



**Innovative Product Development Execution (IPDx):
Managing Innovation in Shrinking Product Cycles
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Great brands and great companies are built by successful and frequent innovation. The longevity of a company or its brand hinges on how well it is able to adapt and respond to changes. Uncertainty is an inherent characteristic of innovation. Innovation by its very nature carries risks such as market acceptance, feasibility, technology changes and cost and time overruns. At the same time, companies are faced with increasing pressure to deliver new products and features on short, well-defined timelines. The need for innovation and predictable delivery cycles seem to be mutually contradictory. Yet, product development companies have no choice but to find a way to balance both. In this article, we examine how companies can create a framework for successful innovation.

Fostering Innovation

Contrary to popular perception, innovation is a team effort – continuous innovation requires participation of employees, users, channel partners and other stakeholders. Creating the right climate for innovation begins with setting up of a channel for ideas, suggestions and feedback. Almost every product development company has a suggestion box or a feedback form or a committee for new ideas. Where companies fail is in sustaining the initial enthusiasm. An effective mechanism for soliciting new ideas must have the following components:

Transparency: Criteria that go into evaluating an idea must be clearly specified. When inviting suggestions, define the nature of ideas that are likely to be taken up for further review. This will not only eliminate suggestions that are outside your company's roadmap; it will provide focus to stakeholders.

Communication: Nothing stifles innovation more than the perception that an idea will end up in a corporate black hole or be lost in bureaucratic red tape. Keep the communication channels open from the time an idea is received till it is rejected or implemented.

Periodic review: If an idea is ahead of its time, save it for review at a later date.

Understanding Risk

Understanding the risks and correspondingly, the benefits of innovation is vital for deriving the optimal execution paradigm and is preliminary to making the decision on investing in the innovation.

Examples of Innovation Risks

1. Lack of market acceptance
2. Time and cost overruns
3. Technology changes rendering the innovation obsolete
4. Competition
5. Collateral damage to existing products – New product development may take away resources from further development on new products

Examples of Innovation Benefits

1. IPR
2. Increased market share
3. Penetration into new markets
4. Increased revenue from existing customers

Evaluating Risk

Slotting innovation ideas in the Risk-Benefit Matrix helps make investment decisions. The following table shows a typical Risk-Benefit matrix and examples of innovations that may possibly fit into the matrix.

Table 1 – Risk-Benefit Matrix

High Risk, High Benefit	High Risk, Medium Benefit	High Risk, Low Benefit
Medium Risk, High Benefit	Medium Risk, Medium Benefit	Medium Risk, Low Benefit
Extensions to existing products to position in a new market. Example: Adding new features to a Tier 1 ERP to position it as a Tier 2 ERP solution.	Modifications to existing products for better geographical. For example, adding localization features.	
Low Risk, High Benefit	Low Risk, Medium Benefit	Low Risk, Low Benefit
Extensions to existing products with revenue potential from existing customers	New features for existing products	Extending existing functionality/features ('adding depth')

The degree of risk and benefit is determined by the probability of its occurrence.

Quantifying Risks and Benefits

Quantifying risks and benefits at the outset of development may be an imprecise endeavor. Yet, it is necessary for budgeting and limiting exposure. The simplest way to quantify risk is to sum up probabilities of all risks and multiply it by total estimated development costs. This formula does not consider costs of collateral risks such as decrease in existing revenue streams and opportunity costs of benefits from alternate resource utilization.

Benefits are again quantified by multiplying probability and dollar value of the benefits.

Defining the Right Implementation Framework

The right implementation framework is a function of various factors – maturity of the company, dependencies on existing products, organization structure, technology, future strategy and type of risks. For example, innovations that are heavily technology-oriented and can be categorized as inventions need a different framework from new product features. Innovations that fall in the High Risk-High Benefit category may require a different methodology to mitigate the risks. Whatever be the type of innovation and the implementation model, the two common objectives are to achieve results within a short delivery cycle and to minimize risk.

A possible framework may incorporate elements from agile development methodologies that are internalized and adapted to suit the corporate culture, organization mix, and existing assets.

Options for Innovation within an Existing Framework

Agile development shot into prominence as software development companies began to realize the pitfalls of traditional methodologies like the waterfall method.

1. Creating separate, small teams for innovation execution
2. Iterative development with incremental releases
3. Outsourcing of parts or the whole of the development process for new product lines
4. Adoption of agile development techniques like SCRUM
5. Where the release cycle is necessarily long, release of beta or alpha versions to customers for early adoption and feedback
6. Allocating a specified percentage of a product's development time for new features
7. Parallel development of new and existing product lines where innovation may result in an overhaul of an existing product

Conclusion

The distinction between an idea and an innovation lies in its execution. The difference between innovation and successful innovation is in market acceptance. The choice of the right execution framework determines whether the innovation is delivered to the customer at the right time, with the right quality and with the required usage features. There may be no single formula to ensure success – but what is important is that the companies who are repeatedly successful do have a formula.