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New Product Development: The Key to Sustainable Success

New product development has never been more important.
Are you optimizing performance?

Andy Jordan
CA Project & Portfolio Management

The Cornerstone

Challenge

New product development, or NPD, is the cornerstone of an organization's ability to perform and grow. In today's technically driven corporate environment, the ability to launch the right products with the right market positioning at the right time and at the right price is critical. At the same time, products must be developed with a view to optimizing value across their full lifecycle to ensure organizations aren't left with expensive maintenance and support commitments they can't escape from.

Opportunity

Consistently delivering new products that meet these organizational needs while delighting customers throughout their lifecycle takes an integrated management approach that combines business agility with effective strategic project delivery and customer-focused product development. That's what we want to explore in this white paper.

A Strategic Perspective

NPD has always been a strategic discipline—determining how to position an offering within a market, establishing which markets to attack and which to consolidate, undertaking competitive analysis, etc. However, historically it has been something that was relatively stable; a company could decide to position a product as the quality offering within a market, price it at a premium level and, assuming its market analysis was correct, execute on the strategy for several years without too much concern. Today's technology-driven economy has changed all of that forever.

Technology is driving increasingly global competition in most industries, reducing the barriers to entry for competitors and constantly changing the dynamics of market positioning, supplier offerings and market availability. At the same time, technology is driving customer expectations to the point where they are less willing to wait for solutions, where satisfaction is much shorter lived and where expectations for performance, functionality and value have never been greater.

The result of this is a product lifecycle that is shortening rapidly, not just in software but also in more and more categories. The Internet of Things (IoT) integrates smart technology into an ever-expanding set of products and effectively brings the speed of software advancement to new industries and markets. That rapid evolution has two significant impacts for NPD initiatives:

- The NPD cycle is changing, with gradual product evolution and enhancement being replaced by rapid product revolution.
- The maturity and retirement phases of the product lifecycle are becoming increasingly important to protect cost of value and customer satisfaction.

Those factors are in turn making NPD a critical element of not just organizational strategy and product operations, but also of project and portfolio management (PPM) and investment management.

Elements of NPD and PPM

In the last few years, PPM has become increasingly focused on the alignment between corporate goal setting and the attainment of those goals through effective project execution. In a rapidly evolving operating environment, that has led to organizations embracing business agility concepts that allow them to adjust both strategy and execution quickly and with minimal disruption. This allows them to maintain alignment between the benefits being delivered by approved projects and the benefits the organization needs to achieve. NPD initiatives are inevitably part of that actively managed portfolio, but they are more complex than most projects. The following elements must be considered when integrating NPD into PPM:

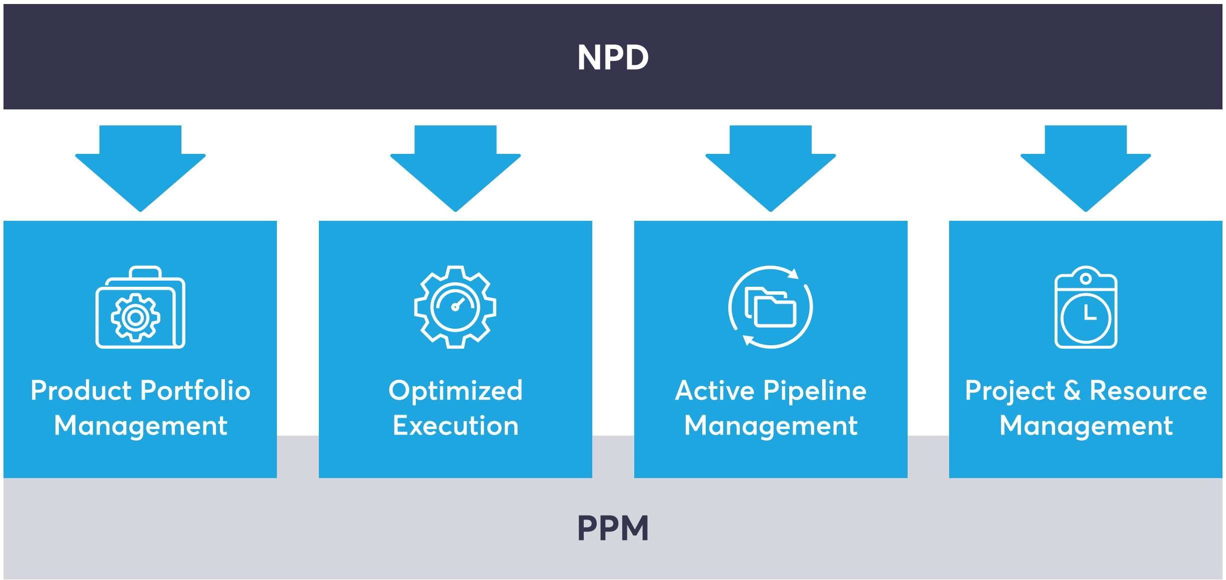
- Product portfolio management: maintaining an appropriate balance across product categories, product lifecycle mix, risk distribution, etc.
- Optimized execution: consistently delivering solutions in as short a period as possible between opportunity identification and solution delivery.
- Active pipeline management: ensuring the "best" NPD initiatives are always the focus of effort and planning.
- Project and resource management: balancing NPD and other initiatives within the portfolio to best align with the organization's priorities.

These elements need to be considered together to develop a holistic approach to integrating NPD effectively within a PPM framework, so let's look at how that works.

Product Portfolio Management

Managing a product portfolio can be a complex undertaking. The collective set of products must be balanced across different markets (customer segment, geography, etc.), different lifecycle phases (new products appealing to early adopters, high-growth products that are becoming mainstream, mature products, those nearing end of life) and different risk or value profiles. Adjusting any one of these factors—investing heavily in new products, for example—can skew the balance, with significant consequences.

FIGURE 1.
Elements of NPD and PPM



Fairly obviously, a heavy investment in innovative new offerings can increase risk exposure, but it can also create a "bubble" of change that flows through the entire organization. Sales and marketing teams need to be prepared for an increase in offerings, professional services teams need to be upskilled and potentially augmented, and support functions need to be prepared for increased volume. This is where PPM can provide a valuable element of support. Not only can PPM initiate new projects to address some of these areas, but it can tie those projects into the NPD work to ensure solutions remain aligned. More proactively, it can identify windows when such development bubbles can most easily be absorbed, and it can work with product teams to address imbalances elsewhere—more conservative projects in other product areas to reduce risk exposure, for example.

PPM can also help identify when initiatives are no longer aligned with the product goals that were the drivers of those initiatives in the first place. It offers an early warning system to identify when initiatives are no longer projected to deliver "on benefit," either because of changing goals or execution variances. That in turn allows for projects to be adjusted or cancelled earlier in the lifecycle, reducing lost investment and maximizing the chances of maintaining and recovering return on investment for the product portfolio as a whole.

Significant adjustments to the product portfolio, whether expansion or consolidation, will also have an impact on the organization's finances. The money needed to expand development, or the capital released by reducing product development, impacts the level of investment available for other business areas. PPM is accountable for effective management of the overall project investment budget, and product development must work with both PPM and finance to ensure funds are available when required throughout the development period, and that funds are released to other work in a timely manner.

Product and project portfolio management must also work together to ensure the performance of the product portfolio is optimized. For example, NPD projects that are over budget or behind schedule will not only jeopardize the project portfolio's ability to deliver, but they will also impact the product margin and potentially also the ability to secure the required market share, capture the target customers, etc. These are more than simply project-specific issues, or even single-product-specific issues; they impact the entire product portfolio mix and must be managed with that impact in mind to ensure the most appropriate response is selected. PPM is the vehicle by which managers can drive change into the product portfolio, using the project portfolio to adjust in-flight projects, reschedule projects to better align delivery with needs, and initiate additional projects to take advantage of new opportunities.

Optimized Execution

NPD projects today must be able to consistently deliver the customer solutions promised, by the date committed to. Customers and prospects need to believe that the product they are waiting for will provide benefits that align with their needs, and they need to know that the time frame for delivery is reliable. Only very slightly behind these factors is the need to minimize the time between opportunity identification and solution delivery—once the customer believes you will deliver what you say when you say, and that they need your offering, they will expect that timeline to be as short as possible.

This can only occur when product managers are able to make commitments with the confidence that those commitments can be met, and that requires product managers to understand the ability to deliver the NPD projects within the larger context of PPM. For example, if the larger portfolio has limited flexibility to adjust an NPD initiative because of other commitments, resource dependencies or any other factor, then there is little opportunity for recovery in the event of delays, and the product manager should be more conservative in commitments.

On the other hand, when there is flexibility within the portfolio to adjust an NPD project if it experiences problems, the product manager can be more aggressive. There may even be the flexibility to overcommit resources to the project to reduce time to market where time is a critical factor, but this can only occur when product and project portfolio management is integrated. Product managers must also work with portfolio management to understand which product initiatives are able to respond to adjustments in project execution. Not every initiative will be able to deliver more quickly if additional resources are supplied, for example.

Active Pipeline Management

The concept of a product development roadmap is not new, but as delivery expectations have increased and product lifecycles have decreased, the importance of product roadmaps has increased significantly. The product portfolio must now have a pipeline of proposed development initiatives for both new products and enhancements to existing ones. This pipeline must be managed actively, in much the same way as a product backlog is managed in agile project execution—in this case, the proposed development initiatives are reprioritized based on the changing competitive landscape and opportunities that each existing or proposed product will operate within. This must be an overlay to the larger product roadmap of how and when products will be positioned within their markets, and may also generate associated projects (marketing campaigns, integrations, etc.).

This product pipeline or backlog must then be integrated with the overall project portfolio backlog. The portfolio backlog is a prioritized list of projects that have been approved but where there is currently no resource availability to execute. The portfolio manager reviews and reprioritizes these initiatives to ensure the next project initiated makes the optimal contribution to the portfolio's success. This prioritization within the portfolio must align with the product backlog prioritization but must also integrate with other, non-product development-focused projects.

Product pipeline management does not end once an NPD initiative has moved into the execution phase. There should still be several validation decision points at key milestones within the project, and each of those is an opportunity to raise or lower the relative priority of the project, not just compared with other product development initiatives but within the larger PPM context. The concept must also be extended to new development proposals that arise within the organization's product management structure. Once the proposal is confirmed as a viable project, it needs to be integrated with the existing priority list within the product management roadmap and within the portfolio backlog. Finally, it must consider any project work required to retire products at the end of their life, whether those are standalone projects or work packages within the projects to implement their replacements.

Project and Resource Management

Project and resource management is perhaps the most obvious aspect of integration between PPM and NPD. New product development only occurs through the vehicle of a project, and portfolio management is the discipline by which business critical projects are delivered. However, with today's complex project delivery environment, the importance of effective project and resource management has never been higher. PPM must be able to manage for value both traditional waterfall and agile delivery approaches, ensuring that initiatives can be measured against one another and resources can be optimized to ensure the best possible delivery of both product- and non-product-related initiatives.

PPM must also work to identify and manage resource bottlenecks to ensure projects can continue around those limitations and to distribute resources where the optimal value can be delivered. This requires both an understanding of the business benefits each initiative (product and other) is expected to deliver and the sensitivity of those benefits to any delay or shortfall caused by resource unavailability.

At a more strategic level, product management should consider the resources required to maintain and manage mature projects within the market. While the skills required of those individuals may be different from those needed to develop new products, there may be a strong financial argument to terminate a product before the costs of support erode the margin excessively and redirect that investment into the development of new products. With enough foresight and planning, that can be done proactively so that products can be replaced just as their profitability begins to erode.

An Integrated Software Solution

So far in this paper we have focused on the disciplines of product and project management in NPD, but increasingly optimized performance requires an integrated suite of software solutions. In recent years the growth of PPM software has become an important differentiator for organizations seeking to deliver the best possible value through the portfolio. These tools have become important elements in the management of the investment portfolio, in the tracking of key project information and in the management and control of current and proposed initiatives. Today's leading tools offer integration with agile-focused tools and powerful business intelligence capability to deliver a comprehensive way of not just managing all an organization's projects but also reporting and analytics on those projects.

Effective NPD can be assisted by further integrating application portfolio management (APM) tools with PPM solutions. APM offers the ability to manage the existing set of software based applications—whether internal or customer-facing products—to understand the sources of problems and the cost of maintaining them. This provides invaluable insight into which software applications are worth further investment, which ones are due for replacement and where opportunities for new product development can occur.

Similarly, integration of financial systems allows for insight into the financial performance of all products, not just from a top and bottom line perspective but also in terms of distribution of revenue (and costs), profitability by market segment, geographic area or any other metric the organization chooses. This can be leveraged even more thoroughly if the organization's enterprise software is integrated with the customer relationship management (CRM) solution. CRM tools will not only provide insight into customers buying habits, but if used appropriately will provide insight into prospects that do not convert into customers to identify areas where further product development is required. CRM integration will also make communication with customers and prospects around NPD solutions much easier and will make product management both more effective and efficient.

To optimize performance, today's organizations must implement an integrated suite of all key enterprise applications that offer both integrated functionality and workflow and integrated data management. Only then can effective analytics be performed to identify underlying trends and opportunities that can be leveraged for competitive advantage.

Conclusions

It's easy to view new product development initiatives as just another type of project that needs to be managed. Indeed, many organizations manage their NPD projects as just that. However, that fails to recognize the unique nature of new product development, and it fails to acknowledge the importance of new product initiatives to the overall success of the organization. The most successful organizations will recognize that effective and efficient management of the product portfolio is the differentiator that allows the company to stand apart from the competition where it really matters—in the eyes of customers and prospects.

To optimize NPD investments, organizations must:

- Integrate product and project portfolios to ensure opportunities can be converted into revenue as quickly and reliably as possible.
- Focus project execution for effective satisfaction of customer expectations within committed timelines.
- Actively manage the product pipeline in conjunction with the project portfolio pipeline and ensure the best contributing investments are always at the top of the backlog.
- Integrate all product-related information by building a connected set of software solutions from both a workflow and data management standpoint.

Every organization knows that consistently delivering products that delight customers in multiple market segments and geographical areas is the key to sustainable growth and profitability. However, not every organization knows how to achieve that reliably, and those that do will soon set themselves apart from their competitors.

About the Author

Andy Jordan is president of Roffensian Consulting Inc., a consulting firm with a strong emphasis on organizational transformation, portfolio management and PMOs. He has a track record of success managing business-critical projects, programs and portfolios in Europe and North America in industries as diverse as investment banking, software development, call centers, telecommunications and corporate education.

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