approximations to the determinant choice factors by which products are perceptually positioned in the market (see “market positioning” below). But while all consumers making up market demand share the same broad market needs, they are also distinctly different by way of what customer benefits they seek and in the manner by which they try to fulfil those needs. It is this element that makes market need based segmentation a particularly useful tool in project appraisal.

Defining market segments in terms of distinctive needs and characteristics of the main customer groups can be a powerful tool for developing an effective competitive strategy. A market-need-based segmentation should always have some implications regarding the appropriate strategy and positioning of the project. In the example below, McKinseys have used ad-hoc consumer research to arrive at the following market segmentation, which is based on distinctive motivations of holiday package users:

## **Market segmentation for holiday package users**



*Source: McKinseys analysis*

A demographic/geographic description of segments (using variables like age, income, family status, location, etc.) further enhances the usefulness of market-need based segmentation. McKinseys describe the market-need-based segments shown in the above diagram by general and distinctive demographic characteristics:

Example of distinctive characteristics of different market segments of European consumers of holiday packages (users)

<i>Segments</i>	<b>Young Spirit</b>	<b>Bon Vivant</b>	<b>Discovery</b>	<b>Quiet life</b>
<i>Characteristics</i>				
<b>Destination</b>	Islands	Cultural Europe	Sunny Europe/North Africa	Close resorts
<b>Activity</b>	Same place	Circuit	Some excursion	Same place
<b>Information</b>	Friends	Image of the place	Brochures	Friends and relatives, previous visits
<b>Company</b>	Group of friends	Wife/husband Girlfriend/boyfriend	Group of friends	Family, alone
<b>Age</b>	16-30	46-65	31-45	31-45
<b>Job</b>	Student	Business-man	Worker, professional	Employee, professional
<b>Transport</b>	Charter	Coach	Scheduled	Charter

Source: McKinseys analysis

In order for segmentation to be useful it is necessary to gain a good understanding of customers and their needs. The importance of this point is expressed by McBurnie and Clutterbuck (1988) as follows:

“Raw market research data will not normally provide [the necessary] understanding. If it does, the lack of refinement will make it easy for competitors to follow”.

The defined market segments should be accessible, substantial in size and predictable. It is easy to select criteria that do not cluster people with similar market needs together or are so complex that make the defined market segments inaccessible and operationally useless. For example, it is increasingly being discovered by tourism organisations that, although grouping tourists on geographical or national criteria is a neat way of aggregating the tourism market (leaving no gaps or double counting), it inevitably leads towards market segments whose members have little in common in terms of predictable market behaviour. Such segmentation is therefore of little use for the development of competitive strategy. As illustrated in the McKinsey’s example, recent efforts to analyse the European tourist

market go beyond national borders emphasising the motivations, the personal and situational characteristics of typical groups of consumers across Western Europe.

Factors that determine consumer choice usually fall into two broad categories; quality and price. Although price is conceptually straightforward in all markets (it is always important to get the lowest price possible for a given product<sup>13</sup>), “quality” can have various dimensions and manifestations. It is not enough to assert that a project will provide products of high quality. In every market, quality has to be defined in terms of the fundamental market needs that a product aims to satisfy. In the summer holiday package market for example, although there are many distinctive benefits that various segments seek to have, it may be possible to reduce the basic market needs to a short list such as:

- Suitable sun and sea location
- Comfortable staying conditions
- Entertainment/fun
- Affordability/Price

Market needs represent the basic determinants of consumer choice<sup>14</sup>. They are the dimensions in which consumers perceive and position the various products in the market. Each market segment attaches a different level of importance to each of the basic market needs characterising the relevant market thereby giving rise to different “consumer need profiles”.

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<sup>13</sup> There are a few rare exceptions to this general rule. For example, in some cases where the price is taken to be an indication of quality, such as in the case of some table wines, a very low price may discourage a prospective consumer.

<sup>14</sup> Price and income can also be important determinant factors but which for the purpose of analysis can be defined, as customer needs. For example, the need to buy a low-priced product that is within one’s income capabilities can be expressed as the need of the customer to seek a product that is “affordable” or simply “low cost”.

***Identifying market performance gaps***

Market performance gaps refer to the notional distance between market expectations and the level of satisfaction (or customer value) attained by the products and services of current suppliers. A market performance gap applies both to the reasonable expectations of existing as well as potential customers. To give an example, consider the case of ice-cream consumption in Cyprus. The import of ice-cream products as well as the basic raw materials (milk powder and flavours) was restricted up until the end of 1995. Following the signing of the GATT agreement the market was flooded with imported ice-cream products. The prices were sometimes 100% more expensive than before. Yet consumption, as well as overall customer satisfaction was more than doubled. Before 1995, the Government of Cyprus kept refusing to give licences to import ice-cream products arguing that there is over capacity locally and that therefore the market is fully served. The only thing that such a policy achieved was to severely limit the capacity of local producers to satisfy the market. With import restrictions in place, local producers faced a secured market which however, because of a huge performance gap was in fact less than half in volume and even significantly less in value than what it could potentially have been if it was properly catered for. The very government intervention that limited competition, and provided them protection, was in fact the reason why the local suppliers could not take full advantage of their full potential, as it also condemned them to lack of access to the best raw materials and the latest technology and most importantly, deprived them of a truly competitive environment which would enable them to develop in a market driven way.

To describe a market performance gap, it is important to understand the dynamic nature of competition and the evolution of markets. Markets are driven by consumer needs.



Although the basic human needs never change, the importance of each need depends on the particular situation of the consumer. For example, someone who is hungry is more likely to care about finding food than going to the opera. On the other hand, there is always a latent need for entertainment. The way people seek to satisfy this need can manifest itself in different forms and shapes. People develop expectations as to how they get satisfaction from a wide spectrum of product possibilities. These expectations are driven by technological advancements, information, life-style trends, and so on. The impact of these changes is that market expectations almost constantly shift across time and place. A business should fix its vision on clearly defined market needs and attempt to keep up with, as well as influence, the level and nature of market expectations.

Since market expectations are moving targets, it follows that the direction and size of market performance gaps also change constantly. It is the strong belief of the author that in the 1980s, there was a disorientation of business thinking away from this simple fact of life. What is of vital importance is the endeavour of a firm to pursue the fulfilment of customer expectations and where possible to help shape them in a way that affords it a sustainable competitive advantage. The pre-occupation of looking at “industries” and checking oneself with its “perceived close competitors” should never take precedence over an enterprise’s attempt to understand, shape and satisfy the market expectations of its customers<sup>15</sup>.

A successful new product should capture the imagination of the consumer. But to do that, it is necessary that one understands both the needs of the potential customer and the way that technology and other economic resources can be employed to bring about the desired

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<sup>15</sup> Those market segments that happen to bear the market need that it is the business mission of the company to serve.

result. A competitor can attempt to fill a market performance gap by employing to his advantage a number of critical supply-side success factors. The nature of the project and its environment affects, in broad terms, the allocation of weights of importance for such factors. For example, “scale” and “distribution leverages” are vital factors for success in the beer industry when one considers the economic logistics of fast moving consumer products. This does not mean, however, that a project without scale or distribution advantages cannot compete successfully in the beer market. Small breweries, for example, managing to “differentiate” their brands can also be successful as a result of adopting a competitive strategy more suited to their capabilities and the special needs of specific market segments.

A project can aim to use available resources to create capabilities<sup>16</sup> such as “scale”, “distribution coverage”, “information”, “flexibility and responsiveness” and so on, to create product features which are likely to give it a competitive edge in the market.

Sources of project capabilities may be found in many areas. The list is endless:

- Technology factors: Advanced production technology, flexibility of supply, efficient processing of information, purchasing economies, production economies, patents, licences.
- Human factors: Labour skills, experience, motivation, knowledge areas, training quality, creativity and culture, an efficient organisational structure, management quality and expertise, quick decision-making, corporate synergies,
- Other factors: Access to capital, efficient internal communication channels, market leadership in related markets, joint-ventures, successful related products, strong institutional image and advertising effectiveness, an efficient/wide distribution channel coverage, good relations with agents, exclusive agencies, superior service ability.

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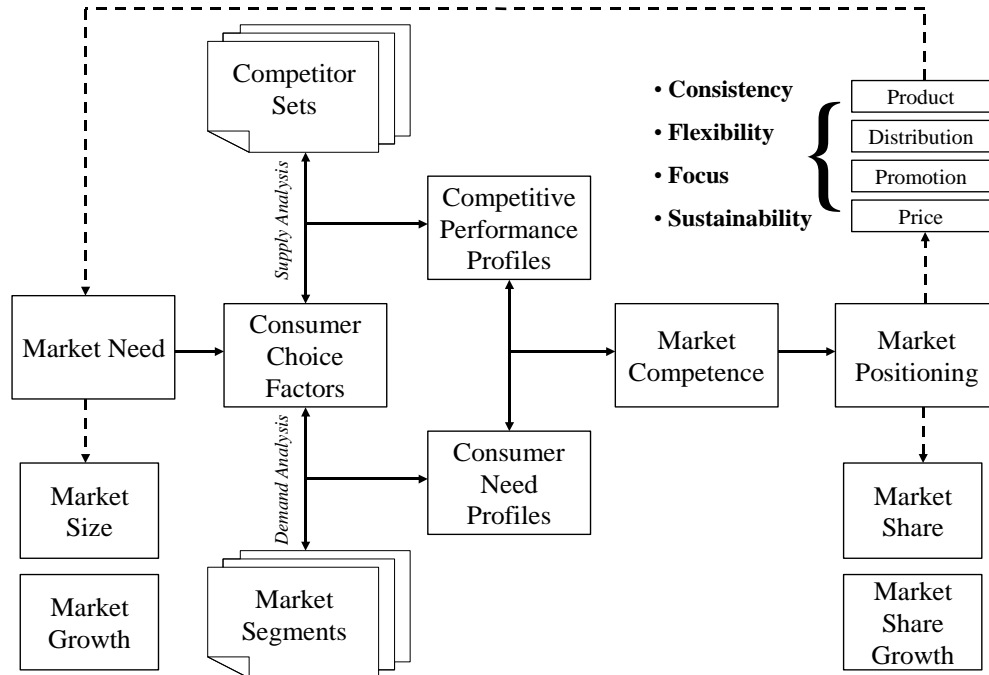
<sup>16</sup> A capability is simply the use of a resource, or combination of resources, in a format that can satisfy market needs.

What is important is to identify in the analysis those resource areas that the project can attain access to, and use them to form design solutions that meet market-need requirements. One should formulate a "winning marketing proposition" to tap the opportunities presented by an identified market performance gap. Levitt (1960) cites the example of Henry Ford who is today "wrongly" remembered more as a production rather than a marketing genius. Henry Ford's brilliance was in identifying a huge market performance gap and conceiving a winning marketing proposition that was feasible to take advantage of it. As Levitt points out in his classic paper "Marketing Myopia" Henry Ford "... actually invented the assembly line because he had concluded that at \$500, he could sell millions of cars. Mass production was the *result* not the cause of his low prices".

## **The project competitiveness**

The competitiveness of a project is assessed through a process of disaggregating demand and supply with respect to the market need that the project aims to satisfy and setting market segments and competitor sets against the main consumer choice factors, as illustrated in the diagram below. Consumer choice factors are the basic criteria on which the decision of which product or service to buy is taken by consumers participating, or likely to be participating, in the project's market. Consumer need profiles are extracted by adjusting for the relative importance attached to these factors by the identified market segments. The capacity of the competing products to satisfy the consumer choice factors enables the creation of competitive performance profiles. Market competence is simply the ability of the project to perform as well or better than other competitors on any of the key consumer choice factors. A competitive edge is therefore considered to be the capability to outscore other competitors with respect to a market segment. Market positioning is the

**The Market and Competitive Analysis framework**



direction of the project supply, or more precisely the marketing mix of the project, towards those market segments which maximise in terms of return the organisation’s investment and inherent capabilities.

Market size and market growth are estimated in the context of the demand and supply analysis based on the project relevant market. Market share is taken to be the relative project supply adjusted by an estimate of the project competitive edge (positive or negative) in each targeted market segment. Finally, considerations regarding the project’s organisation ability to adapt itself to market expectations and changing market conditions should drive the projected estimates for market share growth.

***The perpetual race for competitiveness***

The market is a competitive arena. It may be thought of as an athletic track where the “finish line” moves away from you the more you try to reach it. The positions of the

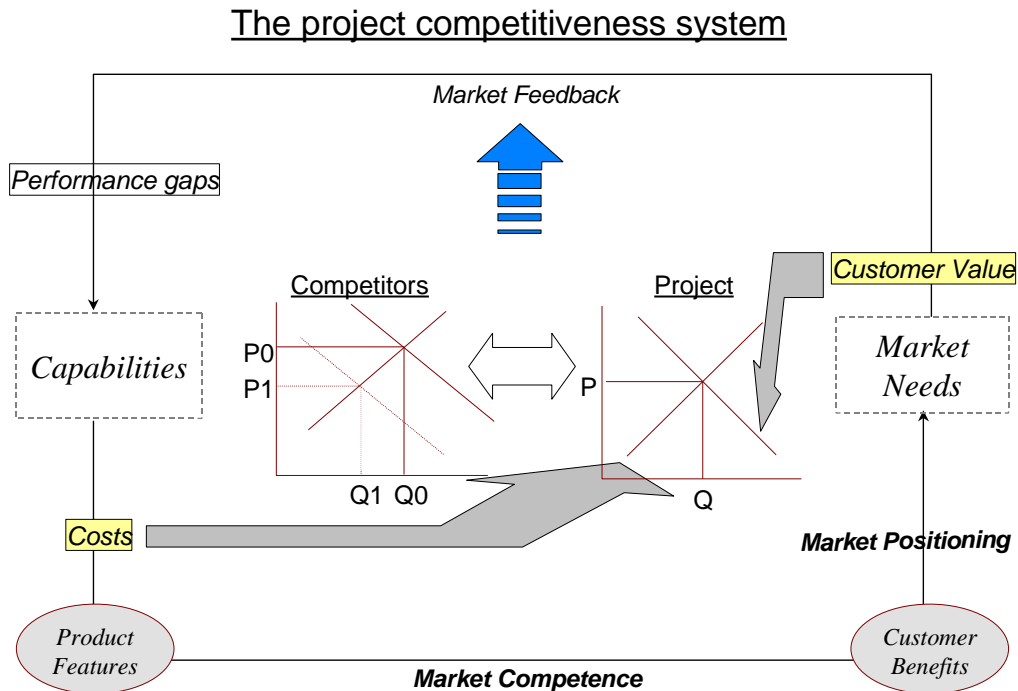
runners (the competitors) in the race are determined by the value of the benefits that their products and services offer to their customers. There are two special characteristics about the race for competitiveness. The first is that no matter how close one can get to the “finish line” one can never cross it and finish the race. This in effect means that one cannot exceed market expectations because the closer one gets, the more expectations one creates. People will always want more of what is possible for them to have. The second special characteristic is that the “finish line” is a moving target whose position can and does change because of a host of factors that influence people’s preferences and the ability of suppliers to serve them such as technology, trends and fashion and government regulation or deregulation. But most importantly, market expectations change by the constantly evolving marketing mix offerings of competitors as well as that of the project itself.

The struggle to attain competitive position is therefore an on-going process whereby competitors try to narrow the gap between the value of the benefits contained in their products and services and the ever changing and increasing customer expectations. For this reason, the analysis is not merely an assessment of a static situation, for example, whether a product, as designed, is likely to outsell other market products, but rather, whether a project has those traits that will enable it to be, and remain, competitive come what may. A project appraisal should therefore cover questions such as whether a project can adopt a way of business by which to develop and institutionalise mechanisms that will enable it to monitor market needs, critically assess its own and other competitors’ performance in serving them, develop the required market competencies, position (and reposition) its products in the market as necessary and keep itself on track for the duration of the life of the project<sup>17</sup>.

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<sup>17</sup> The management/owner of the project (e.g. the firm) should be capable of planning and developing new innovative products to replace the existing ones even after the projected life of the existing project.

The conceptual framework of the market competitive process in which a project operates is demonstrated in the diagram below:



Project competitiveness is shown to be the continuous development and marketing of products and services through:

- The building up of a capability base through which to aim to generate customer benefits that satisfy the core market needs better than other competitors (market competence) and,
- The targeting and tuning of the marketing mix to the distinctive needs of specific market segments, which can derive the highest customer value from the product features that the enterprise is developing a market competence for (market positioning). This should take place within the context of the current market structure and possible reaction of other suppliers and potential new entrants.

While adding product features has a direct effect on the costs and supply function of the project, additional customer benefits cause an expansion of the project demand reflecting

the increase in customer value. The impact of the project on existing competitors, as well as their possible reaction within the context of the current market structure, is an important factor in assessing the project's strategic position. Given a market feedback mechanism, the loop is completed with the identification of market performance gaps, which guide further investments and innovations, that aim towards out-performing the competition in satisfying market needs and creating loyal customers.

### ***Market competence***

Market competence is the learned or acquired ability of organisations to create and market product features, which can generate net customer benefits. In terms of the customer, a net customer benefit is when the additional customer value generated from a new set of product features is greater than the increase in price he will have to pay for it. In cash flow terms, this takes the form of a net financial gain that arises when the present value of the stream of benefits of a new project feature is greater than the present value of the costs incurred to produce and market it.

Market analysis should lead towards the building of alternative project formulations that attempt to combine the limited resources and capabilities attainable by the project in ways that can best address the basic market needs identified in the project relevant market. A competitive enterprise seeks to develop such skills and capabilities that will enable it to distinguish itself from other suppliers and yet remain flexible enough to respond quickly and effectively to changing market conditions as necessary. The selected areas of competence should therefore be ones that it is possible to build upon and defend so as to ensure continued success in the market.

### ***Market Positioning***

Market positioning is the second set of wheels of the market performance wagon. It refers to the selection of a target market among the various market segments and the identification of a unique positioning for the project's products on the map of consumer perceptions of competing products in the market. McBurnie and Clutterbuck (1988) point out that:

“[Positioning through] segmentation is fundamental to successful marketing strategies. Until competitors copy or segment your segmentation, you have a competitive edge, even if you serve the segment with a standard product or service. If the product is specific to the segment then your competitive advantage is multiplied.”

A project should select a target market based on its capabilities and the specific requirements and needs and behavioural characteristics of the market segments within the relevant market. Target marketing aims to optimise the ability of a business unit to satisfy market needs by concentrating its resources and efforts on serving, primarily, those market segments that attach the highest value to the customer benefits for which the project can attain market competence.

In selecting a target market, a project should maintain focus, consistency and flexibility. Focus refers to concentrating the efforts of the business on providing a good product and service that caters well for the needs of the core market segment rather than spreading itself thin to serve all possible customers. Consistency basically means not trying to serve a second or third market segment where this will constrain the ability of the project to serve the core market segments well. Flexibility is about selecting a strategic positioning which will make it relatively easy and less costly to change if things do not turn out the way it is expected.

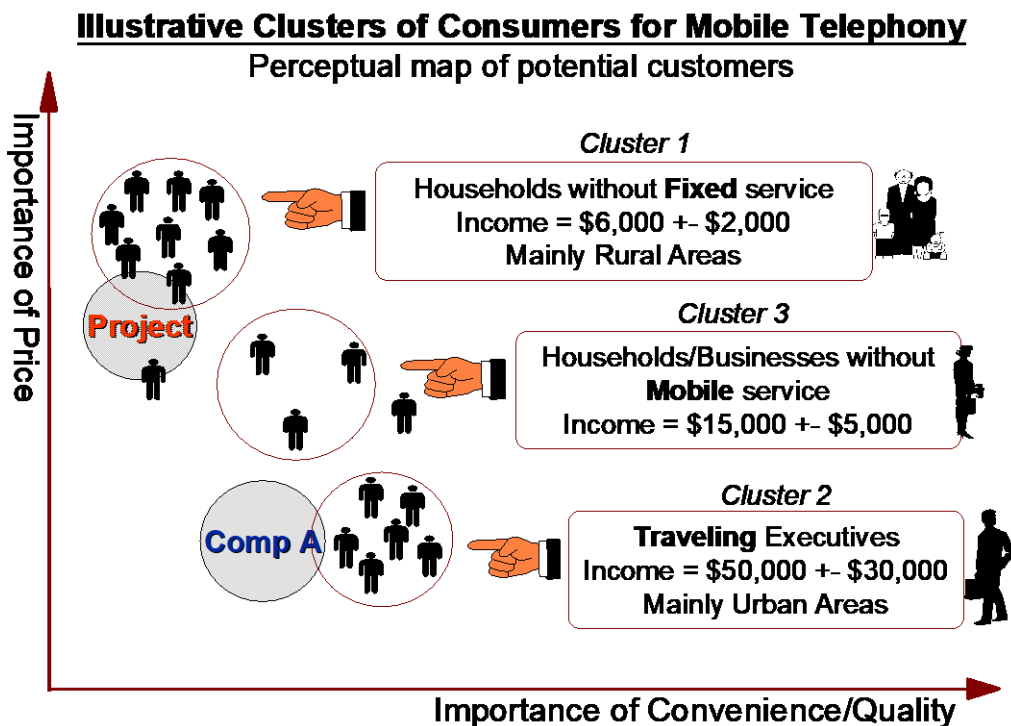
Essentially, targeting is a question of setting priorities among the various market segments within the relevant market. A targeted market can therefore consist of many market seg-



ments. In including a market segment in the target market of a project, one should however ensure that its presence does not obstruct the effective delivery of a superior product in segments with higher priority. It is not very effective, for example, for a cruise ship to target and hope to serve equally as well vacationers and commuters seeking a cheap mode of travel. One should focus marketing efforts towards those consumer groups whose needs are a better match to the customer benefits that can be generated by the project's products.

To optimise the positioning of a product in the market, it is necessary to understand how consumers map the existing products in their mind. In other words, what are the criteria, or factors, against which consumers choose a brand in the market and how do the main competing brands rate against these key dimensions of choice. Many companies spend big sums of money in researching consumer perceptions in order to derive perceptual maps.

A perceptual map can be a useful tool for interpreting how consumers differentiate competing products and how the project may position its products to gain a competitive



advantage. The analyst uses the main two (or on rare occasions three) market need factors to form crossing axes. These represent the dimensions of choice as perceived by consumers. Positioning a competing product on the chart is simple in a two dimensional grid, difficult on a three dimensional grid and impossible to plot on a single chart if more than three factors are used. When perceptual positioning is combined with customer profile information then its strategic significance increases substantially, as it is demonstrated in the example below, which maps two competing satellite cellular telephone products.

Analysing the characteristics of the three main clusters it was found that each product was appealing to distinctly different customer profiles. The characteristics of the project's product were a very close match to the perceptual position of consumers in Cluster 1. The company promoting the project would therefore be more effective in targeting this market segment rather than following a generic strategy of addressing all market segments.

The process of collecting and processing information to create perceptual maps can be very sophisticated and costly. Large companies, involved mostly in consumer products, spend a substantial part of their marketing budget for this purpose. Although it is generally recognised that there can be no survey technique, statistical method or computer program that measures consumer perceptions accurately, perceptual mapping is still used extensively because it serves as a useful conceptual tool aiding the formulation of strategy. Moreover, it can communicate and make explicit the analyst's understanding of the market situation.

### ***Measuring project competitiveness***


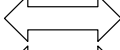
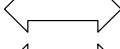
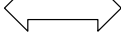
Identifying key product features provides the basis for projecting costs and revenues. In order to assess the likely impact of a planned bundle of product features on the projected revenues, one should attempt to answer the question "how well can these features satisfy

the identified market needs”? Will they generate such customer benefits that will be perceived as more gratifying than the benefits generated by the products and services of competing suppliers? What would be the additional costs, in capital and operating expenditure, necessary to introduce such features?

The competitive strategy of a project finds an expression in the market through the marketing mix. The marketing mix refers to the market offering of a firm reflecting its total efforts in making its product as competitive as possible. It involves the *product* aspects, its *promotion* or communication mix, *distribution* coverage and of-course *pricing*. The latter is determined by the simple demand and supply model after taking into account the impact of the other marketing mix elements on the project supply and demand.

To assess the project demand and supply conditions it is necessary to consider the effect of the marketing assumptions regarding the selected competitive strategy on *supplier costs* and the *customer value* generation ability of the project's marketing mix. Apart from *price*, which is the subject of analysis of micro-economic theory, the other three elements of a marketing mix (product, promotion and distribution) correspond and change the underlying assumptions of the simple demand and supply model of *product homogeneity*, *perfect information* and *perfect access* to the market.

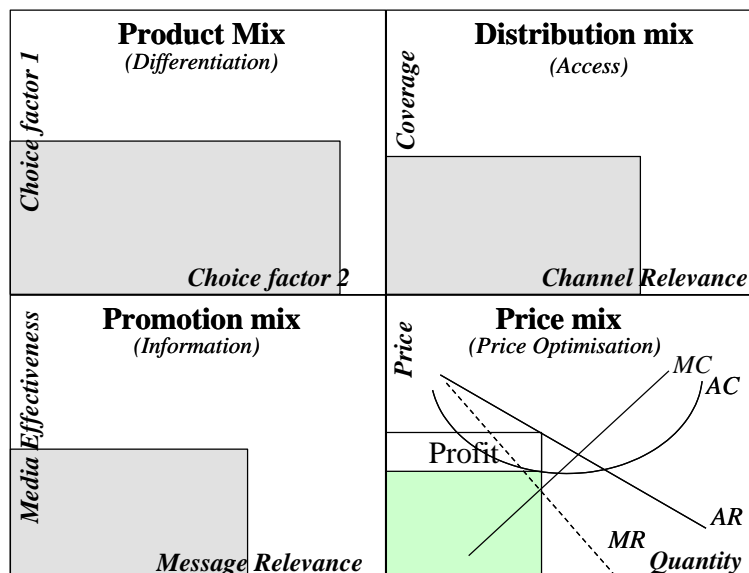
**The Project Marketing Mix and Economic Theory**

<u>Marketing mix element</u>		<u>Economic theory assumption</u>
•Product mix		•Homogeneity
•Promotion mix		•Perfect Information
•Distribution mix		•Perfect Access
•Price mix		•Market structure

The marketing mix components are the levers that a company uses to make its product more competitive in the market. The product mix has to do with the positioning and design of the product to make it most appealing to a targeted market. The primary management issue is to identify the perceptual dimensions of choice of consumers and the selection of a strategic position of the company's products considering its own capabilities, as well as, the position and capabilities of its competitors (see market positioning above). The promotion mix relates to the costs and effectiveness of advertising and sales promotion campaigns, through which a company chooses to make its targeted customers aware of their products, stimulate their interest and reinforce/strengthen the positive attitudes of existing customers. The primary management decision for an effective promotion policy is the adoption of the right advertising message (and sales promotion schemes) and the cost-effective selection of the advertising and promotion media. The distribution mix involves the decision regarding which channels and how much coverage is necessary to efficiently carry the product to the customer (make it easily accessible to its targeted market).

The main determinants of effectiveness for each of the marketing mix elements are illustrated below.

Factors of effectiveness of the marketing mix elements



Price and quantity are the result of *supplier costs* and generated *customer value* (effective demand) as well as *market structure*, which are related to the assumptions regarding the *product, promotion* and *distribution* mixes.

The usefulness of considering the determinants of effectiveness of the marketing mix elements in a cash flow projection context is that it imposes a discipline by which aspects of project competitiveness are taken into account in an explicit manner thereby containing the build up of inconsistent marketing scenarios for the project.

### ***Organisational aspects of competitiveness***

Project competitiveness is a function of both the characteristics of the *product* and the *system* that develops it. The management and business orientation of the firm undertaking the project partly determines the dynamic system in which the project will exist and as such it invariably becomes a critical factor of competitiveness for the project itself. The characteristics of companies that consistently show the highest returns (based on the data provided by hundreds of companies to the “Profit impact of Market Strategy” - PIMS research)<sup>18</sup> as noted by McBurnie and Clutterbuck (1988) are:

“... picking viable [market] niches, achieving a leadership position within them and providing a high value-added product or service”.

To consider the ability of a project to attain and sustain a leadership position, it is necessary to view the project as a subset of a bigger system; the organisation.

As a system, a competitive project should form part of an organisation, which has:

- A clearly defined business mission. One that correctly reflects the underlying market need served and the key area of competence of the organisation.

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<sup>18</sup> The Strategic Planning Institute of Cambridge, Massachusetts.

- A learning mechanism and flexible organisational structure by which to monitor and quickly respond to opportunities in its market environment.
- A management leadership that believes in serving the customer and is committed to instilling a customer philosophy at all the levels of the organisation.
- An integrated organisation where all employees, no matter how diverse in their skills and tasks, work towards a common goal while realising and respecting their inter-dependence in achieving the corporate objective.

The above is by no means an exhaustive list of the characteristics of a competitive organisation. It is not possible to do justice to the topic in this space. One should bear in mind, however, that unless evidence of such traits of organisational competitiveness exists, the very foundation of the appraisal might be questionable.

The analysis should lead towards a clear definition of the project's competitive advantage. A competitive advantage statement should take into account the possible changes in the project's environment and how exposed to competition are its market competencies. It should be tested against the ability of the management of the project to sustain a competitive edge under changing market conditions and the existence of key factors that are likely to make the project a lasting success. The statement should mention which are the market competencies that can be created by the project and how the products of the project are to be positioned in the market so that high customer value is achieved. The project return is the natural consequence of these factors and it should simply be a quantification of the above assumptions that is reflected in the bottom line of the cash-flow projections.

## Conclusion

“Marketing analysis and competitiveness in project appraisal” describes a need, and, hopefully, raises a few questions more than it provides answers for the project analyst. It sketches the elements and concerns that should be paramount in the mind of a diligent researcher who, through his cash flow projections, aims to gain a better understanding of the project and its environment. It encourages an inter-active approach towards investment appraisal, which can often lead towards better project design. The investment appraisal model enhanced by a thoughtful marketing evaluation is not merely the end product of analysis but also becomes a vehicle for arriving at better investment plans.

To check the validity of the assumptions in a cash flow projection one should be able to provide answers to the following questions:

What is the market need that the project aims to satisfy?

What is the project’s relevant market?

What is the market size?

How is the market segmented? (How are the market-need profiles of the various segments different?).

Who are the project’s prime competitors? (What are they good or bad at?).

Which are the project capabilities? (What market competencies can the project develop?).

What is the project’s target market? (Is it consistent and focused enough?).

What is the market performance gap that the project will fill? (How is the project positioned in the market?).

What is the project’s competitive advantage? (Is it sustainable?).

Will the project generate a market expansion? (Is this reflected in the cash flow projections?).

Are the cash flow projections consistent with the marketing analysis and strategic positioning of the project?

It has been the experience of the author that most project analysts cannot provide any type of answer to half of the above questions. Yet, in retrospect it is often conceded that it is at

least as important to have good answers to these questions as it is mastering and applying the correct methodologies in project appraisal.

The formulation of the project appraisal marketing-module problem in the context of a conceptual framework of marketing analysis facilitates project design, the identification of market competencies and the strategic positioning of the project in its market. Irrespective of how accurate the market profiles are, or indeed can be, the marketing analysis framework imposes a discipline that makes the analyst search for solutions that are strategically and marketing-wise consistent with his assumptions and understanding of the market. The process itself often leads, or should lead, one towards a re-formulation and a more optimal design of the project that is being appraised.



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