Integrated Product Portfolio and Project Management

“The Art of New Product Demand Planning”
Introduction

New Product Portfolio and Project Management can be one of the most challenging components to implement in the Integrated Business Planning (IBP) process model. On the surface, the concepts are fairly straightforward and integrated with a company’s strategic plan in a way that is easy to understand. Actually implementing these concepts, and more importantly sustaining them, is the real challenge.

It is very easy to get bogged down into the details. A key concept behind IBP-designed Product and Portfolio Management is to make decisions about the future, instead of the present. But the further out we look, the more ambiguous projects become and less certain are the details. Managing a long-range plan, however, is key to success. Real and tangible value is realized when we connect our decisions to the Demand Plan (the official forecast of the company) from which we plan the future. (See “Demand Plan vs. Forecast” and “Best Practice” below.)

Decisions are essential for Product and Portfolio Management as, through a formal Stage and Gate process, we may put projects on hold, make them rework the previous stage, cancel projects, and introduce new ones; there is a long-term consequence and/or upside connected to planned revenue and production capabilities. Without tying this understanding into the Demand Plan, we miss a major opportunity to plan strategically and lose a very visible benefit to all the work that builds each month into the PMR (Product Management Review) as part of IBP. When mastered, it can provide a game-changing advantage over your competitors.

Companies that utilize best practices incorporate evaluation of short- and long-term consequences in their formal Stage and Gate product development process. An output of these decisions needs to be communication to the other functional areas of the business, including demand planning, sales and marketing, supply, and finance. This communication becomes seamless when it is incorporated into a company’s IBP process.

When long-range plans and decisions are not tied into the demand planning process as part of IBP, needless crises and under-performance can be created. What is missing is the ability to assess major opportunities and changes, plan strategically, and gain visibility across all company functions – demand, sales, marketing, operations, finance, and even portfolio and product management.

The authors find that few companies do this well. As a result, those companies that do, gain game-changing advantages over their competitors. In this white paper, we will review what it takes to develop mastery in integrating Product Portfolio and Project Management as part of an IBP process.

Demand Plan vs. Forecast

**Definition of Demand:**
What a Customer Needs, When and Where They Need It

- **Forecast** connotes a lack of control – something that cannot be predicted with a high degree of accuracy
- **Plan** denotes actions planned in advance, which means someone is determining – and controlling – actions taken

**Attitude That Forecasting is Like Predicting the Weather Causes Lack of Accountability**

**Best Practice:** The Process is not Forecasting, it’s Planning.

Combine the definition of demand with the concept of planning instead of forecasting, and we have a Demand Plan. We encourage our clients to refrain from describing this process as “forecasting” as it reinforces the perception that we have no control over our future. The official forecast that the business is executing to should always be referred to as the “Demand Plan.”
Integrated Business Planning – Product context

When considering the construct of the Integrated Business Planning process (see Figure 1), the positioning of the Product Management Review is very significant.

The Product step is the first step in the monthly process, in recognition that, until there is clarity on what the latest plans are for new products and the overall Product Portfolio, then it is impossible to generate a credible Unconstrained Demand Plan, which is the next step in the process. It then follows logically that only when the Demand Plan is defined can the Supply step assess how to respond to meet the demand requirements.

As can be seen from Figure 1, each of the Product, Demand, and Supply steps has two arrows feeding the process from the reviews. One arrow points to the next step and one arrow points into the “Integrated Reconciliation” process. These arrows indicate the key integration points that enable a successful implementation of IBP. For the overall process, this integrated view of the future is set up to provide a minimum 24-month rolling future projection of the business performance. For the Product step in particular, when reviewing product development in line with the strategic product road map for the business, then the horizon for most companies will extend out to 5+ years. While this is perfectly appropriate when managing the individual product step, the key for the IBP process is that there is an integrated plan delivered from the product step over the agreed IBP horizon (minimum 24 months).

To achieve this level of integration, a key design consideration for the Product step is to ensure that there is a New Product Master Plan (NPMP) that reflects the latest plan, updated monthly through the cycle, and fed to the other steps in the IBP process. One of the practical challenges for companies is to ensure that this NPMP is designed with a clear understanding of what information is required by the Demand, Supply, and Finance organizations to develop their respective plans, while maintaining one of the core principles of IBP: “One set of integrated numbers”.

Some companies have the tendency to “over-design” the New Product Master Plan. They incorporate too much information, instead of just critical information required by Demand, Supply, and Finance organizations to develop their respective plans.

Figure 2 shows an example of a New Product Master Plan design that is commonly used by our clients. Its strengths: It is easy to see what has changed since last month, what projects have moved in or out since the previous month, and issues that need to be resolved. This information is vital to achieving one of the core principles of IBP – developing “one set of integrated numbers” that incorporates Product Management, Demand Management, Supply Management, Financial Management, and Strategic Planning.
What is New Product Demand?

In order to have an effective demand planning process, we must plan all sources of demand including new products. In order to do this, we must also have a clear definition of what new products are. This definition tends to vary by company and industry, as well as the length of time products continue to be classified as new products after launch.

When developing this definition, one critical question to ask is, “Does development of the product consume or utilize R&D or Project Management Resources?” If so, it is a pretty good indicator that the product should fall within the definition of New Products.

New SKUs or part numbers do not always mean New Product. While this may seem like an easy way to quickly define new products, the definition has some pitfalls. New SKUs are created all the time for a variety of reasons. We may have a new packaging size, labeling requirement, quality specification, or other minor modification which requires a new part number but draws very little, if any, on R&D or Product Development resources.

Will the newly launched product be new to world, new to industry, or new to the company (product leader)? If the answer to this question is yes to any of the three categories, it is a likely indicator of new product demand.

Figure 3 – New Product Demand along with Baseline Demand
Brief Overview of Product and Portfolio Management

Product and portfolio planning enables the business to take control of its future. By planning growth, we can determine what course of action is necessary to achieve desired results. The quality of that growth in the form of profitability, market share, and even gross revenue is determined by our ability to successfully launch new products according to the business’s Strategic Plan.

Those businesses which incorporate innovation within their product portfolio by launching new products which are typically new to the world or new to the company typically enjoy more explosive growth and higher margins. Indeed, in certain high-tech industries such as semiconductors, consumer electronics, and biotech, a company’s very survival may depend on innovation as all of their products may become obsolete within a relatively short period of time. However, innovation can be the key to survival, growth and profitability for almost any business in any industry, no matter how “low tech” or commonplace the products in that space may seem. There is always room for innovation. The impact of such innovation to long-term growth, margins, and manufacturing strategies are essential, and it is critical that the demand management process reflect those impacts, however ambiguous they may seem, within the 24-month planning horizon.

In order to do this, we need to understand and track strategic goals, a new product master project list, a long-term resource plan (generally 36 months or greater) reflecting the projected demand on R&D, equipment, and other gating or bottlenecked new product development resources. We also need to ensure that resources with the right mix of capability are available to meet projected requirements and drive decision making from gaps that ongoing monthly tracking reveal.

Figure 4 – New Product Portfolio Focus
Consequences and Upside to New Product Development Decisions

When implementing an IBP process, one of the most frequently struggled-with concepts is the connecting points or outputs from the Product Management Review (PMR) to the Demand Review; yet it represents one of the most critical success factors when launching Product and Portfolio Management as part of IBP. Because the PMR is critical to achieving our strategic business objectives, its very success is a critical milestone toward achieving a successful IBP process. When placed in this context, one begins to appreciate just how critical it is to connect the output from PMR to Demand. The very success of the IBP Implementation, indeed the company, may depend on it.

Leveraging consequences behind decisions made is where Product and Portfolio Management helps ensure we are not sacrificing the long-term strategic plans for short-term gain; in short, mortgaging the future success of the company in order to get through the current quarter. When we make a decision to kill a project or place one on hold, it is necessary for there to be a corresponding impact in the Demand Plan. Otherwise, it is too easy to cut product development costs without any impact recognized on forward-looking revenue and margin goals. Those cuts can be very tempting to make, when long-term consequences are not immediately recognized and driven into the Demand Plan. We can have an immediate positive impact on cost and margin by killing new products not scheduled to launch for another 12 to 24 months from now by recognizing the immediate gain in liberated resources. We can then cut resources, or certainly avoid adding new resources and/or hiring, to meet the plan. And because the impact on revenue is so far down the road, we see no adverse impact. Indeed, it requires discipline to hold ourselves accountable to recognize this impact. Remarkably, this is exactly what many companies do.

Figure 5 – Formal hand-off from Product to Demand

It is not hard to recognize the importance and value of new products on a business’s future, but we tend to look at this need too simplistically. We often hear of R&D dollars spent as a percentage of income. We may even hear a projection of R&D or New Product Development spend aligned with a strategic goal. An example of this may be a company that is spending 5% of its gross revenue or gross profits on R&D, with a plan to increase that spend to 10% two years from now. The very fact that we hear those kinds of goals underscores the understanding that new product development and R&D are critical success factors. However, the very commonly found lack of linkage to the demand planning process, along with the lack of visibility in resource planning, sets up the goal for failure. As soon as things begin to develop a little bit differently than planned (as they always do) the temptation to rob the future for short-term gain rears its ugly head again.
So how do we avoid this? We link New Product Development with Demand. When that project is placed on hold, killed, or pushed out, a corresponding adjustment in our revenue plan must be included. It is a reasonable assumption... we are not going to launch Product X as originally planned and because Product X was part of our Strategic Plan and our growth assumptions, it is reasonable to assume we will no longer achieve those objectives as a result of our decision. The decision a business needs to make is linked to its consequence. For example, if we kill Product X today, we will gain a 0.5% reduction in cost immediately, but 12 months from now, we will lose a projected 10% growth in gross revenue. The corresponding impact on margin can similarly be modeled. Ultimately, the revenue, volume, margin, cost etc. impacts need to be captured clearly in the New Product Master Plan (NPMP). In practical terms, the NPMP is essentially a database of information that is relevant to all Product Portfolio related projects. The definition of this NPMP database is developed in conjunction with understanding the expectations of the Demand, Supply, and Integrated Reconciliation steps to enable the truly integrated view of the future.

We may replace it with something else, but without a clear understanding of what that something else is, we are missing the opportunity to fully understand the impact of our decisions. If the anticipated impact on the Demand Plan is far enough into the future that we can task the Product and Portfolio Team to come up with a suitable replacement, and if that is indeed the plan, we can save turmoil on the business and not lower the plan for one or two IBP cycles. But clearly defined deadlines must be understood and set when that happens. A replacement project will become part of the New Product Master Plan, vetted through business filtering criteria and the planning process underway, along with the reallocation of resources by a specific date. It should be made clear to all stakeholders that if these tasks are not completed by that deadline, the Demand Plan is coming down and the business will face the reality of a gap to target and/or Strategic Plan.

Conversely, the upside is similarly modeled and included in the Demand Plan. When a “go” decision is made for a new product project not previously assumed, we should then be able to recognize the upside in volume, revenue, and margin. The improvement in these areas is recognized by the business and is now planned for. This also reinforces the value behind planning the future over sacrificing it for short-term perceived gains. Demand Management is the need to plan true unconstrained demand (see Demand Management Best Practices: Process, Principles and Collaboration, Collen Crum with George E. Palmatier, pages 38-39). In the context of New Product Demand, this is not possible if the Project Plan is constrained. For this reason, it is critical that we model what a New Product Demand Plan might look like if we allow additional projects to enter the Project Plan and then assume we will add additional resources to support them, if those projects exceed our resource capacity. By including the revenue impact into the Demand Plan, we now have the parameters in place to make a smart and well-vetted decision. (Example) Increasing resources by X% and adding 5 R&D people no later than 10 months from now will net us an increase of Y% in gross revenue. Because we have modeled this scenario by engaging our partners in demand planning, we can be confident we are making a better informed decision about the future that will help drive us forward in exciting ways. Notice, as well, the timing of the decision required. We are not asking for additional resources or headcount for today or in crisis mode for yesterday. This is a decision about the future. We have time to make it, ask questions, and be comfortable all aspects have been evaluated. And because we have connected it to Demand, we have engaged both Sales and Marketing and have gained consensus about what we can achieve.
Challenges when Estimating New Product Demand

When working with a major consumer packaged goods company, we observed that they maintained virtually no new products assumed in their demand plan beyond 12 months. This violation of Demand Planning Best Practice was problematic, leaving a 24-month Demand Plan that did not align with the organization’s strategic objectives. It was leaving other departments with this challenging task (such as Finance) who had no choice but to make the assumptions despite being farther away from both the customers and the projects themselves. Meanwhile, Sales were washing their hands of the plan altogether, as the newly created numbers had no credibility, and they had no role in approving them.

When asked why this critical demand planning step was not occurring, the explanation was offered; “We do not have enough information to forecast it.” Indeed, the further out you plan, the more ambiguous the assumptions become, but as long as the assumptions are documented and the numbers contained in the demand plan align with those assumptions, the plan is valid. In many cases, we may not know who the customer is or even what the product will be called, much less an SKU to forecast against. This is where both the skill of the Demand Manager and integration with the Product Planning Manager are critical. A methodology must be in place to assume this demand and then Sales has the opportunity to approve it.

The New Product Master Plan provides a terrific integration point.

When reviewing the NPMP (see Figure 2), the following checklist should be applied:

- Are any projected new product launches delayed?
- Are any projected new product launches accelerated?
- Are any new product projects put on hold or killed?
- Are there any changes in the Portfolio – End-of-Life Plans for the existing Portfolio?
- What is our demonstrated success rate in launching new products and is the Demand Plan aligned?
- Do product launches hold their estimate of projected revenue impact?
- Do projects typically launch on time?

If the business demonstrates through the tracking of Perfect Project Performance (see The Oliver Wight Class A Checklist for Business Excellence – Sixth Edition, Chapter 5, page 121) that products typically launch late, that not all projects make it to launch, and that we recognize only half the volume we originally scoped, then these factors should be assumed in the Demand Plan. If the Demand Plan is more optimistic, then the question must be asked, “What are we doing differently today that would cause us to assume improved perfect project performance.” At the very least, it is important for the Demand Manager to expect perfect project performance be tracked through the PMR and reported. If it is not, then the Demand Manager should ask for it!
Achieving True Product Integration

Achieving true integration is fundamental to enabling the key decisions that need to be made in the IBP process. For the Demand step within IBP, the enabling of the key decisions comes from having a clear view of any gaps in the future plans versus top-down expectations coming from the business (budget) plans and longer-term strategic plans – See Figure 6.

Having clarity on the bottom-up perspective over the IBP horizon (24 to 36 months) is critical in highlighting the key decisions that need to be made if the bottom-up plan is not aligned with the top-down expectations. In the context of the Demand Plan, the key comparison of top down versus bottom up relates to the revenue, margin, and profitability that have been set out in the strategic plan for the business.

The supply and financial plans are derived from the Demand Plan. These plans will also be faulty when the impact of planned launches of new products is not communicated via the output of the Product Management Review and as a result, is not incorporated into the Demand Plan.

However, if the impact of new products that are going to be launched within the IBP horizon is not taken into account, then the difference between the top down and bottom up cannot be represented correctly, which can lead to much time wasting in trying to come up with decisions to align them, when a piece of the puzzle is actually missing.

The scope and content of the New Product Master Plan (NPMP) needs to be such that it provides all the information required to allow a truly integrated view for the Demand Plan. Only then can there be a clear perspective on the type of decisions that need to be considered in the IBP process. This point is shown in Figure 7.
There are many examples across the industry sectors where this concept is not fully appreciated. An example this year from a large pharmaceutical organization demonstrated that once they got their NPMP correct and were able to flow realistic information into the Demand Plan over the IBP horizon, they were able to redeploy millions of dollars toward accelerating products at early stages of clinical trials, versus trying to target their commercial organization to launch existing products in risky markets that had no guarantee of a solid return on investment. Decisions such as this can have significant contribution on companies realizing their strategy through IBP.

Therefore, a key consideration for the Product Management step in IBP is to ensure that, regardless of what stage of development a product project may be at, if it is due to enter or impact on the product portfolio at any point in the IBP rolling horizon, then it has to be factored into the bottom-up plans. Without this, the leadership will be faced with a suite of decisions that are not realistic and, apart from wasting time, can seriously impact on the credibility of the IBP process.
To ensure companies achieve the most value possible from their IBP process, a key consideration is to ensure that there is effective integration between the Product Management Review (PMR) and the Demand Review (the next step in the IBP process). When making decisions which increase or add products to the Product Portfolio, the impact of the choices taken, when properly modeled, will likely reflect an increase in gross revenue and margin as well as an associated increase in cost. The consequences of such increases may be unattainable by the business, or the risk may be too high to ultimately implement. However, this should be a decision the business makes through thoughtful leadership as part of the Integrated Business Planning process. This is not possible without proper linkage to the Demand Plan which reflects those assumed changes in revenue, margin, and cost. Even if we decide not to implement all aspects of what we might refer to as an “Unconstrained Project Plan,” we may learn something new about our business. There may be opportunities for growth and success that were not recognized prior to the exercise. Ultimately, it is this type of activity that can be very rewarding to the team or group of people modelling such a scenario and ultimately the decision makers themselves. Another interesting observation is that the people working those processes are more energized and tend to enjoy the strategic nature of the discussions when exploring new product demand scenarios out into the future.

When problem solving involves people from other functional areas, including the demand, supply, and financial organizations, greater teamwork develops. As people become more comfortable and skilled at collaboration, a culture of transparent decision making also develops. Two fundamental concepts of IBP are transparency and integration across the entire business.

When done correctly, the NPMP will contain all the required information to drive true integration over the entire IBP planning horizon. This in turn will guarantee that the bottom-up Demand Plan contains all the key elements to ensure a true top-down versus bottom-up analysis enabling the decisions to address any gaps highlighted as a result.

More importantly, because so many businesses do this poorly, those that successfully integrate in New Product Demand to their NPMP, by successfully navigating the ambiguity which often accompanies such forward-looking plans, those companies will have a distinct competitive advantage in the market place.

Conclusion
About Oliver Wight

At Oliver Wight, we believe sustainable business improvement can only be delivered by your own people; so, unlike other consultancy firms, we transfer our knowledge to you. Pioneers of Sales and Operations Planning and originators of the fundamentals behind supply chain planning, Oliver Wight professionals are the acknowledged industry thought leaders for Integrated Business Planning (IBP).

Integrated Business Planning allows your senior executives to plan and manage the entire organization over a 24-month horizon, while Oliver Wight’s extended Supply Chain Planning and Optimization ensures your supply chain is designed and structured to deliver best-in-class customer service with minimal costs. Using the Oliver Wight Maturity Model to pursue our globally recognized Class A standard for best practice will determine a tailored improvement journey for you to develop your organization’s processes, and reach and sustain excellent business performance. With a track record of more than 40 years of helping some of the world’s best-known organizations, Oliver Wight will help you define your company’s vision for the future and deliver performance and financial results that last.

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