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NEW PRODUCT DEVELOPMENT

In business new product development (NPD) is the term used to describe the complete process of bringing a new product or service to market. There are two parallel paths involved in the NPD process: one involves the idea generation, product design, and detail engineering; the other involves market research and marketing analysis. Companies typically see new product development as the first stage in generating and commercializing new products within the overall strategic process of product life cycle management used to maintain or grow their market share.

Idea Generation is often called the "fuzzy front end" of the NPD process. The Fuzzy Front End is the messy "getting started" period of new product development processes. It is in the front end where the organization formulates a concept of the product to be developed and decides whether or not to invest resources in the further development of an idea. It is the phase between first consideration of an opportunity and when it is judged ready to enter the structured development process. The Fuzzy Front End ends when an organization approves and begins formal development of the concept. Ideas for new products can be obtained from basic research using a SWOT analysis, Market and consumer trends, company's R&D department, competitors, focus groups, employees, salespeople, corporate spies, trade shows, or Ethnographic discovery methods (searching for user patterns and habits) may also be used to get an insight into new product lines or product features.

Idea Screening. The object is to eliminate unsound concepts prior to devoting resources to them. The screeners must ask at least three questions:

- Will the customer in the target market benefit from the product?
- What is the size and growth forecasts of the market segment/target market?
- What is the current or expected competitive pressure for the product idea?
- What are the industry sales and market trends the product idea is based on?

- Is it technically feasible to manufacture the product?
- Will the product be profitable when manufactured and delivered to the customer at the target price?

Concept Development and Testing. Develop the marketing and engineering details. You must be sure about the target market and the decision maker in the purchasing process. There are also some product features the product needs to incorporate. What benefits will the product provide and how will consumers react to the product? Prove feasibility through virtual computer aided rendering, and rapid prototyping. Think about the price for producing it.

Business Analysis. It is obligatory to estimate likely selling price based upon competition and customer feedback. Also estimate sales volume based upon size of the market and profitability and break-even point for your product.

Market Testing. Produce a physical prototype or mock-up, test the product (and its packaging) in typical usage situations. Conduct focus group customer interviews or introduce at trade show. Make adjustments where necessary. Produce an initial run of the product and sell it in a test market area to determine customer acceptance.

Commercialization (often considered post-NPD). Launch the product, produce and place advertisements and other promotions. Fill the distribution pipeline with product.

New Product Pricing. Pay attention to the impact of new product on the entire product portfolio. Make internal and external value analysis. Think about competition and alternative competitive technologies. Forecast the unit volumes, revenue, and profit.

These steps may be iterated as needed. Some steps may be eliminated. To reduce the time that the NPD process takes, many companies are completing several steps at the same time. Most industry leaders see new product development as a proactive process where resources are allocated to identify market changes and seize upon new product opportunities before they occur (in contrast to a reactive strategy in which nothing is done until problems occur or the competitor introduces an innovation).