

5. New Product Development

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New Product Development (NPD)

Bringing New Product to the market is crucial in today's competitive environment as market leadership, healthy market share and sustained growth are all enabled through the process of developing and launching new product and services.

The goods or services is reason for existence of any firm. As society changes frequently, continuous introduction of new product is essential for a firm/organisation to be in existence.

E.g. : A drug firm invest 12 to 15 year before getting the regulatory approval for a new drug.

→ Operation manager/team who master the art of development of product are called product developers. Variety or type of products have extensive now a days. For e.g. the following are the varieties of drinking water available in the market

1. Glacial water
2. Spring water
3. Volcanic Water
4. Spring Water
5. Mineral Water
6. Sparkling water
7. Exotic Water

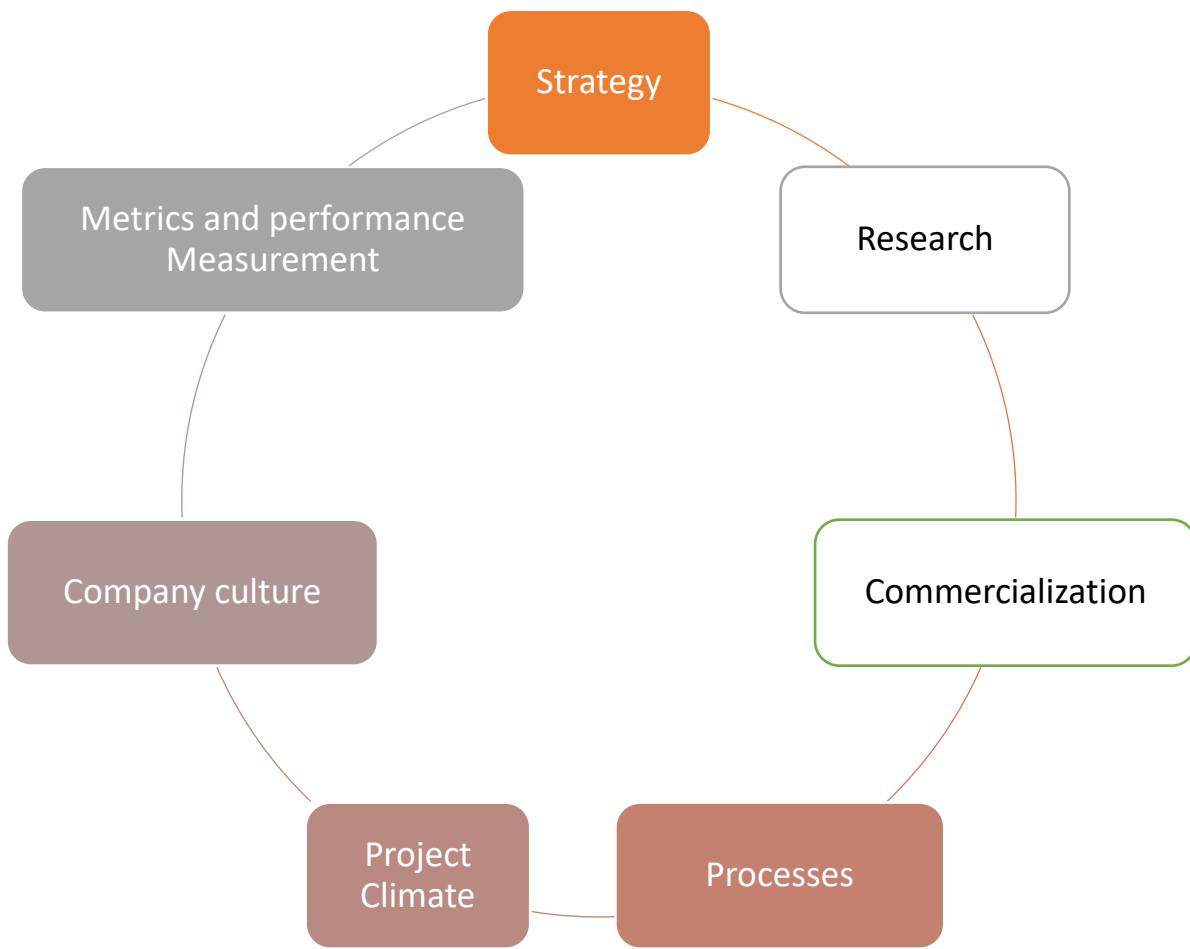
It may be a mature business like automobiles or consumer electronics or the dynamic segments like e-Portal. New product development motivates the best people or individual to enhance the company ability to recruit new people and welcome and develop and cash on new ideas.

What it is?

It is a method to bring new product to the market place. This is applicable for new products, innovation and modification in existing market. The seven stages of new product development are:



Like many development processes, NPD has also various aspects. Commonly accepted seven dimensions of new product development are:



These dimensions are quite broad and encompasses variety of elements. For each of them some practices are required to inculcate these into culture of an organization. New product development (NPD) practitioners are therefore keen to benchmark NPD practices because identifying a practice, whether a technique, method, process, or activity, that is able to more efficiently and/or effectively deliver a new product could spell the difference between success and failure in terms of vitality for both the product and company.

The best practices for each dimension is written in following tables:

Best practices for strategy

S. No.	Best Practices
1	Clearly defined and company-visible NPD goals
2	The company views NPD as a long-term strategy
3	Mission and strategic plan help define strategic arenas for new opportunities
4	NPD goals are clearly aligned with company mission and strategic plan
5	NPD projects and programs are reviewed on a regular basis
6	Opportunity identification is ongoing and can redirect
7	the strategic plan in real-time to respond to market forces and new technologies
8	There is a ranking or prioritization of projects
9	There is keen consideration for balancing the number of projects and available resources

Best practices for research

S. No.	Best Practices
1	Concept, product, and market testing are consistently undertaken and expected with all NPD projects
2	Customer/user is an integral part of the NPD process
3	Results of testing (concept, product, market) are formally evaluated

Best practices for Commercialization

S. No.	Best Practices
1	The launch team is cross-functional in nature
2	Cross-functional teams make decisions concerning manufacturing, logistics, marketing, and sales
3	A project post-mortem meeting is held after the new product is launched
4	Logistics and marketing work closely together on new product launch
5	Customer service and support are part of the launch team
6	A standard protocol for planning a launch exists within the company

Best practices for processes

S. No.	Best Practices
1	A common NPD process cuts across company groups
2	Go/No-Go criteria are clear and pre-defined for each review gate
3	The NPD process is flexible and adaptable to meet the needs, size, and risk of individual projects
4	The NPD process is visible and well-documented
5	An IT infrastructure with appropriate hardware, software, and technical support is available to all NPD personnel
6	A clear NPD process exists

Best practices for project climate

S. No.	Best Practices
1	Each project has a core cross-functional team which remains on the project from beginning to end
2	Each project has a clearly identifiable project leader
3	NPD activities between functional areas are coordinated through formal and informal communication

Best practices for Company culture

S. No.	Best Practices
1	Top management supports the NPD process
2	The company actively works with customers to develop new solutions

Best practices for Performance Measurement

S. No.	Best Practices
1	No standard criteria exist for evaluating NPD projects
2	No standard criteria exist for evaluating the overall NPD effort
3	One person does all NPD project evaluations
4	Projects are never killed

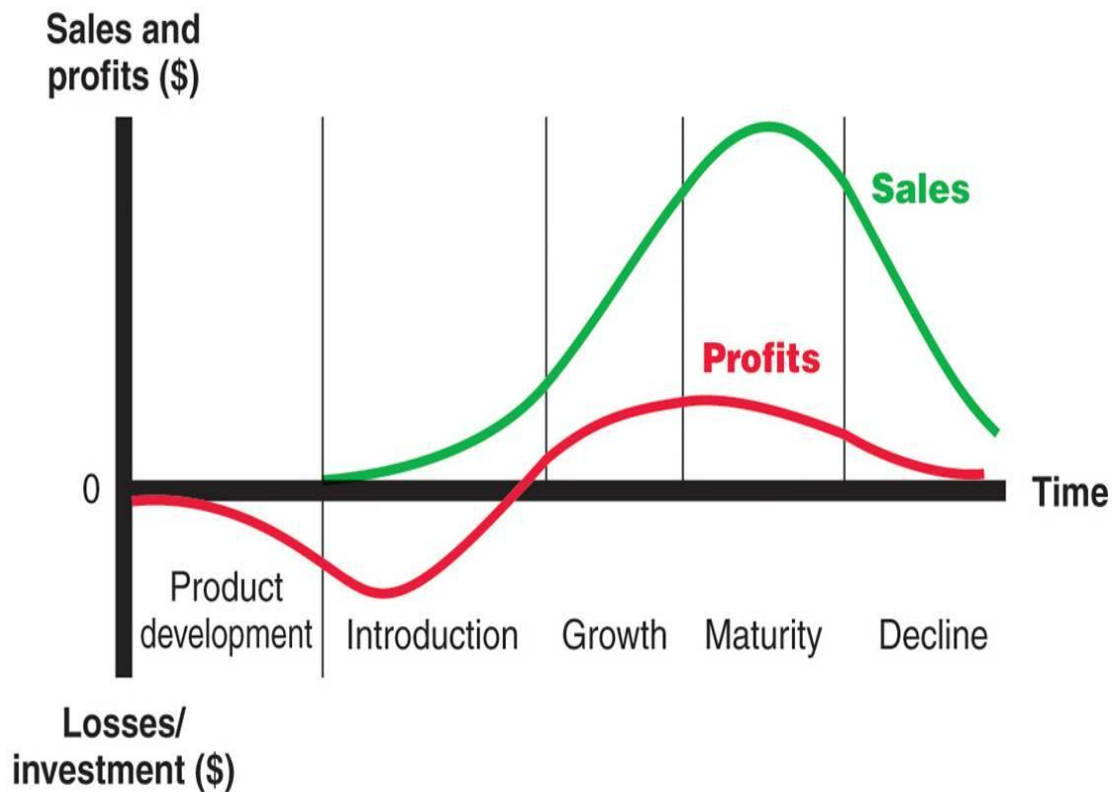
Product Life-Cycle and Data Management

Products are born. They live and they die. They live and they die. The phases of product life cycle are:

1. **Introductory Phase:** the product is still being fine tuned for market as are their production techniques. The usual expenditures are, for research product development, Process modification enhancement and supplier development.

2. **Growth Phase:** In this phase product is stabilized and Effective forecasting of capacity requirement is necessary. Adding of capacity may also be required.
3. **Maturity Phase:** In this Phase the competitors are established. Innovation and high volume are needed. Reduction in options and paring down of the product line may be effective or necessary
4. **Decline Phase:** It is necessary to end the product. Unless dying product make some unique contribution to the firm's reputation product line.

Figure 1: life cycle of product . Source: **Chase and Aggarwal , 2018**



Product Data Management: Product Data Management (PDM) is the process of collecting, organizing, storing, and sharing data within an organization. You might also have heard that it comes under the umbrella of Product Lifecycle Management (PLM) and is sometimes referred to in software engineering as version control. A **Data Product Manager** is like a Product Manager, but who focuses more heavily on Product Data Management.

It is a knowledge Management orientation. A number of mind and stakeholders are required to develop a product. It is basically software version of an knowledge management techniques. Project managers, engineers, sales people, buyers and quality assurance teams all benefit from the knowledge management and reporting capabilities of PDM systems. They allow companies to:

1. Find the correct data fast
2. Improve utility and reduce cycle times
3. Reduce development errors and costs
4. Improve value chain orchestration and improved visibility
5. Meet business and regulatory requirements
6. Optimize operational resources
7. Facilitate collaboration globally