

# Forecasting & Communicating Project Demand To the Supply Organization



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*“The project business is usually characterized by the fact that it is related to a particular customer project or program.”*

Many companies have multiple demand streams which require different approaches for communicating demand plans to the supply organization. It is common to have a base level of business and a separate demand stream which is project-type business. The base business is characterized by a continuous level of repeatable business which enables traditional product forecasting based upon history, multiple views of the future including anticipated changes to the marketing mix, and a consensus demand review process.

Project business tends to be different in that demands are often one-time demands (certainly a one-time demand for an individual project), and these demands are usually large and “lumpy” in comparison to the base-level demand business. This demand is sometimes referred to as “tender” business, proposal business, or other names differentiating it from the company’s base business.

The project business is usually characterized by the fact that it is related to a particular customer project or program. The good news

with project business, from a demand planning perspective, is that the company’s sales organization is usually actively pursuing this project business. This means the sales organization has, or should have, an intimate knowledge of the likelihood as to whether the customer will actually go through with the project and, therefore, has a need for the company’s product and whether the company should expect to book the business. There is a knowledgeable person in the company from whom to draw information for demand planning.



The demand planning process for project demand requires the regular, routine, disciplined process of communicating projects and updating the likelihood of booking them. Most companies set up a project or opportunity database that lists all the projects in one place and can be sorted in a variety of ways for communication, sales management review, financial review and demand planning. Typically the opportunity database contains, at a minimum, the following information:

- Company's project name and number
- Customer's name and location
- Customer's project nomenclature
- Products and services being considered
- Date of expected booking (receipt of order)
- Date(s) of delivery requirements (required delivery dates)
- Percent decision points – time fence dates (time the supply organization needs to take action)
- Percent probability of customer placing order
- Probability of customer placing order with the company
- Whether the demand is included in the company forecast
- Various other communication fields

Numerous software packages have been developed to help the sales organization manage sales efforts to its customers. Many of these packages are marketed under the banner of CRM, Customer Relationship Management. If properly implemented, these tools offer the opportunity to include the information in Figure 1. This makes the key demand information visible

to key players in the demand communication and planning process.

ONCE A CREDIBLE OPPORTUNITY DATABASE EXISTS, THE QUESTION BECOMES: HOW IS IT USED IN THE COMMUNICATION OF PRODUCT DEMAND TO THE SUPPLY ORGANIZATION.

First, from a volume/quantity of product perspective, there must be a decision as to how much of the project demand to include in the product volume demand plan. For each project, there must be a translation of the project delivery requirement into a product demand by time period. The next question is: How much of the project demand should be included in the demand plan? Companies with relatively few projects must



make a yes/no decision whether to include individual project demand in the plan (request for product) or not. Often probability percentages communicated by the sales organization help to enable the yes/no decisions. More importantly, they help sales management to communicate, develop, and change sales tactics to ensure desirable business is properly pursued and booked.

Figure 1. CRM - Customer Relationship Management

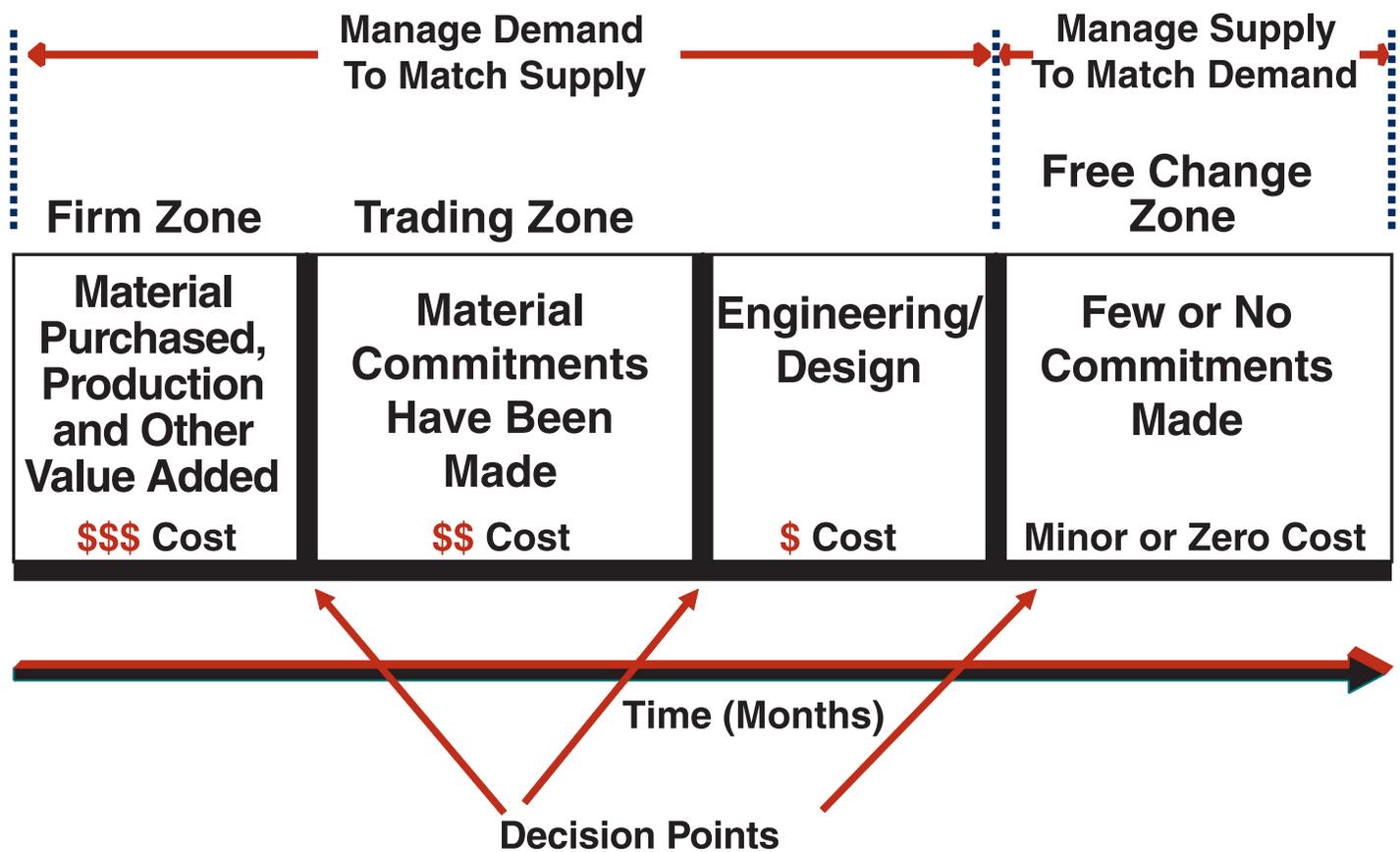
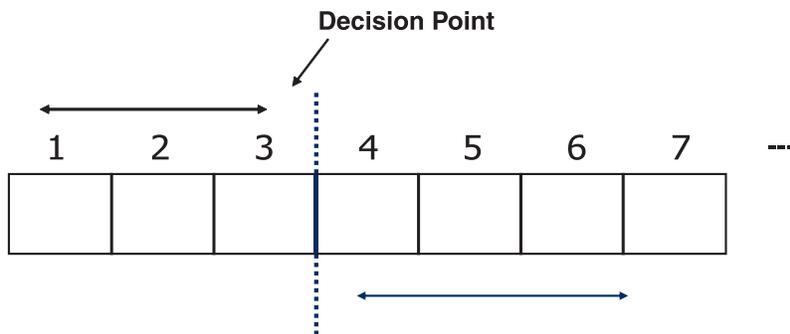


Figure 2. General Management Rule and Discipline

**Determine if the individual project (Demand) is IN or OUT at the Decision Point**



**% Calculations x Opportunity Database when there are many projects with common products**

Companies that have a large quantity of projects encompassing demand for similar products will sometimes use probability percentages to calculate the quantity of product to include in the demand plan to communicate to the supply organization. However, please remember that the demand management process, by definition, needs to be a managed process, and computer calculation of probability of demand should not be blindly accepted.

A KEY, GENERAL MANAGEMENT RULE AND DISCIPLINE SHOULD BE INVOKED: WHEN DEMAND IN A TIME-PHASED DEMAND PLAN IS ABOUT TO PASS A DECISION POINT/TIME FENCE WHERE ACTION AND EXPENSE WILL BE INCURRED BY THE COMPANY, A DECISION IS NEEDED ABOUT WHETHER TO KEEP THE DEMAND IN THE PLAN AT THAT TIMING. THE DECISION THAT MUST BE MADE IS WHETHER THE DEMAND IS IN OR OUT OF THE PLAN OR WHETHER TO PUSH THE DEMAND OUT LATER IN THE PLANNING HORIZON (FIGURE 2).

This is a managed process, and the decision to keep the demand in the plan recognizes the risk of incremental inventory, supply chain costs, and reduced flexibility. Therefore, the decision should be made by senior management in the Sales and Operations Planning process.

A dilemma occurs when designing the project demand planning process for some companies. If there are relatively few projects, it is easy to manage the process with an opportunity database and management process. If the company has many active projects and proposals, it may be necessary to sort the projects by some measure of significance that will guide management's attention (e.g. size of potential order) in order to effectively manage the demand. If virtually all the business (all demand streams) is project business and there are many, many projects, then the projects are actually normal, base-level business, and the opportunity tracking approach may be less applicable. In this scenario it is still highly desirable to keep track of aggregate data and to track changes in such variables as the number of outstanding proposals, total dollars of quotes outstanding, and quote-to-close ratio.

“ When a company analyzes its demand, it is often desirable to rank the products from highest to lowest volume, by highest to lowest total margins, and from highest to lowest forecast accuracy, and from highest to lowest degree of probability. ”

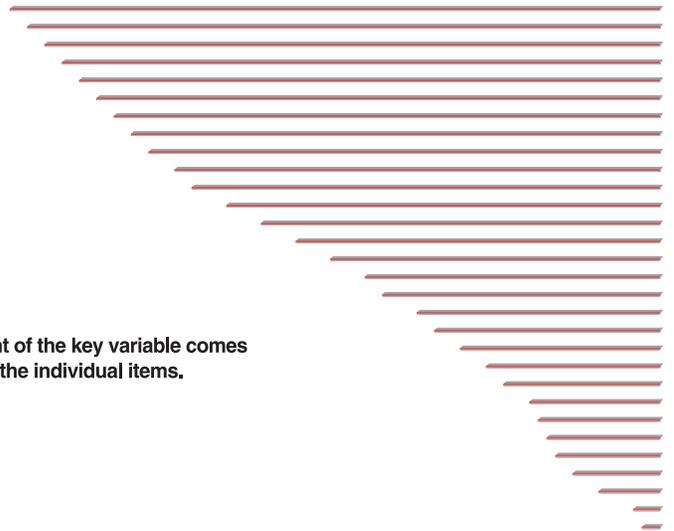
A wealth of information is often obtained with this simple analysis and should influence marketing mix strategies and tactics. Most companies find that Pareto is alive and well and appropriate to use, (i.e., roughly 80 percent of the volume comes from roughly 20 percent of the products, Figure 3).

Figure 3. ABC Anapysis - by Volume, Margin, Forecast Accuracy

**A**

**B**

**C**

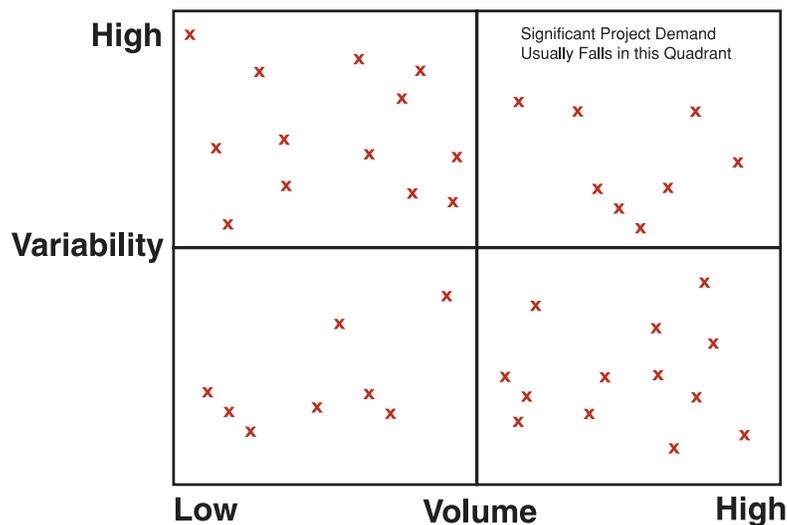


Typically 70 to 80 percent of the key variable comes from 20 to 30 percent of the individual items.



Another way to view the products is on a two-by-two matrix with the vertical axis being variability and the horizontal axis being volume (Figure 4). By plotting the products on this matrix, it is normal to find that the highest-volume products tend to fall into the high-volume – low-variability quadrant. These products usually can be planned by using statistical forecasting software tools, as long as changes to the marketing mix are included. The lowest-volume products will tend to fall in the low-volume – high-variability quadrant. Statistical software tools will often provide a reasonable aggregate volume forecast but cannot predict the timing of demand accurately. This is where tactics to deal with the variability and uncertainty must be deployed.

*Figure 4. High/Low Analysis - by Variability & Volume*



THE REALLY INTERESTING QUADRANT IS THE HIGH-VOLUME – HIGH-VARIABILITY QUADRANT. THIS IS WHERE PROJECT OR PROGRAM DEMAND IS NORMALLY FOUND. THIS IS WHERE THE DEMAND PLANNING PROCESS MUST RELY MOST HEAVILY ON SALES INPUT AND A MANAGED YES/NO, IN/OUT DECISION-MAKING PROCESS.

Since a decision process is utilized for determining whether a project should be included in the demand plan or not, it is desirable to communicate another set of information in addition to the quantitative project and product demand plan. This communication centers on opportunities and risks. An opportunity is usually defined as a project that was not included in the demand plan, but there is still a reasonable chance of booking the business. A risk is a that project has been included in the demand plan but still has a reasonable chance that the business may not be booked at all or that it may go to the competition. Armed with this information, the planning organization for demand, supply, and finance can develop “what-if” scenarios to see the effect on the financial and resource plans. This enables contingency planning yielding better decisions that supports the company’s goals and objectives.

#### SO WHAT IS THE MESSAGE TO DEMAND PLANNERS AND SALES MANAGEMENT?

- Recognize that there are different demand streams which should be treated differently when project business is part of your demand.
- Recognize that the demand management process needs to be developed and implemented to identify, categorize, and review project demand.
- Project demand must be translated to product demand plans for the supply and financial organizations.
- Some general operating rules need to be deployed regarding inclusion or exclusion from the demand plan, and the process will need to be continually managed.
- The sales organization plays a key part of the demand planning and demand management process for project demand.
- Communication of demand will need to include opportunities and risks which can be used to develop multiple “what-if” scenarios and contingency plans.



## ABOUT THE AUTHOR

George Palmatier, an Oliver Wight Principal, has assisted many companies that make everything from soup to satellites in implementing integrated management processes. He is recognized as an expert on Sales & Operations Planning, Integrated Business Planning and demand management as well as ERP, Integrated Supply Chain Management, and Integrated Product Development (IPD). George works with clients to formalize and integrate their strategic plans into an integrated business management process, Integrated Business Planning. With twenty years of experience in sales, marketing, strategic planning, and general management, George has a thorough knowledge of how to achieve sustained results improving business performance. During his 11 years as vice-president of sales and marketing at Bently Nevada Corporation (now part of General Electric), George was responsible for bringing the sales and marketing departments into an integrated business management process. Bently Nevada was one of the pioneers in developing and implementing Sales & Operations Planning using it in a truly integrated management process. George has authored or co-authored four books: *The Marketing Edge*, *Enterprise Sales and Operations Planning*, *Demand Management Best Practices*, and *The Transition from Sales and Operations Planning to Integrated Business Planning*.



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