Knowing the size of your addressable market is a fundamental step in any business or marketing plan. But to begin, you will need realistic and reliable data. Yet this is not always easy to attain in emerging economies, particularly if your target market is rapidly evolving, or if you are introducing a new product category, or sell primarily through distribution channels. What are some ways around the scarcity of data?

EXECUTIVE SUMMARY

Companies of all sizes and within all industries face a common challenge when trying to set their marketing strategy and that is to know their markets and competition better. One vital aspect of that involves knowing their target markets’ sizes and growth. But what are the primary approaches involved in overcoming the challenges involved, especially in opaque markets and countries where there is little publicly available information?

This white paper presents a brief overview of some approaches and the process involved. A few case studies are described and explained, to illustrate how successful larger companies in various industries have tried to solve the problem.
The term “Market Intelligence” which is used in this paper refers to understanding the present and future business environment by using the intelligence process to provide decision-making support. Terms such as competitor analysis, technology analysis or customer insight will be used under the overarching term “Market Intelligence”. “Market Intelligence” should be seen as synonymous with concepts such as Competitive Intelligence and Business Intelligence.
1. INTRODUCTION TO MARKET SIZING AND FORECASTING

1.1 Challenges and Need
Commercial organizations typically face high uncertainty about the current and future market demand for their products and services. Production, budgeting, marketing, sales and other resource allocation needs usually drive the decision to estimate a target market’s size and future growth, especially for new products and services. However, the primary challenge to accurate and reliable estimation of market demand is “data availability”, since for many products, market transactions between public and private commercial entities are not publicly disclosed or gathered, except by some industry associations in certain countries.

Emerging markets usually present special challenges since secondary data is less available on a wide variety of subjects than in developed markets. These markets are typically changing rapidly and are not yet mature. However, the situation varies tremendously in different countries and industries, with very good data available in some areas, but almost nothing in others.

Despite the challenges, market size estimates and market intelligence in general are a critical component of companies’ strategies and tactics:

“…[regarding analyzing] market sizes and the target groups for our main products… Being able to assign the importance of the different user groups within the total market of focus countries in Asia is a valuable asset which played a major role in our strategy for product development and Brand Management.”
Robert Bosch Company, Power Tools Division

“Obtaining accurate market size estimates in order to define the value of our focus segments is a very important part of our overall marketing approach and strategy-setting. Good market intelligence on customers’ needs and competitors’ priorities is an invaluable tool to help identify areas of growing opportunity and value capture.”
Philips Lighting

This white paper aims to illuminate the various considerations involved, as well as present some real-life examples of how companies in different industries have approached market sizing.
1.2 Approaches

The first step to any market sizing and forecasting problem is to first formulate the problem in terms of “data availability” and define exactly which product and market is being estimated before proceeding to check on what published information is available and what method to use. If the target market being considered is new and unfamiliar, there are several factors to consider first:

1. Industry value chain level (Raw Materials -> Components -> Consumer/Business End-Product/Service)
2. Industry concentration level (Monopoly -> Oligopoly -> ........ -> Highly fragmented)

The first question to ask is: “What level of the industry value chain does the target market fall in?” Many major Raw Materials (e.g. metals, commodities) are actively traded in global market exchanges, hence market sizes are well-known. Consumer End-Product markets also usually have copious data sources, such as modern retail store sales data, especially in developed countries. However, niche Raw Materials (e.g. specialty chemicals), Components of assembled products (e.g. door locks) and Business End-Products (e.g. textile manufacturing machinery) typically suffer from lack of available and reliable data sources.

The second question to ask is: “What is the industry concentration level of the target market?” Other than concern over the competitive situation and potential for market entry, data availability is typically worse in highly fragmented markets, whilst more concentrated markets are usually better-organized and may already have an industry association or government agency that collects industry-wide data.

Once it has been determined if there is any comprehensive historical data available on the target market, the choice of estimation method naturally follows, with 2 types available. Statistical methods depend on if there is any objective statistical data available. If not, then the only estimation methods available are judgmental-based, which entails gathering primary data directly from market participants who have relevant domain knowledge about the target market.

1. Judgmental methods (e.g. Delphi Technique, Judgmental bootstrapping, etc.)
2. Statistical methods (e.g. Extrapolation, Econometric, etc.)

In emerging markets, judgmental methods are the main options used, since there is usually a paucity of reliable and relevant statistical data. However, a combination of methods, if possible, works best to enable multiple points of references and lead to greater confidence about the accuracy of estimates.
Market size estimation methods can also be viewed from the perspective of top-down vs. bottom-up. The selection of either approach depends on the answers to the two factors above. For example, if a market is highly fragmented with thousands of competing organizations, it would be very difficult and extremely costly to try to gather data from all market participants to estimate the market size (i.e. bottom-up judgmental method). However, a bottom-up approach could still be adopted by surveying a representative sample of market players. A top-down approach can also be added in cases where there may be data on correlated time series, e.g. number of children of a certain age range for vaccine products. However, judgmental estimates may still be required to construct a market size model if the correlated data requires assumptions about certain parameters.
2. CASE EXAMPLE: SPECIALTY CHEMICALS (RAW MATERIALS)

BACKGROUND:
A global specialty chemical producer needed to understand the market opportunity for boats’ outboard motors in five countries. A market size forecast was needed as part of that strategic assessment.

CHALLENGES:
Lack of available data on the specialty chemical product being investigated was the main challenge. As a niche raw material not traded on any global market exchanges, there were also no industry associations devoted to this particular product. However, this product did have only one end-use application, with copious statistical data available on it in most countries. There were incomplete data issues per country, with almost no statistical data kept in one country. Incompatibility between the statistics available and the desired segmentation also created challenges in terms of how to utilize the data.

SOLUTION APPROACHES:
The product and its end-use application market had a high degree of correlation between them and there were relatively few (<20) brands on the market. Most countries (but not all) required boat or marina licenses and thus had government agencies or industry associations that kept historical records available for analysis. Key assumptions and ratios were derived from judgmental expert estimates, and a top-down time-series extrapolation model was able to be derived accordingly. Despite the segmentation incompatibility issues, judgmental expert estimates from primary research used in combination with the secondary data were sufficient to overcome the challenges.
3. CASE EXAMPLE: TELECOM EQUIPMENT (COMPONENT)

BACKGROUND:
A leading global manufacturer of telecom equipment wanted to assess market opportunities for its products in 3 countries, which involved sizing and forecasting the fixed-line broadband market and the specific market for its products.

CHALLENGES:
Besides data availability issues, there existed complexities in segmentation, by Technology, by End-use Application, and by Customer Type. The technology itself was still in flux, with multiple architectures, protocols and confusion even among market participants on the proper market definitions. Due to the technology uncertainty, the forecast outcomes could be drastically different depending on which one won. Varied customer types existed, with telecom carriers, cable TV operators, ISPs (Internet Service Provider) and property developers. All were part of the same target market, but varied tremendously in their industry structure, ranging from being oligopolistic to being highly fragmented. The telecommunications and media industries are usually considered strategic sectors by most countries with entire government agencies set up to oversee them. This usually means that there is a wealth of statistical data available, however there were no specific statistics on the target market’s segments.

SOLUTION APPROACHES:
The target markets have abundant statistical data available, and it enabled multiple estimation approaches to be considered, since correlating time-series data could be found. The telecom sector turned out to be the major demand driver, with most of the present and future estimated demand originating from them. Given the low numbers of players (one to five), a bottom-up approach surveying all the players became feasible, using either a judgmental method (judgmental bootstrapping), or a statistical method (extrapolation). Due to the technology uncertainty, several scenarios were modeled by varying statistical variables and judgmental estimation parameters. Comparable forecast models created by other industry experts and associations were also utilized as cross-checks. Global strategic deployment scenarios, as per historical behavior by telecommunications carriers in other countries, provided a blueprint for the likely scenarios in the target markets.
4. CASE EXAMPLE: INDUSTRIAL MACHINERY (BUSINESS END-PRODUCT)

BACKGROUND:
A leading global manufacturer of heavy industrial equipment used at shipping ports and at industrial facilities needed to forecast the global market size for its products & services, and wanted to build a global market size forecast tool. This would enable it to: (1) validate market sizes using an external party and uniform methodology, (2) identify areas of opportunity more easily, and (3) analyze different market scenarios at the present time and in the future.

CHALLENGES:
Other than data availability, the biggest market sizing challenges were:
1. complexity of segmentation, done both by Product/Service, and by End-use Application
2. segment definition incompatibilities between the company vs. the market’s understanding
3. insufficient market knowledge about specific segments by market participants
4. global complexity, with many countries and varying local conditions

SOLUTION APPROACHES:
Luckily, many of the markets studied were less fragmented, with the largest players tending to hold over 50% market shares. This made it feasible to rely on a bottom-up judgmental method (e.g. Delphi Technique), emphasizing the bigger suppliers who were more representative of the market, and had more relevant knowledge. However, there was no historical market data available, which ruled out statistical methods. Segmentation complexity and definitional incompatibility was resolved by decomposing the problem into smaller components, relying on multiple experts from different functions, and spending time at initial questioning stages clarifying the definitional differences.

Upon completion of the market size forecasts, the challenge shifted to making it a useful planning tool for both global and local management. The first step was to test the assumptions, data and methods with the company’s internal market experts from local offices, and to make adjustments if necessary. The second step was to develop a user-friendly scenario forecast model, which could be adjusted by correlated macroeconomic forecast variables that are updated on a regular basis. Statistical testing established weights and forecast rules upon which the market size forecasts could be adjusted in the future. To ensure user-friendliness, a dynamic model was built with simple input screens and outputs that were backwards-compatible with the most commonly used software file formats.